

Allied Radio

## 833 W. JACKSON BLVD. CHICAGO ILL.

## PROFIT BY LOWEST <br> ALL PRICES TAX FREE

We do not charge a sales tax but absorb this tax ourselves. All prices in this book are net to you. No need to worry about any extra unexpected charges on your order-there are none when you buy from ALLIED.

In this way we bring you additional savings and lower prices. The result of the modern ALIIIED merchandising method is strikingly evident in the unparalleled low prices you will find on every page of this catalog.

## WE WILL NOT BE UNDERSOLD

The merchandise in this catalog is quoted at prices that we believe will undersell all competition. You can buy from Allied knowing that you will always receive the advantage of lowest prices. If prices are reduced you receive the benefit immediately. Should any competitor offer exactly the same merchandise at a lower price, send in your order and the page from competitor's catalog. We will meet the price. Allied will not be undersold.

## VISIT OUR SALESROOM

Our location just outside of Chicago's busy loop district is convenient to all railway terminals, express officen, bont lines, motor buses, and, in fact, every form of tramsportation. For the convenience of our customers we maintain a large display room where you are assured of courteous attention at all times. Chicago is acknowiledged to be the greatest distributing center in the world. With AlLIED service you are assured of prompt ship- quaint-

All receivers and parts illustrated in our catalog are firmt quality, up to manafaeturers' highert standardis. We do not buy jobs, seconds, substandards or any apparatus that does not come up to our rigid standards. We will not sacrifice quality for price.

## SERVICE

Your orders receive immediate, careful attention at ALLIED. We are organized to handle a tremendous rush of business. Our highly trained organization functions with one idea uppermost in mind-sto flll every order with absolutely no delay or snerifice of aecuraey:"

## $1 / \mathrm{A}$

The prices in this book will atartle you. We invite comparlson, conflent that item for item our values can't be beaten. Remember
too, your transportation charges are usually less because of our icleal central location. Our freight allowance is another indncement to centralize your buying with ALIIED,

## PROFITS

The profits you make by dealing with ALLIED are reflected not only in our extremely low prices that defy competition, but also In the high quality of our merchandise. which results in satisfled customers who Which results in satisfled customers who
reorder again and again. Cash in on these added profits that good-will brings.

## TERMS

Ouv terms are cash to all. Selling on these terms eliminates expensive bookkeeping and credit losses. Theve wavinge we pass on to yoit in reduced pricen. Shipments made C. O. D. to old customers. On first order, please send deposit to establish good faith. All prices in this book are net to you-all trade discounts book are net to you-ail trude discounts been deducted. No federal tax to be added; theme quotations are tax free to you.
AIIIED RADIO CORPORATION

# $15(555150) 55151$ FIRST QUALITY MERCHANDISE 

We must warn our customers against the flood of "gyp," substandard radio receivers and parts being offered to unsinspecting dealers and service men. Manufacturer's seconds, job lots, factory rejects and all manner of what is really junk is being doctored up to look like new and offered in glowing, misleading terms, at prices slightly below the cost of first atandard goods. Don't be fooled; such material placed in your customer's set will lead to far more grief, expense and loss of good will than the original slight savings.

ALLIED is wn old established organization, which has won the continued confidence of many thounands of cuntomers mince the earliest days of radio. We are in lisinens to stay. You are assured of recelving first quality goods at all times and a fair and square adjustment under our guarantee.

## FULL DISCOUNTS TO ALL CUSTOMERS

A $2 \%$ cash discount has been deducted from all prices in our book. If you send cash in full with your order you save the C. O. D. collection charges. But if you prefer part C. O. D. shipment, you still receive the full $2 \%$ cash discount to which you are entitled.

## AMONG ALLIED CUSTOMERS

ALLIED is proud to number among its customers the U. S. Governntent, practically all of the leading Univernitiew and Collegen, Broadcastlng Stations and many thousands of radio dealers, service men and manufacturers throughout the land, who are acquainted with ALLIED reliability and cooperation.

## THE ALLIED PERSONNEL

It Is Important to know the callber of the organisation with which sou do business. Every department In our organization is captained by an executive whose experience and ability make him worthy of his job. Our buyers are alert to bring the best that the market affords, at money maving prices. Your orders are sped on their way by an efflcient operating force supervised by executives of long experience. In every divinion you ean depend on efficient, careful, weedy mervice at all timen.

## RELIABLE SELLING

You cannot afford to gamble with your eantomern. Neither can we. That's why we offer Reliable A-1 Quality and Service only. Every articie in our hook meanures up to its elaimes. Some mail order firms are making extravagant claims entirely out of proportion to the quality and value of the merchandise offered. Beware of that type of kelling. It isn't good business. ALLIED is proud of its repeat husimens from old cuatomers. You can depend on a for quality and service.

## PROMPT SHIPMENTS

Prompt mervice is aboolutely necemary in this age. You want your order to reach you in the shortest possible time. With an organlzation developed to handle enormous volume promptly and accurately you are assured of top-notch service. We have the advantage of being in the very center of all forms of tranmportation. Try us when speed is a factor. You will be pleasantly surprised.

## 

ALLIED can mapply anything and everything in Radio. If the item you want is not listed in our catalog. We can supply it in practically every instance, and at prices equal or lower than you can obtain elsewhere. If listed in some other catalog or radio publication, mention where you saw it and we will supply.

## 

We have a large foreign trade and invite forelgn patronage. Forelgn oricrm and corrempondence are supervised by an experiemeed executive. Send letter of credit on Chicago or New York exchange of at least $50 \%$ of the total. On orders less than $\$ 25.00$ send remittance in full. All quotations $F$. $O$. $B$. Chicago. On parcel post shipments send sufficient remittance to cover postage. Any excess will be


## Guaranter

We guarantee $100 \%$ value in price, qual ity and service. Every item in our cata. $\log$ is guaranteed to conform exactly to the description and illustration. We guarantee that our merchandise conforms to the standards of the Radio Manufacturers' Association and will perform in the manner intended for such apparatus. Any merchandise that does not so operate, if returned at once, will be promptly adjusted by exchange or repair.

Make your order $\$ 25.09$ or more and we wili pay frelght eharges up to $\$ 2.00$ per hundred pounda. This offer makes our low prices even lower. It places the goods on your floor at prices below competition and means added profits. This offer applies on all merchandige in our catalog except $A$ and $B$ batterles, Aerial Wires, Insulators, and Consoles less chassis.

Send in your paid freight bill with order number on label of the shipment and we will either send you our check or apply the allowance on your next order, as you prefer. You may order shipment to go by Express or Parcel Post-a proportionate allowance will be made. Take advantage of ALLIED'S liberal freight allowance ofter. It will save you money and give you a greater prolt marxin.


FULL RANGE TONE CONTROL

## SUPERHETERODYNE

## 

We want each of our customers to know in detail the wonderrui cireuit dexign of the Knight 8 . The new Super-phonic tubes are used in it as follows: $1-58$ in an R.F. stage, $1-$ $5-$ as Firgt Detector, $1-56$ as Oscillator, $1-58$ as I.F. Amplifier, 1-5t as Second Detector and AVC, and 1-56 as First Audio. 1-47 tube is used as a power tuberand $1-80$ as rectifier Silent Automatic Volume Control and Full Range Tone Control are achieved in the Kmight, and Spot-light TunIng and the Inter-Station Nolse suppressor are brund new features.

## A WINNING COMBINATION

The Kilght 8 has been appropriately placed in a splendid new radio console which is distinctly appealing in its beauty and sturdy in its construction. It is a midboy of the artistic turned six-ies type. It has Huted pilasters, arched prosceninm of maple with seroll overlays and a handsome shaped grille. It stands 42 iuches high and is perfectly proportioned and acousitically correct for use with the Kigight 8 for which it was specifically built.

## VOLUME CONTROL

## MAGICNEW TUBE PERFORMANCE

The new type triple grid Super-phonic tubes improve both the radio frequency and audio frequency oberation of the set immensely. They mark Knight 8 performance as the last word in split-hair selectivity, powerful sensitiveness, perfect volume control, and quiet operation. Then, too, the new tubes mean real exonomy in operation because they cut down considerably on power consumption. They make possible the perfect operation of an automatic built-in volume control which ellminates fading, as,isures a constant powerful flow of volume for all reception and makes tuning easy and pleasurable. The Knight 8 is most certainly the radio of the hour, combining as it does supreme achievements in radio design. torether with the finest materials available, at prices that are in tune with the times.

## BRILLIANT TRUE TONE

It's a thrilling experience to listen to the Knight 8 . There is a distinctly individual and life-like reality in every sound reproduced. The tonal output of each program is built up to a rare golden beauty in which every overtone and every frequency of the whole sound range has been keenly captured and sustained through the famous densen ayuamice speaker. And there's Tone Control too-perfected to a high degree so that by the turn of a knob you can emphasize for yourself the notes you enjoy hearing the most. you enjoy hearing the most. A beauticul life like tone that high quality brimgs.

## FULL VISION

## SPOT LIGHT DIAL.



The KCA licensed circuit of the Knight 8 is of the latest superhet type. It assures Fou the maximum in economical efficient operation. It is the set of today, priced right for today Consider the outstanding features of the set circuit and the extreme beauty

## DELIGHTFUL TO TUNE

Note the simple arrangement of the Knight \& controls, the clear vieual dial with the Spotlight innovation, and the volume and tone control knobs. all designed to eliminate guesswork and to make tuning extrenely simple and enjoyable.

## INTERSTATION NOISE SUPPRESSOR

A mew and wonderful deviep, which enables you to tune in stations without interference or static of any kind, is located on the front panel and is simple to operate. of its external appearance, and then look at the price. There is no radio value on the market today that is comparable to ALLIED'S astouuding presentation of the Knizht 8 Superheterodyne. It's the eet you and your friends have been waiting for-a radio receiver that offers the latest and best features found only in the most expensive eets, but offered now at a price you can aftord.

## COMPTETE, <br> LJSS TUBES

The Knight is offered here in the cabinet pictured above at the right, with speaker, but withouttubew
No. E8F34.
List, $\$ 74.85$.
YOUR PRICE

## COMPLETE WITH <br> RCA TUBES

Here is the Knight 8 complete with 3-56, 1-57, 2-58, 1-47 and 1-80 RCA tubes.
No. E9735.
List, \$s6.45. YOUR PRICE
 <br> \title{
KNI (I) TI BATTERY OPERATED
} <br> \title{
KNI (I) TI BATTERY OPERATED
} SUPERHEIERODYNE

## LONG \& SIORT WAVE RECEPTION

New features galore are packed into this Knight 8 tube Baitery Operated TripleWave Radio. Its triple geale spotlight dial tunes from $20-65$. 65-200, und 200-550 meters. Perfect daytime short wave as well as long wave reception is assured. The superhet circuit employs new type 34 tube which have magnified volume and sensitivity imnensely and made for more exonomical operation. Quiet Automatic Volume Control, new Push-pull Audio. and the 3 positlon wite switch

## CLASS "B" POWER

The famous new Class "b" Power Audio found only in the most expensive new AC sets. is incorporated in the knight 8 Battery radio. The new type low drain tuben have increased volume enormously, accomplished quiet operation, made better tone quality and automatle volume control possible, reduced battery consumption and uchieved real menuitivity and selectivity.

## WALNUT BEAUTY

The Knight 8 Battery set con sole js of the new tirnted 6 lea deslgn. featuring a beautiful walnut front panel flanked by curved. fluted pilugters, Delightfully finished in walnit. slands 42 in. high. $\geqslant 5$ in. wide. and $1: 3$ in. deep.

## BATTERY OPERATED SUPERHET® CHASSIS

The wonderful superhet circuit of this fineat of battery radion features Clams "B" audio power, automatic volume control, $20-550$ meter range, and push-pull low train audio. The chassis is ideal for eonsole inatallation. measuring 1116 in. long. 7 in high. and 7 复 in. deep.

## OVERSIZE SPEAKER

The tremendou* output of the receiver is adequately handled by a large permanezt nagnet dynamic speaker which does full justice to the wide tonal range of the receiver achieving flawless clarity in tone and power


WITHR.C.A. TUBES

## LESS TUBES

The Knight 8 Battery radio is offered here in chasals form only. with speaker, but less tubes. No. E9760.
Retail
Retail
Value,
$\$$ ROZ.50.
IRICE

The Knight \& Battery chasels with speaker and $3-49$ R.C. 34 . $3-32$ and
No. E9761
Retall Value,
$\$ 78.50$.
YOLR
PRICL .2

## BATTERY OPERATED MIDGET

## 5 TUBE SHORT \& LONG WAVE MARVEL

A wonderful battery operated 5 tube All-wave met covering from $\mathbf{7 5 - 5 5 0}$ meters. It features five tuned circulte employing the new type 34 low dratn tubes. Absolute 1 mierovolt mensitivity enables the Knight $\stackrel{5}{5}$ to masier great distance both in long as well as in short wave reception. The unique sector Viwan dial makes dual wave tuning a pleasure. The attractively designed (wo-tone table cablnet measures $1: 2 \mathrm{in}$. hich, 7 in. wide. arad 6 in. deep.

## NINE SPLENDID NEW FEATURES

1. The new low-drain type 34 tube. 2 , Iong and short wave range from -5-5̄0 meters. 3. $\overline{5}$ tuned circuits. 4. Full range Tone Control. $\overline{3}$. Qulet Automatie Folume Contral. 6. Interstation Nolse Suppressor. 7. Sector Vision Dial 8. Oversize dynamic type speaker. 9. 1 Mi-
crovolt sensitivity

## SET \& TUBES.

 LESS BATTERIESThe Knight 5 Dual Wave Battery set less batteries with $?-32$, 1-33, and 2-34 H . C. A. iubes.

No. E9727, Retail
Value, $\$ 39.95$.
YOUR PRICE
${ }^{\text {s }} \mathbf{1 9} 95$

## 8ET, TUBES

## c) BATTERIES

The Knight 5 complete with $2-3 \stackrel{2}{2}$ 1-33. $2-$ 34 R.C.A. tubes and 345 v. "B" and 1-2" $v$. Eveready Air Cell batNo. Eg729. Retail Value,


## LESS TUBES G BATTERIES <br> Thernew Knight 8 Battery set is offerec here in its ex. quisite cabinet together with speaker, bul without tubes or batteries. <br> No. E9764. <br> List, <br> 

COMPLBTE LDSS WITH ALL

BATTERTES
With 2-49, 2-34 $2-32$ and $2-30$ R.C. A. tubes. but less batteries.
No. E9765. Retall
Value, $\$ 103.50$.

## ACCESSORIES

Includes tubes, 4-
$4 \overline{5} r$. "B" and $1-\stackrel{\text { " }}{ }$ F. Storage "A" bat.

## teries.

No E9767. Retail Vilue. \$110.s9. YOLR PRICE


The Kinight 5 buttery set may be efficiently used with a 3 : v. Delco plant by tapping off two volts and employing 5-45 v. "B" batteries.

\title{

NNIGHT THOLAUTORADO REMOTE CONTROL

\section*{The New

## The New Superphonic Tubes

Three of the newly invented triple fubes used only in the finest new A.C. sets, are buili chieve double the rolume formerly possible-a new kind of rolume which is absolutely quiet and undiatorted-and in addition they give sensitivity and tone an entirely new aspect by apreading out over a much wider range of sound frequencies. These new tubes are built to withstand road shocks. and they assure you the same flawless uninterrupted radio entertainment in Four car that you enjoy over your get at home.

## S-G Push-Pull Pentode

Two new 41 tubes arranged in mighty push-pull Pentode formbination. form a perfect climax to the Deluxe Auto Radio circuit which is capable of the finest sensitivity and keenent selectivity yet achleved by engineers in an auto set. Every obstacle formerly in the way of perfect auto radio reception has been eliminated in the Deluxe $\delta$ by the use of the new qubes. per fected chassis shielding, and an ingentousty powerful circuit. The strong R.F. Dick-up makes for uniform volnme under varying condition.

## Utah Speaker

Flawless tone is reproduced in the Kinight Auto Set through a Utah Universul Mounting dynamic speaker which may be installesi
easily at any position or angle.

## EASY TO MOUNT

## With Tubes,LessBatteries

The Knight Auto Set, including control, net, speaker, and $2-58$. $1-3 \%$. $1-37$. and $2-41$ Eveready tubes.
No. E9777. Retail talue. $\$ 80.95$

## Set, Speaker

 and Remote Control Here is the Knight Deluxe Anto Set consisting of remote control, set, and Utah peaker, offered at a new low price.price. E9776. Retail $\$ \rightarrow 45$
No.
Yalue. 39.60 . YOCR PRICE

The receiver case of the Deluxe Auto set measures only $71 / 2 \times 51 / 9 \times 6$, inches and lends itself readily to mounting even in the smallest cam. The dynamic speaker is only 10 in 1 diameter and 4 in. deep. The Re mote Control is attached to the stee ing post. and operates the receiper by means of a perfected universal joint powitlve monnting which is easily adjustable to any car. Shielded speaker and control cables help make a neat and extremely efficient mounting.

## Perfect Control

You will derive endless pleasure on city and
country roads. listening to strong clear radio
entertainment that is comparable to that of the
finest new Console gets. You will enjoy especially
the easy tuning from the unique new Fall Vision
spotlight tunins dial. No back lash. no diffeulties
Absolute seiectivity at all points of
the dial, and good strong sensitivity
it all times. The Ibeluxe Auto Rudlo

## $=5$ TUBE MODEL.

## PLENTY OF POWER

## COMPLETELY SHIELDED

The 5 tube Auto Set featured here is the same in appearance and size as the DeLuxe model described above except that it uies one 41 tube in place of two. Its very latest advanced sereen grtid circuit is ruggedly designed and effectively shielded throughout. Dynamic volume, free from distortion, is consiant. The Utah universul mounting type speaker handles the output of the receiver without blast or distortion. Tone quality has been given major consideration and its vitality will be a source of constant radio pleasure.

Knjoy programs even when you are away from home, and experience the same luxurious tone and power which your congole radio possesses. Radio as you rlae!

## SIMPLE OPERATION

The positive volume control and unique Siot-fight Full Vision Dlal of the Knight $s$ Auto set make it easy and enjuyable to operate. The compmetness and slmplictiy of the receiver and remote control construction lend themselves to quick simple installation on any make of auto. At the bargnin price quoted, no car owner. should be without a Knight 5 Anto Set.


## Control, Set, and Speaker

The Knight 5 Auto set consisting of recejver, remote control and Utah speaker. offered less accessories.
$\mathrm{NO}^{\mathrm{No}}$
E9770.
Vatall
$\$ 32.50$. YOUR PRICK

54285

## With Tubes, Less <br> Batteries

The Knight $\boldsymbol{5}$ Auto set. including control. set. speaker and $2-58,1-57$ $1-37$ and $1-41$ Evereads. tubes.
${ }^{\mathrm{No}} \mathrm{NB}_{1}$
Retali
Retall
$\left.\begin{array}{l}\text { Yalue. } \\ \text { youn } \\ \text { YoUR }\end{array}\right\} \rightarrow 55$ PRICE.

## Complete With Accessories

The Knlght 5 Auto set omplete with tubes. 345 v . "B" batteries, aerial. suppressors, condenser, and suppressors, condenser,
${ }^{\mathrm{No}}{ }^{\mathrm{N}} \mathrm{Cl}_{3}$
E9773.
Value.
Yalue.
S53.7.
YRICE...

The Standard of Quality
Cunningham sund BCA tubes are world famous for their fine standards of qualits and dependable performanes. The product of tremendous resources, they represent the uitimate in aclentife enginering, excellence in materlals and precision of mannfactare. Of materisis and precision of manaiactares Of rugged constriction, they will atand up
splendidis under continued usage. We list spleadidly under continued usage. We ligt
the complete line down to the latest develthe complete line down to the latest devel.
opments. Each tibe carefally tesued before opments.

## FREE NEWTUBE

We send free, with each purchase of twenty or more assorted Radiotron or Cunninxham tubes, the new Cunningham-Radiotron 83 page manual, prepared especially to suppls technical informatton regarding the characteristics and operation of all vaeun m tubes inchuding the very latest superpionics. Orer 150 traphs, cliarts tahles and illustrations of tremendous ralue to ail who have an interest in the technical aspect of radio tuhes. A splendid
addition to your radio library.
A.C. S.G. R.F. AMPIIFIER 224A El85. R.C.A. List, \$1.65. NET
MULTI-MU A.G. 5 PRONG 235 E180. R.C.A. List, \$1.65. NET
DET.-AMP. A.C. TCBE 227 Eis3. R.C.A. List, \$1.05. NET
POWER TUBE
245 El65. R.C.A.
List, $\$ 1.1 \mathrm{~s}$. NET.
PRNTODE POWER AMPLIFIER
247 Eis3. R.C.A. $\quad$ Cuna.
List, \$1.60. NET
FLIL WA VE RECTIFIER 280 E 167. R.C.A
1.lst, \$1.05. NET $\qquad$
A.C. OR D.C. AMPLIEIER 226 Ei62. R.C.A.
List. MSc. NET $\qquad$
DET.AMP, 2 V. TUBF
230 Eil25. Cunn.
List, \$1.65. NET. $\qquad$
2 VOLT LAST ACDIO TEBE
231 E176. R.C.A.
List, \$1.65. NET.
$-72$ S.G. AMP. AND DET. D.C. 232 El77. R.C.A
List, \$2.3s. NET...


313


976

## 

5 Isst El44. Cunn.

FULT WAVE MERCURY VAPOR RECTIFIER
STE|91. R.C.A
List. \$1.30. NET.
F-W. M-V RECTIFIER. 5 V.
B3 Ei96. R.C.A.
List. \$1.55. NET.
DUPLEX-DIODE TRIODE FOR 8 TOLT AETO EETS
85 Ei 97. R.C.A.
Hst, $\$ 1.60$. NET.
A" ANI "B" l'ENTODE ROR
ACTO EETS 8 Ei98. R.C.A. List. \$1.80. NET.

310
VOLTAQE AMPLIFIER
B41 Ei88. R.C.A. $\&: 223$
List, $\$ 1040$. NET.
A.F. Amplifier-Modulator. Same as 210 but has low amplification lactor. 842 EIGI. R.C.A. List. \$10.40. NET . . . . . .
SEPER CONTROL R.F. AMP. PENTODE FOR AIR CELL SETA
234 Ei86. R.C.A. $\leqslant 136$. Cunn. Liкt, 88.80 . NET.
PENTODE AMP. FOR ACTO SETS 239 El89. R.C.A

336 Llst. $\$ 2.80$, NET.
PHOTOTVRE
 List. \$7.mi. NET. . . . . . . .
D.C. AMPLIFIER. DETECTOR
864 EI95. R.C.A.
$8 \quad$ E 45 . Cunn. Lint, s2.10. NFT..........
832 Eifi. R.C.A. $S \rightarrow 210$ List. \$28.n0. NET.
J. 5 WATT SCREEN GRID R.F. AMP.

865 EI70. R.C.A. List. $\leqslant 1$ K.00. NET...
CURRENT BALLAST. MGGUL
S6E Ei7I. R.C.A.
86 EI2I. Cunn. List. \$6.7K. NET
VOLTAGE REGULATOR
874 EI 72. R.C.A.
List, $\$ 4.90$. NET.............. CUERENT REGULATOR (BALLAST TUBE)
876 Eliz. R.C.A. $\$ 2 \rightarrow 4$ List. \$6.70. NET
CERRENT REGULATOR (BALLAST TCBE)
886 EI74. R.C.A.
List, s6.7K. NET...................
SCREEN GRID R.F. ANIPLIFIER
222 El60. R.C.A.
Eilo. Cunn. List, $\$ 3.15$. NET.... HIML DET.-AMP.
 List, $\$ 3.00$. NET.

| Type | Cunn. No. | RCA No. | List | NET |
| :---: | :---: | :---: | :---: | :---: |
| 2014 | El08 | E158 | \$0.80 | 50.47 |
| 112 A | E103 | El53 | 1.55 | 91 |
| 1714 | El04 | E154 | 95 | 56 |
| 200A | E107 | E157 | 4.00 | 2.35 |


| $\begin{aligned} & \text { Type } \\ & \times 199 \end{aligned}$ | Cunn. No. El06 | RCA No. E156 | $\begin{aligned} & \text { List } \\ & \$ 2.55 \end{aligned}$ | $\begin{gathered} \text { NET } \\ \text { SI. } 50 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| V199 | El05 | E155 | 2.75 | 1.62 |
| $w \times 12$ | El02 | E152 | 3.00 | 1.76 |
| WDII | Elol | E151 | 3.00 | 1.76 |


| Type | Cunn. No. | RCA No | List | NET |
| :---: | :---: | :---: | :---: | :---: |
| 250 | Elif | E166 | \$6.20 | \$3.65 |
| 281 | E118 | E168 | 5.20 | 3.06 |
| 210 | E109 | E159 | 7.25 | 4.26 |
| 120 | E128 | E178 | 3.00 | 1.76 |

## A.C. TYPES

## BIGGER VALUES

No higher quality tubes could be offered at such low prices. The ability to stand up under the severest usage reflects the care and precise methods used in their construction. E a ch tube is put through a rigid test before being released assuring the ultimate in performance. Popular types at popular prices.

## AMPLIFIERS RECTIFIERS

No. Type List NET E3:5 $245 \quad \$ 1.16 \quad \$ 0.45$
E334 $247 \quad 1.60 \quad .63$
E309 $210 \quad 7.25 \quad 2.84$
E316 $250 \quad 6.20 \quad 2.43$
$\begin{array}{lllr}\text { E317 } & 280 & 1.05 & .41 \\ \text { E318 } & 281 & 5.20 & 2.04\end{array}$
$\begin{array}{rrrr}\text { E341 } & 82 & 1.30 & .51 \\ E 321 & 866 & 7.50 & 2.94\end{array}$
$224 A$
Screen Grla Amp.
No. E335.
List. \$1.6.5
NE
A.c. Arnplifier

No. E312.
List. \$0.85. NET
Detector 22 Amplifie
No. E3i3.
List. $\$ 1.05 . ~ N E T ~-41$ 235 Variable Mu.

## No. E330.

 Nist. $\$ 1.65$. NET 63 Variable Mu No. E337.NET
Dual Grid Amp.
No. E340. NET .61 List, $\$ 1.55$. NET
guper-Triode Amp.
No. E342.
List, $\$ 1.30$. 57
Triple-Girid Amp.
No. E343. NIST
List, $\$ 1.65$.
List, \$1.65. NRT
Triple Grid Snper Amp.
No. E344, NET
D.C. TYPES

2014
No. E308.
List, $\$ 0.80$. NET $\$ 0.31$ 1 12A
forer Amplifier
No.E303. NET
List, 1.81. Power Amplifier
No. E304. Ampifier
List. $\$ 0.96$. NMT
D.c. Shield Grid

No. E310.
List, $\$ 3.15 . ~ N E T ~$
1.23
$\stackrel{2}{2}$ Volt ${ }^{23}$ Det, Amp.
No. E325. NET
List, $\$ 1.65$. NET
2 Volt 231
No.E326.
List, $\$ 1.68 ., ~ N E T ~$ 2 Volt 5.92 . Amp.
No. E 327.
List, \$2.35. NET - 82
2 Volt 233
No. E329.
List, $\$ 2.80$. NET 1.10
Detector Ampllifier
No. E305.
List, $\$ 2.75 . ~ N E T ~ 1.08 ~$


Dry Cell 199
No. E308
List, \$2.85. NET \$1.03 Dry Cell ${ }^{2}$ Amp.
No. E328. NET 1. $\mathrm{List}, \$ 3.00$. NRT 234
Super B.F. Pentode
No. E338. NET 1.10
List, $\$ 2.80$. NET G.G.R.F. 236
S.G.R.F. Amp.
No. E331.
LIAt, $\$ 8.80 . \underset{237}{\text { NET }}$ 237
Detector Ampllfier
No. E332.
List, $\$ 1.80$. NET
71
Power Amp. Pentode
No, E333.
list, 82.80. N NP
Super R.F. Amp. Pentode No. E339. NET 1.10
List, $\$ 2.80$, NET

## 

## The Profitable Long Life Tube

We are giving FREE, a cholce of 227 or 280 Trind tubes. in the following quantities.

3 tubes free with each parchase of 25 Triad Tubes
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receiver manufacturers use Triad tubes as standard equipment. That prores their excellence.

| No. | TXPE | DESCRIPTI | LIST | NeT |
| :---: | :---: | :---: | :---: | :---: |
| E435. | Tr4AC | Screen Grid R.F. Amp. | \$1.6s | \$0.73 |
| 1 | T 26 | Amplifier | 85 | . 37 |
| E413. | T 27 | Detector An | 105 | 46 |
| E430 | T 36 | Super Control R.F. Amp | 1.85 | 73 |
| E43 | T 51 | Screen Grid Variable Mu | 1.65 | 3 |
| 440. | T 48 | Dual Grid Power Amp. | 1.55 | 8 |
| 442. | T 56 | Super Triode Amp. | 1.30 |  |
| 443 | T 57 | Triple Grid Amp | 1.65 |  |
| E444. | T 58 | Triple Grid Super Contro |  |  |
|  |  | Amp. | 1.65 | 73 |
| E408. | T 01A | Detector Amplifier | 80 | 35 |
| E403 | T. 12A | Amplifier Detector | 1.65 | 68 |
| E404. | T 71A | Power Amplifier | . 95 | . 42 |
| E410. | T 2210 C | Screen Grid R.F. Amb | 3.15 | . 39 |
| E425. | T 30 | Detector Amplifier | 1.65 | 7 |
| E426. | T 31 | Power Amplitier | 1.65 | 73 |
| E427 | T 98 | Screen Grid R.F. Amp. | 2.35 | . 03 |
| E429. | T 33 | Power Ampllifer Pentode. | 2.80 | . 23 |
| E436. | T 34 | Super Conirol R.F. Amp. |  |  |
|  |  | Pentode Grid | 2.80 2.80 | 1.23 |
| E432. | T 37 | Detector amplifier | 1.80 | 23 |
| E433. | T 38 | Power Amp. Pentode | 18.80 | 23 |
| E439. | T 39 | Super Control R.F. Amp. |  |  |
|  |  | Pentode | 2.80 | 23 |
| E417. | T 80 | Full Wave Rectifier | 1.05 | 46 |
| E418. | T 81 | Falf Wave Rectifier | 5.20 | 2.29 |
| E441. | T 8\% | Full Wave Mercury rect. | 1.30 | 3 |
| E421. | T 868 | Half Wave Mercury rect. | 7.50 | 3.30 |
| E415. | T 46 | Power Amplifier | 1.15 | . 51 |
| E434. | T 47 | Power Amp. Pe | 1.60 | 70 |
| E409. | T 10 | Power Amp. Oscillator | 7.\% | 3.19 |
| E423. | T 108 | Special R.F. Power Amp. | 8.00 | 3.82 |

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## EVEREADY RAYTHEON 4 PILLAR TUBES ~

EVEREADY RAYTHEON TUBES have four pillars embedded in solid glass base and braced at top with a mica plate. thus providing 8 points of support for the elements instead of two as in ordinary tubes. This feature enables chocks and jars in shipment and to offer lasting service.
NO. TYPE DFSCRIMTION LIST NET
$\begin{array}{cccccc}\text { NO. } & \text { TYPE } & \text { DRSCRHTION } & \text { LIST } & \text { NET } \\ \text { E669 } & \text { ER } 46 & \text { Dual Power Amp. } \\ \text { E670 } & \text { HR } 49 & \text { Dual Power Air Celi } & & \$ 1.65 & \text { SO. } 82\end{array}$

|  |  | Amp. . . . . . . . . 2.80 | 8 |
| :---: | :---: | :---: | :---: |
| E67 | ER 62 | Dual Power Auto Amp.. \$.80 | 1.48 |
| E672 | ER 58 | A. V. C. Det . . . . . . . . 1.60 | 84 |
| E673 | ER 56 | Triode Detector . . . . . . 1.30 | 89 |
| E693 | ER 67 | Pentode Det. or Amp... 1.68 | 87 |
| E694 | ER 58 | Variable Mu Pentode . . . . 1.65 | . 87 |
| E695 | LE882 | Full Wave Mer. Rect.. . 1.30 | 69 |
| E696 | ER 83 | Full Ware Mer. Rect... 1.05 | 82 |
| $\underline{6997}$ | ER 85 | A. V. C. Auto Det. . . . . 1.60 | . 84 |
| $E 698$ | ER 89 | Universal Power Auto Amp. |  |
| E689 | RA | Full Wave Rect. ..... F .50 | 3.97 |
| E688 | BH | Full Wave Rect. for " $\mathrm{B}^{\prime}$ " 4.65 | 2.46 |
| E690 | BR | Half Wave Gas. Rect. <br> for Auto "B" Ellm.. . 2.75 |  |
| E699 | LA | Pentode Anto Amp..... 2.80 | 1.48 |
| E653 | ER L19A | Triode Det. or Amp . . . . 1.55 | 82 |
| E678 | ER 180 | Amp. for Dry Battery . 3.00 | 1.59 |
| E654 | ER 171A | Power Amp. for A.C. Sets .95 | 50 |
| E855 | ER V199 | Det. or Amp. for Dry Bat. 2.75 | 1.46 |
| E658 | ER 2014 | Det. or Amp. for Storake Battery Sets ........ . 80 | 2 |
| E659 | EF 210 | Triode Power Amp . . . . 7.28 | 3.84 |
| E685 | ER 2R4A | S. G. Det, or Amp . . . . 1.65 | 87 |
| E682 | ER 226 | Triode Amplifier . . . . . 85 | 45 |
| E663 | ER 22\% | Triode Det. or Amp. . . . 1.05 | 58 |
| E675 | ER 230 | Air Cell Det. or Amp... 1.65 | 87 |
| E676 | ER 231 | Power Amp. for Air Cell 1.65 | 87 |
| E677 | ER 232 | S. G. Det. or Amp. . . . 2.35 | . 24 |
| E679 | ER 233 | Pentode Power Amp. . . . 2.80 | 1.48 |
| E686 | ER 234 | Vari. Mu Pentode Amp.. 2.80 | 1.48 |
| E680 | NR 235 | Vari. Mu S. G. Amp .... 1.8S | . 87 |
| E681 | ER 236 | Screen Grid Det. or Amp. 2.80 | . 48 |
| E682 | WR 237 | Triode Det. or Amp . . . . 1.80 | . 95 |
| E683 | ER 238 | Pentode Power Amp. . . 2.80 | 1.48 |
| E674 | ER 239 | Variable Mu Pentode. . . 2.80 | 1.48 |
| E865 | ER 245 | Triode Power Amplifier.. 1.15 | . 61 |
| E684 | ER 247 | Pentode Power Amplifer 1.60 | 84 |
| E686 | GR250 | Triode Power Amplifier., 6.20 | 3.28 |
| E667 | KR 280 | Full Wave Rectiter.... 1.05 | 56 |
| E668 | ER 281 | Half Wave Rectifier. . . . 5.20 | 2.75 |
| E687 | ERE 551 | Vari. Mu S. G. Amp.... 1.63 | . 87 |

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 AMPLIEIER No. E23E.List, $\$ 1.65$
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DET. AMP.
No. E213.
List. $\$ 1.00$.
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PRICE 31c
2. -226 AMPLIFIER
No. E212.
YOUE P'RICE
$25 c$
X-280
FELL WAVE RECTIFIER
No. E217.
List. \$1.05.
YOUR
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31c
2.201A

DET.AMP. No. E208. List, $\$ 0.80$.
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## 2-200A

## DETECTOR

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PRICK
X-112A
POWER AMP.
No. E203.
List, $\$ 1.55$.
rove
PRICE
$46 e$

## V-199

Detector Amplifier for dry cell.
No. 8205
YOCR
PRICE
81c

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## Famous Quick Heaters

The famous Areturis tube is noted for itw quick action, its noinelesm operation, and itm abllity to withstand current worges. Try the Arcturum in your receiver and enjoy clear, humless tone, inrreased volume, and exceptionally lomes life. This super-quality has established the wide reputation of Arcturas A.C. tuben.

| No. | Thpe | Description | List | NET |
| :---: | :---: | :---: | :---: | :---: |
| E508 | 101A | Detector Amplifier | 80.80 | 50.42 |
| E509 | 110 | Power Amplifle | 7.25 | 3.84 |
| E503 | 022A | Detector Amplifier | 1.55 | . 82 |
| E510 | 1122 | S.G. Amplifier | 3.15 | 1.67 |
| E535 | 124A | S.G. Detector A | 1.65 | . 87 |
| E612 | 128 | Amplifier | . 84 | . 48 |
| E513 | 127 | Detector Amplifier | 1.05 | . 56 |
| E 525 | 180 | Detector Amplifier | 1.65 | . 87 |
| E526 | 181 | Power Amplifier | 1.65 | 87 |
| E527 | 132 | S.G. Detector Ar | 2.815 | . 25 |
| E529 | 133 | Power Pentode | 280 | 1.48 |
| E538 | 134 | Var. Mu R.F. Pento | 280 | 1.48 |
| E531 | 188A | S.G. Detector Amplifier | 2.200 | 1.48 |
| E532 | 185A | Detector Amplifier | 1.80 | . 95 |
| E533 | 138 A | Power Pentode | 2.80 | 1.48 |
| $E 624$ | 139A | Var. Mu R.F. Pento | 2.80 | 1.48 |
| E539 | 44 | Var. Mu R.F. Pento | 285 | 1.51 |
| ESI5 | 145 | Power Amplifier | 1.15 | . 61 |
| E519 | 43 | Class ' $B^{\prime \prime}$ Amplifie | 1.55 | . 82 |
| E5 16 | 150 | Power Amplider | 6.20 | 3.29 |
| E537 | 5\%1 | Var. Mu R.F. Amplifle | 1.65 | . 87 |
| E522 | 55 | Duplex-Diode Triode | 1.80 | . 85 |
| E523 | 58 | Det.. Amp. Oscil.... | 1.30 | . 69 |
| E543 | 57 | S.G. Detector Amplifie | 1.45 | 87 |
| E544 | 5.9 | Var. MuR.F. Pentode. | 1.65 | 87 |
| E520 | 59 | Gen. Pur. Power Amp. | 2.200 | 1.17 |
| E504 | 071.A | Power Amplifier | .95 | 50 |
| E5 17 | 180 | Full-Wave Rectifier | 1.05 | . 56 |
| E518 | 181 | Half-Wave Rectifier | 8.20 | 2.76 |
| E545 | 82 | F-W Mer. Vapor Rec. | 1.30 | 69 |
| ES46 | 83 | F-W Mer. Vapor Rec | 1.55 | . 82 |
| E547 | 65 | Duplex-Diode Triode | 1.60 | 85 |
| E548 | 88 | Gen. Pur. Powier Amp | 1.80 | . 95 |
| E505 | 099UV | Detector Amplifier | 2.80 | 1.48 |
| E606 | croux | Detector Amplifier | 2.55 | 1.38 |
| EE40 | (:.A. | Power Pentode | 2.75 | 1.48 |
| E534 | P.Z. | Power Pentode | 1.60 | . 85 |
| E54! | Wunde | rlich A Detector | 3.00 | 1.76 |
| E542 | Wunde | $r$. A Automotive Dete | 3.00 | 1.76 |

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The intent melentilic developments in tube manufacture in the famoum. Triad products. Trind tubew have established a world-wide reputation for excellence in performance and durability. Here are newiy-demimneal tubes for the latest needs. Highest quality equipment for the experimenter and amateur broadcaster, for sound film work, public address systems, and television.

All tubes listed helow are subjected to rigid tests before release and are in perfect condition when shipped. They are offered on a final sales basis, not subject to return.

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## New Triad product used in reproduc-

 tion of television pictures, in conjunction with lense type Seanning Discs. Produces intense light source and can be applied for any type of optical system. Approx. striking voltage 180.0 . Max. Current $40 \mathrm{M} . \mathrm{A}$. Approx. Crater light source 030 in.No. E449. IOUR PRICE. . . . $\$ 8.82$


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Trind televiston tube designed for use with usual scanner. Maximum brilliancy with low current consumption. 14 in. plate; approx. striking voltage 190.0. Max. current 25 M.A. No. E445. TOUR PRICE
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No. E448
No. E422
Type PEC-2 Type PEC-3 Tyne PEC-7 Type 868

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Tyne 845
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Type P4A, Photolytic Cell for improved operation of every photo-electric device. No. E536. Lint, \$31.50.
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Tbe Voltage "Watehman" in your radio. Kerp voltage constant with AMPERITE for best and $11 n i$ form radio receptlon. Eliminate aif nolses eaused by overioaded resistiances and condensers; avoid tube and power pack burnouts, maintain even volume. perfect
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\section*{Catalos <br> Thice set <br> ${ }_{11-1}^{10}$ <br> A mperite <br> A. ${ }^{5}$ A-5 <br> 6-A.5 <br> | 8-A-5 |
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| 9.5 |
| 1. | <br> $10-A-5$

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20.A.5. For 7 to 11 tube sets using 2-50 tubes and for

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CLAROSTAT A.C. LINE VOLTAGE RECULATOR A perfect line voltage control that auto maticalty adjustr line voltages. It is wafe. compact and durable, and is ideal for safe 158
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Aerovox Interference Eliminator The Aerovox Interfer-
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tone of your receiver stands forth with greater briliance. It ellminates bower line nolses or disturbances from motoza and other household de-
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An air cooled, dependeble voltage requ. bator. Fits ans
standayd set socket or out let an a wlil voltake co any
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As a capacity fifer, there Built into a nearly thishited. all bakelite box. 1 ib. No. EIfOI Hist. $\$ 2.85$
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rais model has more tban Twice the ciactocity of the use with nutors on refrixer ators, wanhing ras-
chimes, etc. and ran be used either at the radlo set or at the apparatus causing the
bance. Slipg. Wt.. 4 Ius. disturbance. Sh
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The famous FIltervoit nolse eliminator. cyuckis subchest thoat disturbing cracks and hisses caused by tashIng machines. electric signs. refrigerators and s1mIlar apperatus. Compact and may be quickly and ensily installed without the use of special tools. Operates on A.C. und D.C. eurrent, 25 to 60 escle 110,200 F. and 32 V . farm svistenus. Ghpe. WT. s ins.
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## Universal Resistovolt

## An automatio volt

 age regulator $t h a t$nalatains is constant naintains it ronstant potenind of 110 vents. A.C. tuhes from burning out. Operntes adtenveticatls and requirms no attention. Shys. wi.. 1 kb . each No. E42 i5. I.toht Duty for sets up to 0 No. E4207. Jeary duty for suls over it tuhes. List. each. $\$ 1.25$. Your Prite $\ggg \gg$

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Elkon dry rectifiers for trickte and tapering chargers. gectiliers shouta be replaced on these chargers every 0,000 hours. Type XB-4 (3 units to a met) ehould be nised in the following: Ellion, Acme,
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Standard replace cat cells for we trouble free No attention neces sary other than to add distiled water occasionally, The harge electroden perput high power out he solution Not mailable TYPE (AA)
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Round replucement cell to supply the denand for a lous life rectifier for
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aluminum is used for the posialuminum is used for the posiave electrode. While a chromium alloy serves as negative post. fery economical. Shps. wit., I Ib.
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The well known, hirhly ef ficient G. E. Tunkar Bulbs. Used in all atandard chareery Made by General Electric Co. Shble wit 2 lbs.
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## For "B'" Power Umits

 popular prlced lang service rectifying tube for all "B" nower units requir ing the rasentls type of tube rated at 125 mils.. 300 yolts. offered it a new low price. Shpg. wt.. 1 lb. No. E490. S 28 Lint $\$ 4,50$. YOUK PRICE
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## The hlal quality, popular Kelloge A.C. tubes releaged

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$\$ 2.35$
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 A new and complete counter tube tester for can also be used as a portable type home service man or for trailing tabes at the tester pamel and even the most inexperienced can test tuber withont diffcults. A push button providen two plate current readings for deternining the conduelance and worth of a tube. Tlie sianplified single seale meter is made possible by the wide change in readings. The meler is placed on pin iacks aud is easily remorable. A fuse is connected with the meter. insuring againet burning out at any time because of a shorted tube.
## New Type Illuminated Dial

When the tester is in overafion a oilot buib, directly underneath the meter, lluminates the dal, making it very easy to read. Both the lemp and the fuse are easily reneared by detaching the meter. This compaet unit is mounted in a very strongly built case with reinfrredching. The corter is detachabse and a leather hande is provided for portable use.

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 Tester Carrying CaseThe 44 is completo portable type tube ester in carring case using a direct reading 4 in precision spue ineter with velor charr. enabling the customer to direetis read the ralue of tubes. $1 t$ is equipped
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$\$ 4116$


## No. 900 Utility Appliance Tester

For servicing electrically oper ated refrigerators. ir oning ma* stokera. ventilating systems. ranges, and general household appliances. Coniaitis thput and output ounters. for vieasuring voles and amperes. A.c. ammeter readifig up to 20 amp. A.C. voltmeter reading up to 300 mits and a complete di rect readinx olimnielies 0 - to, $0-10.100$ olims for conthathy leming, Complete In fentherette cam measming


No. E6418 YOUR PRICE

## READRITE TEST ADAPTERS



The adaprers listed below are for use In testing the mans new tubes which have serentis ampenred on the market. For testing with set tenters and tabe tenters. other manufacture. Other siuecial whin similar leaters of furnished to orflet. When ordering aperify moturd. tester or manner ju which it wrlil be upectifs motlel or
hire it will be turen.
E6320. 82 for texting 82 and List. $\$ 1.25$.
YOUR PRICE
.735
E6321. $58 \underset{\text { test } 6 \text { butronf tuhes. }}{\text { E }}$
E6322. 176 Destlsfe Adapter to
Lixt. $\$ 1.50$.
E6323. 175 Iouhle Adamer to tent 15 t
prono.
List, $\$ 2.00$.
YOUR PRICE
$\$ 1.18$
E6324. 167 6. 11 ole socket
 plue.
E6325. 4 for adding smeaker cir betiphome 10 push selii.
E6353, 45 A. Prong sheket an 5 prong plug.
List. ${ }^{75 \mathrm{c}}$.
44c

## Readrite Direct Reading Ohmmeters



These ohmmeters are comphete with small s cell
fiashilite hattery. Model 500 tests resistance fiashilte battery. Model 500 tests resistance by direct reading up in to, om ohmes. Model 502 tesis
low resistatice un to jow resjatatace un to foll ohms in addition to the higher rextstazer of 10.0 m ( m has.
No. E6367. Tyse 500. List. \$6.00. YOUR PRICE.
No. E6358. Type 502. List, 57.00.
YOUR PRICE.



## NEW TEST EQUIPMENT

Readrite in first with the latest. showing the Newsst. Up To The Minute test equinment at prices that are low for quality instruments. These New Meters and met analyzers are complete in every detail, testing all new Circuits as well as old

Keadrite Meters gre so constructed that they ean be safely used by any one. Detailed. simple instructions accompany each instiument. The long experience and careful engineering for which Readrite has long been famous. have served to make these instruments among the most popular in the radio field. Readrite is a ploneer in the radio field and is known by service men all over the country for quality and price.

## NO. 710 ANALYZER \& TUBE TESTER

The Readrite 710 is universal in Its application. Provision is made to check all typer of tubes. The new type 46-5.5-56-57-58 and 82 are accurately and rapidig tesied. All of the older tubes can be checked just as eftipiently,

For the servicemian who wants to handle hia calls properly and rapidly the Readrite 710 is a wonderfui help.

## TESTS 4-5-6 AND 7 PRONG SOCKET SETS

Fery eamy to operate, equlpped with n practical melector switch for ehecking all parts of tube clreult by eonpecting to wet socket. Selection for testing voltages of plate. grid, cathode. suppressor grid and screen grid is done quickly and accurately, Plate current, filament voltr, alpo line and power pupply volts are measured. The battery is used for the continuity teating of transformers, chokes. etc. Capacity and resigtance charts are furnished showing use of ingtruments for testing condenser, almo measuring resistances up to 100.000 ohms.
TESTS AEL TYPES OF TUBES
The Vine Seale readingm of the Meters may be used separately with the Jack terminals provided. The scale readings are 0-20-60-300-600 D.C. Voits, 0-10-140-700 A.C. Volt, and 0-15-150 M.A. Both A.C. and D.C. Alament voltages are necurately meanured on one Meter. Contains new wiring with added 7 hole socket. Housed in a strong, attractlive leatherette covered eanetester that every well equipped service man should have. Will pay for itself in rapid testing and customer satisfaction. Operation so simple that anyone can use it efficiently

No. E6410.
IInt. \$2\%.00.
\$1470
YOOR NET PRICE
READRITE COMBINATION TEST SETS SET TESTER-TUBE TESTER-OSCILLATOR


## NEW ADD-A-UNIT PLAN

Ruy what you need or can afford now. Get the bnlance later. And when you have the complete assembly. it is mounted in one convenient ease. The entre assembly provides you with a tegter that will werve every noed, The connplete unit containg the No. 710 Analyzer. No. 107 Tube Tester and No. $\overline{5} 50$ Oscillator. Each unit is built on a panel which is easily slipped into place as it is purchased.
The 710 Analyzer- 407 Tube Tester and the 550 Oscillator in one carrying case.
The complete unit of 3 instruinents already mounted in the sturdy, Leatherette covered case. provides an undque testing laboratory to serve your every need. All units Rre readily accessible; the meters can be easily read, while the plug in cords and adapters are conveniently placed adjacent to the meters. Every mervice man needm thim compact eficient unit. It is complete and serves every radio need.

## No. 577 Combination

Combines No. 407 and No. 710 Testers with the No. 550 Oscillator.
Tests tubes. set circuit and allons tuning mondensers. The orilliator and tube tenter are on one janel. With the set tenter in a drawer No. E6407.
No. E 6407 .
inst Price, spo.00.
YOTR NET PRICE TOER NET PRICE

## No. 576 Combination

Consblaes the 106 and $i 10$ tenters with the 550 Oweillator. Namer as abore except that 408 tube texter is used instead of thr. No. E6409.
Livt Price, \$*5.06.
TOTR NET PRICE
No. 710 Analyzer Less Case
This mection of the Add-A-Tait lian has sube metery and equibnient that ate listed under the 710 sut analyzer. Halle on a pane?

## 550 Oscillator Less Case

This section of the Add-A-Cnit Tester is the same in perfnrinance shd coastruction as the 550 Ogcillator fescribed on Pake 17 of nir eass nioturing in the Add-A-Unit case. No, E6423.
Lint Prlce. \$30.00.
IOLR NET PRICE
43764

## 407 Tube Tester Eess Cance

Another part of the Add-A-Unit Tester that when completed mikes up the perfect assem bly. The muldiple functions of the toj Tester are described on page 14. Provided with the wilde wanel.
No. E6413.
I.int Prlce. \$25.03.
$\$ 1470$ IOLR NET PRICE

## 406 Tnbe Tester Les: Case

ron have the onfion of using Uhe 408 Tube Tester in the dad-A-Cnit Gase if you Drefer. The coniblete descripslon is on I'gige 14. This unit is alan mounted on s panel to be e.xity sllpped in the case.

No. E6412
Lint Price, 820.00 LOIR NET PRICE

No. E6414.
Lint Price, \$20.00.
LOUR NFT PRICE
3137

## 577 ADD-A-UNIT CASE ONLI

This sturdy case built to howae rour selection of the three. S 82 units issed above. Leatherette wrered with a removable

Readrite No. 610 Set $\mathbb{E}$ Tube Tester


The No. 610 Tester contaids same equipment as No. 710 but has aidded featares. Ronm is provided for carrying tubes. tools, and supplies. The test Equiptuent and pancl is in a removable tray in the top of the case.
The tray equipment may be used separately as a complete test panel for shop purposes. Size $14 \frac{1}{2} \times 7 \times 7 \%$. No. E6411.
TOLE PRICE
s1764
Readrite 406-710 Combination


Has combined features of the 710 Analyzer and the 406 described on page 14, Witit this combination tubes are tested withont necessity of conneetlon to radio, as the 406 pluge directly into the AC light socket. Tests all the new and old type tubes including the $4,5.6$ and 7 prong lypes. A protecting fuse prevents lypes. A prorec diffeulties Dial is shorts or other anticuliea. Dial is places. Leatherette case measures $21 \times 14 \times \div 3$.
No. E6408.
List, 850.00 .
YOUR PRICE
 The sliding drawer lucks automatimally when the lid is
No. E6421. Hist Price, \$is.on. IOUR NET PRICE

## NEW Readrite No. 1000 Radio Analyzer <br>  <br> A COMPLETE RESISTANCE, CONTINUITY AND CAPACITY TEST INSTRUMENT



A super ultra-modern tester-complete-minutely precise, for testing resistances. continuity and capacity of radio receiving sets, withoot removing chassis from cabinet. The $3 \frac{1}{2}$ in. D.C. precision meter, 0-1 M.A., has the lower scalo reading-0.30-300-600 D.C. volts. Upper scale reading is in ohms and megohms. Scale readings available for resistance measurementa are 0-500. 1.00,000 ohms and $0-3$ megohms. Can also be equipped to test up to 6 megohms. The A.C. weter is calibrated for reading directly in microfarade, aleo for testing line voltare. Lower scale reading. . 008 to $0 \overline{0}^{\circ}$. upper scale, .1 to 10 mids . Calfbrated for use on 60 cycle at 110 volis A.C. Bheostat resulates the correct voltage to be applied.
Two plug-In cables and two separate cords are provided for testing through the set socket of resistance of voitage dividers. series resistors. transiormer primaries and secondsries, fulter chokes, speaker fields, capacittes of paper and mlea type condensers of the different tube circuits. Jacks are provided for individual tests separate from plug connections for ihe above, and in addition $0-30-300$ M.A. A perfeet all-around test instrument.
For Set Amalyving-Testing Voltages-Milliemperes-Resistance and Capacity

No. E6420. List Price, $\$ 55.00$.
YOUR PRICE

## EnDreved inestrette 245 A Set Ant Stibe Anetyzer <br> An extremely popular set analyzer. Portable and

 easily bandled. Fills every servieing need in the field. Pluge into the set socket. A unique feature of this terter is the accessibility to every part of the circuit and simplicity of using. The ideal. compact and complete tester for precise measurement of old and new tubes.Tests New Circuite with 57 ct 58 Tubes, Alse Resistance \& Capacity
The Improved IReadrite Analrzer is supplied with 'g8 admoter for testing circmitis using the new ${ }^{*} 5$ it and ${ }^{*} 58$ tubes. Meter may be used separately for continuity and peneral testing. The three doable reading meters are: Fllament and line voltage. A.C.-D.C. Folt meter $0-10-140$, plate and grid rolt meter $0-60-300$ (renistance 300 ohms Der volt). mai, plate current, grid test change, and line roltage. Both plates of full wave rectifier tube tesied mithout use ar adapter in handsome enamel finishod case with leather handle. Complete illus irated instructions and charts show analysis of receistna set circuits, the measurement of rexistances up to 10 YOCR PRICE

## Readrite Portable Meters

 oftered in variety ranges for particular purposes. A.C. meters are repulsion trpe sultable for accurate A.C. or D.c. test10g. Precision in constructhon make there meters durable Nickel finlshert durable Nicke anlshed The connecting cords are$30^{\prime \prime}$ with cord tipe
PORTABLE D. C. VOLTMETER

| No. | ${ }^{300}$ | Volts | Vist. | ET |
| :---: | :---: | :---: | :---: | :---: |
| E6425. | 346 | $0-300$ | \$4.50 | 2.85 |
| E6394. | 347 | 0-500 | 6.50 |  |
| 426. | 448 | 0.60-30 | 4.50 | 2.65 | $\begin{array}{llllll}\text { E6426. } & 448 & 0.60-300 & 4.50 & 2.6 \\ & 750 & 0.750 & 6.00 & 3.53\end{array}$ PORTABLE A.C. FOLTMETFRS 100 ohms per volt. E6395. Code Volts Lint NET E6428. 348 0.150 84.0032 .35 $\begin{array}{lllll}\text { E6428. } & 349 & 0-300 & 5.00 & 2.94 \\ \text { E396. } & 247 & 0.600 & 6.00 & 3.53\end{array}$ $\begin{array}{lllll}2836 . & 247 & 0-800 & 6.00 & 3.83 \\ 248 & 0.150-750 & 800 & 4.70\end{array}$ PORTABLE MITJIAMETERS NO. Code M.A. NO. Code M.A. E6430. 225 0-25 E6434. 470 0-25 E6431. 290 0-100 E6435. 471 0-50 E6432. 292 0-200 E6436. 472 0-100 E6433. 294 0-400 E6437: 473 0.260 List, Each, 83.00 . YOUR PRICE

PORTABLE AMMETER
No. Code Amps. E6438. $280 \quad 0.1$ E6439. 281 0-5 E6440. 238 0-10 E6441.. 201 0.50 List. Each. $\$ 3.00$ TOCE PRICE NO Code Amps. E6442. 460 0-1 $\begin{array}{lll}E 6443 . & 482 & 0-5 \\ E 6444 . & 483 & 0-10\end{array}$ $\$ 1.76$

705 Set Tes Adapter <br> <br> <br>  <br> <br> <br>  <br> <br> <br>  <br> <br> \section*{TUNING METERS <br> <br> \section*{TUNING METERS <br> <br> \section*{TUNING METERS <br> <br> <br> Readrite meters, ex <br> <br> <br> Readrite meters, ex <br> <br> <br> Readrite meters, exensively used Fith visensively used Fith visensively used Fith visuat tuning Circultuat tuning Circultuat tuning Circult nats to nats to nats to ts furthest position. ts furthest position. ts furthest position. Two popular gtyles in Two popular gtyles in Two popular gtyles in four ranges: Fiscut four ranges: Fiscut four ranges: Fiscutcheons priced sepa.cheons priced sepa.cheons priced sepa. rately. rately. rately. <br> <br> <br> TM-108. Lisht coming from case opentng <br> <br> <br> TM-108. Lisht coming from case opentng <br> <br> <br> TM-108. Lisht coming from case opentng casts a shadow from mater needie on dial casts a shadow from mater needie on dial casts a shadow from mater needie on dial TM-108 TM-108 TM-108 Mille Mille Mille E647 E647 E647 E6482. E6482. E6482. NET PRICE NET PRICE NET PRICE <br> <br> <br> TM-102. A popa <br> <br> <br> TM-102. A popa <br> <br> <br> TM-102. A popalar style suiter tolar style suiter tolar style suiter to special escritcheons special escritcheons special escritcheons in combination with in combination with in combination with the regular tuning the regular tuning the regular tuning front, rear or side front, rear or side front, rear or side lighting. lighting. lighting. No. E6331. Eac. TM 102.
No. E6330. Esc. TM 108. No. E6331. Eac. TM 102.
No. E6330. Esc. TM 108. No. E6331. Eac. TM 102.
No. E6330. Esc. TM 108. Lift, 30c. Lift, 30c. Lift, 30c. 18 18 18 <br> <br> <br> chew 중 <br> <br> <br> chew 중 <br> <br> <br> chew 중 <br> <br> <br> ng from case one <br> <br> <br> ng from case one <br> <br> <br> ng from case one <br> <br> <br> O. <br> <br> <br> O. <br> <br> <br> O. E6475.
E6476.
E6477.
E6478. E6475.
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E6478. E6475.
E6476.
E6477.
E6478. 5
7
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10 13 13 13 88c 88c 88c TM-102} TM-102} TM-102}

For testing tubes where A.C. is not arailable. barteries. or other cur. ren: subuls connected to adapter to furnish roltge. prorides for testing all No. E6334.C tubes. List. $\$ \mathbf{8 . 5 0}$.

New 850 Capacity Tester


A new tester to meet a long-felt $n$ t. Readrite
instrul $\begin{array}{lll}1 & n & s \\ \text { ment } \\ \text { wit } \\ \text { in }\end{array}$ ment $\begin{gathered}\text { in ith } \\ \text { ino rolt me- }\end{gathered}$ two rolt mefers for test intic and ya pet type condensers. a practical ont testor. For shon or portable use. Mates toasy to est all types of condensers, which are often the cause of radio faults, under actual load.

## .008 to 10 MFD.

The double seale reading is . 008 to 10 mid. or paper tspe condensers. Thpped leuds are provided for connecting to the condenser to be ested. The D.C Volt-Milismaneter is for fexting and forming electrolytic condemsers. A theostat makes posible adjustment to che proper voitage, For A.C. $110-13 \mathrm{~m}$ noms 10 to 400 henries and 40 to 100.000 ohms.
No. E6400. Nithout Cover. \&S? List, $\$ 15.00$. $\qquad$ * 14 No. E 6422 in
List Price 3 . 00
YOUR PRICE.

## No. 800 Capacity Tester

Resdrite meter for test ung paper condensers only The A.C. meter reads dil rectif in microraracs. 008 to 10. Contains rhensiat mwitch, test lead and Fla
for A.C. 60 erele: Ful
ingtructions and charts for tentine from 10 to too benries and 40 to 100,000 ohins No. E6402, ${ }^{2}$. 00 YOUR PRICE.

## READRITE SELECTOR - T1 品 5

Rotating with suding contact erminals. No moving wires. Knob included in combinations below.
No. E\$339. Type 17 bi-polat. 14 terininals. Bux double pole positions, two outlet termingls
le pole switch. 13 aingle and one common terminal.
List, $\$ 1.00$.
NET KACE
No. E6336. ........................... double throw No. E6337.
ye ~9. Iriple pole. No. $29337 . T_{y p e}^{33}$. Double pole, No. E6338. Type 34. Bi-polar nwitch with 12 double pole positions, $\rightarrow$ Cint. 51.50.
NET BACE

## Readrite 550 Service Test Oscillator

The testing of new circuits which are montly guperheterodjone, make it mecensmary that an oselilator be used. The new Readrite No. 550 Readrite oscillator, a quallty inetrument, priced very low. A completely shlelded oscillator, self modulated. Furnished with batteries and one'30 type tube.

## DIRECT READING 120-185 K.C.

## AND 550-1500 K.C.

The tuning dial th direct reading for intermexlates 1go-i85 K.C. and $350-1340$ K.C, broadoast rance. Shary 2nd and 3rd harmonics corer inter mediates $260-262$ and 475 K.C. Shielded antenna lead wire is furmished Used to align R.F. Fang condensers, locate defective R.F. transformers gdjust I.F. transformer, eheck oscillator stage, compare gain in tubes and determine sensitivity of recelver. Test lead wirew and break-in adapter are supplied when equipped with output meter. A service man's most important instrument. Indispensable for servicing all superheterodynes

## LICENSED BY A. T. \& T. CO.

The heavs metal panel containg the tuning control. direct reading dial which has a large swiug. siring widely spaced scale divhons ensy to read. for Broadcast and Internediate. The toggle switch connects the batteries and prevents undue drain when not in use. Cover cannot be closed when battery switch is on. The attenuator control, like the tube and battery compartments. is separately shielded-calibration is controlled by the trimmer condenser. accersible throurh the panel. Carefully calbrated at the factory. Full operasing instructions with the connecting wires are carried in cover. Compact in strang. leatherette covered case with remorable cover. leather handle, elze 6xiFx5 in.


Completely Shielded, Self Modulated No. E6404. 550 Oselliator comple with omplut meter in past Price, $\mathbf{5 3 5} .00$.
${ }^{2} 2{ }^{58}$ YOUR NET PRICE
No. E6405. 551 Oscillator comblete but less output meter.
YOUR PREC. $\$ 30,00$.


NEW READRITE METERS
The progregsive Readrite meter line is now made either fluah mounting as in illus. tration Model 55 . or by the use of fange type $H$, pictured below. it is readiy adapled o outside flange mounting as illustrated Readrite meters are recognized for their
sturdy aceuracy coupled with low price. Etardy aceuracy coupled with inow price. mounting.



Tynes 608. 33iH 3;3H and 342 H ar 2.94

## reast ance meteri <br> D.C. Ammeter



## RIADRITE No. 525

 EXPLORING COLIFor localizing $r$. trouble. Preferred use is with oaceillatot Both coll and connecting wire are completely shlelded.
No. E6403
YOUR PRIC
5206

## A.C. VOLTMETER

|  | Type | olta | Price | NET |
| :---: | :---: | :---: | :---: | :---: |
| E6289 | 314 | . $0-4$ | . 32.50 | 51.47 |
| E6290 | 352 | 0-10 | 2.50 | 1.47 |
| E6291 | 351 | 0.15 | 2.50 | 1.47 |
| E6292 | 348 P | 0-150 | 4.00 | 2.35 |
| E6293 | 349 P | . 0.300 | 5.00 |  |
| E6294 | 247 P | . $0 \cdot 600$ | 6.00 | 3 |
|  | $249$ | .0-730 | 7.00 |  |
| 6296 | 355 P | . 0 -10- | 4.00 | 2.35 |

## A.C. MILLIAMMETERS

| No. | Type | M.A. | List Price | NET |
| :---: | :---: | :---: | :---: | :---: |
| E6344 | 370. | . $0-25$ |  |  |
| E6345 | 371. | .0-50 |  |  |
| E6346 | 372 | . 0-100 |  |  |
| E6347 | 373. | .0-250 |  |  |
| E6348 | 374. | . $11-510$ |  |  |

TYPE H TLANCE
Used to convert Readrite Mrodel fianse tirnting hold Fin mowe mold meter to valyange ilsmail in
No. E6357. LET:


## Plug In AC

Line Meter
A metier which ulugs dineetly into A.C. Light socket and indicates the suppiy roltaze. Prolonns tube He by showing excess rolt ane. Jeeded with all d.C. sets. No. E6389. Tyge 148. Retail. $\$ 3.00$. NET


We curry a eornplete line of Readrite Meters for all purposes. Wrile us aboat any apecial meter reatilement. We huve It or cas get it for you. At your reauest we shall be you. At your request we shail be Dieased to mend yot free. eomplete literature on the Rmadrite lime of
meters und teat eqilipment, and we meters und tewt eqilipment, and we shall keep you posted from thme to time on the latert developniente in the KEADBTIE mGipment.

## 575 OUTPUT METER



No. 555
Exactly same Earembly as described bove with exception that It is mounter! on panel. This instrument in the sarue output meter ${ }^{25}$ used with 550 Ormillator. No test leads ineluded.
No. E6460 Lint.

Model 501 Resistance Meter
Used for texting resist ances in racito reoelving sets and circuits also be used for coninulty iests. Requires three small fashlight cells which, with reaistance to be measured. are connected in series witi meter. A re insle instrument at a popu-
No. E6368
$\$ 447$

## 503 RISISTOR

Resistor. 1150 ohms without tip jarks. 10 inctease reading of No. 501 Recistance Meter to 60.010 obrus.
No. E6356.
Nit. $\$ 1.00$.
NET


## Readrite Plug-In Socker Tent Meters

For reading plate or flla ment valtage by plugging directy into tube socket. ronk socket. No. E6390. Type 146.

Retall, $\$ 3.00$. NET
No. E6391 Type iso. Grid ofo $0-50$ V.C. NET S1.76 No. E6392. Type is2......isument meter 0.10 V. A.C.D.C.

## WESTON AND JEWELL RADIOINSTRUMENTS

## Jewell Transmitting Meters

Jfwell maters set the utandard for quality und precision, They are extensively uaed for building rperial test panels and service instruments: for use on experimental labora. tory appaiatus and in amateur transmitting Case dianmeter $\$$ in. with flange $3 \frac{2}{6}$ in.

Pattern 54 D. C.

ENo. Range List NET E4437 0.8 vol!e 87.0080 .61 | E4435 |
| :--- | :--- | :--- | :--- | :--- |
| E44 | E4440 0.150 : E4511 0-300 " 12.00 8.8. E4443 0.1 amp. E4483 0-20

E4446 0 2
E44470-50
E4510 0.75

Pattern 74 A. C. Filament Meters ${ }_{\text {E }}^{5} 5$ E45 ${ }^{2}$ O. 0 amp. List E4484 M.A. E4485 0.150 | E4485 |
| :--- |
| E448 |
| 0.3 |

 | $\begin{array}{l}\text { List, } \\ \text { NET } \\ \text { NET }\end{array}$ |
| :--- |



## WESTON MODEL 677 TUBE CHECKER

The newest and Istest tube checker. Cherks all new tubes, old type tubes, and new tubes as developed, Condition of t ube
plainly indicated to buyer as plainly indicated to buyer as "Natinfactory," "Doubtful," or "Vn-

## Provided with Spare Sockets

Never obsolete. Spare sockets for four, five, six, and seven prong tubes are provided with color coded wires. ready to contrect whenever new tabes appear, Large tube worth mefer has colored multi-arc scale showing clearly limits of each type of tube. A.C. Voltmeter insures use of proper tube volt. ages. Neon short lamps indicate all possible lube shoris. Size $188^{\prime \prime} \times 1+4^{\prime \prime} \times 1 / 2$ " high.
No. E7730.
List, 885.00.

## Jewell Pattern 68 R. F.

## Thermo-Galvanometer

All extremely accurate instrument Keading is $115 \mathrm{M} . A$. Full geale. VacuJewell couple type construction. This Jewell instrument has an overluad capacity of $50 \%$. Diameter of case $3{ }^{2}{ }^{\circ}{ }^{\circ}$ " 4.5 ohms. No. E4507. List, \$15.00. S11.03
YOLER PRICE. . . . . .

## JEWRE DOUBLE RANGE

 0-10-100 VOLTMETERWith switch. Nut. panel mounting meter with double reading wwiteh mounted through lower edge of $1 / 4 \mathrm{in}$. fange. Double range All movenient parts silyered. Has zero adjustment. A regular $\$ 9.50$ value.


JEWELL PAT. 190 A. C.

men. flush type A.C. meter for panel mounting. Accurately calibrated. Saves tubes by indicating whether proper A.C. voltages are being used. A preciaion in trument of the finest type. 0.3 Folts.

No. E4476.
No. E4478 IList, siso. HoUR PRICE $\$ 5.50$

## Weston 517 A. C.

 VoltmeterMovable irou tyme for A.C. only. Precision con struction. Degree of ac No. ET740. 0-3 ${ }^{2}$. | No. E774 |  |
| :--- | :--- |
| No. E7742. | 0.105 r |
| N. |  | List 88.00 . NET. No. E7743. 0-150 $\$ 7.35$ Llat, $\$ 10.00$. NET



Weston 506 D. C. Veltmetori
Yermauent magnet, moving coil type Degree of accuracy within two per NET
$\begin{array}{lllll}\text { No. E7745. } & 0.8 \text { v. } & \$ 7.00 & \$ 4.46 \\ \text { No. E7746. } & 0.8-200 \text { v. } & \mathbf{9 . 0 0} & 5.73\end{array}$

## Jewell Pattern 88 D. C.

 MillimeterPermanent magnet moving coil type. Accurate within $2 \pi$. Flush type bakelive cases with 3 部" flanke. No. E449 List, $\$ 9.00$. No. E4492. $0-5$


## Weston 301 D. C. Millimeter

Fluah type meters. Permanent mag net. Moring coil tspe. Aceurate with. in $9 \%$. Rectiffer type listed below is a very sensitive A.C. insirumens using full wave copper oxide rectíner
E7750 Range List NET
$\begin{array}{cccc}\text { E7751 } & 0-1 & \text { M.A. } & \$ 10.00 \\ 87.35 & 57.35\end{array}$
$\left.\begin{array}{llll}E 77552 & 0.25 & . & 8.00 \\ E 7753 & 0-50 & . & 8.00\end{array}\right\} \quad 5.88$
$\begin{array}{llll}E 7754 & 0.500 & 8.00 \\ 8.00\end{array}$
Bectifier Typa
E7755 0-1 M.A. \ 12.50
E7756 0-5 M.A.


## Weston Model 489

 Portable Meter:Miniature portable D.C. instruments, small. compaet. of sterliug quality and dependable accuract. Black bakelite cames. Siver-gray etched scales with black markings. Voltmeters supplied with pair of 30 -inch flexihle cables

## No. Hanke List NET

## D. C. VOLTMETERS

E7763 -8-200 Y. $\$ 13.6$
E 7764 0.8-200 V .
$13.50 \$ 9.93$

| 22.50 | 16.54 |
| :--- | :--- | ( 1000 ohms per

## VOLT MILLEAMMETER

E7765 0.8-200 F., 2 M.A. 21.00 16.44 (125 ohms per volt)
Egpecially suited for servicing auto sets

## milliameretr

E 7766 0-15-150 M.A. $\$ 13.50 \quad \$ 9.93$ RECTIFIL TIPE VOLT METERE MODEL 301
E7767 0-1 V.) Lint
NET, EACH

 Jewell 675 Tube Checker Precise-Dependable -Accurate. Operates directly from 110.115 volt 60 ryole A.C. line. Equipper with 0.10 n0 milliameter. 16 buckets protidert to permit tegt of present type tubes without Hdapterf. Complete instructions etched on rear cover plate. Tube limits on etched plate on iront. A self-contained transformer provides the proper Foltage for all testing purbosen.
No. E4525.
List, \$35.00.

## Weston 571

## Output Meter

Useful in sets, sound and public ndiress systems. Copher-oxide rectifler type volimeter. Range 0.1.5-6-15.80-150 volt. Self-contained condenser for blocting any D.C. componen avanable when required. \%/ "x2 $1 / 8$ ". Scale length. No. E7732. List, $\$ 30.0 \mathrm{~F}$.

## NET

## Jewell 563 Test Oscillator

A new standurd of service instru: ment value. All necessary features for servicing modern radio receiters combined in thls nistrument. A selfmodulated orcillator with frequency 125 to 1500 K.c.
 Single control adjuats output to ans frecuency in broadeast and intermediate bands to cover modern superlieterodyne ets. Three-position witch for change to three frequency bands. Operates from self-contained batteries. Completely shielded. Handsomely finished metal carrying case with space for an output meter. Completely equipped with shielded ouiput lead. calibration curves, instruction chart. 30 type tube. and all necessary batteries.
No. E4527,
LISt: $\$ 47.30$.
IOLR PRICE


## JEWELL 444 SET ANALYZER

2-gleter radio set analyzer for testing tubex without adapters. under actual operating conditions. Measuring Tanges: And $0-4-8.160-800$ voits D. C . Meter 0.13-60-120 M. $0.6-1530.60-120-300$ 000 volis. $0-1,000-10.000-100.000$ ohms and low-medum-high output. Complugs. elipe. adapter and instructions.
No. E4528.
List, $\$ 112.0 \mathrm{C}$
NET


## ADAPTERS，PLUGS，CONNECTORS，ETC．



## RRS

965 Es
Nu－ubd adepter for testing types
57 tud 58 tubes In tube testers not vrovided for these tubueg．81x hole tob．The pin hase Holes No． nerted to Fin No．5．Cortesponds to Jewell No． k ． No．E960．List \＄1．00．NET

59 c
For testing 41 dind 12 tubes in testers not prorialed for these tippers．हix hols 10y．flve pin netred to a can on the aide of this zdapter．All other connec－ tlons are through．
No．
List． No．$\$ 1.25 . \quad$ NET
$73 c$ For testing seconc
rectifier tubes in second biate of 80 ers．Four in wewell 309 iest－ base．our hole top，four min and No． 2 hole to No． 1 nin． Same as Jewell J－10SyJ．
No．E962．
Lisi．$\$ 1.25$.
$73 c$

## 975 K

For testing new seven pin power amplifier tube in tubs testor． hules， 5 pins．Holes 2 and 3 ate connected to pin 2；holes 8 und connections are througin．\＆
No．E963，List． －55 CCEL For texting Wunder： Heh it abes in thbe tegters，and with 955 GGKC wanter for test－ ing Winderlich it he clrcelits in set testers and unalyzers． 5 holes，
5 ping．The 5 plas．The＊wo grid holes are connected to－
atriser and broukit dow aetiser and brouglit lown to the grid pin．Cathode nim connects to fexible lead which fits eap of tabs other conacesion No．E964．
List Price．\＄1．25


Tised to test Taytheon Rit Ilalf－ Wiave Rectifier Tube in


SET ADAPTERS

1
3
10
10ANALITER PLUG Na－ald plug for later types of analyzery and set testers having sis or
seven wire cables．Five sewen wire calles．Five
pin base．To replace plugs on terst equ！pment or for comberting bench No．E966．
1HE NET． $\$ 1.76$
No．E967．Whih


UI and UT ADAPTER

$\frac{863}{1-\infty}$
$1+1$No．El608，Five pronk socket on a brong plus．For
testlag 5 prons AC．rulug in D．C． testers． No．E 1609. mong socket on tosting gid and
Liste in 5 prong
39c

## ANALYZER PLUG

## －解鍺

Croul In leter typer of set ter：$=$ els and analyzers．Sly pin base． for ithose wishlialg 10 rentrange Heir lesters No．E969． еЕет No．E97O．With 5 it rable． Cablu cullustr of ax wires：four Wites en to the pronzis．the fifth To the latch，and the sixth to the
sereen eap．
List．$\$ 5.50$ ．
No．Eg7i． $3 * 5$ D．S．This is tho da－ald six to fire adapter． mithout change in wiring．
No．E972．gat D．8．The Na ald sir to four sdipter．8imply insert in projur socket to mod－ eralue sour tentiog equipunent． List Price．$\$ 1.25$.

73 c

## 965 DSW TWIN ADAPTERS <br> $\mathrm{N}_{\mathrm{u}}$－ H d

8 sind

adamers
Jewerif


H4 and
566 ．Anulyzers．One has flue holes 566 tnulyates：One has fise holss and fue 口ius．A wirs connects and five numpremor ard circuit und can be ofiened for thessurements． The five hols．six pin adapter is fastening to the analyzer plug No．E 973
（ ） 27 NET．

## －4S DV

Uised with Jewrll lun and Wean． fon 505 Analyuers．Correxuonds to Jexell－Weston D－70162．Saine alyzer plug adepter is ingtened with $\mathrm{B}_{2}$ serew．
No．Eg74．
List Price，$\$ 2.50$ ． YoUR PRICE

475 DW
Na－uld twia adapters nked for set allalysis of the 7 pis power amplifier tubes．One has 7 holes and 5 plis．the other 5 holes and inns．OHe fits on the amalyzer
or set tester ylug；she other fits or set tester viug．
in the tester．
No．E975． List Price， 3.00.
YOUR PRICE

## Extra Speaker



## Ty be 1 要7

Deslaned so that both grid and piate ronnections cat bu tsken from thite nermittink connection of acditionat speakers and use of No．Eif 610
$66 c$
Type 5 It
Desianoed to pernit additionst sneaker connections to any set using iwo inentode outhent iuhes．
No．Eifil．
List．$\$ 1.35$ ．

## List．

## Type $\frac{1}{4}$

lentoale output adapter permit． ting connection of additiond speaker 10 sets with only one pentode tube．
No．EIGI2．

## MAKE YOUR OWN ADAPTERS

The Interchanizable fatures of these Eby adapter sockets and plugs nake thenj sultabie to every adapter reaulrement．A ${ }^{\text {a／h }}$ in．hole is proridee for brining in leads for eutting in external elr－ or oritio The nuany cornbinationg in which thre cmite The mans combinations in which metry and lest sets which woull oftherwhe be rendered obsolete urliss rewired．Almo ldeally sulted for ronnecting a mesmory eriulymient such os phoniograph
Socket（Top section）Plug（Bottom section） Nu．E2975

## WIRED ADAPTERS



## MODERNIZE ANY RADIO RECEIVER

Einjoy the efficency of the new type tubes in your old secelver． These udapters enable you to nomically and without wiring changes or soldeting．

## 24 to 57 Adapter

Pernits nse of 93 tube in place of ${ }^{2}$ ． ont charge in wirlag． six prong receptarle connected to a fire No．El 660 ．


35 or 51 to 58 Adapter
 place of a 35 or 531 tube．sin


## 38 to 41 Adapter

## For using ${ }^{2}{ }^{\circ}+1$ tube in place

 cephacle on top sad fire prong have plus．For autompurte silenaly．


## 45 to 46 Adapter

For inserting new the zube in
 rereptacle on tod connected 10 a
four arong base．
No． 1663 ．

## 80 to 82 Adapter

For Inserting－ 82 inercury tapor recting reephacle on ton connected
 sistance connected with gianen leadi to drop．Flament rollage No．E．El
List．
$\$ 1.254$.
．NET．．．

## 45 to 47 Adapter

lerinits the use of the new 24 pentode power tube in piace of


## NEW TEST

 ADAPTERSLatest adapters to per mutt lesting of enters without all whing．EGilly in． stalled．Properis constrieted for long setrice．

No． 58
Fot texting new 57 and 58 Huks
Ho．E1632．List．
75 E ．
NET．．．．．．

No．${ }^{46}$
To vernut teritng of No．ts lube in ta ters equilpped for tess． No．E 633 ．Listet No．El 633 ．List， 24

## No． 42

Supulled with lead to permit lesting thinco than in usided for testing the nex． 6 ．Alsole Wunderlith lube List， No．EE G34．
St．00．

No． 55
For testing No． 5.5 tubes．Plare adapter in tube eteerker kurhei Nist．E163．50．$\$ \leq 43$

## No． 85 Analyzer Plug

No． 82 Adapter
 reculier tube in any
p Po ng sockets which flameni 2，roltis ${ }^{10}$ glament．
with
swis
 nieates．Merei y fil Nwitch up ar down． List．$\$ 2.007$

No． 83 Duo－Diode Rud hdapter xanie ab No．$\$ 2$ excemp that gocket ani Ientin，Duo－Diode tubes used in No．EI 838 List
$\$ 143$

HET PRE. 2.50.

No． $83 T$ Adapter To be placed in 280 woeket for recther．Holh mlates can be meazured by fipping the swhelt
mo and down． No．E1639
Layt

## EARPHONE ADAPTERS



 ，

## ELIMINATORS-CHARGERS-BATTERIES

## KNIGHT <br> ELIMINATOR



A high quallty "B" eliminator at a price that defles comparison. Scientifically engineered design, rigid standards of construction under careful supervision, and use of the finest materials, were combined to produce a unit to Eive long-life, satisfactory service. Made to sell for $\$ \geq 5.00$. Now offered at a fraction of its real vaiue.

## LESS TRAN COST OF

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The Kilght Super-Power "B" Eliminator truly represents permanent power at but a sligat cost. with this ail you up to 180 colis of $B^{19}$ power you up to 180 volts of $B^{\text {b }}$ power without "istortion. An extremely
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## Janette Rotary Converter

 long life.Note-We can supply Imniediately. Janette Converters of every description and for every purpose. Write us for information and pricen.

115 Voitm D.C. to 110 Volta, 60 Cycle A.C No. $E 8276$
$E 8281$ $E 8281$
$E 8278$ E8288 CA-25-F CA-25-F CA-18-F $\quad 150 \quad 54.50$ 32 Volta D.C. to 110

G. E. TUNGAR CHARGERS


## A prac

 Hoinnelens unit for charging alt radio and automobile ${ }^{\text {and }}$ storage $\begin{array}{lll}b & a^{2} \\ \text { leries. }\end{array}$ No adments necessary. The prices quoted include bulbs. Quiet operafion from Genuine Tungar Bulbs.No. 58200 . 5 Ampere. For operation. Wt. 8 opreatis.
List, $\$ 24.00$.

N. E820i... 8 Ampere. Fo
 10 lbs. Llot. St 4.00 .

Uned to convert D.C. to A.C. making possible use of A.C. receivers, amplifiers and other A.C. equipment from 32 volt house plants, 110 volt D.C. power lines. portable automobile plants and numerous other sources. Janette Rotary Converters are standard wherever converterm of highent quality are necessary Extremely quiet and compact. Expertly engineered and constructed of finest material for $\begin{array}{lll} & 110 & \$ 9.50\end{array}$

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A small com pact dry metal lie charger for 6 rolt storage bat. terics. K Ceds auto or ridio battery fuity charged. Canno overcharge apers down then shuts off automatically.

## For Radio or Anto

 longer betenomical. Results in there atto has radio. heater nesessits where auto has radio. heater, etc.:

## Valley charger Contact Points

Standard replacement points for the Valley vibrator type charger. Complete with carbon brushes.
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List $\$ 1.00$.
320

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$\$ 27.44$
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> 5

King Cole Resistance Coils


No. E:It3. For 5 - 4 amp. tubes. No. Eilio. For 6 二 4 amp. tubes. No. EIf14. For 7-1/ smp. tubes. No. Eilil. For 8-1/4 amp. tubes. Lint, \$2.00.
NETEACH.
Siake possible 6 rol recty current supply difrecty from 32 volt D.C. batters sets

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$\$ 1.47$
King Cole Super "A" Eliminator For 32 Volt Systems
A new ellminator dealgned to adapt 3n-rol farm lishting plants for supplying encrgy for the new 2- and 4 volt tubes, also storage battery seto using 6-volt tubes. Carefully engineered for deuendable efficient service. For New 2 Voltend 4 Volt Sete This unit will furmish the " $A$ " current for sets using two or Tour volt thices. ranaing from ave tubes requirins sa amp. to ones requiring 1 amp. Equlpped with a voltmeter and regulang dil whll like care of line roltane No. EI 1 15. For 2 and 4 volt.
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Lhst $\$ 6.50$.
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$42+3$

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$68 c$
 power for the purpose intended. ell contained in solid, leakproof case. Not suitabio for use tuber than those specitled. ship-
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Quality Storage Battery Charge

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NET.
36
NO. E5480, DRY CELLTESTtheads 0.35 aill th pes dry cells. batters. List, \$1.00. 210


The Ereready Air Cell Battery is develoned to supply fllament , 32 and 10 the nisw type 33 . be used only with standard recetrers designed for these tuines. Lxiremels compact and carefully constructed to deliver maximum

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 which draw considerable current. Always to be used where the circuit incorporates power tubes. Extra heavy and Jarge. Size $81 / 2 \times 41 / 2 x / 4 / 4$. Shipping wt., 12 lbs. A ponular battery that has proved its guinty in actual service, rendering long-time pertorinanee with efficiency and economy'. No E700. List, 82.25. YOUR SPECLAL PRICE
## KNIGRT STANDARD 45 VOLT "B

Standard, upright fine quallty "B" battery. Will serve well with receivers using up to six tubes. Accurately cell spaced to offer remarkable recuperative puwer. Tapped at $221 /$ volts. Dependable and ninform giving good battery service at a new Size $8 \times 7 \times 3$ in. Shpg. wt., 10 lbs.
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41/2 voLT "c'?
A fast nelling, well made "C" battery. Will maintain rated voltage with continuous use and amplify without distortion. Reduces "B" battery drain. Size $11 / \frac{1}{6}$ x2s \% 4 . Shpg. wt., 11 b . No. E703. List, Soke. TOER PRICE

11/2 VOLT DRY CELL
Made under rigld specifications of bent materlaln. High amperage, $1 \frac{2}{2}$ volts constant. For dry cell receivers and many other radio needs. Fresh stocks
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Hurgess Hatteries meet the rigid specifcutions of the U, S. Arms, the U. S. Navy, and the U. S. Bnresuof Standards. Known the world ofer of famous "Chrome" construction. water-proof and moistureproof. Rugged hones-combconEtruetion, rigid bracing and meanless caats of pure zinc. Always frekh
stocks. Prices lower in unit packagex. Write fur quotations.

| Catalog No. | $\begin{gathered} \text { Factory } \\ \text { No. } \end{gathered}$ | Volts | Wt. Lb*. | $\begin{aligned} & \text { List } \\ & \text { Price } \end{aligned}$ | Net |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SUPER "B" BATTERIES |  |  |  |  |  |
| E720. | 21308 | 45 | 16 | \$3.25 | \$2.46 |
| E719. | 22308 | 45 | $10^{1 / 2}$ | 2.35 | 1.78 |
| STANDARD "B" BATTERIFS |  |  |  |  |  |
| E721. | 10308 | 45 | $131 / 2$ | \$2.60 | \$ $\$ 1.96$ |
| E722. | 2308 | 45 | 91/2 | 1.75 | 1.32 |
| E713. | 2306 | 45 | 101/2 | 2.00 | 1.51 |
| E712. | 2158 | 228 | 5 | 1.50 | 1.14 |
| E711. | 3150 | 221/2 | $51 / 2$ | 1.50 | 1.14 |
| MAJOR "B" BATTERIES |  |  |  |  |  |
| E>14. | F 308 | 45 | 13\% | \$2.95 | \$2.25 |
| E715. | D 308 | 45 | 9 | 1.95 | 1.48 |
| SPECIAL ACTOMOBILE "B" BATTERIES |  |  |  |  |  |
| E716. | 2305 | 40 | 10 | \$2.25 | \$ $\$ 1.71$ |
| E717. | 21305 | 45 | 116 | 3.73 | 2.75 |
| * ${ }^{\text {C* }}$ BATTERIES |  |  |  |  |  |
| E718. | 4156 | 223 | 13 | \$1.75 | \$0.95 |
| E727. | 5156 | $221 / 6$ | 2 | 1.25 | .95 |
| E724. | 2370 | $41 / 2$ | 1\% | . 40 | . 30 |
| E728. | 5540 | 7 7 | 1 | . 75 | . 57 |
| PORTARLE BATTERIES |  |  |  |  |  |
| E723. | 5308 | 45 | 4 | \$2.00 | \$1.51 |
| E726. | 5360 | 48 | 1 1/2 | 40 | . 30 |
| DRX CELL " A " |  |  |  |  |  |
| E725. | 6A |  | 1 21/6 | . 60 | . 39 |

EVEDEADY "B' BATTERIES
"苗veready" or "B" batteries is associated with lomg ilfe and dependable nervice. A complete popular line of always fresh and tested genuine Eveready "B" batteries is presented below. Fant moving and Iong shelf life. Stuck up. Write for special prices in unit packages.


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| :---: | :---: | :---: | :---: | :---: | :---: |
| LATERBUTIT |  |  |  |  |  |
| E730. | 486 | 45 Large | 16 | \$2.05 | \$2.25 |
| E738. | 485 | 45 Medium | 11 | 1.95 | 1.48 |
| ROLND CELI. |  |  |  |  |  |
| E741. | 870 | 45 Large | 15 | \$2.60 | 81.96 |
| E742. | $87 \stackrel{ }{\sim}$ | 45 Medium | 10 | 1.75 | 1.32 |
| MEDIEM |  |  |  |  |  |
| E743. | 767 | 45 Flat | 10 | \$2.75 | \$2.08 |
| E736. | 766 | $221 / 2$ Flat | 6 | 1.50 | 1.14 |
| E744. | 779 | $221 / 2$ Vertical\| | 6 | 1.50 | 1.14 |
| AUTOMOBTLE "B" BATTERTES |  |  |  |  |  |
| E745. | 794 | 45 Heary | 16 | \$3.75 | 52.83 |
| E739. | 798 | 45 Medium | 10 | 2.25 | 1.71 |
| E740. | 798 | $221 / 2$ | 2 | 1.50 | 1.14 |
| "C" BATTERTES |  |  |  |  |  |
| E737. | 768 | 298 | 2 | \$1.25 | \$0.95 |
| E746. | 773 | 712 | 8 oz. | . 75 | . 57 |
| E747. | 781 | $41 / 2$ | 6 oz . | . 40 | . 30 |
| E734. | 771 | 412 | 10 z . | . 40 | . 30 |
| POBTABLE BATTERIES |  |  |  |  |  |
| E733. | 762 | 45 | 3 | \$2.00 | 81.51 |
| E748. | 763 | 22 药 | 13 | 1.50 | 1.14 |
| E749. | 764 | $22 \frac{1}{2}$ Fertical | 3 | 1.50 | 1.14 |
| DRE CELL " 4 " |  |  |  |  |  |

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A standard full-wize 45 volt "nB" Battery at a price which will help you smahh competition. Of good quality. Well bullt tested cells, packed full of battery pep. A xpecial value only possibe throrigh economien in purchane. Stock up-salem are certaln to be heary. Shpg. wt., 10 Jbs.
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FOUR SIDECLAI, PRIC:E. .

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## PHILMORE CRYSTAL SETS <br> BLACKBIRD

The "Binckbird" is a flrat uuallty erystal set presented a the lowest possible price. I requires no tubes or batteries and delivers programe loud and clear without distortion Housed in a compact. black leatherette case with crystalline front panel. It employs a dust proof glass-enclosed supersens. tive crystal detector making possible the best of results. A fast seller everywhere. Arces sories of good quality are listed below. Shps. wt., 3 lbs. No. E5940. List, \$3.00.

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## THE SUPERTONE



A rigidly constructed crystal set which will give unlimited gervice, Gives the ut.
with the extensive chain programs now
in effect reception from stations all over erystal enclosed in a duat proon slass crystal enclosed in a dust prooi glass
casing belps bring stations in loud casing helps bring stations in loud and elear. Shpe. wi. 2 lbs.
No E5933
YOUR PRICE.........$~$

## THE LITTLE WONDER

Compact in size but blg to results. This set will receive broadcasting within 25 mites of a station. The open type detector permits adjustments to be made to the $\sqrt{\text { Fetenst }}$ tanest degiee. Set include a supersensitive crystal assuring quick results when looking for a
station because the entire surtace of the crystal is selisitive. Shpg. wt.. 2 lbs.
No. E5931. List, 31.00.
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30

## PHILMORE SELECTIVE



Designed to give most efficient results Hnd possessing unasual selectivity. Built with a tapped coil matched with a ception on this set is condenser. The rewill bring in one station after another tuning out all other stations. It has double connection posts making possible the use of two pairs of headphones at one the lowest possible price contained in a bright colored cabinet with Contained of modernistic design. Shpg. wt., 3 lbe. No. E5932 Lst, $\$ 5.00$
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HEADPRONES AND AERIAI
Complete equipment for operatinf any of the above crystal ects. Consists of set of good quality headphones. aerial and gil necessary parts for a rip, lightning arrester. insulators and Shperst., 4 pos. No. E5946. YOUR PRICE

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Efficiently dewigned buttery operated reth nsing the newi X 230 and $\mathbf{X} 231$ Tubes. Economiteal to operate, batteries last twice as long. These new circuits embody the use of a fixed condenser and spider web coil asouring easy tunbyg, felectivity, ensitivity and plenty of Nolume. Shpg. wt. 10 lbs List, 57.50 . YOUF PRICE No. ES936. 2 Tube Set. List, \$9.00. YOURPRRICE No. E5937. 3 Tube Set

## $\$ 4.25$

 Litt, \$13.50. yotra PRICR.*5.25
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Sets lisled above are priced
TUBE AND BATEERY EQUIPMENT
i Tube Kit. Conshats of one ture 230 tube one 22y folt "B" Bautery and one 11/2 Volt Dry Cel. Shwe.wt., 6 lbs
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sists of two type 230 tubes. one type 231 tube. one $221 / 8$ Folt and two 15 Folt "B" Batieries. and fwo $1 \frac{1}{2}$ Volt Dry Cells
Shpa. wi. 32 lbs. No. $5 \mathbf{5 9 4} 42$.
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and efficient headphones are
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them light in weight.
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2000 Ohms.
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NO EISXTRA CAPS
NO. E1CE 919 .
PRICE, EACH
$15 c$
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GLASS ENCLOSED

## CRYSTAL DETECTOR


enclosed det ertor complete with super. sensitive crystal. Stendard in 90 学 of the ersistal sets ninde. A fast sellink ftem
 YOUR
PRICE
$27 c$

## Open Type Detector

Univorsa
boint on wwlved quin prowides adjantment on anj point on crystai. Hand.

some polished
metal finish. Complete with
eryskal. Shps. wt. 8 oz
No. E6481.
YOL'R PRICE
12e
Meter Teated Crystals
These cryalals are
tested in laboratory on very sensitive meters. Genuine Galena comprosition.
Ne. E5256.
YOLE PRICE
235
SensitiveMountedCrystal Carefully tested mount-
Alfe ed crystal Galena ant $\leftrightarrow$ dum.

No. E5255.
PET PRICE.
Cat-Whiskers Crystal
ser of three
correcty desinned find mad ade of the
No. E5257
NOU E5257. St

## FROST PIONES

Many supe rior features areincorpo rated in Frost phones which add sreatly to their efficiency and quality os reproduetion. yery mensitlye comfortablo to Hy adjustable.
The high quality of these phones assures efficient and long iived service. Shpis. Wit. No. E3360. No. 174
YOUR PRICE. . \$1.65 No. E3361, No. 175. 3000 Ohm.
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*1.75

## BRANDES PIONES

The excelient construc.
tion of a
phonea is
receo
nized by
every ex-
perienced
buyer
Extre
is sengitive to reproduce the falatest B ign al. Light in Welght and adjustabie. 2400 Ohms. Shpg. wt.. 2 lbg. No. EI gI7.
YOCE PRICE . . . *1.
Caps and Dlaphragas 18 Abore
No. E1918. CAPS.
PRICE, EACH
${ }^{2 c}$ No. E1920
DIAPHRAGMS.
PRICE, EACH
8 c

## PANDORA CRYSTAL SET



## TRANSMITTING KEYS - TELEPHONES - PRACTICE SETS

## French Type Duplex Cradle Phones

Signal Practice Sets
 practice

Talkn and Rlags Thou
sande of Feet Away
Se two-way French style telephones that Lever nickel plated. Coin siliver con tacts
No. E6653.
YOLA PRIC:
\$T 38
CODE PRACTICE SET
Well-built. key and buzzer agsembled on pollshed wuod bage. Reproduces high pitched dot and dash sounds of eode stations. No. E6650. Liat, $\$ 3.40$. Yoća Price.


SENDING K2Y


A standard radio sending key wlinktand rough usake. Heavy eass brass arm. base and supporing nosts ineat dissipation Nome. E665I List Price. $\mathbf{N 3 . 5 0}$ List Prict

## SIGNAL SOUNDER

 enameled bar sounding bar and brass ridge. Pol
ished mahog. Liat \$2.75. YOLR PRICE
JUNIOR LEARNTR SET Is and aet for the beginner. B8entron Includew all salient detaile get. Black enam. eled key bane and bar frame brass bridee aluminum sounding bar. and nickeled lerer. 6 obml. List, stse. \$7 $\$ 74$ foER PRICE

## TIST BUZZER

Nickel finished watch case buzzer. dismeter 2\% in.
For ali sisualing and teai For all sigyalling and teat purpases. No. E6265. $\qquad$ TEST BUZZER PUSHBUTTON Pearl button held in $\frac{5}{4} \frac{\mathrm{in}}{2}$. hule by spring clasps. 28. NOET


Real Iffectrle Talklng Phoner
Practicnl at home s at work, especialis conFenielit as room-toroobit or house-to-garage telephonef. Equally useful pabile garages, restaupants, stores, efc. Full instructions for rapid
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No. E704. Dry Cells for use with Realphones.
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No. E2516. 100 feet 3 conductor connector cable for outdoor
use
ne No. E2517. 100 feet cable SO. 88 for indoor use

## SPEED-X HITSPEED PROFESSIONAL KEY



## Connecticut Duplex Cradle Phones


for permanent inatallation. Hus many usen-two, three or four phones may be connected logether utilizing a code of rings for the different locations. For temporary gervice. two standarl fagh. light batteries may be inserted in base of each phone. For jermanent installation. standard dry cella are required. Will operate efticientsy up to 1 ,00i feet. Foreign type French hand phones with 4 yo foos cori. Beantliul two-tone effect. Complete with twenty-fire faet of parallel silk-covered wire. N
No. E/575. No, EI 575
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SIGNAL TWIN WIRELESS PRACTICE SET
New, practleal, and nelentlifeally deshned. A uirelese set that 18 stiro to selk iast on sight. Two complete transmittind and receiving anitis. Equipped with key, buzzer and code plate. A real Workable set that every boy is certain to want, and grownups too. Practical and yet of tremendouts entertainment vaine.
DPBRATHS TF TO 1000 FBET
Bets operate up to 1,000 feet. de. signed to work with standard dry
cell batielies. Thege are lfated eisewhere in this catalog. Full ingtructions and $T S$ feet of wire are supplied with oach vet.

PRACTICAL AND INSTRECTIVE
A splendld and aseful sift iten that any boy will welcome. Bets in aftractlve Maraon and
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PRECE

Complete set consigts of 2 Real phones with buzzers and 35 feet of wiring. Additioual wiring may be added as required. Available in four colors. No. EIOIO. Black. YOUR NETPRICE, No. E1OII: Green. No. EiOI2. Ivory.
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- Lotr of 3, NET $\$ 3.28$ Each.


## New Featherweight Heacisets

 Weigh ontys ouncew. So light ande so comiori. able y ou scarcely know 50 h haved$t h$ on. For amateurs. aircraft. hard of hearing. whort wave fans, or auyone wishing sion-built headpliones. May be worn for hours without the slighteat discomfort. Each phone la morutory built with extreme precision. Extremely sensitive -Widely recommended for IDX and weak simai reception. Substantial. fexible gteel. lightreight headband. shpg. wit. No ETg semsational value
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## SUPERSENSITIVE TRANSMITTING BUTTON

 Has hundredsof applications in radio and electrical eir cuits. Carbon granule. readils applicable to any vibrating surface or diaphragni. A con
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## Describes Many Uses

A 12 pase booklet is furnished with each trangmitting button. destribing u myriad of neew. For broadcant nioclalation, telephone work. detertaphones, stethoscopes. mmpliffers. etc. Increases semitivity and volume on speech maplifler. The experimenter and the amateur will find that this high MTade elecricat instrument will jay for ilself many times in useful, instructive and entertalnment values.

## Over 50 Circuits Illustrated

The booklet supplied gives over 50 -ircuits and illustrations describing interesting and fascinating applications. entes among buttons. but eleetrical characterimtice are eleotrical characteristica are
identical. Allied is vleused identleal. Allfed is pleused
to be in a position to offer to be in a position to offer
this unique tramamitter but. ton at this exerptionally low quotation.
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MICROPRONE CONTROL
Provides mixing and switching controls Contains volume control. enabling perfect modalation of reproduetion as deslred. Per mits the gradual fading and increase so de-
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The ideal installation where completely udequate facllities are desired for public address or reproduction to as many as 3.000 persons, For Theaters, Churches. Concert Halls. Auditoriums, Conventions and similar locations. Brings the voice of the softest speaker to furthest distances elearly and with ample rolume. In ball parks, stadiums, dance pavilions, skatine rinks, park concerts and other installa tione, this system meets a long felt need.

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The Enight Class B 26 Watt Amplifier is ultra-modern in dexign usiug 3-46, 1-57 and 1-83 mercury vapor rectifier tubes. The famous push-pu*h circuit power output is trennendous and supplies more than enough power for complete coverage. So flexible that a large variety of changes can be adapted, additional microphones attached. and a greater number of speakers connected at will.

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The powerful Dynamic preakers rank among the rery finest for public address installation. They produce with amazing fidelity over the entire audible scale with volume and clarity. Amplifier furnishes fleld current for 2- 4.000 ohm Giant Ox. ford dynamics.

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1-Class B-28 Watt Amplitier 2-Glant Dynamic Speakers 1-Microyhone Control Rox 1-Webster 14 in. Microphone stand 1-Cntversal Model X Mterophone - Cniversal Model X Mitcrophose $1-25 \mathrm{ft}$ Microphone Cable $1-25 \mathrm{ft}$. Microphone Cabl $1-20 \mathrm{ft}$. Speaker Cords
Complete instructions
Compl, 265.00 . Youn
No. Eg9. Yo. Youn
PRICE. Less Tubes..

## DELUXE PORTABLE ADDRESS 8YSTEM

A complete publie sddress and phonograph gystem contained In a gingle case he size of an Weirhs less than. 40 lbs .

COMPLETE AND COMPACT
An uitra-modern amplifier of exceptional power and tone range, using latest design tubee. two $47^{\prime} \mathrm{s}$, one 57 and one 82. High grade 2 speed electrin motor turntable. Pickup of utmost sensitivity. Universal microphone, dynamic speaker microphone cable and apeaker cord. Mixing control provided for phono and microphone input to supply music backeround for volce. Provision made for plugging in one additional speaker.

## MCLUDES

Case. $13 \times 14 \times 15$ 1/3 in. comtaining all ttems in one sinale grip-powerful electric gle grip-powerful electric
smplifier and tubeg-two smped electric turn table and Dickup - microphome - dynamic speaker- 15 it. mierophone cable and 30 It . for apenker cord. A complete wyistem ready for instant operation.

No. E9012. Complete gystem, 110 v. $50-60$ cycle. Nel tem, 110 V . $50-60$ cycle. Nel Wh.. 39 lbs. Shpg. Wt.1 50 small sturdy carrying case, ready for instant operation.
List.
$\$ 165.00$
YOLiR
PEICE,
COMPIETR + -
Ch tubes
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## Window Demonstrating

 and Inter-Office SystemTery popular for centrallued uF noot coverase. Especlally valunble ior inter-ofice annowneements, call ssistems, winIVyers maximam powior. Power dy'in a micespeaker is housed in an attractive wainut finished ease Hicrophone is the Ia Microphone.

## MANY USES

Ampllfer is compact and Weighs but 9 lbs. Contians direet inpat and volume control for microphone and phonostaph. Speaker eabinet measures $1 \% 1 / 4$ in. $x 11$ in. $\times 8$ in. Uses one 57 , one 47 $x 8$ in.
and one 82 tube,


No. Eh6 13 includes Ampli fier, Power Dynamic Sireake! in cabinet, Kellog Fand Mike. 50 ft . Speaker Extension and A.C. Cord
No. E90i
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List. \$75.00. \$7) 195 YOUBPRICE Less Tubes

## PORTABLE ADDRESS STSTEM

For public gutherings, politleal uneetings, window denionstratlons. Kentals will pay for it in no tlme. Amplifier has built-in input and control unit for microphove and phonograph. A combination of exceptional utility. Tubes required: $1-57,1-47$ and $1-82$.

## Felthe Only ze 1bs.

Can be put into operation instantly. Case acts as pertect speaker bafte. When closed back suaps on. Entire unit weighs only $\quad 80$ pounds. Srualler in an a traveling bag. Measures $18^{1 / 2} \times 11 \times 10 \mathrm{in}$.


## Complete Unit Incindens

Little Giant amplifier in aturdy poriable case, powerful dyuamic speaker, Kellog Hand Mike, complete wilh 30 foot sweaker and 10 foot A.C. ex. ension cord
No. E9014. \& $8 \rightarrow \rightarrow 45$ YOURPRICE
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PORTABLE 2-SPEYD ELECTRIC TURNTABLE
Offers a wortd of conventence for countless purposes. May be used for coutlection to the aminlifiens and Public Addrese Systems pictured on bages 24 and 25 . for une in the home.

## FOR PUBLIC ADDRESS

The assembly includes the hish standard Diehl : Speed Motor and Webster Balanced Pickup for reproducing new long playing and stand. ard records. Sturdy reinforced case $17 \frac{1}{2} \times 13 \% \times 81 / 2$. Complete with A.C. and pickup eommection cord Wejght. \&2 lba.

Type Plckup YOI R PRICE:
5448

## SOUND EQUIPRIENT

We have offered on these pages amplifter equipment that we feel will meet the most Universal needs, ranging irom the small 3 watt amplifier to the Glant 26 watt unit. We can furnish promptly all other tybes of standard amplifier equipment at attractive quotations. Our sound equipurent debartment is aupervised by a competeut sound engineer to whom we invite yon to bring your problems, with the assurance that you will receive correct technical informatinn sund recomniendutions. The apparatus we offer is hishest and recomnendutions. The apparatus we offer is highest blandard and is covered by the RMA guarantee, against any defeets
rated.

## POWER AMPLIFIERS FOR EVERY PURPOSE



## Knight 7 Watt Amplifier <br> Hengaln of 69 deci-

 beln at 1000 eyclea with an exceedingly fint frequeney characturistle within $3 \mathrm{D}[3$ from 40 to 10.000 rycies. FieId Smpply,Nike Pheno
Mherophone current supplied by amplificr. Field smply for one 1.000 ohm speaker also furnished to make this am plifier wraetically a self coutained unit. i muster valump contrai is inclided as an fintegral part of the lesign.

## A Giant in Performance

For medium size halle, small theaters, elnapels and other similar indallations it has no peer. I'rovides field tupply for one 1.000 olim speaker, in addition to which several manetic and A.C. Dynamios may be operated. Cises the new tubes, additional $2-47 \mathrm{~A} .1-57$ and $1-88$ (Mereury Vapor Rectifier). Fínished in handoome. two tone green crackle. 110 t. 60 cycie A.C.
Shyg. wt. 18 lbs.
\$2345 No. E8990. Less tuben
FOERPRICR
Same as above lese mierophone input and
master volume contro:
51675
No. E8991. TOLR I'RIGE

## WEBSTER 3 STAGE P.P.-250 AMPLIFIER



## A Superpower 3 Stage Amplifier

Useg the 250 ubes in pushtremendous power. Undistoried output of $1: 2$ watts. Tremendous gnin amounting to 90 dectbels alt 1,000 cycles. The ontpus impedance works out of standard phous pickup or outpus impedance works out of standard phono pickup or
input transformer. Outnut inmpedance fs 4000 ghms. A input tramsiormer. Output inpedance fe apon ohms. A
splendid fimplifier with a wide range of operation permiting an immense variety of installations.

Requires $1-58$. $1-46,2-250$ and $2-281$ tubew. Performe splendidly with ine Oxford Auditorium Dynanaje delivering a rich. fibrant tone over the entire adale. Size $17 \frac{1}{4} \times 10 \times 7$ i/6 in.
No E8987, Ieas Tubes.
YOER SPECLAL PRICE


## Little Giant AC Amplifier

 Built-in Volume Control, Mike and Phono InputFor small thall systems. wIndow demonatrationit, clas. or lecturt room imgtallatiosan, call ayntemn, etc. Input mrosided for micurnhone find phouograph. Very low hum

## evel and amatingly hlgh aqin. Output of : watts uging only

 <br> \section*{BUILT <br> \section*{BUILT <br> LIN DYNAMIC SPEAKER FIELD SUPPLY} Another feature is the bulitin dynanile fleld nnpoly for or magnetic speakers. Fill also ofperate reveral A.C. dymannic or magnetic epeakers. Equipped with Manter Volunie Con trol and current supply for microphone operation, Neatls finished in Black Crystalline. Size $12 \pi f 1 / 2 \times 8 \%$ in. Fur. nished with $\overline{5} \mathrm{ft} . \mathrm{A} . \mathrm{C}$ cord. Shps. wt., 12 No. E8992. Legs Tubes
YOUR SPECTAL PRICE


## Victor 2 Stage 245 Push Pull

 Amplifiermorkont writul vilue at a mendous volume with re excelled amplification over the entire nudible

## ABC POWER SUPPLY

Furnishes a 4 watt out
put. Ideally suited for auditarium dance ball, or theater in eonnection With phonograph piciup oir radio zuner. Ex rellent A-B-C: I'ower aupply ald amplifier fos conversion of battery gets. Requires one 986. two 245, and one 280 . Unes 2500 ohm No E8707. Less lubes.
IGUR FRGTCRE PRICE

## RCA VICTOR 250 AMPLIFIER



Deeiened by R.C.A. engl neers dutput is fremet dous. Undistorted delivery for several dryamie speak Supplies field of 110 v D.C. at 110 mils. Output trans former for 1.000 ohm field reaistance. Endlstorted 5 watt outpat. 110 v. 80 evele A.C.

## PHONO-MOTORS-PICKUPS ह̂̀ ACCESSORIES

NEW WEBSTER PICKUPS FOR 78 R.P.M. AND NEW 331/3 R.P.M. RECORDS

A nem, modern pick+up by Webster, comstricted to meet the popthar deniand created by the advent of the new hang Playing ords. Attachment of an ingenious
counter-balance permits the pick-vis to reDroduce elther the older tspe recarde or the letest long plising recordings with equel tone Adelity and brilliznce. Enfoy rich. smooth, full tones. covering the entire range with this up-to-d

## MODEL 15 A-Z WITH

 VOLUME CONTROL. vitew Hebster mek-up complete ${ }_{31} 1,000$ crcles. 8 y . output hims counterbaiance. Shiv. Wt., 2 lhs. No. E772 finLhition. $\$ \leq \leq \leq$
YOUR PRICE......

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A special high ontout modet for uso with Receivers whirh have a low xain in their atitio amplitier. Average output is 4 volts. giring ample volume writhout
booster stage of amplitication. Shps, Wh., 2 lhs.
No. E7715.
Lhot Price, \$is.00. YOUR PRICE

MODEL 15 A-3 EESS VOLUME CONTROL The new Wehster phick-up as trol. For use with sits F.1'M records. \& titach counter balance 1.000 cseles. 8 V. output. Shpg No. E 7720. List Price, $\$ 10.00$. YOUR PRICE

##  MODS胃5 A-3

 model Dick-up. Otherwise as deseribed ahove. Wri. 21 bm No. E7705, \& $\$ 75$ List Prico, $\$ 1.00$.YOUR PRICE.

## 

 Readily attached to any Websier fat wpe plick-up to obtain the required needle weitht of 3 outsces for the newThe new, inpeniously-devisad Webster counterbalance Long l'lasing' ( 33,4 H. L'. M. $)$ records. It must be rememberw, however. that the new records also require motor which rins at xpeed of 33y R. P. P . Qualtry nootors likted on this page. Slopg. Wt. . 1 Ih.


Spectal 200 ohm. bow impedance

2
ap D No. E8I39. For 60 cjele. 110 volt A.C. oper-


Dlehi Phono Meters are avaliable in 160 and 220 voitm and 25,40 nnd 50 eycle, also 110 volts direct eurrent. Write, giving speciflcations, for prompt quotations. Alled cinn serve yon promptly and economienlly. ateel parts heavily nlekel-plated. and fitinge finished in statuary bronze. Substantial in design and construction insuring troublefree operation for a lone period of time with only occastonal lubrication required.

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 AUTOMATIC STOP-SPEED RECULATORTuratable is of exreptional merhanical strenzth, covered with heavy weikht brown felt. Precision of construction assures the smooth, even rotation easential for accurate reproduction. For 80 cycle A.C. operation. Shpe. wt.. No. E8:38. List Frice, $\$ 25.00$.
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compact. powerful hears duty Induction motor. reflecting precision of construction and smoothuess of operation Diehl products. No electrical distarbances posslble. Full peed attained instantly without mannal assistance. Comte with automatic stop and 12 inch moulded bakelite

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Shpr. Mt.0 1 lb. NO. E 7 POG.
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NEW WEBSTER 10-B PICEUP
New design-new prinelple-
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Timely.
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The new
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## DIEHL "ARISTOCRAT" 2 SPEED PHONOGRAPH MOTOR

Latent development in phonograph motorsfor new long playing and uct of a famous concern Sewing Machine Company. Combines small size and
 lightness of welght with a power ontput in excesm of all normal requirements. Uniform speed-silent operation. Easlly installed. consumption 18 watts.

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Attractively finlshed in durable black lacquer. With all

UDAE DUO-DISC
$331 / 3-78$ R.P. M.
reproduction of both the new "Lang 3 llaying records as Well as capable of properls

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## MOTORTOA 2 SPERD MOTOR

The mrre turn of a button permita reproduction of new $33 \frac{1}{6}$ R. ${ }^{2} \cdot M$. records on ans phono-motor only one model for a31 nurecines R. R.M. Onycurte Can not Jam. Easuy initalled.
No. EIIOO.
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New Audak No. 33 Poly-chron Pickup
For $331 / 3878$ R. P. M.

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Ultra-modern-amaz.
ing sensitivity.
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Fine pertormance-Good quality-Low Price. blaping and older tyme recordis. liefeets Audak high workmanship and material standards.
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STNCERRONOUS-78 R. P. M. Thin synchrongus notor, for use whin is opening and 3 inches below iop of mountiric bosrul. A smanhing value. Shpg. wt.. 10 lhs No. E9O26.
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MODEL $22 \mathrm{~N}-2$ BUTTON Ity, z-button mictophose for oublle addrest gist tems and sinateur bround. casting. New. kiazed carbork hutton discr, 20 Jhstable luttons, gold ernistie desian Operates best at 6 to 8 M.A. per histion. Limit: 1: M.A. per Uutton. Tma
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## Model5N-2ButtonMicrophone

An amazing value in a 2 in microphonended 0 public inconimendess systems in which price is the imporinnt factor. Permita clear. undistorted reproduction of the roice. Operates best at inturnal resistance sone ohnis per button. Over-
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## FAMOUS RAMMMOND PHONOGRAPI MOTORS

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# BATTERY OPERATED P. A. AMPLIFIERS AND TRUCK SOUND SYSTEMS 

## DIRECT BATTERY OPERATION

At last: Mohlle bigh level output amplittern utillzing for the first time the new full clasm "B" amplification for direct battery operation. ALLiED here offers a complete line of portnhe battery opernted amplifiers. that are not merely unmatched units, but practical, workable. exmily Imatinlied und ecomonaleal sound equipment stems.

## POWER AND ECONOMY

The equipment listed below is coumervitively rated and will deliver the fuli rated capacity vifth mifilmum enrrent drain. No longer any need for expenaive miserters or ceneratorn: nor any dependence on wired electrical current.

## New Class "B" 10 Watt

 Battery Operated Amplifier

A newfull clusg "K" ampli fier experisilly de. reboped for hu tomuble ingtal Iation. Fila
ment supply is oblatmed from either car on
external hat tery. plate sup. thy frum urdinary "B" batieries i3ki
 Cupable of hamding two Jvnamic mpeakmas of hlah volume level and up to $\bar{\partial}$ at lower volume levels. Meisutirem is $1 / 2$ ixio in. Utillzes $+11: 2 \mathrm{~A}$ tubes

## P1: NO AND MTHE EMPTI

Has phono and nalke input. 10 wat jower output. is in 10 ohm impe. dance.
No. E8982
YOUS TUbes. PRICE
$\$ 1675$

## 2 BUTTON MIEE

i screntificali, is moped 2 button Cnirmisi l Hodel X mictoshone with cyrles. zut ohmm twit hutron. Cou plete with stmad, it in. bigh, and
No. E8984.
NOLK PRICN:
Hand onls. with sprinue. ©
Noun

## MICROPHONE AND PHONO INPUT

YOER MPECLAL PRICE $\rightarrow$ YOUR

CONTROL UNIT
 facililios for all !'ulnile Addiess shatenus, efther molbilo. or stationars. Ourput inupulance can ite feit into standard bigh iminediance ampli-
 thay " hatters, Millamat
No. E8994
'oniplete wifli barter
${ }^{5}$ III 25
PORTABLE PUBLIC ADDRESS SELF BAFFLED DYNAMIC SPEAKERS
A conbilete Ithe of porerfin 14 in . Onford Dyua. atic Sueakers for bortable amd whil-portable sound sysipins. Thes are offered for use with fitit field for atorage hatiers exclitition, for mound tothe and
 portable use in various feld ollmagex for D.C. excliation Iron: 110 D.C. line, or where field Fhrownt porovided lyg amblifier. Also furnished In 110 volt $A .(\%$ nowll where mirmd A. (' cirrent in arallable. Measurex $15 x 15 x: 1$ in. Specily output tubes, so proper speaker input trangformer call be supplied

No. E8570. 200 m ohnt


E8572. ${ }^{1101}$ 90.00 • 65

COMPLETE BATTERY OPERATED TRUCK PUBLIC ADDRESS SYSTEM


USES STORAGE AND "B' BATTERIES ELIMINATES COSTLT CONVERTERS
Usea 300 volts of Heavy Duty "B" batteries tapped at 180 volts, which are housed in altractive steel cabinet. $17 \times 17 \times 27$ in. high. and a 6 volt "A" hattery scridition helow

## SISTEM AS ILLUSTRATED

No. E9020. Complete wssem as ilhistrated. Ready to install. Inciudes a go watt


 List, $\$ 275.00$.
YOUR PRICE

GIANT CLASS "B" 7 TUBE 20 WATT AMPLIFIER FOR BATTERY OPERATION

- Standm mifreme in the Teld. Conservatively rated it 20 wht
Requires $1-237$ and 6-112A ubes. 4 volt "A" bat tery. battery volts of "B" 180 volts. Measuras


## of $\mathrm{i} \times 9 \times 12$ in

## LOW DRAIN

The total "B" battery clrain is only "? mils with no kignal, with njemal. only fi mils. Low drain "A" atorage battery Fully suppiles the demand for a high level outpat moble amplifior where wlred conrent is nnobtainable.

## MICROPHONE AND PHONO INPUT

Input Impedance is provided for a 2 button microphone and any sitandard phonokrabl piekup. Mlcrophone and whme control unit as listerl at left ore fwommended for use with this anmbliger
 tiahe Amplifler less tubus sind hatreifen.
List. $\$ 85.00$.
YOUR PRICE

## Theatre-Public Address and Radio Power Units-Horns-Dynamic Speakers

## OXFORD SUPER-POWER DYNAMIC

A giant in size and power. Orersized to handle the tremendous rolume of heary duty amplifiers. This 14 inch dynamie reproduces faithfully the fnest tonal shadto give long dependable service

## For All Sound Systems

## The durabie construction and the resi dynamic

 performance, polunde without distortion, of the Oxford Super-Power Dynamic makes it ideally adaptable for all sound systems. The netailized one-piece cloth disphrasm is puncture resistant and has a controlled edge. Lipexcelled to fith sitand the pressure of heavy dats work. A most dependable unit for any publle address system
## For A.C.-D.C. or Battery Operation

ALLIED ofier this sgeaker in alf models, to meet every purboes. Alternating current, 110 volt direct carrent or batters excitation models are listed below. A mberal enor whs made to presebt complete listing, so that mo particular type of $6-1004-1500-2500-40000$ IT FIT1
The -listing below also offers a wide chosce in field rexistatice to mext any need. Ald models are furalshed with impedance natching transformess to wutt output tubes ured. In ALLIED is anxiuis to seive sou. accurately and jrompt!. Merely niention your require.
ments. Sbpg. wt., 18 lbs. each.
 No. E858!. 4,000 ohm.Field. 110 V. D.C. 280 tube.
$\$ 12.95$

## MOUNTING CASE FOR MOBILE INSTALLATIONS

Leatherette-covered ense for mounting Oxord Super-Dymamic or speakers similar in size. Very convenient for moblle public addrem wintems. Especially suitable for temporary outdoor systems, truck Instnllations and theatre mymtemm. Makes it unnecessary to move open speaker. Case is ruggedly constructed, but light in weight. Dimensions: $15 \% \mathrm{in}$. high, $14 \% \mathrm{in}$. wide 11 in . deep. At tractively screened grille. Shpe. wt. 11 ibs. No. E889C.
YOER PRICE,
Came only


NEW RACON TRUMPETS

- ${ }^{\circ}{ }^{\circ}$
nated nated ande fabric construc. tlon. Will withstand the
rizors of all cllmates. seasons, and tomperature vartations. Likht-weight acoustically perfect. Equinped with staniard threaded mountins collars.
$31 / 2$ TOOT TRURIPES
No. E8664, REGULAR. Fquipped wi
No. E8664, REGULAR. Fquipped wi


## - $x$ ?

 metal beaded edge, metal ferrule and suspension ring. Adapted for $3 / 18 \mathrm{in}$. threatied unit. For indoor use only. Wt, 17 lhs.Llet Pricetict 520.00 .
…… -13
No. E8665. DE LUXE. Equipped as above. For indoor use of
use. Shue. wt. 17 ibs. List Price. $\$ 25.00$. List Priceic $\$ 25.00$

No. E8G66, STORMPROOF. Kame eruip.
ment. For outdoor use in all clitmates and ment, For outdoor use in all climates and weathers. Shps. Wt.
YOUR PRICE.

## 6 FOOT TRUMPETS

Bell 30 inchet round. Eusuipped with metal beaded edge, cast cluminum thinat. and ineh suspension ring
No. E8667. REGULAR. For indoor use onl5. In all cilimates. Shag. wt.. 31 jb Litf Price, \$50.00.
No. E8668 STORMPROOF 5, 4! No. E8868. STORMPROOF. For outdoor use. Single unit hort. Shpg. wt., 35 Jhs. List Price. $\$ 53.00$.
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RACON TRIPLE CONNECTOR
A novel combination for using throe horns with one of the unit equalis throutput each. without choking or reducin fits ith choking or persion anglo 105 degrees. No. E6306. List Price. $\$ 20.00$ NO PRIC No. E6305. SINGLE ADAPTER ( ulse of all Racon power units with any Racon horn.
YOUR PRICE.
DINAMIC UNIT FIELD


## コJCIFJR

Racon field exeiter. Supplies proper field excitation Horn Unit Electrodynampl A.c. Humlexs. Does not orerheat. Shps. wt., 12 lhs.
Na. ERG6O, ONE UNIT. Prorides proper Nield excitation for one Racon unit List. $\$ 20.00$.
YOUR PRICE
No. E866 Two unit + - 6 ?
Two UNIT. Provides proper field exclta
YOUR PRICE
3
No. E8662. FOUR UNIT. Prorides proper
LIst. $\$ 60.00$
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## RACON POWER UNITS

Rucon power unlts hase Jugtly eamed an envlable reputation in the public addresp field. Modern, scientific desima and precision of construction are responsible for the ability of thege uaits to handile enormous volume with abgolutely faithful reproduction of the orfsinal rendition.

## Super-Giant Dynamic

The Racon Super-alANT opersaion. Has 15 ohm volce coll impedance and reouires 8-8 volt fleld excitation, with volts for theatre and zuditorium use where the finpst qually reproduction is required
Penix Iond ot Fint


Handles peak load of 60 watte, or 30 wafts

contmumaly at 1 mon ervies continuonsily at $1,(100$ creies. Jess coupling | transformer. Nipg, wt., 27 |
| :--- |
| No. E6 | No. E6299 YOUR PRICE 5.00. YOUR PRICE

Master Dynamic Unit

dynamie unit Master electro barity 60 watts. Onerating eapacity 30 waits at 1.000 $\begin{array}{lll}\text { cyrles. } 15 & \text { nhm voice coll } \\ \text { inigedamere. } & 8.8 \text { rolig at } 1.1\end{array}$ smps thejd current. Shpg Wh.. 18 ltas
trandrormer.
No. E6304
List, \$50.00. YOUR PRICE
$\$ 2940$

## Junior Dynamic Unit

Hisnciles 6 watts continuously watts. 15 ohn voice coil inpedance. $6-8$ volts field exclizton. 1.1 amps. Stuplied less coupling iraniformer. Shng. WI.. $1 \pm \mathrm{Jbs}$.
No. E630
YOUR PRICE
$\$ 205$


## Baby Dynamic Unit


Handes 5 watts contin. wously kith peak load ca. pacio of is watr y on folt field excitation, 14 atnpere consumption. Lens.
$\$ 1470$
No. E6302.
YOUR PRPICE

## Power Magnetic Unit

Primarlly for publio addrens use


List. $\$ 30.60$
YOUR

## Coupling Transformers

ower units degcribed formers for $R$ in of hearsuluiy types and a general inurgose type. ER A Y D HET
No. E6307. 4,000 ohm pr!mary impedance to. E8308, 500 ohm primary impedance Lis, 2000
LISt $\$ 20.00$
$\because 1107$

## CINERAT PURPASE

No. E6309. General juruwe Transformer. ${ }^{2} P 245$ or 4,000 obms ptimaft impedance. List $\$ 7.50$.

34,413

## P.A.HORNS-BAFFLES-SPEAKERS-UNITS

Racon Dynamic Baffles equivalent to a straight balfle of twice the size As a horn lt londs the diaphrarm of the wnit whith an alr column preventing hlastink, and retains tie high tones so that thry can be reproduced it the saime time as the low. Converts the dynaniae to ${ }^{\text {n }}$ serci-dirnctional spenk er. oreatiy increasing auditorium or ballroom broadcast. For dynanir dia phrakms of 9 in . andoups su
 phrakms of the folin. ina size bellis:

| Hel | size. | Depth. | List | EA |
| :---: | :---: | :---: | :---: | :---: |
| \%. | lach | che |  |  |
| E8675 | 18x30 | 10 | \$12.00 | S 7.06 |
| E8676 | 97827 | 28 | 30.00 | 17.6 |
| E8677 | $36 \times 36$ | 15 | 40.00 | 23.52 |
| E88679 | -1x | 14 | 45.00 | 26.46 |

Dynamic Trumpet

## Speaker <br>  <br> Great <br> Projective $\quad$ - struction. <br> Na. E8302. Luarth. $49 \%$ in. Bell 314 in YOUR PRICE <br> For theatres, ball rooms and suditorilus circular bell. Coner mounding. Natural. realistle tone quality combined with sclaptahillty 10 a wide sange YOURPRICE NO. E83O3 <br> Lenzth 58 in. $\$ 17.50$ YOUR PRICE <br> $\$ 21.00$ <br> RCA Photophone Auditorium Speaker



## Peak Load 15 Watts

Conserratively rated for continuous use at $f$ is watts. It is advisable to employ at least two of these sleakers with amplifier srirem of
12 to 18 witts. and at least four with 20 io 25 watt systems. for Hfe-lons servir No. EB709. Less Haflle.
No. EB708. Complete with $\$ 695$ $\$ 8.95$

## Public Address Eqmipment

 We are in position to supply practically alltypes of standard pubic address horns. units. and other equipment. if ihe item you need is not $i s t e d ~ h e r e . ~ p r o a s e ~ w r i t e ~ t o ~ u s ~ f o r ~$
tations. ALLiED is anxious to serve you.

"nns" sound nom output. Neffect con The electric wine the Iniest magnetic siveakers. Thervice and is eass to connet.

## TAPPED IMPEDANCE

Speaker impedance may be carefully matched Fitred rith three tapped windings ofhich per mit the matching wishout tecourse to speaker output iransrormer. The magnet is persizes for durability and power of performance. The larke diaplaream respond remdily to vibratlons inuresmed unen it. hs the magnet. Large $101 / 2 \mathrm{in}$. cone.
E8082. Retail Value. $\$ 16.00$. $\$ \geqslant 45$ YOUR SPECIAL PRICE

- 45

CABINET MODIL MAGNETIC

## SPEAEER



Life- llke reproduction, natural mellow tone, and extrems sensitivity of the magnetlc unit make this
cabinet suesker an incabinet suesker an in-
consparable value at our contparable value at our
low cuntation. The grillet cabinet is of plensing pro cabinet is on plensing nroAttractive Cabinet The 9 in. chassis is of late itesian, ruxgedls buitt, and rephorluces the
antire andible acale wifl, trap and pleasing intire nation. Cubinet dimensions: il in, wisle.
 YOUR SPECIAL

## STEWART-WARNER DY PHONLC ELECTRIC SPEAKER

 Thirough a most for-
tunste gurehase, we are in the mosition to
 Stewart - Warner mas netic speaker at áa
neme anay mice. A new lisecovery in deglent gires this spetiker clear and power. Do not unlity by mur low enotat judge its qualfy by our low guota-
tion. It is sturdy and compacly built carmum conteil akainst rukt and jou will be surprised at its perform
ance.
a real hargain. NOUE LOLO PRICE

WRIGET DE COSTER DT. NAMIC HORNS
 speaker horn for hroadesst parired. Weather proot chessis coniminet if ton-rasonant. Black weatherproof fin is $h$ Horn No. 5-1rength 48 in. bell 23 in $\%$ No. E9000. List, $\$ 30.00$. Hotn onls: Horn No. Fith flare on both sidea ingread lensth 48 in. bell 40 irectional as No. 5. Shag. wh. ${ }^{71}$ lhe List, \$30.00.
No. $900^{2}$ YOUR PRICE...
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## DINAMDC SPEAKERS

For the home or small hall Equal to every respect excep Extreme iensitivity and nemdous power without tre* tortion. Size: 12 in. wide 9y in derp, $122 / \mathrm{in}$ ingh haffe hole Equipped with mention transformers. Pleas tity anc type of power tubes employed in am. pliver or receiver for which speaker is belng No.E9002 217 Jr . 115 V . A.C. $25.50-60$ crales. List, \$50.00 NET No. E9003. $215 \mathrm{Jr} .110 \mathrm{~V} . \mathrm{D}^{2} \mathrm{C}$ NET ohms. List. \$34.00. NET ……............ $\$ 19.99$

## WRIGET DE COSTER <br> VEHICLE SPEAKERS



FANT VEHICLCLE Speaker for a 1 uromolile sets has the sime brilliat tone guality and truthiful repmiduction characteristic of all Wrlght-Decioster
 wi., 10 Ins. if peauted for different oulbat tuhes. sfuecify single or mush-


WRIGET DE COSTER No, 255 SPRAKER


NET E 9007
NET

## BEST THEATRE DYNAMIC

Tremendous volume without dis. tortion. 4.000 ohm impedance. This speaker has al1 excellent frequenry response fron the latesit rolme andihers Moying ossiem is spertally damped to permit repromuction Fiti unusual clearness and fidelity.

## 20 Watt Field Power

The 20 watt field power is sup plied by two esi rectifler tubes. Due to the hich airgap fux density (ark. 16,000 lines per sa.c.m.) and The specialls constructed volee cail
 the speaker efficienes is reis high. Supplidewith imperiance compling
 in. itewi. Dlsmeter of bafte apealag 12 in . 110 volt A.C. of cies.



## DYNAMIC SPEAKERS-AUTO SPEAKERS-UNITS

## NEW JENSEN DYNAMIC SPEAKERS

The new denken spenkera are outstanding for noperb tone quality, sensitivity and volume. The 110 r. D.C. speakers listed on this page are all equipued with 2.von ohm field ron and will meet the average demand. If the speaker re gurred. however, is not listed. Write for quotations, specitying field and voice coll ohmage, diameter of cone and number and thie of
NO EXTRA COST. Merely state solir requirements.

## NEW MODEL K-1

## 6 In. Cone

Jersen buper-quallty is built into thje convenient 6" cone dynamic speaker. Like all Jengen equipped with the durable "Tym-Flex" cone. A nowerful speaiter, ruggedif constructed. com pactly buill.
No. E8202. For Single or P.P. 171 A 4.5-2n0

No. E8203. For Single 247 No. E8204. YOUR PRICE

## E-1 ATTE SPISABJR

Jensen K-1 speaker as described above with 3 volt fleld for auto mobile bets. Enclosed atructed ease. Ver compact. to facilitate inetallation. No. E8205. For Sin.


No. E8206. For P.P. 38. S ? ? List. $\$ 10.00$. YRER PRICE

## Jensen D-16 <br> © INC: CONE

One of the finent foud speakers in the
 High3y suitable for current in a a els of misitl-tabo superheterods nes with puhh-pull a udio stares. All models have 2.500 mons Tym-Flex rone.
 No. E8207. Single or P.P. 945 or 950. No. E8208. For Single 247 No. E8209. For P.P, $247 . \leqslant 2$ YOUR PRICE, E.SCR

New D-16 Auto Speaker
The D. 16 speaker as deacribed abose with Folt field for antomobile sets, Euclowed in ftronk case, compactls built for easy installation. Here is realistle, wibr nt, trute toner.
No. E82l6. For Sinzle 38. No. 88217 YOUR PBICE
$\qquad$

## Jensen Permanent Magnet Dynamic

the permanent masnet whicb supplies the energy in exelunite derelopnient of dwnuen enslneers. Gives battery sela ot me ane quality and undlstorted or of
ume of A.C. whet Nom of A.C. Retn.
No. E8218. Sin" 5le or F. P, 1 *1-245+350
No. E8219. Sinele or P.P. git.

YOUR PRICF:
$\$ 38$

## Jensen D-9 Concert 12 Inch Cone

The new Model D-9 is designed for operuthon with all types of nmplifier systems and particularly for Jatest model receivers. Ideal for new set builders and for replacement purposes. In the 14 inch cone class. and equipped with mounting support and 30 iuch cords. Atl models have 2.500 ohm
 fleld coil
No. E8223, Single or P.P. $171-245.250$. No. E8224. Forsingle o47.
No. E8225. For PR 247. No. E8225. For P.P. $\$ 12.5$

## MODEL D-9 A.C.

For $r$ adio receivers. amplifiers or sound sybtems. Input transformer for single or push-pull 171. 245 , or 250 tubes. 12 in . cone. 110 v. A.C.. 80 c . No. E8221. List. $\$ \geq 0.00 .8$ IT

## JENSEN SPEAKERS

HOR TEIFRTRE AND P. A.


The new Jensen Auditorium elec Speakers. Capable of handilng ex treme power in. puts. reproducing puts. reproducinge with amazing fiWelity. Fquipped with jensen "" F 5m rlex' Cones. For "Age, with all clase plifiers.
MODIE M-20 AUDITORIUM

## 14 inct. Widels used for theatre

 public uddiress and optdoor announciag. No. E8236. For 110 \%. D.C. Shpg wt. 48 lbs.YOUR PRICE
$\rightarrow 2 \rightarrow 46$
No. E8237. 110 . A.C. For 171 245.250 tubes. Including 82 Rectifer Tube. 87.80.
List. . . . . . .
NHT.

## AUDITORIUM JUNEOR

## 工 Tinch

One of the tinest speakers in its class for theatre and publle address work For 110 r. D.C. and A.C. operation. For 110 . D.C. and A.C. operation. $P$. No. E8238. 110 v. D.C. For P.P.
245 or 2.50 iubes. List, \$22.50. NET
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A.c.

For P.P List or 23250 tubes.
$\$ 19.11$
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her tubes.)


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The advanced meehanical sclenee and precise aecurnes of the German laboratory are reflected in this remarkably ganaluire unif. Finest n+aterigis used in con atrnetion

Powerlinl
Famous thres. coll monatruction alsd extra large dlaphragm pronnces jowerful acflon and tivid tone.

[^0]
## NEW UTAR A.C. DTNAMIC SPEAKERS

These Utah new desigil speakers h \& te aturpassed even the height of perfection previously attained by Dtah peak sland. arda. The finely
developed feld design results in tome foliality and volume capaeity The new Utah
A.C. speaker operaten with the efticient $\mathbf{2 8 0}$ rectifier. Sunplied with 4.000 ohm transformer for single or push-pulf uutput. 110 volts A.C.. 60 cyeles.

MODEL IO-A A.C.
No. E8952, 10 in . diam. for vingle or P.P. 171-245-250. Less \$10.29

No. E8950. 8 in. diam. For $171-245$ or 250. single or push-pull. Shpg. wi.. 13 lbs . Less qube.
48.82 Lint. $\$ 15.04$. NET
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NEW UTAT BIG CIISP MAGNETIC


A highiy developed magretie comsole unit for use in battery operated sets in conjunction with tery and for mulispie speaker inatallations. Musical seale reprodicred with true magnetic tone and unasual clarlty.
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Dtaln Daits are jrechsely constructed of hif hest quality materials. They
ofter faithful reproduction ofter faithful reproduction over a wide ramge. Popular
and inexpensive.
diam. $/$ in. thread.
TRIPOD UNIT
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## NWW SIE CEIE

Powerful clear reproduction. Pred sion constructed for true tone values. No. E7431.
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NATHANIEL BALDWIN CONCERT UNIT


Tbe Baldwin Con cert Cnit is used extensively and with great success for pub the address work: I has a great tonal ca paelty and is able to haridie vast volume input without distortion. Offered now at an mn bratable price.
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The Concert Unit ahielied. capable ol remendous undistorb No. EI4i6. Hint, \$10.00. YOCR PRECE

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Adherinx to fts progressive poligy, Chifersal offers for 1933 an enlarged and mproved line of mierophones and acceasories. The very latent improvements in desigu, fuifh and quality are incorporated in Universal products, which are re. leased for distribution only after being tested under the most rigid standaris, Here is supertor equipment to meet the exacting demandm of the radio world.

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A sensations micro. Dhone at sensationa price. All essential fea curea necessary io in sure superlor performance and durablitty are incorporated in th 1wpular-priced model. Faithful tone. Pur
gold contacts. Dura lumin diaphragm, 200 ohms pei button. Sctentifleally bamped Frequency raage from 100 to 4,000 creles
Rugreds built and finisbed in non-corrosis Ruggeds built and finisbed in non-corrosive. polished nickef olate. Can be mounied in any
Universal mapnimg. Dlameter, $2 y$. Universal mounting. all thickness,
No. E 7400.
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Model BB-2-Button Nearlj twice as hears as
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for mateur broadcasters. experimenters. halls. ballroonis, speaker sra gons, etc. Benutifully itintshod in
 24 K 4 polished chromc mate. Lixire hears Diaphragm. frequency range: 0 ouralumin cycles 200 ohms per buto Fter. 2 胡. thkek
No. 2741 No. E7411. List Price, 8 \&.00. IOUR IPRICE

## Model KR-2-Button

 hutton brosidest mierophone Frequencr range 50 \$0 8,000 cries. zun ohms resistance fer button. Constructed of 24 Kt. polished gold. No. 57413


## Torpedo Type

phone, fully protected, extreluely compact, quick15 denomated. Conaectoning inade to three telephone pif terminals aTe plusaed. Can nat bo of moved accidentally.
Supolled in st andard models "BB"' and "KK. List Price, s30 00 BB -2 Bution YOUR PRICE ... *TVA No. E7402, Tomedo "K List, $\$ 55.00$ $\qquad$ 2 2 zuton SET
\$32.34

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Espectally recommended for use olegance of apgearance. beallty of design, and true reproduetion of Consists of a tube tith a centr partition. providing space for standard I $1 / 2$ rolt No. 6 dis cel
battery. battery: Adfustment screw per
mits microphone adjustment fo varying coustic conditions. Rub ber cushlams and spring tension sldes. Finished in highly volished No. E7num and chrome niate.

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 extremely sensitive. Recom. mended for use there high bactners are necessary. When placed in ans hidden position. Will plck up sountis and posed. Should be placed in protected locations. behind screen or grill work. 200 ohms with pure gold expht center diaphragm. No. E7403
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YOCR PICE.

## MODEL "W"

Smailest completely protect ed and workablo singie.bution mioh and compectness ada pt this Insirument for many sjeciai unses. A favorite for use in
hidden positions as a detechophone, or on the coat lapel. $t 0$ oh ohma $1 \% 8^{r}$ in dianne Pure gold sinot center diaphragm.
No. $\mathbf{~} 7404$ List Prime, $\$ 3.00$. YOUR PBICE

## Model "A"-Single Button <br>  <br> Solld 24 Ke gevy faced but Solld 24 Kt . gold faced but- ton. Extremels thin, light weight, golid-faced diaphragm, Freauency range 100 to 3 . ow 0 Beautifuliy plated in pol: ished chronae. 3 in . In diamNo. E74: O, YOUR PRICE.

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Ior voice only. hugied consiruetion. maximun molume with clear and clean-eut voice reproduction. lenctit 6 in.. head $2 y$ in. lequires 6 volt battery sind \& to 10 mails. carrent
No. E7414, Single button Fith Lhumb switch and 15 ft. cord. List Price, $\$ 10.00$.
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No. E7405
Two ohms resistance per buttons. With ohms resista
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 DESK STANDFits Universal Mlke Models X, BB, A, and KK. $8^{\prime \prime}$ Orerall. with conrenient suspension hook at top. Microphons ring $4 \%$
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No. 57 i 8 . List. $\$ 3.50$. YOUR PRICE
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 combination floor and banquet stan all in ont. Orerald helight set up collamible telescople $27=$ Tubes . Three collapsible telescopic tubes adjustable by conrenient thumb screws able by conrenlent thumb screws, Microphone ring 6\%" diameter with four eses Base "H" diameter. Handsome chromium atated. For Universal microphones monlels $X$, BB. KK, and A. as well as many other standard m
With eight sprin
No. E892Q,
List Price. $i 0.00 . ~$ $\left.\begin{array}{l}\text { List Price. } \$ 10.00 .\end{array}\right\}$

## Gem Midget Mike



Universal Baby Mike

pere's a world of pun in thls mintature microphone which entebles yov
to reproduce sour own to reproduce sour own
solce ofer sour radio. solce over sour radio. slon cord permits conceslment in another roon and by pressing a button you can cut in on program with jokes and comments. Offers end las entertainment and amusemont in the home. A real microphone with
single batton of 200 onis reslstance and circuit switeh. $31 / 2$ Inches hich beautifully itnished
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$\$ 4.41$
UNIVERSAL "QRQ" bon miterophone. For ammbon mitrophone, for ams teuts and experimenters Where a single buiton mike wis serve, gold finished in nlghis ool: finished in hlghly oolfurnished wich 3 ft. Suspenston rine cord. tached. Not a toy. but a reaj microvhone alchough
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No. 14423
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## Mike Connecterm

Knife hlade 3 mrons connectors used extensively in microphone circults, etc. 10 amis.. 250 colt type. Adjuista ble clanipe for ho No. E7408. prong No. E7409. 3 prone No. E7409. 3 prone
Pluk. NET................3!

5 Pole Western Electric Cable Connectors Western Electrio flve round miong armored connector. For brass stiell with kaurled circular
lock-nut assuring perfect contaet and permanent connection. real value.
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Vilue, 3.50.
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 No. E4395. Single button. A compsci inexpenstve coupling transfornser. Tura ratio 1 to 6.1 impedsnceratio 1 to 4.000 . nuitable for single button carbon microphone. Completely List Price, \$2. 20. shielded.

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$\$ 1.19$
No. E4396, Two buston. For all double hutton earbon microphones. Turn ratio 1 to
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An ideal short ware converter for tuning in wave lengihs between 60 and 200 meters. Makes use of entire recelver; not to be confused with older lypes which make use of
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Power packs that will dellver the absolutely constant plate. fllament and grid voltages. essen. thal in the operation of a short wave receiver. In neat steel cabe. 10 in long. 7 in . high, 3 i. in. wide: Uses 980 tube which fils
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## YOUR Price

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## No. E5971. K-1t2. Supplies power for

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Professionally designed and skillfully en kineered for complete A.C. short wave performance. a complete receiver- 110 booster or amplifier needed for loud-speaker volume. Durably construeted for efficient operation under the most trying conditions. from the ropies to the aretic circle. Requires 3 227, 1-245. and 1-294A tubes. Use with power pack below for A.C. operation.

12 te 200 Metert
Supplied with eight coils covering range from 12 to 200 meters. Same type uning coils as used by practically all steamships in "ship to shore" reception and broatcast

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## Here fo low priced

 tuner that provides Opmample distance, selec Tunes 200 to 570 metere Tunes 00085 condenser Combines unusual selec tivity at an inviting price No. E945.For 00085 condensers

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New three circuit tuner and R.F. Coi as described abore. but tapped for shori wave reception
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For general use in short wave and broadcast recelvers up to 2.025 meters. Low distributed capacity of fine Impregnated wiro winding.
Size 1 in. $0 . D \times 1 \%$ in. dia. NET
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## Pllot Ror. Choke Coll

## 30-Millimenry



Pllot 太io. 131. 30 -millihenry radio-irequency choke coil for general use in short wave and regular broadcast receivers. Its choking errect extends from about 10 meters up to 600 is distributed capselty being v, very low. Dimensions: $1 \frac{1 / 4}{6}$ No Ebo54. diameter. YOCR PRICE


## New Air King Short Wave Converter



A iruly outstanding short wave converter. All of the fascinating and intriguing qualities of short wave recep tion are in store for the ian with this excellent unit. Covers whort wave band from 20 to 125 meters. Employs 3-227 tubes. Single dial control. No body ca. pacity or squeals. Draws only B voltage of 45 to 180 volts from recelver
Built-in Filament 8upply and Wave Selector 8witeh
Incorporates a built-in wive seleetor switch which does away automatically with coil changing. and a built-in filament transfornuer to heat the tubes used. R.F. Amplification affords maximum effiency. Size $7 \times 10 \times 5$ in. Shpe. wi.. 8 lbs.

Au exceptionally remarkable short $\$$ y 4 No. E983. Jess tuben. Llst, se5.00. YOUE PRICE

## NEWEST COILS-CHOKES \& ACCESSORIES

High Gain T.R.F. Coils

## LITZ WOUND

Bank wound with Litz wire, permitting unusual sensitivity and uniform gain over entire wave band. Rou $1 \% / \mathrm{in}$. di. ameter. Use with . 00036 coudenser. Covers 1700 kilocycles signals) to E40 kilocycles. ANTENA COIL
Small but highly efficient. New design mounting reduces efficiency loss. No. E5267.

## NET..

RADIO FREOUENCY COIE
Same size and type of mounting above with R.F. coil winding. No. E5268. NET.

Same size and mounting as above but with center-tapped inductance for wumderlich or. 55 tube circuit.
No, E5269. NET.
4 TUBE KIT
Contains 1 Ant. Coil and 1 R.F. Coil. Na. EG272.
NET.

Contains 1 Ant
Coil and $2 \mathrm{R} . \mathrm{F}^{2}$ Colls.

> No. E5273
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> $\$ 1.32$
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(All kits include schernatic dia
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Complete set of coils for five tube 175 Kilocycle Superheterodyne. Ises the new tubes. This quality set of coils permits construction of a set with sensitivity of ahout 5 microvilts.

## 5 TUBE KIT



Consists of one omposite coil (detector. oseil$\begin{array}{cl}\text { lator } & \text { and } \\ \text { first } & \text { I.F. }\end{array}$ trans form:
er), one band pass prekelector, and an output I.F. transformer. Cans sized 2 in. 2 in. $x 3$ in. high. screen grid tubes. Complete circuit blue print enclosed with each kit. S2.49
No. E5274. YOLR PRICE

## TOR NEW WUNDEREICE

OR 55 DUAL DETECTOR
No. E5275. Same as above. but with center tapped output I.F. trangformer. For new wunderlich or new
detector tubes. YOLR PRICE

## 175 K.C. I.F.

## Transformer

High guin shielded outpnt intermedlate frequenes trans. former. Laboratory peaked and 7 tube superbeterodyue kits listed on this page. Inductances are epecially wound between layers of paper which gives the exceptionally high
 with lead at bottom. for superheterowith lead ai bor om. Fing new screen grid tubes. dynes using
Nf. 5282.
YOUR

## FOR WUNDERLICE OR 55 DUAL DETECTOR TUBES

The 175 R.C. intermediate frequency trangformer as described above but cell.
ter tapped for the new Wunderlich or 55 dual detector tubes.
No. E5283.
$\because 0$

Note: The Wunderlich and 55 tabes use center tupped colls for both TRF and Super-Het circuits. Other coils are adaptable for Screen Gill Tubes-24,
$\mathbf{3 5}, 56$, and $\mathbf{~ B 8}$, All Coil Kits Include schematle diagrams.

## 175 K.C. Com- <br> 

Composite, bigh Eain coil used as the first detector. oscillator and frest I.F. transformer, Eliminates the use of one tube with no loss in
efficiency. Toj) tuning. Used with 5 and 7 tabe superheterodyne kits as lieted on this page. Laboratory peaked at-175 K.C. No pudding condenser necessary as it is made for the new sbecial tracking vecillator section variable condensers. (.00036 Mid.) Enclosed in square cans. ${ }^{2} \times{ }^{0 \prime \prime} \times 3$ No. E5276. PQUR
PRICE

## Shielcied Preselector

High gain shielded band-
 pass preselector. Utilized in five tube superheterodyne as lated on this page laned in square can $3^{\prime \prime}$ high. Top tuning. base mounting, with lead at bottom. GOUR PRICE

## Midget 175 K.C.

## I.F. Trans.

The only midget hikh galu 1.F. transformer. Top tuning. Can be used in place of the larger 1.F. lransformer illustrated with the 5 and 7 tube kits. or in any set iu Fhich space is a factor. $1 y_{4}$ "xis"
No. E5278. For superhets with S.G. tubes.
FOUR PRICE
785
No. E5279. With secrudary renter tapped for new Wunderlich and $\overline{5} 5$ dual detector.
YOUR IPRICは
88c
High Gain 7 Tube


Complete set of hith gain coils for constructing the finest type of 7 tube superheterodsne. The set includes one Antenna coil, one R.F. coil. one osel lator and two intermediate frequency transiormers. Shielded in square metal cans $2^{\prime \prime} \times 2$ " $\times 3$ "' high. I.F transforners peaked at irs K.C. Osciliator for use Tod tuning. For superhets with new S.G. tubes. NET, COMPLETE KIT

9325

## FOR NEN WUNDERLICE

OR 55 DUAE DETECTOR

## No. E5281, Same as abore but with

 new tubes specifled.YOUR PRICE.
S4.15

## Low-Loss Plug-in Coil Kit $\sin$

Set of 4 low
loss plug in coils
far ghort wa w and telleyision. Wiring diagrams
 for building Short wave recelver in cluded with each set. Wound on ribbed low loss forms. 16 to 200 meters range when iuned with .00015 mid. variable condenser. No. E 1490
List, 83.50. NET
5168

## New Isolantite

## Low Loss Coil Forms

Strlctls low-joss colis 10 r amateurs. Haudle at the top facilitates easy withdrawil from socket. Made of bakelite with ribs accurately mpaced for scientific soll winding Length "' diamerar 1 u" with onst, winding space. Suppled in 4 5 , and 6 prongs
No, E4227, if Pronk. 48 Lst, 85c. NET EACH
No. E4228, 5 Proing.
$43 c$
No. E4229. 4 Prong.
Lint. fs....................................

## New Low Loss Bakelite Ribbed Coil Forms

## Plug-in coil forms made of

 Special Low L. os Bakelite Standard bases to fit either 4 , $\overline{5}$ or 6 prong sockete. Winding space on coll form 2 is" with an extended lidge on top for handling form. Rlelut ribs on surface for low logs air core windings. Outside diameter 172 . in a variets of colorg. Ideal for the amateur.Color Black
Brown Brown Red .
Green Orsenge VET
FECP

| Pron | , |  |
| :---: | :---: | :---: |
| E147 | E14 |  |
|  |  |  |
| E1 |  |  |
| 20 |  |  |

## Lattice Wound R.F. cholives

HIgh impedance chokes. For lase in first or second de. tector nlate circuite of guperhet or for a n y T.R.F. receiver. Can also be used as amtenna "holie. Diameter i" $^{*}$ Center hole mount
No. E5284.
6 Millihenry. N以
8 Millilıenry. sier............. 2t? No. E5286. N\&T ....... 1415
16 Milihenvy. NET


THIEADED BAEELITE COLL PORMS

No. E6831. Threaded Coil Forms 1 in. diam eter. $13 / 4$ in. long: 30 YoUR PRICE.
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4 c
BOBBINS FOR R. F. CLOKES
13 For makint R.F. Chokes. 1 34" diameter. Quoted at No. E6833. Lots of 10 , 45 e . EACH


## Bakelite Coil Ferms

Blank bakelite coll forms for wiuding short wave coils. A rmal burgain for amateurs who wish to wind own colls. No. EI6I9. 4 Prong.
No. El620. 5 Prong. T 3 ?

## CONDENSERS－TRIMMERS－ACCESSORIES

De－Jur Amsco Superheterodyne Oscillator＂Tracking＂Condensers

## .0036 MEd．

Designed for luteat type Superhet circuits，making possible the co－axial mounting of the condensers，tuning the oscillator，preselector and first de－ tector stages，with the composite tun－ ins arrangement so that the oscillator Will track at $H$ Eiven frequency of the 175 女ilocsele I－F amplifier．

## 00036 CAPACITT

Eliminates padding arrangement，semi－variable condensers and in some cases．resistors．This condenser makes the ad－ Justment of the oscillator section as gimple us that of the belector clreuits，with a high degree of accuracy．Each sec． ilon is equipped with individual compensators，and the end rotor plates are slit for more minute adjustments over the entire band．Heavy construction with ball bearing shafts． Trimmers may be mounted on either side for either clock－ wise or anti－clockwise rotation
No．E2723，$\underset{\sim}{2}$ gang，Size $4 / 1 \times 3 \% \times 2 \%$
Liat，\＄5．50．
NoT EACH
No．E2724，
NET EACH
No．E2725．
List，$\$ 11.60$
NET EACH
3 gang．Size $41 / 2 \times 3$ 多 $\times 41 / 4$
4＂gang．Size $44 \times 3$ 为x5 $1 / 2$.


## DE－JUR TRE MODEL CONDIENSER

Frame is of steel to withatand mounting and transporta－ tion strain．without affecting the tuning curve or electrical characteriztics．Tuning curves are designed to meet present day rigid requirements．Ball bearing－self aligning．Con－ struction as above except that all gections have identical capacity curve which is correct for TRF circuite．
No．E2726．｜No．E2727．


## ENIGHT

## GANG CONDENSERS

A superior condenser for either orig inal inatallation or replacement．Split． end rotor plates for minute adjustment． Equalizers are conveniently mounted for
simple adjustment and retain gettings simple adjustment and retain gettings without rariation．Fally shldded be－
tween gectiong to obstruct any capacity coupliag．

## CONPACT－STURDY

Housing stamped from oue piece of heary gauge ateel．Re－ inforced to eliminate the slightest variation or torque．Hobl－ tve contact with readily accessible soldering connectione make this efficient condenser especially adaptable for elti．or midget recelvers，auto sets or replacement work．
BIGID CONSTRUCTION－SELY ALIGNING
Shaft is turned brasa，standard $1 / 4$ in．ball bearing mounted． making it self allgning under all conditions，resulting in smooth effortless control．Plates of heavy stamped alum－ inum．All but end plates coupled at upper end to insure rigidity．Size 2 后 in．deep． 3 is in．wide．Individual sec． tions， 1 K in．across．
No．E225！
NET $8 \rightarrow 96$
3 GANG
No．E2282．
NET 8 EACH

4 CANG
No．E2253． NETCH：$?$

## DI－SUR SPRCLAL SEORT WAVI

2 GANO ．0OOLA CONDINSIR
The preclsion in construction for which De－Jur is famous malies this condenser one of the most satisfactory for instal－ lation where a ． 00014 two gans is required．For short ware work．Individual sections fully Insulated from each other and from the frame，permitting complete universal mounting for any circuit．Compensations permit miero－ matic sdjustment．
No，E2729．
YOUR NET PBICE

## New U S L Condensers



A very efficient condenser at low price．All cou－ pling effects ellin－ Inated．Ball bear ing shaft．phos－ phor bronze rotor contacts．Uniform tension permits se － lective tuning－Com
.00036 CAPACLTY
No．ER
No．E726i
PEICE
No．E7262． 3 gang
PRICE
80.58
1.25
1.75


## Tinnineviund Midges

 condensers
## Hammerlund midgets

 feature extreme aceu－ assured by latest typé feolantite insulation to reduce diel minimum． or nuts． either soldered or riv． e ted．Vibration－proof
construction．Ideal for Short Wave and Auto Receivers．

|  |  | Hin． | Max. | Llat | VET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| N3．${ }^{\text {NO27 }}$ | Pa | 3 | $\pm$ | \＄1．80 | 50.88 |
| E3928 | 5 | 4 | 3.5 | 1.50 | 88 |
| E3929 | 7 | E | 50 | 1.80 | 1.06 |
| E3930 | 11 | 6 | 80 | 2.00 | 1.18 |
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| E3917 | 19 | 7 | 140 | 2.50 | 1.47 |
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## DUAI MIDGETS

No．E39 I 9． 100 Mmf ．Per \＄2．59
 Section．List，$\$ 4.80$ ．NET．

## SPECIAL VALUE CONDENSERS

 complete we wot gtitute another bratd the might to sub－ gtitute another brand of like value if necessary．
No．E5414．．00025．
No．E54： $5 . \quad 0003$.
MR

## 2 Cang Special Condensert

Special values in Bremer－Tuliy and General Instrument condensers at a fraction of the original value． No．E5425．Bremer－Tully ． 00025. No．E5503．General Inntrument OOOB SPECIAL PRICE．
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## USL MIDGET CONDENSERS

Precision and compact ness make these condens ert ideal for short Wave and Anto receivor in－
stallation．Single hole stallation．Single hole mounting－
rugged．and accurate construction standiard condenser at a popalar price．

|  |  | Min． | Max． |  |
| :---: | :---: | :---: | :---: | :---: |
| No． | Plates | Mmf． | Mmf． | NET |
| E7260 | 3 | 3 | 15 | 35 c |
| E7251 | 5 | 4 | 30 | 39 c |
| E7252 | 7 | 5 | 40 | 39 c |
| E7253 | 9 | 6 | 65 | 44 c |
| E 7254 | 15 | 7 | 100 | 48 c |
| E7255 | 23 | 9 | 140 | 65 c |

PILOT TREXIBIE COUPLINC
Insulated coupling for $1 / 4$ in， g a ft ．for coupling or
E
inging single condenser sec－ No．E5968．List，40e． No．

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Centraline con－ densers of the well known Pilos quallty： Accurately ouitt of mon－corroding bram
parts，with highly polished aluminum end platea．Single
Shaft extenaion permits gansing of tuo or more coudensers．Connection to Ro－ tor made by brass pigtall，Inguring posi－ tive noiseless contact． No．ES972，． 00016. YOUE PRICE
No．E5973． 00025 $\begin{array}{ll}\text { No．E5973．} & .00025 \\ \text { HOUR PRICE } & 0.035 \\ \text { NO．ES974．}\end{array}$ No．E5974 00035
TOLR PRICE No．ES975．．0005
TOLR PRICE


## 

 Tir comosinBuilt with the same precision inherent in all Pikot products．Plates are extra－spaced to assure accuracy of calibration at the low eet－ tings．Shields measure $4 \% \mathrm{in}$ ．$x 3 \%$ in．$x 3$ in．wide．Capscity 00011 per
section．
No．E5976． List， 85.00 ． YOUR PRICE
 CONDENSERS

Valuable for neutraliz ing R．F．amplifiers，an－
tenns couplings．tunfng verniers．regemeration control，short ware tun ing．etc． $1 / 4$ in．shaft． Fery rugged construction． Size $1 \frac{1}{2}$ in．Wide． 1 to No．E5980．． 000015 Mfd No．E5981．， 000025 Mfd .5

No．E5982．．00005 Mid .00005 MId
.0001 Mfd.


No．E5983
NET EACE

49 c 54c
59 C

EBY BAKELITE SOCKETS

## Typers



Slauch
construeted
akelis tre shell and base moulded in otie piece． Universal］＂type－either for above usnel or sub－pannel wiring．im－ prong contact． No．E2866， 5 Prons． List．35c．NET，EACH

159 No．E2867． 6 l＇rong． No．E2868．

308 mounting center List，50c．NET $25 c$

## TTPE－8 SERIES

Eby mouided
 or sub－panel convists of sep－ arste laminnted hagkelite lute which rests beneath sub－panel．Sochet springs similar to True 12.
No．E2869， 1 I＇rons
No．E2870．＂Prons 138
Ust． 25 c ．NET，EACH．． 13 No．E2871．© Prong． List． 30 c ．NET

8UB－PANE思 SOCKETS


## Stendard Size

 Latest DesigtLaminated bakelite sub－panel sockets．Latest design and sturds lons－lastins．emelent low＇realst ance contact hetween circuit wir Lage and prong of tube．
No．E2878． 4 Prons．
No．E2879． 5 Prong No．E2880， 6 l＇rong． YOUR PRICE，EACH Not Price， 100 Lots Ascy No．E2881． 7 prong． 100 Lots．$\$ 5.50$ ．EACH

## 60

$\$ 4.25$ ．
8 c

## Midget Type

Of same constructions bui simaller in sockets than the standard Ideally suited for work incolving limited strace．
No．E2882． 4 Prons．
No．E2883． 5 Irong
No．E2884． 6 Prong．
YOUR PRICE．EACH
5c 100 Lots Asst．，$\$ 3.85$ ．

PILOT LIGRT BUEBS


## CDNUTNE G． E ．

 General Nectric gusllty lampo$\left.\begin{array}{ccc}\text { No．} & \text { Yolts } & \text { EACH } \\ \text { E2315 } & 2.5 \\ \text { E2315 } & 3.8 \\ \text { E2318 } & 6.0\end{array}\right\}$

We carry a complete supply of parts and equipment for set build－ ers and service man．It what you want is not llated．writo for prompt quotations．ALLIED is anxious to serve you．

## UNIVERSAL SOCKET

 A labora： or patnel of babeboatd jery sturd Substantia takt for con tact for con
nuvous eiplimerial work No．E994：\＆Prong． 1 YOUR Na．E995． NOURPRICE No．E996．

SMALL SPACE 80CKET

space．mosies small
monts ahove or betow holes $111 / 2=$ cuan Aftords Dositive No．E990．4 Prong． No．E9991，
No．E992，
Erong． NET EACH No．E993． 7 Prons． $13 c$ NET EACH

| P1LOT INSULATED |  |
| :---: | :---: |
| SOCtEET |  |
| $\underset{\text { chassis mis metal }}{\text { desicn }}$ |  |
|  |  |
|  |  |
|  |  |
| vet ylatea |  |
| Dhosphos |  |
| hronze sinjnas． 1 Pro |  |
|  |  |
| No．E5991． 5 Prong |  |
|  |  |

## EBY ISOLANTITE



SOCEETS
Eby low loss Isolantite sock－
eis．Destened especially 10 t telerision and
short wave stets． No．E2885． 4 Prong． 2 ， No．E2886． 5 Prong．T15
NET ．．．．．．．．．．．．．．．．．．．．．． 248

EBI SPRARYR AND CABLE CONNECTOR Offer a simple convenient way of makna and brenkine a num－ The male circuits simbititaneousiy． bae male pluga are availabie witb moulded caps．For any uantabre tube socket or connector．

## MALE－2 PLECE CONNECTOR

No．E2872．
Prong．
No．E2873．
Proug．
No，E2874．
NET 1 EACH ． 13 BHD

## FIMALE－2 PIECE

 CABLE CONNECTOR

## EBY SPEAKER AND CABLE CONNECTOR

Ehy laminated plus． 0 if ers simplest and low est cost method of making mul tiple circut con nections wh be

ised with a standard socket． intondard caliles may be soldered
nio the prongs．
No．E2887．
No． 2888 Prong．
No．
N
No．E2889： 6 Prong．
NET EACH
78

## CHASSIS MOUNTINE



## EURZ EASCR DIAL


s？．Auracticeliminates hack－ lash．Autractively made of blach bakelite with nickeied litingt
in．dfamerer． No．E3990．0－100． No．Es991


2 TONE BAKELITE KNOB
Two tone effect Homed．Appropriste for most receiver deslaris．
bolished moo
finlsh．
No．E2320，
No．
N3


NETEACH $7 c$

WALNUT RADIO KNOBS


Hith grade solld wood，one pleve construction．Sub－ y＂ptial heavs brass lasting it is $\sin$ sured．Tw o de．
slgns as liumsrazed． No．E7605 Knob， No．E7606．I $\mathrm{i}^{\circ}$ Lower Knob
No．E7607．
$x^{\prime}$

NEW DIALS
ILluminated，with
Escutcheons
The latest dial asswmblies，re－ flenting extreme Diecision in con－ atruction．Vety smooth－running．值的的g wositive regulation．Built in prevent an possiblity of bace cusicheon blates in benutiful es： curcheon hateb in
tyea．Less pulbs．

FAN TYPE


DIRECT DRIVE FULL


## DRUM DLAL



## PANELS - SWITCHES - JACKS - PLUGS

## CARTER OUTLET

PLATES AERIAL and GROUND


## RUBBER PANELS

Fine grade rubber for radio and instrument panels. Smooth finiah. Will not warp. rie inch. MAROGANY

A.c.

## SET OUTLTT

Equipsed with $t w o$ Carter tip jacks with "Aerial" and "Ground",
nameplates, two "Imp" nameplates. two "Imp'

## 

WALBERT PANELITE
Mounted on panel above the dial. It throws a shielded non-difused light. Complete whith
No. E E $\$ 10$.
List. $\$ 1.00$.
235
A.C. Outlet, Satin Br

No. E20i8. Eatin Brass.
No. 2019 , Brown Bakelt YOUR

## AREAI E CROUND <br> RECPPTACL? <br> Outlet for set. dytwo sets and aerial and ground. <br> No. E2O20. <br> No. E202i YOUR PRICE <br> Brown Bats EACH.

## 

CUTETR HAMMLIR TOCGLE SWITCITE

Topole type flla m t initoh. provid.
ing positive ing positive break contact. Sin $81 \underset{y}{e}$ hale
mount. Wt.. 8
No. E2580. Youn Price

## SWITCE POINTS

C-EAC. TOCGLE SWITCE
A high grade, underwriters approved loggle switch Fith alckel Wated mountiag plate. Plate ixy\% in Depth
11 in. Used as "on1\%, In. Used as "onA.C.. $10 \mathrm{c} a 1$ distance No. E5S72 Retall


## CARTER JACK

 SWITCRIS

Single hole mounting. Equipped With black tnob and name plate. pole double throw. Three sorinss. List. 90 c .
YOUR PRICE
$\qquad$ No. E 1951 No. G. Double
pole. double throw. Six springs. List. $\$ 1.25$.

## SILVER CONTACT

 JACKS

## AND STOPS

Sclid hrass. Heaviy nickel plated No. EES5O No. E655I No. EFiteh stops. YOUR PRICE. PER DOZEN. PER 100.

Bakolite Enife Switch

bele. Nickeled bramellte All 5 ypes $2 \frac{1}{2}$ in. long.
E8374 Susit Pole 258
 E5376. Triple Pole ${ }^{2}$ Double Throw. 59 EE377. Five Pole \$1, 8 Double Throw. NET. 4 -

## PORCELAIN KNIFE <br> 


$35 c$

Hoayy


E4780. Single Pole
Single Throw. NET....... E478 I gingle Pole 148 E4782. Double Pole 18
 Double Throw. NET...
 Single Throw. NET.......88 E5379. Single Pole 13 E5380. Double Pole 38 Double Throw. NET... 33

I.CA. TOGOLE SWITCH

Specially con. structed ball joint:
facilitate easy togfacilitate easy tog-
gle switch novement. Complete with
 Cap. 13 Amp. plate - 255 volts No. 54235 , in . shyak Antique Bronze, B.P.S.T. 270 No. E4236. K in. Shank. Antique Bronze, 8.P.S.T. 248 No. E4238. Nickel. $^{\text {S.P. }}$ in. Shank, Ust. 65c. NET.......... 35

## Derble Pele, Demble

 Threw Togele Switch Permits switch- ink from phonograph to radio
or from radio to phonograpt. Has

nickel plated hardware on in ahank.
No. E4237.
66c

## 

For automobile radion $10 \mathrm{u} d$ can bo withdrawn only in locked position. Nickel plated.
diameter of body. Switch is not ksounded.
 terminal, controlling one two cult. \$1.00. NET....... S58

## FLAT TIPE PRIONT

## PLUE

Automatic. nothing to take apart; just push in cord thes and plug is No. E 691 No. E 1621. YOUR
BATM.ITE

## TAP

 compant piece. Durable construetion. No. E2926. YOUR
PRICE.

8e
19

BAXEITTE PLUCS— TWO E THRETHAT


These plugs provide for double and triple socket
input hering a
Inde wide rariets of uses. No. E2924. 2.Way Plug. Youn No. E2925. 3.Way
Plug. YOUR PRICE.... 248

## Bakelite Famels

Quallty bakolite sanels in all standard sizes. 8mooth clean tion color wanted. wiali, inher

No. Sizo EACH
E2270 . 7x 6... $\$ 0.54$
E2271......7× $9 \ldots \ldots$..... 87
E2272......7x12....... 1. 10

| E2273......7x11....... |
| :--- |
| E2274..... $1.3518 . . .$. |

E2275......7x21....... 2.05
E2276......7x24...... 2.30
E2277......ix26...... 2.50

| E2278..... $7 \times 28 \ldots . .$. |
| :--- |
| E2279..... $7 \times 30 . . .$. |

## CUT TO SITE

\%is inch thick-per
quare inch .............. $\frac{3}{4}$ ?

## EBT. ENSION

## BINDINO POSTS

Eby Insulated posts: movable tops
Dlameter. Y tach. Size
4. 3crews. $\%$ in lons.

No. E2950. Ant.
No, E2951. Gnd.
No. E2962. Input.
No. E2963. Output
No. E2970
No. E2971. -.
No. E2954. PRICE

Spakker
Speater


SPECIAL PER DOZ....

## BATETETE THBTE

For winding colls. Genulme eskelite 3 inch lengthis-bis inch Talls
No. E2280. Inside
Din., 2 in. EACH..... No. E2283. Inside
Di.. $3 \%$ in. EACH....

ENSULITE BAFELE


The best possible mpterialior
spesker banle. Checks vibration rebound. Insu jite is now berorite baifie of its qualities. $13 \times 13$ inches gouate \% inch thick. Speaker opening ay inch dianneter. With speaker modnting boits and nuts.
No. E8099.
YOUR
PRICE
PTATONE COMTET
Brints tay power fibe set Ch to dett. Chenges the pitch of the reception to
suit your tadiHdusi teste.
By 8 i m ply
turning stmob
504 can strexs
the bass of treble. Slimply place no soldering necessery
No. E3220.
YOUR PRICE
$\$ 1.23$

## pankl mountinc

## TIP3

Adfustable shaft permits mountup to 1 ing. With brown bakeIlte knob.
No. E3221. $\quad$ NET............

## SWITCHES-JACKS-PLUGS-ACCESSORIES

## HRAVEDUTT क्AVIC

 HYDROMETERA large slae heavy duty hydrometer. Beaded 1lo at practically unbreakable. Rub ber parts of live reailient Nubber. Wt. . ${ }^{11 / 4}$ lbs. No. E2940.
TOUR PRICE
Leader Eydrometer

A large, accurate and dependuble hydrometer. Beaded float. Bulb of lire. resilient Rubber. Shp
Rotall Value,
K1.50.
YOUR PRICE
$28 c$

BATTERT CLIPS


## ETAD COATED

Sturdy, non. corrosive lead covered battery clips. Takesmall space and have gtrong springs Wt., each, 3 oz
E5358. 15 amp
FOER PRICE,
EACH
E5360 95 amp .
YOVR PRICE,
FACR
E5389. 50 amp
EACH
12c
CONNECTBNG CLIPS
For connecting wires
to "Bu' batteries, etc.
A super-efficient con-
oz.
No. E
finish price
PRR DOZ

## 5s MUELLTE <br> Strong-apringed clips for

 testing and batterg connec-tion. 10 amp clip is cadtion. 10 amp. clip is cadmilum plated, the others are of lead-coated steel.
No. E5350. $2^{-1}$ long. 10
amp. capacity. No. 48 -B Box of 10
NET
359
No. ES3Ei a $4 \times$ iong. 25
amp. eapacity. No. $34-\mathrm{A}$
Box of 10.
NET
60c
No. $5352.3^{7 / 4}$ lonk. 50
Box of 10 .

100 amp. capacity. No. $11-A$
PRICE,
358

## PIN JACES

Nickel plated
for ohone sid
loud speaker tips. Wt.. 2 oz .
No. E271 I. List
No. Eh, 18 .
YOUR PRICE
IME PLUC

Eass to attuch. Fits all standard tip jacks
No. E1952
Llet. loc. YOUR
PRICE, EACR

## CARTER JACKS

## AND SWITCHES

Uniformly tempered steel. cadmium plated springe that retain their tension permanently. $\mathcal{P}$ ositive contacts

## Carter Jack Switch



Efilicient iftile

No. El986. Nu. 32\%. Fila meat bwitch
List, 50c, NET 295
No. Et989. No. 33\% 2 no. sition. 3 mprings: opens and closes one contact. 35 List, 60c. NET 35c
No. El990. No. 344. ${ }^{2}$ position. 4 springs: closes two contacts. List, Toc. 418
No. Eig9il. No. 385. 2 position. 5 springs: opens one closes two. List, 80c. NET.
No. E1992. No. 366 . 2 po. No. E 1992 . No. $366 .{ }^{2}$ po-
gition. 6 springs: opens two. closes two.
LIst, goe. NET
53c

## Carter Short Jiecks

Require but
small apace
No. El983 Open circuit qutpus.
YOtR 15S


No. El 984 . Single
circuit
NET.


189
Push 部ution Switches

plated stét springs. Buke. Fully insu
Locking type, contact is made when knob is pulled our. On Non-locking true. contact is made when knob is pusted in. sind returns to open when knob Dressurt fs released.
No. E1993. Carter 422. Locking tspe. Two springs; clobes on rontact.
No.E 994 , Carter 422A. Nonlocktag. ns ebore.
List. 50 c .
NET. EACH
308
No. El995. Garter 444. LSek ing type. Four springs; closes two contacts.
No. El996, Carter 444A. Nonlocking. as above.


## TIP JACHS

Heavy spring
contact for positive action
E1985
Setail, ioc. YOUR PRICE

5c

## Western Electric

 4 Pole-Double Throw fin A fine weot-- © 4 witch of the ble throw type Fith oldering lugs end. Heay $y$ coppertd contacts and blades. Brass end plates. Bakelite Insulution. No. E5409. YOLR S?
## Eby Multi-Polar Multi-Pesition Switches

Adapted for use on any switehing problem that rewures the opening or closing of a number of circults at once or in circuits of multi-waveband radio receivers. Noted features are newligihle capecitance effects between adiacent swit ch cirmut and to ground, and no rariable effects. Use of silyer plated phounher bronze contact springs results in exceptionalls low coperact redstion Compact and of sturdy construction.

| Cat. Ho. | No. of Poles | No. of Switeh Postitions | No. of Made or <br> At Once | Circuits <br> Opented <br> 10 Any <br> Sequence <br> Cy 10 | List | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E3070 | 1 | 2 | 1 or 2 | 2 | \$0.65 | 30.4 |
| E3071 | 2 | 2.3. + or 5 | 2 or 4 | 4 | 1.00 |  |
| E3072 | 3 |  | 3 or 6 | 6 | 1.50 | 88 |
| E3073 | $\pm$ | $\cdots$ | 4 or 8 | 8 | 2.00 | 1.18 |
| E3074 | 5 | $\cdots$ | 5 or 10 | 16 | 2.50 | 1.47 |
| E3076 | 6 | * | 6 or 12 | 12 | 3.00 | 1.76 |
| E3076 | 7 | $\cdots$ | 7 or 14 | 14 | 3.50 | 2.08 |
| E3077 | 8 | . | 8 or 16 | 16 | 4.00 | 2.35 |
| E3078 | 9 | $\cdots$ | 9 or 18 | 18 | 4.50 | 2.65 |
| E3079 | 19 | ${ }^{*}$ | 10 or 20 | 30 | 5.00 | 2.84 |

## EBY TWLN

 BINDING POSTS any electrical device. Mounted on laminated or moulded bakelite strips. Ln . suiated posis. Wt. 4 oz in No. E3080. Moulded
hakelite etrip. NET.
15c
No. E3081. Laminated bakelite strip. List, 20e. NET

118

## BBI TVITAN ANES

Ideally nuited surs cersnt or quick con
nections and dis
connections for use with spake rugad phonogruph unite. Supplied in units of moulded or laminated bakelite. Marking Type NET,
EACH $\left.\begin{array}{ll}\text { E3086 } & \text { Bpeaker Moulded } \\ \text { E3087 Phono Monlded }\end{array}\right\}$ ? E3088 Plain Moulded

- 3 3089 Spesker Laminated
E3090 Phono Jaminated $\}$ \& 3091 Plain Lamineted


## CARTER NEW SHORT JACKS

 A short jack ly heavy construction that
mall space. Springs held by heary cadmitum plated stel rame casouring plated steel rame. Mounts in ginele 3 tacts
No. E1945. Carter 501. One gpring: oben circuit. $2,4 \leqslant$ List, 40e. NET.
No. E1946. Carter 502. Two springs: cloged circuit. breaka one contact
LIst, b0e. NET
294
No. E1947. Carter 503.
Three springs; oven circuit. with one insulated ma ite contact. Single filament control. 352
 Three springs: makes one and breakg one contact
List, 0 .

## NET

358
No. El949. Carter 501 . Four springs: breaks two contacto double circuit.
List, T0.
NBT
nap intidnot High grude roary enap wwiteh. remarkably per ect low resige nee characteris. iles. even a fiter use. For use on 125 rolts. and 02
amps. and 250 volts. 1 No. E3082. Sintle poie. single throw No. E3083. Single 0010 double List, 30e. NET $\qquad$ No. E3084. Double pole. single throw
List, 40 c . NTT
243
No. E3085. Double pole. double throw.
List. 50c. NET
30

- Standard for power. battery, and local-dist ance switch use.

Nev A.C. Pow er Britel A Dositive contact roto power switch. Controls from panel. Steel eneased. Bfif cient. Wt. 4 oz .
No. E2337.
Llst, 50c. NET
$20 c$
 KIEROPC CAM


Fiamons Kellogs Cam Keys. Built on T frames with bushings and rollers made of Kelifto, a non-carbonixing material. Springe are of German silver with speciai contacts. TIPE 1042
Three rets of make conacto. Single locking. 6 oz . No. E5578.
VOLE PRICE
$+125$
TYPE 1030
Two sets make and break cuntacts on each side. Double locking.
No. ESB79.
$\$ 1.65$

## Service Men＇s Tools－Supplies－Equipment

## LENK BLOW TORCHES

NO． 5 • MAsTE胃LOWTORCE Combination alcohol torch．Built to last \＆Bue－ tion Ne adjustnant neces． tion Ne adjustnant neces－ ways cool．
Powertul $2200^{\circ}$ heavy in． tense flame，or $1700^{\circ}$ veedie－point fiame．a real Size． $7^{m+3} \pm{ }^{4}=3$ No．E 490
L． $51,55.00$ ．
 SPECIAL
NEW MODEL 108
Blows Itself．Operates on d napurer heat conductor for sulck gen eration．

## Leak Proof

solid base makes it mechanically leak proos．Nozrle cap preventi oraporation．A most unuxual bar－ rain．Will qre effrient service No．E4902．List，$\$ 1.00$ ．W2． 1 es NET

## LMPOASOLINE TORCE

Entirely automatie with a per－ fect Bunsen flame over $2000^{\circ}$ hot freatures No priming cup blowing re－ quired．A handy torch for fobs re－ quiring a maplung，fusing，brazin： heat．A sturdily consstructed Shpe Wt．， 1 ib．a bargain． No．E4904
YOURPRICE
NO． 175 DUPLEE LOWTORCR


A lenk heavy duty forth fra－
turing a Bunsen burner for oue turing a Bunsen burner for out door use and heary soldering tached if needle point is de sired．

Adjustable Finase The pressure ralve on burne $\left.0_{1001}\right)^{-}$and

 No．E 4905. YOUR PRICE


NO． 30 CRAMPION BLOWTORCR
 A new Leak product； dering work．Entirely auto－ matic．Produces porerful blast：will
Starts in 20 seconds Well buift of heavy gauke brass． nickel finished，Seamless one measures only 7 in．by 2 in． Shus
$\left.\begin{array}{l}\text { No．E4903．} \\ \text { List．} \$ 3.00 \text { ．}\end{array}\right\} / 76$ YOUR PRICE

## GOODELL－PRATT RADIO TOOLS

## AUTOMATIC DRILL



Goodell－Pratt automatic drill suyplied complete with elight drill points．Cuts guickly and makes clean hales $1 / 1 \mathrm{Ln}$ to 11／4． Well built spiral diriven mechanism is prac－ highly polished nickel plated．Drills con－ tained in bakelite handle－each in separate numbered compartment．Length． 10 in． A．usetul tool． N．E3675

4313 PRICE

\＄

## RAND DRELL

Highly servictahle with solld steel frame and single speed，cut gears．Equipped with three－jawed chuck holding any size drllu up to 14 ＂．Large gear，red exameled． Mahogany flnlshed hardwood han－ dle．Jength，10\％ 3 1bs． No．E3676． YOUR PRICE

GOODELL－PRATT BREAST DR童L A sturdy，dependable two speed drill．Three jawed steel eat chuck holds ans size drill up
to inch．Machine－cut gesrsi，two steel piaions Guick，positire gear shift． Black enaneled frame．Large gear red．Manogany tinished hardwood hancies．Lene th； $164 / 2$

## No．E3677，$\rightarrow$ 4


$\qquad$

## RADIO TOOL CHEST



A prac pensive cool chest．Cont DFuctical Doycrica suited fol in e service man and set buldar．Each tenol of sturdy construction in nempes those toois which are constantis reamer，counterink，pliew drivers，seriber． socket wrench sets for hezagon and bnurled nuts．and 3 wrenches for hexagon nuts from
 List．$\$ 3.00$ ． YOUR PRICE

## RADIO TOOL EET

 tools to meet the multidle needis of the
servics man． Each 1001 pre．
 cision bulit $\sqrt{2}$ ished．Consist，
of the following fools：
1 Ratchet Tool Holder． 1 Countersink
$18 \%$ Inch screwdriver：Blade $1 / 2$ inch wide．
1 ity inch Screwdriver：Blade I 41 inch Screwdriver：Blade tha inch wide． 1 2－inch Serewdriver：Blade $1 / 2$ tinch wide．
1 einch Shank for IIolding suckets． 6－inch Shank for Holding suckets． 3 Hexagon Sockets：\％h，解 and 1 in inch． Donlle End Hexwon Wrench for Hex Nuts．
No．E3678． YOUR
PRICE


RATCRET SCREN DRIVERS


Particularby adanted to radio，electifal，and ouher light work where sniall serews are umed Racchets either to right，left or sets solud Nuralag shiter ring． List Price 85 c ．YOUR PRICE
$63 c$ No．E3666．G－inch mlade．
Lint Price．95c．YoUR PRICE．．．．．．． 1 ．
 BTr

## Ren－

A set of five detachable sockets of fine wrousht steel．Complete with wranch bandle． No．E4200
NOUR PROOE
$47 c$

## Non－Sklas Serewdriver Small．shock－



fountain pen style with clit for pocket use No．EI567．13－inch blade．
NET $£ 1567$ ．1为－Linch binde．
99
No，E 1568 ．2－inch hade．
 138 NET ……．．．．．．．．．．．．．．．．．．．．．． 120

## Nillew－Fall Hack Bab



An adjustable hack saw frame． Blade can be raced rour wass． Equipped with one 10 in ．blade．



## MDCETRACESAW <br> The＂Tom Thumb＂frame．The

 handiest and the most compac Saw obtainable YOURHACKSAW ELADES


Tempered steel，properly eded．

 $r a d i o s i z e$
serews at $n d$ nuts includ－ 6－32．S－32．10－24 and $24-20$ ． $\operatorname{In}$ ： cludes $6 \%$ in．stock and adjust－ No tan wrench． No．ES 790
List，

## RADIO RYAMER

Enlarges boles to desired size． Works well with bakelite or herd Nubler Wt． 8 oz． No．E 1566
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## STATHTWISTDRILLS

## COOEKUTTER

 TOOL GRINDER

## HEAVY GAUGE TOOL KITS



A heavy gauge utility chest with an automatle cantilever tray. Thls chest is expecially adapted for bousing the setvleman's tools and supplies, but can
tiso be fut io innumeratote or tiso be fut to innumerabte other uses.
such as a thishing tackie box lunch as a thining tackle box. Junch
and outing box. lor raluable naluts. etc bouitroed for ratuable therer tray. Stze 14 and $61 / 2$ x 8 incles.
Nou E8SIO.
YOURESPELAL Witt Senovible Ires seribed nhote with the escention seribed ithote with the exception movable tray, which cun be jhated amswhere on a job.
Tras has a fush hatule and morable partitions.
No. E89i I. YOUR SPECIAL PRICE..............

## KESTER ROSIN CORE SOLDER



Thut soldier inade of the bimbess grade tin and lead obtumable, Incorsmaratisg fure rosin fiax of the wromtest eficiency.
 Na. E4719. 1-1b. roll. adWoximately $5 \prime$
YOUR PRICE
$\qquad$ ${ }_{4}$ 40 c

## Wellmade Soldering Iroms <br> 

Weil constructed. durable irons with escevtionally thne hiating elements, insuring,
cont life. Model B. A substantial is watt iron for general service. 6 foot ashestos covered cord, and hug. One tip. A very serviceabie product, uttractively priced. No. E7780. PRICE.
$\$ \leq 45$

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Model $C$. $A$ heavy duty
with two interch
100
watt
foot cord with two interchangeabe rusi. a foot cord
and plug. Hearier construction than Model B. Extrenely durable. For ull tyges of R. Extrenery durable. For ull types of
soldering work.
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VAC-U-CUP Floor Levelers
Made of new fise mubber. Used with radio sets, washing nizchines. retrikerators and other motor drisen adollances. t'rerents raclo sets and nurnuture tron roking, slijping and seratching. ani
ing nibratiou.
No. E6760.
No. E6760
YoUR SPECIAL PRICE
Per set of $4 \ldots \ldots . . . . . . . . . . . . . . . ~$
$28 c$


## MORRIS COIL WINDER



The morris improved universal e o il winding mactine will mind Honey Comb, spider wely, solonoids, etc., in diferent widins a n d dianieters.
und will use vire of different paures. An ideal inaclune for the exjerimenter. Will pay for itselt atany tinies. No. E5S5 צoub ferice



Surdy diagonal cutting bllers ratade of fine tool stemi and with spectal oz.
NO. E390I.
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## SPECIAL SOLDERING IRON



AMERICAN BEAUTY SOLDERING IRONS

No. E985. The ldeal solderina irom corunlete to erery detail, with sjecial stand. Wit., 2 lims.
List Price. \$8.00. PRIGE

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No. E986 Extra ? in ti山 for zhove Meiglit,
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YOUR PRICE No. E987. Handy 50 watt iron for hight radio and teleutione work. Chisel polnt uppiss in. djam. Shipıiag wi.. 1\% ihs.
List Price, \$4.50.
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8233
SCREW DRIVER


PANEL CUTTER Conveniently sua rupldis cuts circular holes in pancls. Adjustable $12 / 2$ to 6 in Whank 1 ib .
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\$185

Neutralizing Wrench and Screw Driver


A new tool that is breakine sales records. One end is for neutrallzing. und the other with toothed wrench for tighteains all sinall nuts. Shtpling wt.

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Screw Assortments


A machine serew assortment
prepated to miet preparted the needs of thet the needs of the sermice bian zind billider. Inchudes
a total of $85-6 / 32$ screws rangina in
 buad wrews.
No. E2390.
YOUR PRICE
24c
No. 2 assurtment. Hat head No. E2391.
YOUR PRICE
$24 c$

## Soldering Lugs



> No. E2355. styte 5. 18e

## Serviceman's <br> Hardware Kit

Assembled to meet unlversal requirements. Conslsts of 2 gross of assorted machine and wood screws: $\&$ gross soldering lugs. assorted: one grows washers: one gross nuls; 2 doz, kuurled nuts; 50 ft. annunciator wire: 9 ft. rowiln core solder.
No. E2333
YOUR SPECIAL
PRICE .............


Flat Washer:
200 ensorted wash-
fiber. Handis for all
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## MACRINE SCREWS

## SERVICEMEN'S POCKET FLASHILGHT <br> A necessury service tool. Ingbts the dark corners inside cablout and chassis. Throws concentrated spot of likht. Carmied in vest bucket like a fountain pen. length Diarn. $\%$ in. Nhog. wt. $1 \%$ lbs. No. E292t. Comslete with celt YOUR PRICE NETE2922, Extrin cell.

 RMA Celor Code Resistor Chart$\qquad$ Indicutes exact
resistance of any R. M. A. resistor color code colnbination. quickly. curatulyd acrervets, tells color eode comb


BRACEET ASSORTMENT

popular angles and bractests used on the arerage radio Lit. Manufactured of solld plited. Every serfice man needs.
Shluping wt., 1 jb .
NO. E2359
NET PER SET


Fibre Washer Assortment
An esmential msortambt for tiffermit types of shouldered and plain fibre washers, of Ereat thes at all times.


## ICA Short-O-Tester



A circuit and contlmuity tester, of grwat olt lampand a small sized flashlight bat ery, Wien wire lead with ellp is atiached o one end of a rircult and coniaet is made flanong the pin terminal with the other end, lamp wift indicate whother circult is open or closed. Whil test the contlaulty of yractically ail radio cirentus. Can also be used as Rishlight by connecting clif lead to pin base. 14 ths. NO. E164O. List. $\$ 2.00 . \leqslant 1 \pm$

## Netutralixing Serew Driver

For all types of neutralizing and alignIng work. An essential liem of the sert treman's ktt. Arallable in knob end or dinzry insulated lypes. 8 oz.

Mo. E 1641 Kinob. Tye. | Mo. E |
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| List. 55 S |
| 1 | Kinob. Type.

No. E 1642
Less Knob.
326
27c

## EAGLE DETECTOLITE



Detects live and ground wires. Indieates
 Habtite case. leavily insulated leads. Nothing to get out of order. Neon bult


SERVICE TEST LEADS


Quictily attached to meter for testing radio atd electical equipment. Sturdy black and red tubing and black and red wire. For positive and negative identification. Shps
 YOUR PRICE, EACH
PHONO-NEEDLE MODEL

Needie point test leads for testing circuits mithout remoning wire insulation, Needle Doint penetrates insulation without infuring
 YOUR PRICE. EACH

## HEAVY DUTY LAB. MODEL

Needle point leads. Over-sizex insulater handes Fitted with ehack to take a regniar phonomrable neetle. No. 16 wire, heary nsulation for heary duts rudio, electriest and No. E|647, With phone tlise. No. E 647, whth phone thas


## 4-IN-I NEUTRALIZING

 AND ALIGNMENT TOOL|  | N $A$ well made + in 1 |
| :---: | :---: |
|  | Neutralizing and alignment toal |
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| - vimerpransme service ma |  |
|  | kit. Altachments for |
| No. Ei618. |  |
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| YOUR PR1EE ..................... 4 |  |
| No. E1615. |  |
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## SERVICE MODEL

## BAEELITE AERIAL AND GROUND CONNECTOR



STRAIN INSULATOR


## LTAD-IN-WIRE

 Rubber and Braided WeatherproofedHigh grate tinned eopper wire. rubber corerea with weather
proof hraid. proot hraid.
No. E25.56

| No. E255 |
| :--- |
| No. E255 |
| No. 255 E |

## No. No. No.

## SHELLDED WIRE

A hish srade rubber covered lead-in nire. No. 18 stranded. Ruibler insulation with shieldina of the copper brald.
$\begin{array}{ccc}\text { No. E2686 } & \text { Feet } & \text { NET } \\ \text { No. E2586 } & 100 & \text { SO.47 }\end{array}$

\section*{INSURATORS PORCELAIN <br>  <br> Standard type. inmulators. Very trono. 8 oz. <br> | No. E5927. $\downarrow \mathrm{in}$. NET EACH <br> No. E5926. $21 / 2 \mathrm{in}$ <br> Per Doz., 21c. Each. |  |
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GLASS INSULATORS


## WALL INSULATOR



For supporting wir ing. or instrumintis lorcelain construction hish. Very stronk and durahle Mas he used outside for supporting leat-in or sround wires. Wt.. No. E4785.
Per Doz., \$1.05
NET EACH.

## STAND-OFE

 INSULATORIfade of porcelsing antenna instaliations Shiphag welfht. 10 No. E4784. PERT DOZ. 93 CB .

## Wail Insulator

For atcuching lead-in or greiza wire to posts or Center of $b$ a kelite mounted in talyanized screw eye
No. Lenath Per EACH


## AERIAL AND GROUND EQUIPMENT



## BELDEN AERIAL CLAMPS



These modern wostherspool aerial clamps support antenga rigidly, Rult proaf and sturdy. Fasily installed and easily remored. No malis required. No holes io danase roors or woodwork. Can be installed on mindor sills around gutters and eaves, on apartment house parapets and around chimpess. simply set clamp and tighten. Perfee instaliation is assured. offered at an a mazingly reduced price
PERMANENT*RIGID


Once installed gives per Cadmium wlating on inChar rod prevents rust. with biked on blact ensmel. Kit imcludes two

$\$ 2.50$ Value NO. E8040 SPECIAL

SPECIAL AERIAL KIT atial 00 klf iete slowed for any tupr of aerial installatho. proved radlo reomption CONTLNTS


50 It. of 7 strand Copper Aerial Wire, 25 ft . Rubber Insulated Leed-in, one Win. tors two Pormelain Nall Knobs one Light ning Arrester and one Ground Clamp Convenlently baxed. Shlpsing weizht, No. E2524.

## rour special price $30^{\circ}$

## DE TUNE EIT

A Iarger serial kit. Cogtalni $100 \mathrm{ft}{ }^{7}$ strand wre 40 ft. rubber coretrd lead-in. 25 fl . Insulated ground wire, one ground clamp, four porcelain strain lnsulators, two dow ferd-in. Shipping weight, 8 and window lead-in. Shipping weight, 6 has.
No. E2526.
YOUR
$65^{\circ}$

## Bud Aerial Eliminator

In bokelito cure. Entirels a uliminates outside aerial. ReQives more seiectivity. Has eapaeity of 50 ft . aerial.

No, El 604 Lint, \$2.50. NET
clamps and three large portached to the metal serial supports. Doz. Lats.
53.95

## NEW ICA

 INSULTENNA erlal ellminater. ures only $5 x x^{2} y_{2} x i^{\text {in }}$ May be placed out o. ight. Has capacity of 75 ft . of ordinary aerial vo connection with elec tric light current. Easily osianed inside radjo Ho. E4223.* 35 List. $\$ 2.50$.
## BULLT-IN MODEL

## Complete aerial and ground instaliation

 built into a standard switch box. Equivalent of 75 ft. aerial. Improves reception. bulldings, Brown bakelite plate $2 s_{4}$ " $x \leq 1 / 2$ ". With makelite clamp. 25 It connecting wire and ito solderless plugs. $\left.\begin{array}{l}\text { Nop. W1, }{ }^{2}{ }^{\text {lbs }} \\ \text { No. E42 }\end{array}\right\}$ Liet, $\$ 2.75$.
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BUD AERIAL FILTER

self-contained in ously defised aerist Ouickly nstalled on midgets, console Dortabla or automobile sets o ground necessary on most electric sets. Proxision mad or ground connection for oldet sets. 54241 net
No. 4 ist. $\$ 1.00$.



A seven surend triple gold plated aerial. Used on sor ernatent ships, etc. Will not corrode. 100 ft coll. Im prored reception at a reauced wrice. List. E 1060 YOUR PRICE. $\$ 1+35$ STA-PUT Aerial tictss to anythins-Any
uere. Instantly installed Can be hidden from flew. Fery eftelent. Brings in stations as clearly as out aide aerial with less interrerence. No. E25;9
List. $\$ 1.00$.
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CLASS LICETTNINC ARRESTER A new Idea In lloht Mrrestera. so that any
shorts or defecss caused by over londs can be detected. Wade of crystal clear glass. No. E2552. List. 85 . YOUR PRICE

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An efficient new tir-sap type arrester
of fhest porceluln construction. An extremely nopular value
100 Lots. 56.25.
100 Lots 56.
No, 2909.
NET, EACH:

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compact noncorrosire inside aerial. Cian be
easils hid
en easlly hidden. gingle lag.

Non- Directlona
More selectire. Reduces static and interferepces and inmproves tone quality. Now low price. No. E5237. List. $\mathbf{3 2 . 0 0}$.
YOUR PRICE........... 88


ICAFIEtered A童保
New type aerial wire. Enameled wire helically wonne over in wire. Filters and
ampifiles receiver sionals. No. E4209. 60 ft List. \$1.50. NET

Dusblier soestet Antenana
Fig Improved 11 ght socket aerial. Eliminates antenna. lead-in, Hghtning arrester. Does away with Hghtning hazard. Mínimuzes static. No. E2746. Ligt. $\$ 1.00$. NET 535

Heduces statio and increases selectivity no current. No. E2908 NO.
NET.
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Emeient protection gainst hazard. UNDERWRITER APPROVED Improrts reception by refecting static charges, Sturdy, compact Approved is underwriters. No. E I 603.

245

Under-the-Rus Antenas
ANTENES

Practical and convenient indoor antenna. Easlly attached to ans radlo set. Simpiy place under ring and connect to set. An aeriap-not an aerial elimiof both including superior reNeptivity.
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List \$1.30.

# AERIAL AND GROUND ACCESSORIES 



## UNDERGROUND ANTENNA

A bighly efficlent aerial with distinet advantages in convenience and improved reception. Unsightly uitres are eliminated. A hole 18 in . deep and 7 in . wide is all that is needed. Fast becoming the standurd installation.

## FILTERS STATIC

Static reduced tremandoushy. Dellvers filtered stound waves. Improves with time as earth racks asaingt il. Greatly Improves hot weather recoption an mast electrical and static disturbances are altered out. The Lndergrotund Antenna will increase the duced price.
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YOUR LOW NET PRICE

## NEW DA WINDOW ABRIAI

New, 5 wire window aerial. Also suitable for porch, atice or closet use idesi for superheterodynes. Which requife aerial of large cayacley in xman area intermance and tunes sharo and clear.
Non-directional nature Increases seleetivity. The DX - complite. weathertiroofed and easily lasisiled. The improved reception made posstble bs the use of this aerial is surturising. Subplied with urackers and wood screws.
No. E8865, LIst. \$2.30. YOUR PRICE $)$ Non-Directional-Powerfnil No. E8867. Same as shown. but
wlihout bracket. A 5 -foot care to bo wlithout bracket. A 5-foot care to bo
strung angwhere. fides! for porch. strung saywhe
attic or 'roof.


## BELD曽NAMEL

## AERIAI WIRE

 ore twisting.

 | $E$ | $466:$ | 105 fl | 1.10 |
| :--- | :--- | :--- | :--- |
| $E$ | 467.1090 ff | 7.00 | .86 | No. SOLID ENAMELIS NET $\begin{array}{lllll}E 1468 & 100 \mathrm{ft} & 12 & \$ 1.00 & 59 \mathrm{c} \\ \mathrm{E} \mid 469 & 100 \mathrm{ft} & 14 & 70 & 41 \mathrm{c}\end{array}$

Shielded Lead-In and Cromnd WIre

8tranded conductor with hebvy, atystrlp rubber Insuldtion and ofer-all
braid of fine tinned braid of fine tinned coppet wire which serves shield. Reduces interference.
No. Size
Nength


## Selden AIL-Rubber Lead-I盇 Wire

Sranded wire in-
sulated with special nubber compound eas. lly strioped for quick apliciug
derink.

Fletible Indeor Aerial Wire
Special high quallty. tow - oriced indoor a erial
 cupper double cotionrovered wire. deal for loops. 125 fi. wer spool.
No. E2581. Brown.
NETPER SPOOL...
LOTS OF 10.
270
$\$ 1.95$

## coppen авана WIRT

Flnest hard drawn copper wirt. An acfor a biandard see Fit.
 coliretor: minance to elecrical currents

| BTRAND BARE |  |  |  |
| :---: | :---: | :---: | :---: |
| No. Slze | Ft. | NET |  |
| E2660 | 22 | 50 | 14 c |
| E2562 | 22 | 100 | 25 c |
| E2863 | 26 | 50 | 9 c |
| E2565 | 26 | 100 | 16 c |

\% STRAND ENAMELED

| $E 2666$ | 22 | 50 | 19 c |
| ---: | ---: | ---: | ---: |
| $E 2868$ | 22 | 100 | 36 c |
| $E 2669$ | 26 | 50 | 13 c |
| $E 2571$ | 26 | 100 | 24 c |

SOLID ENAMELED $\begin{array}{llll}\text { E2878 } & 12 & 100 & 43 \mathrm{e} \\ \text { E2576 } & 14 & 100 & 29 \mathrm{e}\end{array}$


## RUBBRR COVERED LEAD-IN WIRE

A high grade rubber cov-
ered No. 18 lead-in witre. Perfect insulution; no losses: moisture-proot. SOLID CONDCCTOR Nio Outer Brald

| So. | Fi. | NET |
| :---: | :---: | ---: |
| E3980 | 25 | $\$ 0.11$ |
| E3981 | 50 | .20 |
| E3982 | 100 | .38 |
| E3983 | 1000 | 3.65 |
| STRANIED CONDCCTOR |  |  |
| No Outer Brald |  |  |
| E3986 | 25 | $\$ 0.10$ |
| E3986 | 50 | .18 |
| E3987 | 100 | .34 |
| E3988 | 1000 | 3.30 |

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## For Lons and

 Short WaveAn extremely well. constructed and per. fected Antenn for all radio sets. Receites radio signals from all directions. kiving better volume tion. Mreater distance copper. Gathers an amazimy amount of enerfy. Nest ture. Ideal for Television
Ideal for short wave and television reception, unbeatable or long wave Actual size 14 in. diameter. Distortion and interference practically eliminated. Binkes poss inctalled on any kind of pole. Shor wi.. 8 lbs. No. E8860

## DX INSIDE OR OUTSIDE AERIAL

Amodera inside or outside aerial. completefor assembled and ready for use. Especialls , suitable for "Supery" or
sete. May be wed aysulut etc. Absolutety antema. powerful. exiremely selective cage Use Anywhere-Mounts Dasily
Only 31 inches total length. somplete with 10 feet of soldered lead in for instant connection. Coroplete with bracket.
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List, $\boldsymbol{\beta}_{2} .00$. NET

## DR-LIFETMME AERLAL



Fully assembled ea a a antennas. Tuned pulted for quency. "Bupers"
Ind short waves. Absolutely non-directionai. Make possifle kreatly Rugectly volume and tharper tuning, san be used on roof, ustic or porth. $2 \overline{5}$ fr of slzes


BEEDEN BAKELITE ARMESTER

## Sturdy and

0
$i$
$i$ $\mathrm{~m}_{\mathrm{a}} \mathrm{a}$ e
ning arrester
for installation Inslde or out-of. iooors. Approsed by National Board of Fite Underwriters. An untusual value.
No. E1460.
NET. 25 c
14c

Combination Aerial and Lead-In Wire


10 strands of No. 30 copper wire. inwhated with Gutta stripolng. Non: corrosive. An all purpose wire for

| E4000 | 1000 ft | NET |
| ---: | ---: | ---: |
| E4001 | 100 ft | .95 |
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E4003 25 fl . 12
The A1

## CA Electrostatic

## Arrester

 Comblaz: tlon light$\operatorname{ming}_{\text {atic }}$ nd CesterCon struc: - nen azainst flre maximum protection reduction of static. Choke coll and condenser limeorporated in the arrester to tilter aerial statie nolses. No. E4224.
Wst. $\$ 1.00$.
NET.
33

## Silvatone Filtered

 AerialExtremely
 Combact aerisl whith comploto.
 A.C. haus andinolse. inohes in diameter but equiralent to alxty feet of ordinary it + ung erral. Ideul for miluet sets.

Etilly attached direet to radio by means of a powerful suction cup furnished. No rools of any dind needed. No visible wires.
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YOUR PRICE ............. 85

## RADIO PARTS and ACCESSORY SPECIALS

TUBE SEITHLDS
Finest type aluminum tube shields. Carefuliy constructed
to meet functions for which they liave been designed.


## TOR NEW TUERE

 For new types 56. 57 and 58 tubes. Covers sists of base barrel $1 \%$ eap Barrel diam. - 4 \% Shog. wit.. 1 No E3210 10 LOTS.2 PIECE STANDATD
Mounted by means of screw lugs furnished. 5 1/8" high 17/8, diam. Slipg. Wt.. 1 lb . No. El420. 123 10 Lots.

NEW SHORT TYPE 3 PIECF


## Designed for Yos 57, 5

 lube meries. Double wall of aluminum at the curled-1n acok for greatest eflicienc bia m. of barrel. 1\% Mo.EI 421 . NET EACHTTP昰 Two plece aluninum $80^{\prime 2}$ inulde diam. by $5^{\prime \prime}$ 1Th/: socker NO.EI422. 10 Lots.

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SHIELD Mollera senstive clrcuits require perfect nhleldinx. This smleld and base is sinleld and base is idpally suited for cuits. Irade of pure miuni mated. Diam., 3 In. Hejght 3 In. Holes in base for leads. No. E2344. LISt.
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Double seamed, exdmlum blated

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Used for housing filter blocks. choke coils and pow No. E 685 No. E6852 NET EACH 10 Lote

## LEAD TURE CAPS



Eliminates tub crophonic nolses Indispernes ble rubses. tubes.

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## Trimmer Condensers

Balanciog con dehser ysedextencondensers as a trim. mer to balance ot capacity pinot mid


## FROST FILAMIT

 SWITCR
## Very

 pact-giver pact. $S$ impletaplen to moun

## t

$\qquad$ 18 c


## NEW HAMMAREUND

## CHOKES

CH. ${ }^{\text {No. E }}$ E 344 choke. B millinenries shors ware and especially as grid choke for multh-stage transmitters. Highly eftident D.C. restistance of 70 ohms, dilstrituted capacley of 3 mmf . and current carring capneity of $1: 5$ List. $\$ 1.10$.
NET
No E3945 Style RFC.85 Induc 35 millihenties, cameity 3 mmf.. D.C. reskstance 215 ohm, current currilink culwcity 60
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N- E3046 Style RFC 250 350 millimenries, capectit 2 numf., D.C reatst. ance 420 ohm. extrrent carring cabacits 60 H.A. size ${ }^{12 \pi / 1 A^{\prime \prime}}$ high. $15 \mathrm{H}^{\prime \prime}$ " dlam $\$ 1.32$

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3 CANO CONDENSERS

## 

DIAL CABLE
Strong wire dial cable, autabie for replacement on any receiver No. E6805.
3 Ft Lencti
No. Es806.
50 Ft. Coils.

18c
\$1.47

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Rotary Switch

csed in circuitm re fuiring multiple or parallel monnectionsfrom one to forty cir ulls. For makins or bridzes. T aken place of fan buitch bace of fan briten Iy switching connec tions are used.
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WESTERN ELTCIRESIONAL CORIS TUBE VT-2
Ruggedly designed tube made by the Western Electric Co. fol U. S. Sienal Corps. Used for both R.F. and A.F amplifica tion, also CW and phone trane mitting

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Has a power output of 5 waths. Characteriatics: Filament 5 V . Plate 45 350 V .. Power Outhut. Is watts. stand ard nary base. Fliament of pure plarinum.
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Aeroplane Transmitter and Receiving Set
Genuine U. S. Army equip-ment-iffered at a starting low price. Many applications
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Designed and bullt by Westers Electrie for the U. S. Ariny Hiznal Corps. Single circuit regenerative tuner used for both trangmitting and receiving. Six pole double-throw switch provides rapld change from transmitting to receiving posstions. All controls mounted on a lieavy babelite panel. Separate controls for tunhig antenba circuit and gidi circuit
give exceptionails eharp selectivity. Switch pernits uke of gre excoptionally eharp selectivity. Switch pernits une of 2 or 3 atudio stagen. Hardwoud case $163 /$ ins $^{2}$ high. 6 in. deep, with brass hardware. We are brould to be in a position to present thin really remarkithe value.
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Here are offered parts necessary to install interphone communication between pilot and observer in airplanes. At hut a fraction of the original manufacturing cost.

This is a splendid opportunits for the amateur to secure first quality equipment to carty on his experiment at a fraction of the real worth of the apparatus.

## Built by Western Electric

Built to risid C S. governmont specifications b, the Weatern Dlectrie Co. This means that highest quality parts are used. Only by reason of a fortunate purchase are we able to pass on to our customers the Ravings of lered here. No. E9055.


## Navy Communicating Microphone and Headset

A sensational value in U. S. Navy equipment. Utah type headphones with rubher cushion caps. Extremely sensitive. Easy to adjust. Mouthpiece and sensitive single bution microphone are mounted on an adjastable metal plate. for strapping conveniently to the cheat. Equipped with 25 feet of heavy duty cable and plug.

## Built to Navy Standards

Dewigned to E. 8. Navy rigid spectifcations for communleation between range finder and gunner, or pilot and observer in planes. A quiet" button on breast plate shunts out the micro-
phone for listening. Solid construetion throughout to withetand weather and rough usf. Apparatus offers finumer. able uses. Any of component parts worth more than our low price for whole outfit. Amateurs
and experimenters will
appreciate this unusuai
Ho. E8900.
SPECIAI NET IPRICE


Hew I.C.A. Tone Control
A new pffeo tive Tone Con. trol for your enjoynent. liary the tone to your liking. from the reso. nant deep bass to brilliant.
 mellow treble. Makes possible falthful re production of both musical instruments and voice tones over entire range of expression. even at a whisper, without any loss of volume. Conveniently formed, slmple to operate and easy to install. No. E4217. List, $\$ 3.50$. SPECML NET

## I.C.A. Multi-Speaker Relay

 This multl-speaker Relay enables you to switch from one speaker to another instantly for the parpose of comparison. Useitul also to operate several speakers in geveral gnoakery inturn in diferent locaturn in different loctaspeakers for comparispeakers for compari-
son or 2 for multiple operalion No. E4244. Ll
SPECLL NT


New I.C.A. Super Voltage

## Regulator

Automatic $k$ constant voltake. Pro.
longs tube life precents burn-onts alld power pack break down, and For ars or recention. For A.C. or D.C. set. and eliminators on ald cyele
install No. E4245. List, \$3.50 siectil Net
NEW I.C.A. PORTABLE UNIVERSAL COMPANION
An ulira-modern portabli radio that can be used anywhere. A seven tube receiver combining life-like reception, distance range and sensitlivity. Single dial control. Equipped Fith volume controi and sensitive bnitt-in speaker. Only a short autenna or ground comnection is necessary for reception.

## OPERATES ON AC-DC-BATTERIES

Answers demand for single radio usable on A.C. or b.c. ( 110 or 20.0 ) and on battery power ( 6 . to battery operation by simple insertion of plug.

## NEW 233-236-237 TUBES

Circuit fs last word in radio. Uses new 6.3 volt screen grid heater tubes and Pentode tubes in pushpull. Requires $3-33,2-36$ and $3-37$ tubes Measures 12 in. $\times 11$ in. $\times 8 \frac{1 / 2}{2}$ in.
Electrically operated. Simply plug the radio into it. Refects slugs, pennies and tokens. Compart. Easily insialled. Includes coin situe chute mechanisin. coln receptacie and attachment plug. Order vours now. YOUE SPECIAL PRICE.
$\theta-73$

## Special Antemotive Cable

For rapid comnection and disconnection of the I.C.A. Untversal Companion in an automobile.
No. E4246. Lint Price. $\$ 1.30$


SPECIAI PRICE
LESS TUBES No. Et 2.45
radio and electrical use. Made from the best grade copper wire and Insulated with the thest materials obtainable. Neatly wound in gingle lengths on convenient th lb . spools. Eepecially suitable for winding low-lose coils.

## $1 / 2$ POUND SPOOLS

| MELED |  |  | DOUBLE COTTON |  |  | DOUBLE | Sle |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E2475 | 16 | 0.20 | E2466 | 16 | s0.24 | E2489 | 182 | S0. 4 |
| E2476 | 18 | . 21 | E2467 | 18 | . 27 | E2490 | 20 | . 56 |
| E2477 | 20 |  | E2468 | 20 | 30 | E2491 | 22 | 2 |
| E2478 | 22 |  | E2469 | 22 |  | E2492 | 24 | 8 |
| E2479 | 24 |  | E2470 | 24 | . 38 | E2493 | 26 |  |
| E2480 | 26 |  | E2471 | 28 | . 60 | E2494 | 28 | 1 |
| E2481 | 28 |  | E2472 | 28 | 6 | E2495 | 30 | 55 |
| E2482 | 30 |  | E2473 | 30 |  | E2496 | 32 | . 83 |
| E2483 | 32 |  | E2474 | 32 | . 9 | E2497 | 34 | 6 |
| E2485 | 34 | . 51 | E2463 | 34 | . 35 | E2498 | 36 | 79 |
| E2484 | 36 | . 67 | E2464 | 38 | 85 |  |  |  |

ALLIED CAN SUPPLY magnet wire in any other type, size. and quantits. Send in your order with a deposit for prompt service at lowest prevalling prices. Uuotations made promptls on request.

## 3 Conductor Mike Cables

Copper tinued conductors. Three conductor brown braid covering. Finest materials. UNSHIELDED
No. E5438. 5 ft. 6 lin. 3 conductor-liks both ends.

NET
$28 c$
No. E5439. 10 foot 3 con. duetor. Lugs both 45 ands. NET, EACH

Rubber covered 3 -conductor shielded cable with terminals for outaide public address use. Waterprool and weatherproof. Metal braided shield over conductors and an outside jacket of rubber.
No. E3202. 12 fuot.
List, $\$ 3.60$.
NET.
$\$ 2.12$
No. E3203. : N 5 foot.
Llst, $\$ 7.00$.
$\$ 4.10$
NET

## LEAD COVERED CABLE

Used when the speaker is located at a remote distance from the set. Lead sheath acts as a shield.
No. El495. No. 18
Parallel $¥$ cond. $\$ 1.41$
50 ft........
30 ft...... No. 18.
Single-50 ft. ...... 95

## Tinned Copper Shielding



For "B" battery leads Bpeaker leads, lead-ins, and various chassia connectious. Easily soldered.
No. E 1497.
Dlam. ${ }^{18}$ iss in.
NET, PER FOOT
50 FOOT COIL
No. EI498.
Dlam. $3 / 4$ in.
NET, PER FOOT N FOOT COLL
No. El 499
Dlam. 23/s: in.
NET, PER FOOT
30 FOOT COIL

## MAGNET WIRE

Practical, precision-congtructed magnet wire for

## LITZ WIRS




Bakelit

## Multi Conductor <br> Cables for Battery, Speaker and Analyzer Connections

No. E5552. 4
Cond. 3 feet long. TRE No. E 5553.4
Cond. 5 feet long. TS NET, EACE
$41 / 2$ foot cables

| No. | Conducturs | NET |
| :---: | :---: | :---: |
| E2286 | 5 | 18 c |
| E2284 | 8 | 20 c |
| E2287 | 7 | 32 c |
| E2288 | 0 | 48 c |


| Ie foot e.ebles |  |  |
| :---: | :---: | :---: |
| E2289 | 5 | 65 c |
| E2290 | 7 | 93 c |

Continuous Length Cable 100 Ft. Coils speaker exten sion plus for phones or loud speaker at dizance frum recelver
No. E42:8.
NET, EACH
NET, PER DGzz ....

## BTS BAE WIRJ



Hard drawn copper wire No. 1 gauge 2 ft . leugths. No. E2536. Square, 10 lengths. IOCR PRICE
No. E2537. Round
10 lengths.
YOUR PRICE
$13 c$

YOUR PRICE.
Per 100 lengths
13 c

## Spaghetti

Covered Bus Bar Wire
Black Spaghetti covered No. 14 tinned copper wire. $21 / 2$ th. lengths.
No. E2538. NET
PFR $30^{\prime \prime}$ LENGTE
40 10 LENGTHS.

## 

A high quality bell wire for repair shod and garage. inculation thoroushly int Barberpole color. No. EI536. 25 foot Coils. NET, EACH Noif. E 536 . EACH. Coins. NET
No. EI 637.
Collis. NET


## UP WIRE

## -

## Simpliftes ne

 Wiring-a difer ent color 10r each circuit. To make conneetiong, $\mathrm{s} \mid \mathrm{mpl}$ push-back braid Cors consints of solid tinned copper wire Double cotton covered. chem leally ireated with paramne Flexible. easy to manipulate.
## 25 FOOT ROLLS

E25. Color
E2529 Yellow
E2530 Red
E2531 Green
E2532 Blue I
E2590 Black ROLLS PER
E2591 Yellow BOLL
E2503 Red
$E 2934$ Blue $\rightarrow$
1000 FOOT SHOOLS
Solid nush-back wire as deacribed above can be supplied in 1000 fout rolls in any color listed. Orier by tyet length and color. NET PRICE,
PER ROLL.
$\$ 3.95$

## STRANDED

 PUSPIBACK

Made of atranded lubber in wires corered with cotion braid. Each conduc-

Game uses and insulation as the solid. Core consists of multi-
strand tinned strand tinned
copper hook-up wire. Supplied
 in five colorg

> Z5 FOMT KOLLA

E2435 Blalor
E2436 Fellow NET
E2437 Red PREBOLI
$\begin{array}{lll}E 2438 & \text { Green } \\ E 2439 & \text { Blue }\end{array}$
E2439 Blue ROOT ROLS
E2440 Black
E2441 Yellow NET
E2442 Red 1BER BOLI E2444 Blue 5

$$
1000 \text { FOOT ROLLS }
$$

Stranded push-back hookup wire in 1000 foot roll. in colors listed. Order by 13pe. length and color.
PER ROLL
$\$ 4.45$

## COLORED RUBBER HOOKUP WIRE

| P\% Stranded tinned |  |
| :---: | :---: |
| - |  |
|  | tion Available |
|  | in five colors to |
|  | facilitate |
|  | Wiring. Flexible. |
|  | Easily prepared |
|  | connection |
| no. 25 FOOT COILS |  |
|  |  |
| E2542 Red |  |
| E2643 Green |  |
| E2644 Blue |  |
| E2545 Black |  |
| E2546 White |  |
| Can be supplied in 100 and |  |
| 1000 foot colls. Write for |  |
| prlees. |  | Spader on one end. Tips other end.

No. E5491. 4 foot single Tips both ends. NET, EACH
DOLBLE PHONE CORDS No. E5492. Spader on one end. Tips other end.
No. E5493. Phone
tips both ends.
T4

## Flexible Sparhetti

## Fine Cam <br> brte tubing

impregnated with varnish.
YOCR PRICE Per $30^{-}$Ixth.
E5330 Blacir
E5331 Yellow
E 5332 Red
5333 Green

## AUTOMOBILE RADIO EQUIPMENT

THE UTAR AUTO 'B"POWER UNIT


A ne w. hiuhly emcient. extremely compact unitior
Antomobile sis. Anemobile stis. Opers Auto lastery, changing current to 1 se soits. Operates nolvelewiy, yirint an eren flow of current Intermediate soit-
 Supplied completely housed with tube, buitiin relag and eable.
No.E8S56, List. $\$ 20.00$ S
YOUR PRICE ............

## New Electronic Anto

Radio "夆" Eliminator Kit
Complete auto fadio
${ }^{-} \mathrm{g}^{\text {" }}$ eliminator
 soientifically designed
to give maximum aftitiency. Compact- Size
 ports. equipped with automatic relay- no at
 justmenth necensaryar "Automatic Laad Delay" circuit insures long tife of the mercury wapor rectifity tube as Mell as the in-
termpter. Shipped "knocked down." Easily assembled. Conmphte sessembly chart sup. Nolled. Eadmiu YIAt. \$13.25.

5793
 Shipping weizht. 2: 1 lus. No. E8285.
YOUR PRICE

## Auto Radio Suppressors



For suppressing noises in Auto radio in shallations. 25000 ohun resistor type. No. E2328, Distributor type
No. E2329. Plus type.


NET EACH SUPRESSOR KITE
For $4.6{ }^{6}$ and 8 cylinder cars.




## AUTO "B" BATTERY ELIMINATOR

 The Carter Genemotor is rerter type ituto "B" elinirators on the market. This unit derelops surpsising volume and fine. ciear-cut re ception. lirinplink in more staProcives a constant flow of "B" power at all limes. at low bowtery drain and great output. Equipped with double fiter system. eliminating
## Generator

## Motor Combined

The Genemotor is a concomplete in one unit, opsex aied from the storace batter area fron the storage batery of the car, but nator on the market. Xo parts io wear ollt of replace Install it itoret it. Snace required
 No. E8! $55,4680.4$.
drain 2.2 amis. 30 M. A.
Note: We can supply immediately all special
Note: We can supply immediately, all special Carter Genemotors for any car or motor systent


## GOERLICH AUTO HEATERS



## LION MODEL HOT WATER HEATER WITH <br> ELECTRIC MOTOR

figh quafity hot water heater to at all cars, large and small. Larte size tiadiator promides ample heating surface. Improved eiectric motor. powerful and efticiest, with self-aligning ollless bearings. Consimptian less than two amperes. Deflector nas be pasiz adusted the lot ait to any notme. The die cast face place and deflecer art of aftractive modaravicic desian. In wo-tone nowrusting Enlsh harmanizing with the interior of the finest cers. All material used is copper or brass. Huter brecod to avola any simin on water collued LIons. A full sized heater at a surprisingly low price.
NOUES SPECIAL LOW PRICE
$\$ 831$
VICTOR MODEL WITE ATR MOTOR Hot water heater for sualler cers. Especially low priced to alppeal to anotorista who could not presiousig ailord to bly a hesser. Equipped with the new air motor, operated br racuum from the intake manifold. elimimating all drain on the car battery. Hiahly durable. So attention netsssary. Centrifugal action heerss fan motor operating consantls, with 110 kioy duriag car acceleration. Speed susy be caried by control switeh. brass and copuer. Easily installed in all cars
brass and copher.
No. E8 81
$* \rightarrow I 0$
NO. E8 8 IICE



## DK AUTO AERMAL

 RUNNING BOARD TYPE

## WELBAR AUTO AERIALS



Auto aerials for insial lation underneath c ar Higti nick-up. Selectrity
and ample volume as sured. Type A.C. hancs undernusth cir close to radio seq as fllustreted. fye B.C.. not fllustrated trang urderneath car
No. E8995. A.C.
NET EACH
BSc

No. E2342. 1 mfd.
No.E2343. .s mral
$48 c$
NO.E2343. .t mrd.
425

## GENUINE PHILCO REPLACEMENT PARTS



## REPLACEMENT VOLUME CONTROLS

## CARTER VOLUME CONTROLS

## TIPE RC REPLACEAENTS

The Carter quallty volume controls listed below are of the most popular ohm value for atandard sets. If you do not know rearstance of the cone urer and set model and proper contro will be supplied all controlo without th A.C. switch. If switch is needed. it may be ordered eeparately. Quickly and easily in stalled by removing cover. Abbrevlations in Hatins: C Clockwise t aper: CC Connter Clockwise taper. All the rest have uniformi taper Cat. Carter

E3300 RC-10

E3301 RC-20
E3302 RC-30
E3303 RC-50 E3303 RC-10 E3305 RC-200 E3306 RC-400 3307 RC-600
3308 R-800 E3308 RC-800 E3309 RC-1M

Ohms 10 20 30 50 100 200 400 600 800 1000 2000 3000 4000 5000 5000 C

|  | $\begin{gathered} \text { Cater } \\ \text { No. } \end{gathered}$ | Ohms |
| :---: | :---: | :---: |
| 315 | RC-6M | 6000 |
| 316 | RC-10MT | 100000 |
| 7 | RC-10M | 10000 |
| 8 | RC-1. M | 15000 C |
| 9 | RC-20M | 20000 C |
|  | RC-25M | 25000 |
|  | RC-25MT | 250000 |
|  | RC. 30 M | 30000 C |
| 3 | RC-50M | 50000 |
|  | RC75M | 7500000 |
| E3325 | RC-100M | 100000 C |
|  | RC-200M | 200000 |
| E3327 | RC-250M | 250000 C |
| E3328 | RC-500M | 5000 |
| E3329 | RC-1MG | 100000 |

$-1$ .343
No. E3299. A.C. Switeh for Above.
HOUR PRICE
CARTER MIDGET RIIJOSTATS AND POIMNTIOMITERS


Wire Wound One piece.

TOT RPSESTANCT CARSON TrPE plated steel. Non- cor resistance Wire used. Yery compact. $P$ ob Jifive contret. tion. Dissipates 1 watt. Windinge uniform and accu. rate. With black pointer knob.


## FROST VOLUME AND TONE CONTROLS <br> SERIEB NO. 20

Eugged, mod erstely priced. wire wound volume cometrols. - ered metal shell encloses the unit completely. Complete positive contact at anl imes, due to donble wiping contact comstruction. Smooth operaifon.

| Less | Resis. | with A |
| :---: | :---: | :---: |
| Switch | Ohme | Switch |
| E3553 | 200 | E356 |
| E3584 | 400 | E3562 |
| E3565 | 1000 | E3563 |
| E3556 | 2000 | E3564 |
| E3587 | 3000 | E356 |
| E3558 | 5000 | E3568 |
| E3559 | 10000 | E3567 |
| E3860 | 25000 | E3568 | Lest Switch. With Switeh. NET EACE, NET EACE.

No. E3591. DUAL 10.00050.000 ohms $1^{H \prime}$ ehaft. No. E3S92. DUAL as above. YOUR PRICE. EACH
$\$ 1.35$
element, bakelite case with metal dyst cover, furnished either with or with-
o ut ${ }^{5}$ nas Pull wiplag contact between the movable member and the hard amooth composition resistance element.

| No, | Resis. | withA.c. |
| :---: | :---: | :---: |
| witch | Ohms | Switeh |
| 569 | 1000 | E3880 |
| 3870 | 2000 | E38 |
| 3871 | 3000 | 35 |
| 2 | 5000 | 3 |
| 3673 | 10000 |  |
| 3574 | $2 \overline{2000}$ | 358 |
| 3575 | 50000 | 358 |
| 3576 | 75000 |  |
| 3577 | 100000 | 3588 |
| 3878 | 250000 | 358 |
| E3879 | 500000 | 3890 |
| ess Sp | h. With | lech |
| NET E |  | T EACE, |

[^1]
## CLAROSTAT <br> VOLUM COMTROL

All series of Clarostat Wire Wound Controls designed to the jobber's, dealer's and sorviceman's demand for with or without suituste controbs which can be used eiguard corerplate supplied with these controls call be pried off and a switch tspe dust-suard coverplate can be snapped in its place. Fupplied less knob. with insulated shaft and bunhing.


## CLAROSTAT TONE CONTROLS TEBL TC-I PORTABLE <br> TC- Por Panel Mounting



Claro stat tone control bench be added to existing receivers without sol dering connection of mounting on panel. Provided with neat case with felt base, a set of adapters, and flexible leads for easy installation. For sets or amplifiers with one or two power tubes. A desirable and convenient acdesirable and conven
No. El886.
List \$2.35. $\$ \rightarrow 35$ TOUR PRICE

Constructer for manel using \%'
 All-bakelito 1\%"' diam. Pro jects i'tm. Pro pancl. WIth mob, hut without adspters or fieximle leads. No. EIS87. List Price, $\$ 1.80$. YOUR
PRICE

 Same Wh Trpe TC-2 but has flbre corer instead of bakelite and psinel. Wrinout knob, adapters of psinel Wrthout knob. adapters or No. Ei 888 Lo. Elist Price, $\$ 1.30$. List Price, \$1.50.



Duai Contral

## Volume Centralab Controls

Here is the latest replacement Isting of Centralab volume controls, for the convenience of the serviceman. The listing is as accurate as a carcful search of arailable records can make it. The replacement control ordered will do the work of the orlginail with the sreatest efficiency, for it will be a duplicate in mechanical and resistance speciflcations. If the volume control required is not listed, send your order to us with a deposit, giving the name of the and the model number. The proper unit will then be obtained and shipped to sou at the lowest prevailing price. ALIIED is anxioun to verwe vou.



Electrad Volume Contrale of unusual fine quality, carefuils

## VOLUNE CONTROLS

A comprehensive listing of replacement volume controls. 60 c units are supplied without. A.C. switch. If you are unable to determine which control is required, mall order with deposit, and we shall supply. mechanical and efectrioal specifications
Manufacturer and Mode!
A. C. Daytom Co.

Cat. YOUR
No. PRICE
 E3706
E3701
E3704
E5050
50.60


Amerkan Bosch Magneto Co. Model 5. Model wo Superhet. E3696


 E3706


8, YiA. 30

## 30.

31. 
32. 
33. 73
34. 1

80 and 81.
60 and 63.
3.

60 and $63 . . .$.
100 Motor Car

Amrnd Corporation

Andren, F. A. D. (Fada) 41, 42. 44. 46,57
Mrodel is KU



10z. 11Z. 31 . .... 262. ${ }_{\text {RP62 }}^{28 \mathrm{LA}} \mathrm{CA} \mathrm{CRBfUA}$
 25. 302 E5060 . 47.
1853A

Atwnter Kent

| 2 |
| :--- |
| 8 |
| 8 |
| 2 |
| 2 |
| 2 |
| 2 |

An A.C. 3 witch with all stand--olnme controly ellilg for to Gellillg for 60 cents. Just pry rolume control 3nd "Snap-on" switch.
No. E3707.
YGLR PRICE


## NEW ELECTRAD RI REPLACEMENT CONTROLS

The Electrad Volume Controls listed bere are of the standard tywe, constructed to be as universally appll. cable as possible. With the help of the Electrad Valame Control Gulide. isted on laim pare. anit "uay' be chusen for amost any repiacemem joh lated shaft may be cut down to sult. All units are of ater and one outside tap are 10 be used. Diamited. Code case, $18 / 1 a^{\prime \prime}$. sod

"SNAP-ON" AC SWITCR ASSEMBLT
For Electrad standerd volume controls, as listed
No. E 3707 . List. 50 c . NET EACH


## ELECTRAD VOLUME CONTROLS-continued From Page 52

Manufacturer and Model
Knight Radlo
Sa 8
Super
Kolster Radlo Cors.

 20 W. $62-520$, Model $49,26 \mathrm{P}$ 111
182
62
Ca
181
Na
318
31
$\mathbf{N} 8$
30
$\mathbf{O}$
90
91
92
89
$\mathbf{P}$

| 26PX Miix Mix ........E3696 | . 6 |
| :---: | :---: |
| 111, 811, 111X, 811X........ E3701 |  |
| 1355. 1955 ................. E3705 |  |
| 62, 1040 . |  |
| Cavalier Cnmmunder . . . . . . . E3686 |  |
| 181, 187 . . . . . . . . . . . . . . . . E3693 | 0 |
| National Company, Inc. |  |
| Mr20 ........................ E3695 | . 60 |
| 3H30. Avto Rucelver. . . . . . . . E3700 | 60 |
| National Carbon (Fiveready) |  |
| 30, 40, 50 Serles............ ES 113 | 2.05 |
| Ozarka. Inc. |  |
| 90 . . . . . . . . . . . . . . . . . . . . . . . E3696 | 80 |
| 91 . .............................. E3692 | 60 |
| 92-A.C. . . . . . . . . . . . . . . . . . E3695 | 60 |
| 89-A.C. . . . . . . . . . . . . . . . . . E3696 | . 60 |
| Phileo |  |
| 22, 5. 86, 87, 311, 521, 531. |  |
|  | . 60 |
| 211. 211A $\qquad$ E3704 | 0 |
| 16 ........................... E3684 |  |
| 11\%. 112A. 212. 212A ........ E3704 | ( |
| 111. 111A .................. E3704 | 0 |
| R-Ca. Vletor Co. |  |
| Radiola 16 .................. E5115 | 9 |
| Radiols 17. 50, 41. 7-23, 7-54. E5071 |  |
| Radiola 18, 33, 51, 7-11. 7-26. E5072 |  |
| Radiols 44. 46. 47........... E5166 |  |
| [2adinds 60. 02............... E5073 | 80 |
| Radiola 61, 67. :-18, 9-54...E517 | 0 |
| Radiola 64. Menstivity Con- |  |
| trol . . . . . . . . . . . . . . . . . . . . E5118 |  |
| Radiola 66 ...e.e.e.e. ESt19 |  |
| Radjola 80, 82. 86, 35, 39, S1. ESI20 | 0 |
| Radtola R-5, R5X ..........ES121 | 8 |
| Radiola Superctte, RiA...... E5122 | 80 |
| Radiola 1t-11 ............... E5123 | 68 |
| Model te D.C. ......... ${ }^{\text {a }}$ E5124 | 68 |
| Modela RAE 30, RAE 78. |  |
|  | 68 |
| R-39. RE45, RES2, RET5....ES126 | . 35 |
|  | . 05 |
| R-14 … ${ }^{\text {(1)................ E5128 }}$ | . |
| RE-35, RE-39, 57............ E5129 |  |
| Model 42 ................... 55130 | 2.05 |
| Sllver-Marshall |  |
| 37. 38. 39. 789.770 , | 80 |
| Model "A." Momel "F." "D." E |  |

Cat. YOUR
No. PRICE
E3696 50.60
$\begin{array}{ll}\text { E3686 } & .60 \\ \text { E3704 } & .60\end{array}$

E3706
E3696
E3696
E3700
E3696
E3704
E3692
E3696
E3701

## E3696

## E3696 E3701

.E3705
E3696
-
E3595
E5113:
3696
$\begin{array}{r}\text { E3692 } \\ \\ \hline 3695\end{array}$
E3696
-
E3684
E3704



Manutacturer and modet Cat. YOUR
No. PRICE Stromberg-Carlmon Mrg.Ca. (Cont.) 638 D.C. (Short). Transformer Corp. of
Clar
Mod
Clar
Clar
lod
Jun
Mod
Mod
Mod
Mod
Un
106 B
Seri
Neri
Cous
104

| E5148 |  |
| :--- | :--- |
| ES149 | $\$ 9.38$ |


| lariot. 51, | 53, | $55 .$. |
| :--- | :--- | :--- |
| Lodels | 61, | $70 . . .$. |


tradel to
उunior 60 . $25 .$. 60.
84
85
92
90
40
5....

Pp odel B3
odel 92
Todel 40 $\qquad$
Hinlted AIF Cleaner Cor 106B, ${ }^{440} \mathbf{4 0}, 10 \mathrm{~B} . \operatorname{6frgC.}$ 66B.
Series 20.
$E 3696$
$E 3704$
courier 65

POTENTIOMETER
WITR SWITCR

ometerne quality Carter Porean
damage to microphone and ellmi
natcs nolse from List.
No. E2O34. $\$ 1.00$. NET.................

Frost Volume Controls
Bakelite shell
roller type. eumpo
sliom element unit
and without switch
bushimg.
 Tube Sulmer
Sentinel 114

## Ca

V. S. Fradlo of Televinto Apex 31. 32. Gloriatone Late $97,36,24,3 \mathrm{y}$

Apex 49 Batt. Gioriette 20
E3696 E3696

Apex
Mod
Mod
Glor
Glo

E3694
E3696
voy 10 Serles sumer Hetero-
Ko. $28, \quad 29,32$.
E3685
Gulted Reproducern
Beries 20, Peerless. Serien $1 \times-70$
Courier 65
.E3704

Wellm-Ginriner a Co. C. CG
Arcadja 72
Model 8nA
Series Ten Model 8 a
Series Ten super
 WR-5, WR-6, W-T-7, WR-8 WR-11, WR-10A $W R-14$
$W R-15$ WR-4 Zenith Ifindio Corp. 14. 15. 16. 17. 27. 39.49 . 35 . E3701 60 $34-\mathrm{P}, 362,323, \quad 353 \ldots$

 607-613. 682. 5 Tube Zenette.
5 Tub Zenatte riti 1"n.......E3696 6 Tube Zenette with 1-ntme. E3694 82 89 822


E3700


Kuight carbonized realsters have beell designted by skilled engineers to remain constant under the most gevere tests. A $100 \%$ overload for 2500 hours whows less than $5 \%$ variation. Resistance is independent of test voltage and frequency. Variations from less than 1 volt to over 500 volts shows leas than $2 \%$ variation In resigtance readings. Available in the following sizes

| 5 W | Ohme | 1 W | Ohms |  | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. El720 | 200 | No. E 1744 | 100 | No. El765 | 100 |
| No. El721 | 300 | No. E1745 | 200 | No. El766 | 200 |
| No. El722 | 500 | No. El682 | 400 | No. El830 | 400 |
| No. EI>23 | 750 | No. EI746 | 500 | No. El767 | 500 |
| No. El724 | 1.000 | No. E1747 | 1.000 | No. EI768 | 1. 2500 |
| No. El725 | 1,250 | No. El683 | 1.250 | No. El831 | 1.250 |
| No. El 670 | 1.500 | No. EI684 | 1.500 | No. E 1832 | 1.500 |
| No. EI726 | 2.000 | No. El685 | 2.000 | No. E:833 | 2.600 |
| No. E\|671 | 2.500 | No. El749 | 2.500 4.000 | No. EI770 | 2.500 4.000 |
| No. E!727 | 3.000 | No. EI750 | 5.000 | No. E1771 | 5.000 |
| No. El 672 | 4.000 | No. E1687 | 6.000 | No. E1835 | 6.000 |
| No. El728 | 5.000 | No. E1761 | 7.500 | No. El 772 | 7.500 |
| No. El 673 | 8.000 | No. EI688 | 8.000 | No. E1836 | 8.000 |
| No. El729 | 7,500 | No. E1689 | 12.500 | No. E1837 | 12.500 |
| No, E:674 | 8.000 | No. El690 | 15.000 | No. E 1838 | 15.000 |
| No. El730 | 10.000 | No. E1691 | 17.500 | No. E 1839 | 17.500 |
| No. EI731 | 12.000 | No. El753 | 25.000 | No. E1774 | 95.000 |
| No. El732 | 15.000 | No. El692 | 30.000 | No. E1840 | 30,000 |
| No. Et 675 | 17.500 | No. EI754 | 50.000 | No. E 1775 | 50.000 |
| No. El733 | 20.000 | No. El694 | 60.000 | No. E1842 | 60.000 |
| No. El 876 | 30.000 | No. E 1755 | 75.000 | No. EI776 | 75.000 |
| No. El 677 | 40.000 | No. El756 | 100.000 | No. El777 | 100.000 |
| No. El734 | 50.000 | No. El695 | 150.000 | No. El 843 | 150.000 |
| No. El 678 | 60.000 | No. El757 | 200.000 | No. El778 | 200.000 |
| No. El735 | 75.000 | No. El696 | 300.000 | No. El844 | 300.000 |
| No. El736 | 100,000 | No. El758 | 500.000 | No. E!779 | 500.000 |
| No. El 679 | 150.000 | No. El759 | 750,000 | No. E 1780 | 750.000 |
| No. El737 | 200.000 | No. El760 | 1 meg. | No. El781 | 1 meg. |
| No. El 680 | 300,000 | No. El761 | 2 meg. | No. El782 | 2 mes. |
| No. El738 | 500.000 | No. El762 | 3 meg. | No. El783 | 3 meg. |
| No. El739 | 750.000 | No. El763 | 5 meg. | No. El784 | 5 meg, |
| No. EI740 | 1 meg. | No. El 698 | 9 meg. | No. El848 | 9 meg. |
| No. EI741 | 2 meg . | Na. El764 | 10 mes. | No. El847 | 10 meg. |
| Per Doz.. 89e. <br> NFT, EACH. | - | Per Doz., D5e <br> NET, EACH |  | Per Doz., 31 NET, EA |  |

## RCA VICTOR VOLTAGE DIVIDER



Made of best
$g r a d e$ resist. ance wire. wound on a refractory tube and coated with a porcelain enamel which is baked on. Total of 4,325 ohms. Tapped at 300,700 , 2,300, and 2,025 ohms. For Victor 245 amplifier and all sets using 245 tubes. No. E1540.
YOUR PRICE

## SPECIAL GRID LEARS



A glans en closed grid leak of good quality and remarkably accurate. quoted.

Meg. NeT EACH
No. E2930
No. E2929
No. E2901
No. E2902
.1

No. E2903
No. E2904
No. E2905.

## RESISTOR MOUNTING

No. E5426. Single resistor
mountinf: $\mathbf{\text { IOLR RICE, EACH }}$

- 3


## POPULAR CARBON ROSISTOR KITS

## KNIGHT I WATT RESISTORS

The kits listed be.
low include an assortment of the most popa. lar capaciter used by leading set manufacturers Servicemen and builders will find it highly advantageous to have
hese kits avallable
on all jobs. A job servief with the
dependable Knight Carbonized Replistors.
KIT OF 24 RISISTORS
$1-200$ ohms 1-6,000 ohms $1-60,000$ ohms $1-400$ ohms I-1.000 ohims $1-60.000$ ohme $1-5010$ ohms 1-J. 250 ohms $1-75,000$ ohms $1-800$ ohms 1-15. 100 ohms $1-109.000$ ohms 1-1.000 ohnss 1 - 20.000 ohims I- 250.0090 ohms $1-2,000$ ohmus $1-25.0400$ ohms $1-500,000$ ohmas $1-3.060$ ohms 1 - 30.000 ohms $1-1$ nieg. - 4,000 ohms 1- -10.000 ohins 2-2 meg.

No. E226
KIT OF 46 RESISTORS
1-200 0ionts $2-5,000$ ohms 2-50.000 ohms $2-400$ ohms 1-6,000 ohms 1-60,000 ohms - 500 ohms $1-\$ 00$ ohen ohme 1- 75,000 obms 1 - 600 ohns $3-10.000$ ohms $3-100.1300$ ohm 1- 800 ohwas $1-12.500$ ohuns $\%-250.000$ ohmas $2-1,000$ ohms I- 15.000 ohnis 2 500.000 ohms $1-1,500$ ohins 1-17.500 ohms 1- 150.000 nhms 2-2.000 ohms 1-20, 060 ohmes 2-1 meg. $1-2,500$ ohins $2-25.000$ ohms $1-11 / 3$ meg. 1- 3.600 ohms 1 - 40.000 ohnis $2-2$ mee. $2-4.000$ ohms $1-40$. (un) ohtus 1 - 3 meg.
No. E2262.

## ENIGRT 2 WATT RESISTOR EITS

## KIT OF 24 RESISTORS

Samp capaclies as 24 Resistor Klt above. NO.E226Z, PER KIT........STB TS KIT OF 48 RESISTORS
Same capactiles as 48 Renlstor Kit abore. No. E2264.

## New Low Resistance Auto Suppressors

New and radical Improve. ment In sugprossors for auto radlo: pery eftective in eliminating motor spart and distributor nolses. Fits practienlly ans car. For Rulck. distibutor type is used by molnting distributor bead


## 500 OHM WIRE WOUND

Wira wound and non-inductive. Does not retard speed of car. Quickly attached. In NET EACH
NETEACH ................... Pluz type. $\quad$ No. No. E4999. INIstrihutor type.

SUPER AKRA-OEM
Wire Wound
Resistors Accurate wire wound resistors, Non-induc-

Non-induc. proof. Aectracy $1 \%, 1$ watt tating.
No. $E 6450$
No. E6451
No. 26453
No
 No. E2347, 8 cylinder car. 8 plug. I distributor
type.

## Eagle Plunger Leaks

## AUTO RADIO SPARK SUPPRESSORS



For suppressing poises in AUTO ra dio installatlons. 25,000 ohm resistors. No. No. E2329. Plug trpe.
type YRR PRICE, EACE
224

## SUPPRTSSSOR KITS

Complete nuppressor kits for 4, 6 , and 8 eslinder cars. Greatest Dossible resistance to R.F. current combined Ne. E2345. 4 cylinder car. 4 plug, 1 distributor type. 1 . 15 No. E2346. 6 cylinder

## New Low Prices <br> I. R. C. Resistors have extabliahed a reputation for <br> RESISTORS <br> © $C$ <br> TYPE "F" METALLIZED

 Furnished with $11 / 2$ less operation. Accuratcly tested. The standari quality redeter
## I WATT

|  |  | No $E 4570$ $E 4571$ $E 4572$ $E 4573$ $E 45745$ $E 4576$ $E 4577$ $E 45789$ $E 4580$ $E 4581$ $E 4582$ $E 4583$ $E 4584$ $E 4585$ $E 4586$ $E 4588$ |  |
| :---: | :---: | :---: | :---: |
| List. 30 c . NET, EACH |  |  |  |
|  | 3 WATTS |  |  |
| $\begin{aligned} & \text { No. } \\ & E 4626 \end{aligned}$ |  | $\begin{aligned} & \text { No. } \\ & \text { E4638 } \end{aligned}$ | Ohtns <br> -5.00 |
| E4627 | 500 | E4639 | 100.000 |
| E4628 | 1.000 | EAR40 | 1510.009 |
| E4629 | 2.000 | E4641 | Yot.000 |
| E4630 | 3.6010 | E4642 | 250.000 |
| E4631 | +. 4.000 | E4643 | 306.000 $+010,000$ |
| $\begin{aligned} & E 4632 \\ & E 4633 \end{aligned}$ | 5.060 10.000 | E4645 | 500, 1100 |
| E4634 | 13.1100 | E4646 | 1 meg. |
| E4635 | 20.000 | E4648 | 8 mex. |
| E4636 | 25.000 | E4649 | 4 mea. |
| E4637 | 540.000 | E4660 | 5 mra . |
| List, soc. NET. EACH |  |  |  | metallized with a speclal realiginnce materiah. Contained in a special grade ceramic tube, moisture-proof, of high heat condactivity sand high mechanical strength Engineers, serficemen and set builders have foumi that I. R. C. realstors are acmarate and reliable.



I. R. C. wirt wound resist -
ors. Mpet inost - Incilag de. mandm of accurary and durabtity. HInd insulation quallifes. and at get mechanicul it rength. W'ound in B sections. $]$ bruensions:
 walt. Above ston,00n ohnu-800 rolts Maz. Whth bindins poat werpw and nut terminals.

| No. | Ohms | 1.ist | NET |
| :---: | :---: | :---: | :---: |
| E2833 | 1 | \$1.30 |  |
| E2P34 | 5 | 1.50 | 3 |
| E2835 | 10 | 1.25 |  |
| E2836 | 50 | 1.35 |  |
| E2837 | 100 | 1.25 |  |
| E2838 | 200 | 1.25 |  |
| E2813 | 500 | 1.25 |  |
| E2814 | 1.000 | 1.25 |  |
| E2855 | 2.500 | 1.25 |  |
| E2815 | 5.000 | 1.35 |  |
| E2816 | 10.000 | $1.50)$ |  |
| E2821 | 20,000 | 1.50 |  |
| E2817 | $\bigcirc 5.000$ | 1.50 | 81.33 |
| E2822 | 30,000 | 1.60 |  |
| E2818 | 50.000 | 1.30 |  |
| E2823 | 75.000 | 1.50) |  |
| E2819 | 100.000 | 2.00 | 51.36 |
| E2824 | 150.000 | 2,35 | 1.54 |
| E2820 | 200,000 | 2.50 | 1.71 |
| E2790 | 950,000 | 9.75 | 1.88 |
| E2791 | 300.000 | 3.00 | 2.06 |
| E2839 | 400.000 | 3.50 | 2.40 |
| E2792 | \$00,000 | 4.00 | 2.74 |

## TIP星 FW 2

Wound In 8 sertions. Dinienalons: $2^{2 \text { Whe }}$ in. x 76. In. Rating: Below 1.040,000 olims-Max Bimdlag pont xerew and nut terminals Max Bimdiag pont xerew and nut terminam. Stectional winding permits a non-tnducilve winding of low diniributed caperity-

| No. | OLnLR | List | NET |
| ---: | ---: | ---: | ---: |
| E2774 | 500.000 | 4.00 | 52.74 |
| $E 2775$ | 750.000 | 4.30 | 3.09 |
| $E 2776$ | 1.000 .000 | 5.00 | 3.43 |
| $E 2777$ | 1.500 .000 | 7.50 | 5.14 |
| $E 2778$ | 5.000 .000 | 10.00 | 6.86 |
| $E 2779$ | 2.500 .000 | 12.50 | 8.87 |

## POWER WIRE WOUND RESISTORS

1.R.C. power resistor units consist of aceurately spaced winding of re-
sistance wive with low temperature coefficient, wound on non-moitture absorbing ceramlo core of high mechanical atrength. Close standard resistance tolerance at $5 \%$ maken these resistors wwll sulted for appliration requiling accuracy. Tinned wire leads for easy soldering.

TYPE "PB", 5 WATTS—I $3 / 4$ IN. LONG
No.
E2600
E2601
E2603
$E 2604$
$E 2605$

List. Each, 50
YOUR PRICE, EACH
TYPE "PC"—Io WATTS—2 IN. LONC


TTPE "PD" - 15 WATTS—3 IN. IONE


## NEW HANDY <br> RESISTOR

CRRTIFIED KIT NO. I
Contains one each of the following sal
Lex of I-watt metalilizer Resistors: OHMS: 500: 1,000: 2,000: 5.000; 161. 000 : 70,$800 ; 75.000 ; 100.000 ; 200.000$ 250,000; 500 .040
$\$ 2.15$

List Each. 70 c
YOUR PRICE, EACH

MEGOHMS: 1.0; 1.5; 2.0; 3.0 No. E2796. List, \$6.00.... 3 YOUR PRICE CERTIFITD KIT NO. 2
One wuch of the following in 2-watt Mefallized Reslitors:
OHMS: $500 ; 1.000 ; 2000 ; 5.000 ; 10.000: 15,000 ; 20,000 ; 25,000$ O11M8; $500 ; 1.000 ; 2.000 ; 5.000 ; 10.000 ; 15,000 ; 20,000 ; 25,000$, NBEGOHMS: 1.0: $1.5: 2.0: 3.0$. No. E2797. List. S8.00.
YOUR PRICE ..............

NEW ERANE CRED BIAS ETE
Designed especially for orid bias resistor replacement work. Alwo "Wid suppressors in R.F. circulta. etc. Yalues In ohms: 1.000: 1.500. 5 WATT: T50: 1.450.

No. E2798.
YOUR PRICE

1. R. C. Auto Radio Suppressor Kit
 shd npecial features of I. H.C. Metallized Re-
stators. Dessaned to fit practically all nakex
of ears. Of long life. moisture-proof. shock-
 capoclty to ellminate all spark blug nolse
No. E2859, M-S Sluak Ilug. $\begin{array}{ll}\text { No. E2860. } & \text { N-D Distributor. } \\ \text { No. } 2861 . & H-C ~ C a b l e ~ T Y p e . ~\end{array}$
Ohms
3.000
5.0100
1.500
10.000
12,500
15,000 $29 c$

## 38c

 List. 50 CYOUR P

243 - wopllizer

## ELECTRAD-KNIGHT-OHMITE RESISTORS

## ELECTRAD TRUVOLT RESISTORS

 longer life and greater accuracy. Sliding clip permita convenielit adjustment. Very adapt able. Ideal for replacement purpose.

Type B-25 Watts-2 In. Long


Type C-50 Watts-4 In. Long

|  |  | List. <br> 51.35. <br> YOUR <br> PRICE, <br> EACH, |  |  |
| :---: | :---: | :---: | :---: | :---: |
| KNIGHT WIRE-WOUND RESISTANCES 20 WATTS |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |



High-grade Wile wound
resistances for replaceWound on re-
fractory tubing. cement coated, protecting wire from moisture. Accurately tested. Available in following sizes:


Patented air cabled eanstruction, insuring

## Type D.75 Watt

 6 In. Long| No. | OHıms |
| ---: | ---: |
| E3100 | 100 |
| E3101 | 200 |
| E3102 | 300 |
| E3103 | 300 |
| 100 | Price. |
| E310 | $\$ 1.60$ |

## ELECTRAD VARIABLE VOLTAGE DIVIDERS

## 

## T 3,000 OLMS-50 WATTS

This tuniversal air cooled voluage dificter o obtain varinus roltage. dejending on circuit No. EhB855. LIst. $\$ 2.05$.
YOUR PRICE
25,000 DIMS-So THTES
Voltage dividers with 4 sliding taps. Same No. E3886, Lisf, $\$ 2.30$, himher resistance. NO. E3886.

## 25,000 OHMS-72 WATTS

 Sperial heave duty rolfage dirider whete No. 53887 List 8305 and YOU PRICE Lis. J.O. $\quad \mathbf{\$ 1 . 2 5}$
## 41,000 ORMS-75 WATTS

Destaned for the power sunply of a 10 or
 Hat 6 sliding contants for ail necesentry No. E3888. List. $\$ 4.50$
YOUR PRICE ......................

## RESISTOR BANKS

 Type 250-8 3

Three Trusolt Tspe C. units on an insulated bracket for use as roltage dirider with any 250 levice anjpitier or plate suppls Dhmas di Tisud rasistance 21 ma anded in 8 sections to means of Trmalt sldding contacts.
No. E3889 four Reice

## c 245-3 2-Tot 245 कv 247

Two Trusolt Type $C$ units on an innulate bracket for use with any power mupply for 245 type tubes. Total reaintance $14,7 \mathrm{~F} 0$ ohms di viled in 7 kections to gire ald roltaken re Qured, by menta of Trurolt NLillan contgets. YOUR
$\$ 1.75$
OHMITE RESISTORS

'Red Devils'
10 Watts
Highly depends ble, wite woind re manent resistance ralue Wourid on genulne porculain core and cotered with high tempers ture cement coat. Moigture-proof and hest load without in sunjected to tremendoas over ice. Excentionaliy well sulted for replece. ment work because constant rexistabee ralue is cetained eren a "ter subjection to serere ibuses. Furnished with 1 1/2" tinned wire leads



## WARD LEONARD VOLTAGE DIVIDERS

## GENUINE WARD-LEONARD

This page containg a listing of genuine Ward Leonard Vitrohm DiFiders for standard receivers. Each unit is a practical duplicate. in size and electrical characterigtics of the place. Ward Leonand Voltage DiFiders are of the highest quality. Not to be confused with the number of undependable types of resistances which have been released on the market.

| Mfg. and Model ARGUS | Total $0 h \mathrm{~ms}$ Resistance |
| :---: | :---: |
| B195 ... | 5133 |
| BOSCH |  |
| 28. 29 \& 825. | .. ${ }_{20000}^{1000}$ |
| 48 \& 48 | . 4400 |
| 34 D.C. | . 22 |
| ${ }_{60} 68$ \& 61 | . 5130 |
| 60 \& 61 | 790 9000 |
| 62 \& 63. | 4250 |
| BRANDES |  |
| (Kolster) 6 K . $\mathrm{I} \mathbf{2 0} \mathbf{2 0} \mathrm{K} 22 . \mathrm{K}$ | K27.7120 |
| K21 \& K23. | .... 30000 |
| $\mathrm{K}^{13}$ | . 2980 |
| K4 | . 26550 |
| ${ }^{6} \mathrm{H}$ | 5940 |
| B10 | 2890 |
| DREMER TULLX |  |
| 8-20 \& 8-21 | . 13400 |
| $6 \cdot 40$ | 16720 |
| CILEARTONE |  |
| 110 | . 13000 |
| COLONLAL |  |
| 28 | 15500 |
|  | -200 |
| 31 A 32 D |  |
| 32 D.C. | . 34.3 |
| CROSLET |  |
| Band Box 602 | . 3 ¢0 |
|  | 5000 |
|  | DASFAN |  |
|  |  |  |
| EDISON |  |
| I1. RA \& CL | . 12500 |
| ERLA |  |
| R1 | . 17660 |
| EVEREADY |  |
| (Nat. Cerbon) | 175 |
|  | 1000 |
|  | 2500 |
|  | 3500 |

## FANSTEEL

|  |  |
| :---: | :---: |
|  |  |
| A-B-6.135 | 956 |
| FEDERAL |  |
| 70-960 | 2685 |
| 79-070 | 20000 |
| 79-080 |  |
| FREDD-EISEMAN |  |
| 457 | 2350 |
|  | $\pm 000$ |
|  | 1751 |
| 470 | 3500 |
| NR-80, NR-85 | 2330 |
| 411 | 5750 |
| 411 |  |
| 78-8 | 49000 |

breshmain


Model 685

## GENERAL MOTORS

G1ILENLLAB
GREDR
GRE
$A C \cdot G$
AC
................... 120000

AC-G ….............
Aymehrophase
Synchrophane
$\begin{array}{ll}\text { 8K-4 } & \ldots . . . \\ \text { SK- } \\ \text { HOWARD }\end{array}$
HOWARD
135.
S95, 44. 135. 395.445.
$135,305.45$.

## KENNEDY

20
KING
$\mathrm{Kinc}_{82}$


## VITROHM DIVIDERS

Ward Leonard Vitrohm Foltase lividers are vitreous ellameled. This feature insures rapid conduction of heat 1 rom the resistave element sreatly Increasing watt capacity of the unit. Vitrohm construction is so efficient that temperatore $i$ e S50 ${ }^{\circ}$ centigrade is not humidity and heat conditions. Will Berve with maximam efhumidity and heat cond

## BAEELITE CONDENSERS-PARTS-ACCESSORIES

## KNIGHT BAKELITE CONDENSERS



Molded in $g$ en Unine bakeltic densers embody highest quality marial and wartmenal
 structed to workmanshlp. Accurately con tall" tybe is constructed vitu The "Plg per lends. $14 / "$ lons, securely anchored by a distinctive procesa. The "Lus" type has metal terminal lugs. In addition. Lnsulated mountins holes are molded into the Bakelite, for aftachment wometal base without ghorting

PICTAIL TYPE

|  |  |  | LTE TEP |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No |  |  | E7231 . ${ }^{\text {No. }}$ Md. |  |  |
| E7215 | .000025 | NET |  |  |  |
| E7216 | .0000* | EACH, | E7232 | . 0001 | NET, |
| 7217 | . 00005 |  | 27233 | .0002 |  |
| 7218 | . 0001 |  | E7234 | .00025 | 38 |
| E7219 | . 00015 | 38 | E7235 | . 0004 |  |
| 220 | . 0009 | PER | E7236 | . 0005 |  |
| 2 | .00023 |  | $\begin{aligned} & E 7237 \\ & 5738 \end{aligned}$ |  |  |
| E7222 | . 0004 | 102\% |  | $\begin{aligned} & .0008 \\ & .001 \end{aligned}$ |  |
| 223 | . 0005 | * 0 | E7238 |  |  |
| 24 | . 0008 |  | E7239 .0015 |  |  |
| - | . 001 |  | $\begin{aligned} & \text { E } 7240 \\ & 77242 \\ & E 7242 \end{aligned}$ | .002 |  |
|  |  | HET EACH |  | $\begin{aligned} & .0025 \\ & .003 \end{aligned}$ | 140 |
| E7228 .0015 |  |  |  |  |  |
| E7227 | . 002 |  | $57242$ | . 005 | 18 c |
| E7229 | . 0025 |  | E7243 |  |  |
| E7229 | . 003 | PEA 002. | E7244 | . 006 | 210 |
| E7230 | . 004 |  | $\begin{aligned} & E 7245 \\ & E 7246 \end{aligned}$ | . 008 | $\begin{aligned} & 24 c \\ & 28 c \end{aligned}$ |
|  |  |  |  | . 01 |  |

## inductance

SWITCHES


Compact. made Xickell plated inductanee switch with pointNo. E2032 E2033 3 point E8442. NET

Poin

## SERVICE TBST PLUG

Bakelite four and fire prong plugs. Per. fect for making external connections of dynamic speakers to
receiver. Also for ube receiver. Also for use in set analyzers and

$$
\text { No. Eis22. } 4 \text { prong plug. }
$$

No. El623.
5 prong plug.
NET

## GENUINE MERSHON CONDENSERS



Amplion Auriomat Automant Browning Drake Brawh \& Lane. Bteritig gervice work

Gtering


These qually Mershon electrolytle condensery standiard equipment with radio set manufacturers and service men. For use in all Fllter circuit where filter condensers of high capacity, long life and "surge proof" construction are desired. For replacements in power packs. "B" eliminators, etc.. and as part of newly conatructed equipment. Assures efficiency and profts in
Replacement in Many Standard Sets

High Freq. Lab Eoward Kennedy Sparton United Air
Cleaner Cleaner
 Colonial Columbla Phono S-18. D.8, D-20. T. 8 Crosley. D-8. T-8, T-38. S-20. S-25, Q-8. Q-52 Temple Wurlitz

D-8. T-8

## Mountings

 Single Sections-Inverted Moun No. Capactits Multiple Sections-Upright Mountings (All have peak voitage of 430)

|  | Capacity |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Type | YOUE |  | Capacity | Type | YOUR |
|  | 8 | ${ }^{1} 8$ | \$0.95 | El126 | 8-8-8-8 | 08 | \$2.40 |
|  |  |  | 1.95 | E1130 | 9-9-18 | T36 | 2.40 |
|  |  | T 5 | 1.25 | Ell29 | 5-5-8 | T18 | 1.60 |
|  | $5-15$ | D20 | 1.10 | E1131 | 8-8-18-18 | 052 | 2.95 |

## NET FILTERMATIC Capacity Type

## Tone Control

A highls perfected
trol affording smooth, step
efs operation. Furnished with and without A.C. Bwitch. smooth in operation. The perfect tone control
No. E3390. .046 Cap. with AC Switch List, 81.50.
NET.
.006 Cap. Less \$witch. List, \$1.00. NET.

48 c
GEM INTERFERENCE

## Supersensitive <br> Transmitting Bution

Has hundredn of applleations in radio and electrical circuits
Carbon
ranule, readlly eppllcable to any vibrating surface or dit=
shriace

## MANT U胃县

For broadcast modulation, telephome work, detectaphonem, stethoscopea, mmplitiern, etc. Increases sensitivity and volume on speech amplifier. Illustrated booklet, of fers diegrams and circuits. Phystcal differences among buttons, but all characteristicaliy identical. No. EE440.
Lut, \$1.00.


## 1.C.A.SETMCTUMSR

 An effective interference ellminator. Used on any type receiver to separate stations. Cu and improves reception. No. E42 24.List. $\$ 1.50$. COLERPRCE


TWO PIECE PLUE Well made detachable 2-piece Bncket
plug. Will fit any standard receptacle. No. E2338. NET ERACH:
ALLIED today is situated on the edge of Chicago's famous ioop for the convenience of our oustomers. Bus lines. street rallway. trains. elevated, and the finest of automobile rosds lead rioht to our door. We maintaln a large display room which allows for personal inspection
counter sales.

## I BUD AERIAL FILTER

A new de- shiebua vice which abfrom interfer. irom interierand prevente them 1rom cutting in on thestation

which you have tuned in.
The Bud Filter increases the selectivity of your radio immensely and helps its sensitivity greatly by filtering ont the disturbing statle and signals from adjacent station channels and preventing their reproduction in the receiver. Every set owner will want one of these highly successful aerial devices.

No. El 605.
List. \$1.60.
NET

## CARTRIDGE-BY-PASS-ELECTROLYTIC CONDENSERS



Suedal values in Cartridge Condenserm. Sealed in fibre tubes with wire terminal for mounting on sub-panels or directly to binding post terminals. Non-Inductively wionnd and thoroughly impresnated. Compact. For D.C. working voltages listed.


## KNIGKT RENEWAL



FILTER BLOCK CONDENSERS
A new type condenser sealed in a wax-coated contalner with two wire leads. Highly convenient tor mervice work. Wax will not crack to reduce insulation resistance. Substantial and of high quality; Average shpg. wt., 1 Mb. each

| Yo. | Mid. | Volts | NET |
| :---: | :---: | :---: | :---: |
| E1800 | 1.1 | 200 | 21 c |
| E1801 | 2.0 | 200 | 38 c |
| E1802 | 5 | 400 | 220 |
| E1803 | 1.0 | 400 | 36 c |
| E 1804 | 2.0 | 400 | 60 c |
| E1805 | . 5 | 600 | 32 c |
| E1806 | 1.0 | 600 | 54 c |
| E1807 | 2.0 | 600 | 80 c |

## Temple Replacement Condenser Block

Temple re-

placement block 10.15 Mfd., for all late model Temple wets. Size of block in. Arranse in. Arrange-
ment of terminn a js: common: Green, 1 Mfd.: Red, 2 Mfd.; Brown, 15 Mfd.; Black, 4 Mfd.: Blue, 2 Mfd.: Yellow, 1 Mid. Used in Temple nodels 8-60. 8-80 and 8-90. Shpg. wt., 5 lbs.
Ko. E5396.
$\$ 275$

KNIGHT METAL CASED REPLACEMENT CONDENSERS


Conservatively rated. Her sealed. Ideaj for all by-pass requirements in R.F. and A.F. circuita.

| No. Br-pass-strite A NET |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| E820 | . 1 | 200 | 17 c |
| E821 | 25 | 200 | 215 |
| E822 | . 5 | 200 | 25 c |
| E823 | . 1 | 300 | 18 c |
| E824 | 25 | 300 | 22 c |
| E825 | . 5 | 300 | 29 c |
| E826 | . 05 | 400 | 180 |
| E827 | . 1 | 400 | 190 |
|  |  |  |  |
|  |  |  |  |
|  | Mfi. | Volt | NET |
| E828 | .1-. 1-. 1 | 200 | 36 c |
| E829 | .1-. 1 | 200. | 27 c |
| E830 | .25-. 25 | 200 | 31 c |
| E831 | . $1-.1$ | 300 | 29 c |
| E832 | .1-.1 | 400 | 31 c |



## B BLOCK

 REPLACEMENT CON. DENSERS 1ytic condensers with tinned pigtail leads forfilter replacement work Makes old methods of replacing shorted filter sections obsolete. Simply cut off the shorted lead and connect a Sprague self-supporting dry repincentent. With tinned wire leads, $21 / 2 \mathrm{in}$. long. Indlspensable in service work.Tubular Dry EIectrolyties
Scientifically desisaed, reflecting gprague high quality standards. Wt.. 12.oz. each.

| No. | 3 ld |  |
| :---: | :---: | :---: |
| E6550 | 2 | 200 |
| E6551 | 4 | 200 |
| E6552 | 8 | 150 |
| E6563 | 2 | 450 |
| E6554 | 4 | 450 |

Carefully constructed high voltage midget condensert Tested at 1,600 volts. Suitable for continuous operation at 400 volts D.C. Equipped with new type lugs to facilitate wiring. Ideal for constraction nnd replacement, oceupylmg a minimum of sipuce.

| No. | Mifd. | List | NET |
| :---: | :---: | :---: | :---: |
| E6560 | . 0001 | \$0.25 |  |
| E6561 | . 00025 | .25 |  |
| E6562 | . 0005 | . 28 |  |
| E6563 | . 001 | 23 |  |
| E6564 | . 002 | .25 |  |
| E6565 | . 0025 | . 25 |  |
| E6566 | . 005 | . 25 |  |
| E6567 | . 006 | .30 |  |
| E6568 | . 01 | . 30 |  |
| E6569 | . 02 | . 30 [ |  |
| E6570 | . 05 | . 30 |  |
| E6671 | . 1 | . 40 | 24 c |
| ES572 | . 26 | . 50 | 28 c |




## AEROVOX HI-FARAD DRY ELECTROLYTIC CONDENSERS

Aerovox dry electrolyticm are highly efinclent and univernally applicable. Their dry characteristic make it possible to mount them in any nosilion. They are stable in operation, unaffected by mointure, high in flltering efficiency. and operate at low temperatures. Self-heallng and murge-proof characteristics insure long life. Modern, compact design. Extremely economical. With mounting rings. All types are otandard in size, enahling easy change in standard radios to Hi-Farad condensers.

|  | Univertal Mounting 500 Volt D. C. Peak Voltage |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | E885 | Section | Total |  | PRICE |
| (ataver |  |  |  | \$1.00 | \$0.59 |
|  | E886 | $\because$ | $\stackrel{2}{2}$ | 1.20 | . 71 |
| - | E887 | 4 | $\stackrel{4}{6}$ | 1.40 | . 82 |
| 2- | E890 | 8 | 8 | 1.78 | 1.00 |
| $\underline{-}$ | E892 | ${ }_{8}^{8.8}$ | 18 | 3.25 | 1.91 |
| \%- | E8934 | $\xrightarrow[8.8-8.8]{\text { 8-8 }}$ | 24 | 4.50 | 2.65 |
| - | E894 | 2.4.8 | 14 | 4.00 | 2.35 |
|  |  | 2-8.8 | 18 | 4.75 | 2.79 |
| CNIVERSAL | $\begin{aligned} & \text { E847 } \\ & E 848 \\ & E 849 \end{aligned}$ | $2-8-10$ 10 | 10 | ${ }_{2.10}$ | 1.23 |
|  |  | 20 | 20 | 3.50 | 2.06 |
|  |  | 30 | 30 | 5.00 | 2.94 |
|  | $\begin{aligned} & \text { E895 } \\ & \text { E896 } \\ & \text { E897 } \end{aligned}$ | 25 Volt D.C. |  |  |  |
|  |  | 10 | 10 | 1.00 | . 69 |
|  |  | 50 | 50 | 1.15 | .68 |
|  |  | 12 Volt D.C. |  |  |  |
|  | E8989 | 1.200 | . 500 | 3.50 | 2.06 |
|  |  | ?,000 | 000 | 4.00 | 2.35 |
|  | Screw Monnting |  |  |  |  |
|  |  | 500 Velt D.C. |  |  |  |
|  | E920 | 4 | ${ }_{8}^{4}$ | 1.40 | .82 |
| EEW | E922 | 8 | 8 | 1.70 | .94 |
| Mounting | E923 | 10 | 11 | 2.16 | 1.23 |


| CARDISOART CONTAINRRS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Mfd. | List | NET | -4-3.09 |
| E924 |  | \$0.84 | 47 c |  |
| E925 | 2 | .85 | 56 c | N- |
| E926 | 4 | 1.10 | 65 c | Hxize |
| E927 | 5 | 1.20 | 71 c | \%exyexty |
| E928 | 6 | 1.30 | 76 c | - |
| E929 | 8 | 1.45 | 85 c |  |

## Aerovox

Cartridge Condensers


Especialls degirable for use wherg hish srade unite are required at low cost. Com. paet, nom-inductifely wound and sealed in insulating tubes with wire leud terminuls.


## Aerovox By-Pass Condensers



Non-Inductively wound and sealfod in metal contanners. Ideal for une In all radio and andio by゙-paes circuits.

| 200 | VOLTS D. C. |
| :---: | :---: |
| - N | Mid. NET |
| E 200 | . 05 32 |
| E1204 | .1-32c |
| EI205 | . $25 \quad 35 \mathrm{c}$ |
| E 206 | $\begin{array}{ll}.5 & 41 \mathrm{c} \\ 10 & 53 \mathrm{c}\end{array}$ |
|  | 1.0553 c |
| E1208 | 3.0 88c |
| E1199 | 4.0 \$1.59 |
| 400 | VOLTS D. C. |
| E1198 | $.05 \quad 38 \mathrm{c}$ |
| E1209 | 138 c |
| E12:0 | .2544 c |
| E1211 | . 56 |
| E1212 | 1.079 c |
| E1213 | 2.0 \$ 1.32 |
| FR | EE BLILEETIN |
| On req | queat we will put you |
| On maill | nge llst to receive the |
| Faluable | Aerovox Research |
| Worker. | If is full of usepul |
| diata on | the une of condens. |
| ers and | resistors. |

## AEROVOX METAL CASE BY-PASS CONDENSERS

Non-Inductive condensers. hermeticully sealed in stamped metal contuiners. Terminals are brought out through insulating strips. centered in large holes in the case to prevent leakage and short creusts to the can. Ideal for all bs-pass circuits and for resistance and impedance coupled amplifiers

## TYPE 60

Vers compact: Dimensions 2 㐌 "x"'io $x$ T/ high. Make neat assemblies.

| No. | M | Vol | NE | No. | M | 8 | N\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E130 | . 05 | 200 | 25 | E | . 05 | 300 |  |
| E1301 | . 1 | 200 | 25 c | E1343 | . 1 | 300 | 27 |
| E1302 | . 25 | 200 | 28 c | E1344 | . 25 | 300 | 35 |
| E1303 | . 5 | 200 | 34 c | E1345 | .1-1 | 300 |  |
| E1304 | . 1 -. 1 | 200 | 38 c | E1346 | . 05 | 400 |  |
| E1305 | .25-.35 | 200 | 47 c |  | .25 | 400 |  |
| E1306 | .1-1-.1 | 200 | 53 c | E1349 | . 1. | 400 |  |



Wlat type, stamped metal case Condenwers. Dimensions - $2^{12110^{\prime \prime} \times 1^{13} 10^{\prime \prime} \times 1^{\prime \prime}}$ Extensively used. Compact, easy mount

| No | M Id. Volte | NET |
| :---: | :---: | :---: |
| E1307 | 1.200 | 50 |
| E1308 | 200 | 62 |
| E1309 | 300 | 47 |
| E1310 | 300 | 71 c |
| EI3 | .25-25 300 | 59 |

No. Mfd. Volts NET
EIS12 .5.5 30079 c
$\begin{array}{lllll}\text { E1313 } & .5 & 400 & 50 \mathrm{c} \\ \text { E13: } & \text {. } 25 & 25 & 400 & 65\end{array}$

ABROVOK M1CA FIXED CONDENSERS
(O)

Moulded in bakelite which seals and protects condensers against extreme temperature. moisture or chemical action. moisture or chemical action. plates are element is thorcoudenser element is thorcompact.

|  | Mfd . .00005 | NET |
| :---: | :---: | :---: |
| E1252 | . 000075 |  |
| E1253 | . 0001 |  |
| E1254 | . 0002 |  |
| E1255 | . 00025 |  |
| E1250 | . 00037 |  |
| E:256 | .0005 |  |
| E1257 | . 0001 |  |
| E1258 | .0015 |  |
| E1259 | .002 |  |
| E1260 | . 0025 |  |
| E 1249 | . 003 | 24 c |

## AEROVOX FIXED IICR VOLTAGE CONDENSERE



## AEROVOX "PIG-TAIL"



A midget miea condenser prowided with wire leads 1 dealin constructions in fuctor.

| No. | Mfd. | NET |
| :---: | :---: | :---: |
| E1320 | . 00004 |  |
| E1321 | . 000005 |  |
| E1322 | . 000075 |  |
| E1323 | . 0001 |  |
| E1324 | . 00015 |  |
| E1325 | .0002 |  |
| E1326 | . 00025 |  |
| E 1327 | . 00037 |  |
| E1328 | . 0005 |  |
| E1329 | . 001 |  |
| E1330 | . 0015 |  |
| E1331 | . 002 |  |

FLECHTHEIM
Heavy Duty
Filter Condensers
Compact. h Igh voltage condensers for heavy fiers using type '50, '10, 45 , 47 und other similar
heavy duty tubes. All types except tor 2 and 4 mid. are?" high, the others are $4 \% "$ and $2 \%$ wide.

## 1000 Volts D.C.

Conmervatively rated nt 1000 volts D.C., 66) volte A.C. High insulation resistance

| No. | Mid. | List | NET |
| ---: | :---: | :---: | ---: |
| E3370 | .05 | $\$ 1.00$ | 50.54 |
| E3371 | .1 | 1.10 | .60 |
| $E 3372$ | .25 | 1.30 | .68 |
| $E 3373$ | .5 | 1.30 | .70 |
| $E 3374$ | 1.0 | 1.75 | .90 |
| $E 3375$ | 2.0 | 3.78 | 1.50 |
| $E 3378$ | 4.0 | 4.50 | 2.43 |



## Knight Round Can

 Electrolytics

Valuable for either orlginal or replacement ute. Supplied in round upright cans, in sizes listed below. Sections are thoroughly" insulated from each other and from the container.

## Upright Multiple <br> Sections

Dry type electrolytle sections, full 500 volts peak rating. All negative terminals grounded to can; positlve terminals are sturdy lugs. Complete with mounting rings. Average shpg. wt., 2 lbs .


## Mershon Electiolytic

 CondensersParticularly suited for
 use in the Alter elrcuith of B-Eliminators and Power Converters where filter condensers of high capacity, long life, and "Surge-lproof" construction are desired. Recommended as replacement units (for damaged filter condensers) in repairing B-Eliminators and Power-Packs, and us part of newly constructed equipment of the a bove classification. Peak voltage 430 . Single condensers are of the inverted type; muitiple sections are upright.

| Our No. | Type | Capaeity | Total MId. | $\begin{aligned} & \text { Your } \\ & \text { Price } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| E1:21. | 58 | 6 | ${ }_{8}^{6}$ | \$0.40 |
| E1122. | 88 | 8 | 8 | . 45 |
| E:133. | S18 | 18 | 18 | . 70 |
| EII35. | S20 | 20 | (25 Volt Trpel | 5 |
| E:124. | D8 | 8.8 | 16 | 5 |
| E1125. | 18 | 8-8-8 | 24 | 1.38 |
| El\|26. | Q8 | 8-8-8-8 | 32 | 2.40 |
| E1128 | D20 | 8.18 | 26 | 1.95 |
| E131. | Q5: | 8-8-18.18 | 832 | 2.95 |
| E1132. | T5 | 5-5.5 | 15 | 1.25 |
| E1127. | $\mathrm{D}^{2} 0$ | 5-15 | 20 | 1.10 |
| Eil30. | T36 | 9-9-18 | 38 | 2.40 |
| E1129 | T18 | 5-5.8 | 36 | 1.60 |



## Knight Inverted Wet Electrolytics

Truis a self-healing eapacitor Of standardized inverted desisn. single hole mounting. with threaded stud of $x^{\prime \prime}$ dism. Must be used with rent at the top Can is always negative. Lus be low mounting stud is ponitive each.

| No. | AId. | Volta | NET |
| :---: | :---: | :---: | :---: |
| E7361. | 4 | 500 | 30.80 |
| E7362. | 6 | 500 | 87 |
| E7363. | 8 | 500 | 95 |
| E7364. | 4 | 450 | 5 |
| E7365. | 6 | 450 | 82 |
| E7366. | 8 | 450 | 87 |
| E7367. | 10 | 450 | .95 |
| E7368. | 12 | 450 | 1.02 |

Sprague Electrolytic

## Condensers

A tremendous advancement in filter condenser construction. With round-edged anode made of a single pieme of aluminum without welding or soldering. Offeri high capacity in compact sp
Absolntels puncture - proot: self healing. Screw socket facilitatea Installation in erery type of zet. Rated \& mid. ut 430 Fulta $D$.
No. E85OO.
Lint Priee. 82.50.
FOUR PR1C15.

## STANDARD REPLACEMENT CONDENSERS

## ELKON DRY ELECTROLYTIC HI－VOLT D．C．CONDENSERS

maltory－Elkon Dry Electrolytic Condensers．Ideal for replacement purposes because they are dry，compact and easy to install．Miay be everywhere，imgortant sugestion is langer of leakage．Replicements everywhere，Important suggestion：if set uses $11 / 4$ mid．condenser． with 6 mfin： 7 mfd ．With 8 mfd．In pach rase the larger capactiy condenser will（rcupy less space than the one which it replaces and will give better pertormance．If unable to determlne slze required． order with deposit．gring set manufacturer and model number

## FILTER TYPES <br> BY－PASS TYPES



Mallory－Elkon Filte
$\qquad$位 condensers are stable in operation and not affected by low temperatures．3iax．D．C． rolt． 455 ．Wurking volt．


| No． | Mid． | List | NET |
| :---: | :---: | :---: | :---: |
| E2680 | 2 | $\$ 0.95$ | $56 c$ |
| $E 2681$ | 4 | 1.10 | $65 c$ |
| $E 2682$ | 6 | 1.30 | $76 c$ |
| $E 268$ | 8 | 1.45 | 85 c |

## Metal Can Types

For replacement of the round electralytic ty ye in an aluninum contatner with universal mounting Can be directis connected to the negative side of condenser．Max D．C 625 role workng valt 430 ．All $413 \mathrm{~s}^{2}$ high．

|  |  | $\begin{gathered} 1.18 t \\ \$ 1.70 \end{gathered}$ | $\begin{gathered} \text { NET } \\ \text { S F.OO } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| E2684 | $8$ |  | $\text { S I . } 09$ |
|  | （screw） |  |  |
| E2686 | (2 anode) | 3.25 | 1.91 |
| E2687 | $\text { ( } 3 \stackrel{24}{\text { anode }}$ | 4.50 | 2.65 |

Elkon

## Mallory By－

 Pass Con－ Miniatures electrolytic condensers．De－ veloped to replace paper con－ densers gradually failiug in service．Ubed in filter cir－ cuits aud as nudio by－passes． Easily inserted in blocks as replacement units．Contained in evecially treated cartons and supplied standard with lugs．Measures $\boldsymbol{y}^{2} 3 / \mathrm{s}$ in．$x$ 1110 in．$x 11 / 8$ in．

Max
No．MId．Volts List NET E26B8 $1 / 4475$ \＄0．60 35 c E2685 $\frac{1}{2} 475$ ． 4041 c E2690 $4.475 \quad .8047 \mathrm{C}$ E2691 1 475 90 53 c $\begin{array}{lllll}E 2692 & 2 & 475 & .95 & 56 c\end{array}$ E2693 3 4 475 1．10 65 c $\begin{array}{rrrrr}\text { E2694 } & 8 & 150 & 1.00 & 59 \mathrm{c} \\ E 2695 & 20 & 25 & 1.00 & 59 \mathrm{c}\end{array}$

## SANGAMO MICA CONDENSERS



Sangamo mica fixed condenser ate extremely accurate and of cmusual mechan moulded in baiclite．Water and damp proof．Very dependable．

| No． | Cap． | List | NET |
| :---: | :---: | :---: | :---: |
| E6521 | $.00005$ |  |  |
| E6522 | ． 000015 | \＄0．40 | 2 ta |
| E6511 | $.00025$ |  |  |
| E6517 | ． 0015 |  |  |
| E6513 | ． 0023 | ． 50 | 296 |
| $\begin{aligned} & \text { E65 } \\ & \text { E65 } \end{aligned}$ | ． 0033 | ． 60 | 35 c |
| E6514 | ． 005 | 70 | 41 c |
| E6515 | ． 006 | ． 85 | 5 SC |
| E6523 | ． 008 | 1.00 | 59 c |
| E6520 | ． 01 | 1.15 | 68 c |
| 56524 | ． 015 | 1.25 | 750 |

## RESISTOR CLIPS <br> Neeisor chps for abore． <br> 

## TOBE＂B＂BLOCK <br> CONDENSERS

R210．2－2－2－4－1－1 nifd．High boltege for power packs using 210 Iubes．
No．E7｜26．List，\＄18．00．
YOUR
DI71． $8-2-2-1 \cdot 1 \mathrm{mfd}$ for
vower packs using 171 A tubes．
$\$ 5.40$

No．E7：27．List，\＄15．00．
YOUR
PSICE

## REPLACEMENT FILTER BLOCK

 8 MPD． An efficient deal for all filter and by ofs purposes．Serpes in many tiendurd A．C．
fitcults and
efs．Screk
Can m measure
\％by 2＊ 41 c in．
ire Bran arranement：Black Bive common：Blue y Mfd．
 Hed 23 Mrd． R O．E 5395. PRICE 78．

DUBILIER CONDENSER


BLOCES
Ruggedty constructed hishly effl lacement in standard set
pliners us indiexted below Besil installed in place of original．

FBr T7IA Sets
No．E2767．For sets using 1\％1A yower lubes． NET ．．．．．．．．．．．．．．．．． 5 多
For Power Amplifiers No．E2769．For 210 tube mim Nift
$\$ 6.50$
No．E2770．For $9 \pm 5$ tube am Dilfers．
$\$ 4.70$

## Original Knight－Columbia Replacement Condensers <br> 7.9 mefd．block <br> Consists of each of the tol－ lowing conduriser values： milts： 200 mild ； 300 vold－ 300 mift－aen roits： 2.8 nifd．－ 600 volts． <br> FOR COLUMBIA KNIGHT S．C． 8



This condenser block will riplace the orig． and 8．9 night－c
NO．E3444
YOUR PRICE


BY－PASS

## CONDENSERS

## No． 212 milas

A． 3 ufd．bias condenser．Con－ sists of dual 200 volt condeneer 1－2．2
No．E2229
YOUR PRIC


## No． 213 BIAS

A .3 mrd ．bite by－pass condenser．Consists 0 Fd ． 10 mol mid sim roll condenser NOU ER PRICE

## No． 214 COIL and CONDENSER

A -102 hy－pass choke coll and condenser． ool mfd． 300 volt condenser and 1－400 turn detector filter and choke．No． 38 wire．
No．E2222
YOURPRICE

> PPRAUE 600 VOLT
> IMFD．COMDENSER For general replacement mir poses bapecially sultablefor Knight－Columbia A．C． 5 receiver No．E2223．
> YOUR
> PRICE

## THORDARSON POWIR $\rightarrow$ COMPACTS

## 

For use in plate supnly de es and proer anmplifiers using single or push－puli situgle Raytheon $\mathbf{R H}$
lbs．

## E704 <br> TEPT R－280

For 250 type recufier．Operates power am－ plifiers uadig one 171 tube in ouiput．Wi．， 2 libs．
NE：E7042

## TYPR R－210

Serves as power supuly for plate supal unitw snd a mplifiers using one 281 rectifer and one 210 tube in output staze．Wt．II No．ETO43．
NET

DUEILIER MTCADON，NO． 601
． 0005 MFO．
Mode of best grade india sheet mica insulatlon and

 D．C． 0005 only No．E2753．Per O
YOURPRIGE，EACH


## Philco By－Pass Condensers



Genuine Phlleo mica hnd wax－Impres nated paper condenters．Mica condensers are in moubd－ The paper trpe condenter tre specially treated and enclosed in bekelite Lousings．

## 親AEMTE 置OUSINE

| Phileo | Capaedy |
| :---: | :---: |
| － | ． 01 ． |
| P3903 | ． 01 （TWin）． |
| P3793 | ． 15 |
| P3793 | ．015（Twin）． |
| P3615 | ． 0.5 |
| P 36 | ． 05 （Twin） |
| P3615 | ．05（Twin）． |
| P4989 | ． 09 |
|  | $\begin{aligned} & .09 \\ & .09 \end{aligned}$ |
| P498 | ． 19 |
| P4989 | 18 | lug．

## MICA CONDENSERE





## - POWER TRANSFORMERS



Power Transform. ers. Exact Duplicates -phyalcalis, electrically and mechanieally of the orisinal cantis. No reftting or re bullding Is necebsary in their installation; no tunsightly re-wiring to detract from their workmanlike appear. ance in the completed job. Do not confuse these Exact Duplicate transformers whth the chemp "hit or mise ninits fooding the market. Exact Daplicate transformers are in every way equal to the orizinal and properly balanced with other equipment. Ingure renewal of the original performanes of the set Priced at the loweat prevailing quotstions.

ALL-AMERICAN MOHAWH Lyric 90 ......E6108 $\$ 3.82$ APEX
 66, 89, $898 . . . \cdot$...E6120
BOSCH
29. 825

E61 22
BRUNSWICK KR Series E6124 14, 21, 81, 82, S14, E6125 12. $22 \mathrm{~A}, 16,16 \mathrm{~A}$, 18, 18A, 33,
 OLUMBLA

| S.G. 5 ... | 2.65 |
| :---: | :---: |
| S.G. 8 ..........EG129 | 3.95 |
| S.G. 9 ........EEI30 | 5.45 |
| OROSLEY |  |
| $\underset{82-\mathrm{s}}{40-\mathrm{S},} 42-\mathrm{S},$ | 5.59 |
| .ARI. |  |
| Models using |  |
| 245's ........E6132 | 4.12 |
| DISON |  |
| Chassis (JR-JC)E6133 | 2.88 |
| ETEREADY |  |
| Series 50.......EE134 | 3.50 |
| Series 30-40 ... E6135 | 5.29 |

$+3.82$
5.00
5.14
4.26
4.26
2.56

 GENERAL MOTORS
GENERAL MOTORS $\mathrm{S}-9-\mathrm{A}$ (38
KNIGHT
S.G. 5


EG16
S.G. 8

Superhet 7 Superhet 9
.E6169
$E 6170$
$E 6171$
E6172
Exact duplicate transformers are products of the Standard rirama-
former Corp.g exclumlve epecialints in the transformer field. One of the Philco transformleft.

## MAJFSTIC

| 90, 9-P-6 E6139 |  |
| :---: | :---: |
| $\begin{aligned} & 90,9-P-6 \\ & 180.8 \text {-P-6 (plate)E6/49 } \end{aligned}$ | 5.09 4.35 |
| 70, 7-P-6 (plate) E6i4i | 2.70 |
| 70, 7-P-6 (fila- |  |
| ment) .......E6142 | 2.70 |
| 180, 8-P-6 ..... E6143 | 3.73 |
| so unmounted ..E6 144 | 5.59 |
| 10-A unmounted.E6\|46 | 2.35 |
| $21,22,23$ unmounted .....E6146 | 5.29 |
| 90, 100-B......E6 147 | 6.23 |
| $\begin{aligned} & 130 A, 230 A, 130, \\ & 131,132,233 \ldots \text { E6 } 148 \end{aligned}$ | 6.17 |
|  |  |
| mounted .....E6149 | 5.29 |
| PHILCO |  |
|  | 3.47 |
| 65 ............EE6151 | 3.59 |
| 76, $77 \ldots . . . .$. E6152 | 3.59 |
| 82, 86 ......... E6153 | 3.47 |
| 87 ...........E6154 | 3.59 |
| 95. 96. $296 \ldots . .$. ES155 | 4.20 |
| 111, 211. 112, 212 |  |
| (245's) | 4.44 |
| 112, 212 (247's). E6157 | 4.32 |
| 500, .........E6158 | 3.47 |
| 70.270-470 ...EE6159 | 3.82 |

Still another ALWED service Through special connections and close contact with the Standard Tranalorner Corporntion, we can supply Exact Dupllente power tramsformers for practically any set on the market. Send for your copy of the special listing of over 200 power transformer replacement units. Write un nbout your mperfic trangformer needs.

| Models | No. | NET |
| :---: | :---: | :---: |
| RCA RADIOLA |  |  |
| 80, 82, 86 | E6160 | 1.95 |
| 60, 62 | E6161 | 6.79 |
| 44, 46, 47 | E6162 | 3.88 |
| 17, 18, 33, 51 | E6163 | 3.59 |
| 42, 48 | E6101 | 1.65 |
| 64, 67 | E6164 | 13.23 |
| 66 | 6165 | 3.88 |
| HCA VHCTOK |  |  |
| RE-75, R-32. |  |  |
| R-52, RE-45. | E6102 | . 0 |
| RE-39, RE-34, 35 |  |  |

## SHLVER MARSHALL

750 Sheridan ...E6I 67
3.47

SPARTMN
589 .............E6173 7.12


301 ...............E6176 7.08
E6177
410,429
$25,26,26-A W$ W....EEG178
3.53

STEINITE
40 ............... 617

40-C. $41-\mathrm{C}, 60-\mathrm{C}$
102-C........EB181
6.03

STEWART WARNER
801, 801-A, 802.. E6182
3.82

STROMBERG CARLSON $641,642,652,654 . E 6183 \quad 5.59$
10,11 ...........E6184
6.17

TEMPLE
8-60,8-80,8-90..EE185 3.67
CNITED AIR CLEANER
108. 108-A. 110. E6186 3.82 Sentinel 104...E6187
4.85

ZENDTH
$50,60,70$
E6188
4.35 10.11,12.........E6I89 4.41


Don't take chances in transformer replacements. Use Exact Duplicatew to insure renewal of the original per formance of the set.

## UNIVERSAL POWER TRANSFORMERS

 FOR MIDGET RECEIVERS

Cniveral power replacement transformers for midget model radio sets. Physieal and electrical characteristics make the transformers listed below adaptable to almost any kind of replacement job on a midget model set. If the type needed is unknown, please order deseribing set and tubes used.

## hORIZONTAL MOUNTING

For 5 or 6 ' 244, ' 278 , '38s $2 \cdot 45 \mathrm{~s}$ or ${ }^{\circ} 478$ and 1 or ' 82 tubes. 700 v. C.T. 110 M.A.- 5 v. $\underset{\sim}{2}$ amp. for 1 ' 80 or 2.5 v. C.T. 3 amp. for 1 ' $82: 2.5$ v. C.T. 3 amp. 2.5 т. 10.5 amp . Wt. each $7.16 s$. No. E6192. For '80 Eectifier.
No, E6193. For'82 RectiYOU゙R PRICE,
TOCR
EACF.

For Sets of the Following Manufacturers

Adrance Fleetrle Atchisom Radio Nathaniel Raldwin Grown \& Mainart Cardinal Radio Carteret Radio Iab. Champion Kadio Crostey liadio Echonhone Radio Mg Pederated Purchaser Flint Racio J. French \& Sons Gubert, L . W . Gray \& Dinielson Orimn-Smith Mfr.

These quality transformers are also suitable because of their sturds construction for general replacement work on all types of sets. Coils are of high grade material, the insulation of the best and lamination steel
 of fine quallty

## UNIVERSAL POWER TRANSFORMERS



There is a Univermal Power Transformer adaptable for replacement on practically any receiver on the market. Furnished with adjintable nomiting framem that permit an adequate range of mounting adjustments for all practical purposes. High quality of material used. careful laboratory controlled production methods. compactness of design, and remarkable adaptabifty permitting
use in a large group of standard sets, have made these Unfvermal Power Tranam formerw extremely popular. Adequately meets the frowing demand for this type of equipment. Heavy daty, for 110 V . 50-60 cyele A.C. Listings below only partly indicate the extremely wide range of usefulness of this fine line of transformers. Write us for information on formers. Write us for
any other type required.

## 

For sets or power packs using up to the number of tubes specified above. Secondary voltages: 570 rolts C.T. ${ }^{-70}$ M. A. ${ }^{3}$ solts C.T.

 8 8pg. wt., 8 Jbs

## M期FACTUIEIS AND MODTE

 A.C. DastonAcme Bo
Amrad
A.C. ${ }^{7}$
45. 55

Atwater-Kent 35, 37, 38, 40. 42, $43,44,45$. B9 Bramer-Tully | BT-6-40. |
| :---: |
| $7-70$. |
| -71 | Brunswick $5 K R, 5 K R O$. 2FIO. 3 KRRO Columbia phono. Columbla Phono.

$\mathrm{Cl}, \mathrm{C}, \mathrm{C} 2, \mathrm{Ct}, 030$ Crosley Crasley
608, 704A, 704B 706. $610,609 \mathrm{~A} . \mathrm{C}$. 41A, 42AC
Greshmana-G. 5077 , $\$ 080$ No. E8201. YOUR PRICE
C.S. Radio \& Teley

Zenith-11E, 14E
$\$ 2.38$
 For sets or porter packs using up to the
 C.T.-2 amp. for $1-280 ; 2.5$ rolis C.T.-1.5 amp. for $1-245$ or 247 , 2.5 role C.T. $8,5^{5}$

## $37^{\prime \prime}$. Shue. फt.. \$ lbs .

MANUPACTURER AND MODELS
Advance-Falck
Atchison- 12
Automatic
Tom Thumb
Baldwin
Baldu'inette Crosley-Buddy Echophone Radio Echophone
Federated
Purchase
Melorad Cathedral tone
Flint-All
Hyall-AC-
Jackson Bell-62
Jewell-M
Master

National Trans. Balkite
Patterson $6,7,0$ 6--69. Camen 14 Simplex teinite 410 F-1 ${ }_{\text {F }}$
Trav-ler
U.S.Rad \& Teler. Apex 27
Waltham 31
Zaney gill Corp And Others.

No. E6202.
YOUR PRICE

Fer 7-227'u or 214's, 2-245's or 247'm, 2-280 For sets or power packs using up to the roltages: 7 on rolts C.T.-110 C.T. 2 amp. for $1-280: 5$. 5 . A. for $2-245$ or 247 's; 2.5 volt CT, 12.25 mmp


MANEFACTURER AND MODELS

## All American-96 0

Am.
18.
88.
80
Amrad- 81
Amrad A
Balkite-C.F.
Browning Drake
brunswick
81-82 (panatrove)
SG. 5-14. 82 Si-B. $^{22}$
S81-s82
Colonial Ltadio
32 A.C.
Crasles
$30 \mathrm{~S}, 31 \mathrm{~s}, 33 \mathrm{~s}, 34 \mathrm{~s}$.
$40 \mathrm{~S}, 41 \mathrm{~s}, 12 \mathrm{~S}, 82 \mathrm{~S}$
F.A.D. Andrea. 35 .

40, 41, 42, 44, 46,
Freed Elseman
90SAC, NR 95 AC
325.33 S .4 C .31 . No. E6203. NO. E6203.
YOUR PRICE

32 AC
Gencral Motors-A
$\underset{\text { Gencral Motors }}{\text { Grigsby-Grunow }}$
Majestic $(60-25)^{3}$
100 . $180-25 \mathrm{~V} 190 \mathrm{~B}$ (60-25V) 100 B 130Ard sid
Hellord-5.G.A.
King. Kins Momarch
Kolster-930-, $K$
National Carbon Series 10
A.C.A. Victor

Hiddiola 15. 17, 66
Silyer-Marshall
Stewart- Parner
050 A.C. ${ }^{2} 90$
Siromberg-Cartson
Stromberg-Carlson
641, 642
Temple $8-80,8.91$
Uuiterl Alr Cleader
Abex $48,41,42.46$

## 47

$\$ 3.15$

## STANCOR REPLACEMENTS

 POWIR TRANEFORMERS FOR MDCET BET
## 4 TUE MODELS

High grade transformers for midget sets. For 2-224's or 227's. 1-245 or 247 and 1 -280 or 282. Primary: 110 Y., $50-60$ eycles. Secondary: 600 V C.T. for 2-244's or 297'8 and 1-245 or $347 ; 5$ volus 2 amps. for 1-280 or 24 volts 3 amps. for $1-282$. Mounting srea $3 \times 21 / 3^{2}$. Shyg. Wt., 5 lbs.
No. E6204, P-985. 280 rectiner
No. 88204, P-1 281,282 rectifier
List Price, $\$ 2.90$. YOUR PRICE. EACH,
For $2-224$ 's or $227^{\prime}$ s. i-245 or $1-247$ and $1-280$ or 282 . $\$_{a m p}$ 3 abore except high woitage is 700 volts C.T.-50 M.A. Momating area

No. $66206, \mathrm{P}$-853, 280 rectiner.
No. E $6207, \mathrm{P}-1283,282$ rectifer
Llat Price. 3.15 . YOUR PRIGE. EACH
\$158
5 TO TUBE MODEES
For 3 or $4=224^{\prime}$ or 227 's. '-245 or 247, and 1-280 or 282.
Primary: 110 volus. 50.60 creles. Secondaries: 700 volts. C.T. 70 M.A.; 5 volts, 2 amps. for $1-280$ or 2.5 rolts. 3 amps. for $1-282$ :

No. E8298, P-059, 280 rectifer.


## - To TURE MODELS

For 5 or 6-224's or 227's, $2-245$ 's or 247's. and l- 280 or 282.
Primary: 700 yolts C.T.-110 31.A.
Secondaries; 5 yolts, 2 amps. for $1-280$ or 2.5 volts. 3 amps, for


No. 162 II $\quad \mathrm{P}$-1285 282 rectifier
List Price, S6.75. YOUR PRICE. EACH

## FILTER CROXES

> 30 ERNRIES
> Stancor gusitity. Wi.. I lus No. E62I 2 i. 50 YOUR PRICE No. E62l3, $75 \mathrm{M} . \mathrm{A}$ List Prioe, si.45. No. E6214. 110 Ma List Erice. $\$ \mathrm{i} .80$
Lion. M.
> YOUR PRICE ....... $\$ 1.06$

## JEFPERSON TRANSTORMERS

 FOK CLASs "S" AMPLITIER The new Class "B"' a mollifers hare the ditinct advantage of prowiding with relatively small tubes PEAATE SOTPPEI PRANSFOMMIR Type $465-151$. Desisned primarily for use with 282 rectifior to supply required plate rolsake for Chass "B". Amplifler. When operated with $+66-190$
 shpa- wt., $f$ lhs.

## You E438'5 List Price. $\$ 8.75$.

## FILAMINT TRANSTORMERS

Type $464-191$ For use
Filament windings for 282 rectifier, No. 246 driser and 2 . No. 2413 push-mush ampliters: also additional winding for $8-13 / 4 \mathrm{amp}$. heater
 No. E4386. List Price. \$6.95.
YOUR PRICE

## FLLTR ctotis

Type $466-190$ is an input fiter choke for use with Diate snpply and flament transformers Listed abore. In Cluss " 13 ". Anplifiets. Res. 190 ohms; nominal inductance. 18 henries. 50 M.A. Gapacity 150 m.A Type 466.200 is general purpose choke bat particularly applicabie
 inductance. 10 henries. 150 M.A. Shpg. wt., 3 las. ench. $\begin{array}{ll}\text { No. E4387, } \\ \text { No. } & 46688,190, \\ 166-200 .\end{array}$
List Price. $\$ 3.20$. YOUR PRICE. EACH


## TRPE TRANGPOKAERS

coup colipling trantrormer for Class $13^{\prime \prime}$ Amblifier. Adaptatile for couping either No. 246 driver to $2-246$ push-push amplifior or for couping $2-22$ pusn-puil tubes to $2-246$ push-puth pubet, Com; pletely shielded in higck enameled housing. Size, $21 /{ }^{\prime \prime} \times 2 \% " x 31 /{ }^{\prime \prime}$ high. Shmp wt.. 3 lbs.
No. E 4389
6.25. YOUR PRICE
E.....................

245
For push-push Clizss "B" Amplifier. Suitable for coupling 2-246 tubes to carigha typer of ETwalkers of speaker combinations harink roice
 No. E43 490. Yrice. $\$ 6.25$. YOUR PRICE

## MICAROPIOME TRNNSFORM童S

Jefferson type $467-261$ is a compact coupling transformer for single


No. E4395.
List Price. \$2.20. YOUR PRICE

* 2 21

Type 46z-262 is a coubiling transfarmer for all double button eyrhon microphones. Trara ratio 1 to 45 , inpedance tatio 1 to 2,000. 2 tha"g

List Price, $\mathbf{3 3} .75$. YOUR PRICE

# THORDARSON <br> POWER REPLACEMENT TRANSFORMERS 

You can now replace a defective power transformer in most radio sets with a genuine Thordarson replacement power transformer. Each Thordarkon replacement power transiormer is carefuly designed to be as nearly universal in its application as it is possible to make 1t. The transformers are al supplied for Thru Chassis" mounting and hare soldering lug terminals. Filament windings are designed 10 meet the requirements of the average set Thordaraon's manufacturing aklll and experience insure lasting service. These producta reflect finest quality, precision of construction and accuracy of laboratory tests.

## MODEL T-S002

Designed for use with midget type radios employing 3-mex's,
 and I-280. Specifications: Primary: 115 Y. 60 cycle. Secondary: 2.5 V. at 5 amps. C.T.: 5 Y. at maps.: 670 V. C.T. as 40 M.A. Measures $3 \% x_{\sim}^{5 / 6}$ in. Shpg. Wt., 5 lbs.
Na. E7061.
List Price, $\$ \mathbf{5 . 0 0}$ YOUR PBICE
sI 55

## MODEL T-4900

Permits the use of fonr 224's, 227's or 235 's, one pentode tube and 1-280. Specificationg-Primary: $115 \mathrm{~V}, 60$ cyele. Secondary: 483 . each side, center-tapped at in. Shper. Wi., 6 Ibs. No. E7060. List Prlce, $\$ 6.100$
IOCR PRICE

## MODD T-5003

Built for use with receivers employing three 324's, 227's or 235's, twa pertode 247's and 1-280 tube. Specifications CPrimary 115 V. 60 cycles. Secondary: 2.5 V. at 12 amps. C.T.; $\overline{5}$ V. at 2 amps.: and 760 V. C.T. at 80 M.A. 3 hpg Wt., 7 lbs.
No. E 7062 . List Price, $\$ 7.00$. TOCE PRICE
$4 \rightarrow \geq 3$

## MOD宜 T-3740

A sub-panel mounting unit for heater type tubes and $245^{\prime \prime}$ In pushpuli. Primary 115 V. $\$ 0-60$ cyeles. Secondary: 2.5 , center-tapped at 9 amps. for 3 amps, for 2 - $245 ; 750$. 2 . center-tapped at 110 M.A. 5 for at 2 amps. for 380 . Size $3 x x^{3 t}$
 No. E7022. Lut Price, \$8.00. YOUR PRICE.
\$3 53


For $5-26$ MODEL T-3381
For 5-'26's; 1-'27; 1-'71.
Designed for sets uaing single 171 output stage. Separate winding for first audio tube so that it can be operated at higher plate and bias voliage if necensary. Primary: 115 V. $\overline{0} 0.60$ cycle. Secondary: 5 . at $1 /$ amp. for 171. 1.5 V at 2 amps. $10 \mathrm{I}_{2} 2-226$ Audio. fil, center-tapped at a 200 Mps for 280 3 ampre for $3-226$ R.F. ${ }^{\text {fil }} .5$. V at ${ }_{2}$ amps. for $2{ }^{n} 7$ detector size, $3 \times 4 \times 4 \times 4$ in. high. 9 hpg . wt.. $41 / 2 \mathrm{lbs}$. Noiverobicic.

## MODEL T-2971畐

For 5--28's; 1-'27; 2-'71's and 1-'80. A unit deaigned for circuits requiring pushpuil 171's and 2:26 tabes. Primary: 115 Y.. $50-60$ cycles. secondary: 5 V . center-tapped at $\frac{1 / 4}{4}$ amp. for $2-171,2.5$ V. at 2 alupg. for $1-227 ; 1.5$ V. at 1 amp. for 226 first audio 1.5. V. at 3 amps: for 3-226 R.F.: 5 V. center-tapped at 2 amps. for $280 ; 650 \mathrm{~V}$. center-tapped at 70 MA . Size, 3 , $4 x^{4} 4$ in. high. Shpy. wt., $4^{1 / 4}$ lbs. No. E7065. List Price, \$5.00.

2,94

## MODEL T-36241

For 5-'27's or '24's; ?-'46's and ' 47 'h, and 1-'80. A unit for heater type tubes and pushpoill 245's. Prl mary: 115 V ir $50-60$ cycles. Secondary: 730 V . center tapped at $100 \mathrm{M} . A$. 5 F . center-tapped at ${ }^{2}$ amps. for 280 2.5 V . at 3 ampe. for $2-245$; 2.5 V . at 9 amps. for 5-
 $61 / 2 \mathrm{lbs}$.
No. E7063. List Price, \$7.00.
NOOR PREICE.


## THORDARSON CLASS "B" AMPLIFIER PARTS


as release of the type 46 donble srid tube and the tope 82 mercury rapor rectifier makes possible the construction of an amplifiex to deliver 20 watta of audio power most eco nomically. For maximum efficiency, carefully designed coupling transformers and extremely good regulation of power supply unit are esseutial. The following Thordarson products have been especially deaigned for this type of amplifier:


1late Transformer- 100 V. D.C.- 210 M.A
List Price, $\mathbf{\$ 8 . 0 0}$.
No. E7023. TOUR PRICE.

1-5333 Filament Transformer-2.5 amp.; 2.5 F $T$. ${ }^{3}$ amp.; 2.5 amp. W.. ibs. No.EFO24. Liat Priee. $\$ 6.00$. $\$ 3.53$ YOUR PRICE
$1-2353$ No. E7025. YOUR PRICE No. E7026. YOUR PRIGE $1-5339$
 Swinging Filter Choke A ${ }^{4}$ lbs.
Input Transtormar - 46 46 's Class " ${ }^{\text {BS." }}$. Wi., 4 lbs . 46 's Class "B." Wh. 4 ibs
int Price, $\$ 5.00$. 500 ohms. Wh. $44 / \mathrm{lbs}$. YOUR PRICE $1-5356$ No. E7028. YOUR PRICE

1-5291 No. E7030. M-5381 No. E7031. YOUR PRICE 1-3020 No. ETOIO.
YOUR PRICE
-1-2476 No. E7032. YOUR PRICE 2-30? No. E702 í
YOUR PRICE

Output 46's Class "B" 10,000 or 5.000 ohms. List Price, $\$ 5.00 . \$ 2.94$ Line transformer, 500 to 8
or 4 ohms. Wt. $41 / 6$ 1bss. Lest Price. \$4.50. \$2.65
Double button mierophone to srid. Turn ratio 1-22. List Price. $\$ 5.00$. S2. 4

Coupling traniformer. 210. to 2,000 ohms. Wt., 4 libs. Last Price. \$3.00. \$1.76
Audio transformer. 3-1 ratio We. 21/2 lbs.
$\qquad$

## THORDARSON FIETER CEOKR

T-5450, for amateur transmitter filter cir* cuits. Will also serve as a modulation choke. Contervatively rated al 250 ar $A$. with an in-
 ductance of 15 henries. Hounted in open type trame With leads broughs out directivirom coil. lnsulated for in. high. Wiz. 3 lbs. No. E7033. YOUR
PRICE
$\$ 2.25$

## THORDARSON PLATE SUPPIT TRANSFORMER

T-5448. A popular driced plate supply transformer for amateur ina olo trantmitterz. coded leadx on both primary and secondary. Primart 110 V . 60 meles. Secandary 800-0-800 60. May be loaded to fuil ca. pacity of 150 M.A D.C. with. out overheating. Secondary in sulated for 3.500 Y Size $4 \%$ $3 x_{4} \times 6$ in. high. Wt.. 6 lbs.
No EV7PRICE


TRORDAREON EICE
POWIR TRANSFORMRR
For 2-'50's or '10's and Cased and fully Delivert ind fully shielded. 150 M.A.: $71, \mathrm{Y}$. A.C. A: 3 amps: $2 \%$. $\%$. at $i$ amps All connections brought out to a shielded hakelite strip at bottom. All windlngs center-tapota. Operates on $100-130 \quad V_{i}$ 50-60 cycles. teated at $2,500 \mathrm{~V}$. Slize 5 x
4 x 4 K in. Mounting centers. $3 \times 3 \%$ in. Shpg. Wt, 12 lbs . No. E7035.

for models apecified above. $\$ 1.23$ No. EI549. NET

## BRUNSWICE REPLACJMINT POWIR TRANSEORNIERS

Power transformers for replacement on model "D" chas is for Brunswlek aet models 11. 12, 16, and 33. Transformer speclfleations: $2 \frac{1}{2} \mathrm{~V}$. Finding for $5-224-235$ or $2: 7$ and $1-24^{7}$ : high volt winding 300 V . each side of center tap.; 5 . Winding for $1-280$. Primars
130 V. Supplted in 25 cycle and 60 cycle types.

No. El 547
YOUR PRICE
No. E 1548.
IOUR PRICE
8071, 95
$\$ 4.12$

VICTOR A. B. C. POWER TRANSFORMERS
 कhielded large formier designed to prevent overheating. Can be safely overloaded 30 per cent. May be used in all veta using 6-2208, 1$2 \% \pi, 2-245$, and 1

FOR VICTOR RE-75, RE-32, RE-52, RE-45
Fllament secondaries: 2- 1 1/1/2 V . for
 $1-5 \mathrm{~V}$. for 980 . 1 high rolt of 400 at each side of center tap (at 150
mils.). Primary 110 V. A.C. $\overline{0} 0-60$ ryele. Wt., 10 jbs Ne. E6102. OER PRYCE
-1 25
CARTER POWRR TRANS.

## FORMERS

Compatt powor trans:
ormers adaptatile to al-
 formere adapiahile to ${ }^{\text {nit- }}$ the market. Ugually mounted by mutting hole in chassia base sutiticiently large to permit lomer part of unit to exiend below mium plated stin. Cad. mlum plated steel half shell.
FOR 4 TO 5 TUBR STES Replacernent bower tranaformer for recelvers ustme zulses 224. 227, 235 , single 245 or $24 \%$ and 280. Primary: 11, roits, bo ryelex. Sect-

 No. El890. YOUR PRICE

## FOR 6 TUBR SETS

Replacement power tradiformer for use in sets emplofing 224 . $22 \%$. 235 , sinyze 245 or ${ }^{247}$ and 240 tube; $p$ rimary: 117 F., 60 cycles. Secondary; 650 v.i, center tapper at
 No. Ei 1891. lift Price, s5.35

FOR 7 OR TURE SETS
Por receivers emuloying standard tuhes. such Prlmary: $117 y^{23}: 2-245$ or 247 and 280 tubees. .. center tapped, 70 M.A. 5 V., 2 amps. for -280: 12.25 mmpe . Overall dimensionn: $31{ }^{\prime \prime}$ $x 3 x^{2}$. Shug. wt., o the
No. E1892.
YOURPRICE
*1. 1
CARTER FILTER CHOKES


No. El893: Smal!, Ideal for uife in "midget" recelvers. DiC. resistance
55 olims. Inductance $2 *$ henrien at 40 I. A Chromium I'lated steel Shelt Heishf. Dite Wist. $\$ 1.95$. No. 1895 Larce Fut larue reeelmers nd mower ampliflets. D.C. resistance 260 ohms. Inductance 16.5 henties at. 100 M.A. Height. 29, S" Sennting Ce
List. \$3.15.
YOUR PRICE
$\$ 1.10$
ACME STEP.DOWN TRANSEORMER
Redutes line voltages from $200-240$ volts, $50-60$ vyele. to 110.120 volts, Sup-
plled complete with plled complete with
plur. 8 foot cord and receptacle. Simple to attach-

[^2]No. E800. 'Transforiner with macity of 150 to 201 matte.
List Price. 510.00
YOUR PRIGE
$\$ 3.85$

## RADIOLA <br> POWER TRANSFORMERS

## TOR RCA MODELS $80-82-86$

Buitt by R.C.A. Vietor for the Radiota and Victor motels men loned. Also muitahie for replacement purnmwer in all sets using kis lcient toltage for use Eith telerikion equinment.
ALSO FOR VICTOR RE-34, 35, 39 AND 57
The semndars delfrem a high volkage 100 volto and 5 volts for he 880 tube. Irinars: $110-120$ volts A.C. $50-60$ ryefe. Equipyed whth colored moisture-proof leads.
Our mire and R.C.A.-Victor constructlon makes these power trans. formers ideal for your replacement needs. Shpg. Wh., 12 ibs No. E6100. List Price. $\$ 12,00$ YOUR PRICE.
-195
FOR RADIOLA 42 AND 4 B
Designed and manufactured by R.C. A. for the Radiola 42 and 48 and is alno ined for Westinghouse, General Electrio, Graybar and Victor 14 . 15 and 17 recetvers. Thin iranstormer is alao particularly suitable for replacenient purposes on all spts using aix 282 's, 224's. pentinde ar 245 tubes Rupged construction and easily identified colored leads.
Specifications: Seconclarj- 6 volts for 280 filament: $21 / 2$ volta at 10.5 hmpa. for 224,227 and 245 tubes; hah voltacke of 700 volts. center-tappen. Primary 100-120 rotis. A.c. $59-60$ eyele, renter tapment. Dimensions: $+1 / 2 x$ Nox3\% in. shmet. wi.. o los.
No. EGBIOL'
YOURPRIE
$\$ 1.65$


KNIGET-COLUMBLA POWER TRANSFORMERS


For Superhets
Power replacement transformers now available for the Kmisht? rabe and Knichi fuhe sumerheterodynem. Reflect high quallity of materiuls used in their construction and careful, liaboratory controlled production methods. Built to give long service. Mounted and sealed in metal shielding, ready for wiring to re-

## ALSO FOR UNITED AIR CLEANER MODELS

Theas power iransformers are uisu wultable for the United Air Cleaner Senthel Super 7 and 9 modele. Constructed to supply 2-2:44. 2—285, 1 -227. $1-$ 245 , and 1 - 280 tubes in the 7 tube aperheterodyne and 3-335. 3-224 $1-227$, $2-24$ and $1-2 R 0$ tubes in the 9 tube superheterolyne. Bnilt rizh -priced right. Shpg. wi., 11 lbs. each. No. E2306. Knight or Uniled Air Cleaner Suner $\%$. PRICE
No. E2306. Knight or United Air Cleaner Super $\boldsymbol{\theta}$. YOUR
PRICE
$\$ 4.70$

## POWER

## TRANSTORNERE

TOR 4 AND 5 TUEE SETS

 or 4 rund ransformern Por itnhe bethende liverw: 800 Y. C.T. V. for 1-380: $21 / 4$ $23 \dot{3}$, $n$ n 1 - 247 For 5 tube reta-Delivers: 650 V. C.T.


## BOUND CONETRUCTION

A carefully conatrurtex irangformer of oxeellent quality, ir ady for mounting Its compact size makew it adaptable for installation on any four or five tube recelver covered by the mpecifications given. Shps. wi.. 4 lhe. parh.
No. E3227.
Four Tutbe Type.
YOKR PRICE
Na.E3228
Five rmbe Type.
TOLP PRICE

## AUDIO TRANSFORMERS AND CHOKES



## KNIGRT GIANT AUDIO TRANSFORMER

ET焉L CASE sitititwDING
A glant audle transformer．Clean－ cut construction．Looks at least twice the price．So designed as to serve as a straight audio also center－tapped for push－pull amplifeation．May be used in flrst and second stages with Large core of high grade silicon．
Completely shielded in strong and durable steel case．Ideal for quality replacements，yet at a low cost．Will modernize both A．C．and D．C．sets． Will reproduce all frequencies with absolute fidelity，Ratio：31／2－1．A splendid transformer value for either replacement or original work．
 No．E4380．

## COIE SPECIAL PRICE

## Sextidoper Atidios

Identical in characteristics to the Knitht giant audio described abore except only partly shieltled．An effi－ dent trankformer at a low price．Only the finest in materials enters foto the construction of Knight audios．Im－ pregnated coils gire agsurance of long bife．Mount easily and conveniently． May be ussed in all fiandard circuits
4 in．wide at base． $2^{1 / 2}$ in．high． $1 \frac{1 / 2}{}$
in．deep，Offered at an exceptionally low price． Wh 2 友 lbs．
YOOR PRLCE

## PILOT TRANSFORMERS

## BAKELITE CASE

## AUDIOS

## For any cir－

 est grade parts arespecified． Genulne bake－ If te，molsture proof ense．${ }^{31642}$ n．high，Syin． wt． 2 lbs．

## PLLOT JUMBO POWER TRANSEORMERS



No．E59．59．PILOT 398．For receirers em－ center tapped．Kated $2 \frac{1}{2}$ f．at 8 ampary windingm
 YOUR PRICE ${ }_{224} \mathrm{NO}_{2}$ E 5993. PILOT 411 For recelvers uaine plate winding．Ruted $2 x$ dimment windings and one at 3.6 amag． 5
Slupg．w7． 9 ibs YOUR PRICE

## VICTOR AUDIO TRANSEORMERS

Fspecially deaigned for Models R32，RJ』，RE45，RFA5


Output Piotor P．P．Input and ont pormer．In former．in．
put prim． ohms； $\begin{gathered}0 \\ \text { sec．}\end{gathered}$ 18.000 ohms．Output prim． 500 ohms：sec． 6 ohms．to match moving voice coll on all Dynamic speakers．Used with 171.245 and 250 tubes． No．E6IO3．
YoUR PMICE

## First Stage

 et other Pet．Primary 1.200 ohms tapped at 50 ohms for phono． mekup．Secondary 2.800 ohms．Shpg．wt．， 41 lbs ． No．E6IO4．
FOUR PBICE
45e

## KNIGHT REPLACEMENT AUDIOS AND CHOKES



Carefully constructed of the best matertals to preeime standards．Biandard construction makes these chokes and transformers adaptable for replacement in practically every type of receiver．All coils are vacium impresnated． Compact alze and high quality．Equipped with oratkets for comvenient molinting．Average size， $34 \times 24 \times 1$ in．Shpg．wt．about 3 lbs．each．

## AUDIOS

No．E7050． 2 to 1．Com－ pletely shielded in neat meta case with soldering lugs bottom．
YOUR PRICE
95 C No．E7051．Push－Pull In－ pat．Completely shielded in metal case as above．
$\$ 1.03$
YOUR PRICE Interstage Au． No．Fugh－pull ${ }^{\text {dio }}$ ． Open frame mounting． 848 yolir price．

## CHOKES

No．E7052．Push－Poll Oat－ put．In open frame mount your price．

68e No．E7053． 1.3 Henries， 75 M．A．In open frame mount． ing． YOUR PRICE
$76 c$ No．E7054， 8 Henries， 115 ing． YOUR PRICE $\qquad$

## OUTPUTS

Primary with insulated pueh－back leade．Secondary． 8 and 15 ohms．Open frame mounting．
E391 I．slagle 245 ． 735 YOCR PRECE E3912．P．P．245． 838
YOUR PRICE．

E3913．Single Pent． 763
YoUR PBICE． YOUR PBICE．＂Bent． E3914．P．P．Pent． 838
YOUR PRICE，．．．．．．

## RCA－VICTOR CHOKE

## 30 Henry 125 Mils．




## Philico Atide

Phllco Re． placement audio No． charactertst． charactertst． ics and in－
stallation connections 10r Philco 85－88－87．Ratio 4 to 1 ． MADE BI JEFFERSON Sturdy，skilled constrac－ tion is typical of defferson workmanchip．A most efts－ cient replacement unit．Shpg wi．． 2 lbs．
No．E4406
YOUR PRICE

## JEFFERSON

Stepdewn
TRANEFORMER
EIO TO HE VOET duty heavy former with a primary $110-120$ Folts， 50.60 cycler A．C． Output 12
 $2^{1 / 2}$ amps．${ }^{\text {tol }}$ Suitable for＂A＂ eliminators．đynamic speak－ ers，trickle chargers．bell ringing and toy transform－ No．E44ps．wt．， 4 lbs． No．E4413． Netail Yalue．\＄5．00．
YOUR PRICE．．．．

## Knight Universal Replacement Audio

An ercellently bultt all－ parpose audio transformier， suitable for use either as a replacement or in the con－ gtruction of a new receiver． Tone quality and range meet ment most exactiv built for eagy installation．

## UNIVEREAL MOUNTINE



Constructed of best erade materials．Colls are vacuum mpresnated．Can be used in all standard circuits．Easily mounted．Sjecial brackets allow for universal motanting．A great Filue，Worth many times nur price．
Wh．， 1 1b
No E E 570 ．

## THORDARSON-JEFFERSON TRANSFORMERS

## AUDIOS

Unjversal ré placement tranaformers designed eqnecially for service mecially for service men. bropot desien movel bracket iexien which permils mounting in any de-
gired position. $F$ or sired position, Fur
replacing defective. obsolete or buritt out A udi o trans-

THORDARSON


## CHOKES

## R-102 Push Pull Output <br> \section*{For coupling 71 or 45}

 lubes in push-pull to high mpedance speaker or to cutpling transformer of bs. No. E7002. List, $\$ 2$. S1.18

## R-IOS Filter

Por replacing filter or speaker coupling chokes carrying is Xillismperes. or legs. of current.


## R-196-30 Fenry

Fur inse in filter circuits or as an
 No. E7004
List, \$3.60.
NBT
$\$ 176$

## Output Transformers <br> Output transformers ior

 special purposes construeted to Thordarson precision ot an darals. Completely shielaled in neat. durable cases. Will couple varions types of tubee with
 sheakera each. 4 lbs.

E7007 T \%401 $250-\frac{1}{2} 5-71$ 10 2.000
E7008 T $200 \%$ 200 $20.45-71$ k dy-
E 7009 T 2003 namic rolce coil.

List. $\$ 1.00$.
. $\$ 2.35$
PENTDDE TAANSFORMFRA
Designed to chuple the nev power output pentode tube to the roice coll of a dynamice speaker. Size. 2 y $\times \frac{1}{4} / 4$ 3 in. Shry wit. 3 jbs.
No. E7O15. T 1843. For alngle 247 pentode. No. E7016. T-4831. For 2 - 247 penLodus in push-pull. PRIC\& \& 4

## THORDARSON SPECIAL AUDIO



RPPLACEMENT A special Thordarenn value. May be used as A straight a udis ans pumb-pull smpilfcation Serves in firat and ven and on and gec $930,9>1,232,171$ or 345 tubes. All audib'e
frrquencies reproduced with trus fidellty. Coil thoroughly im jregitited and moisiure proofs Ratha $31 / 4=2$. Fnclofed in a neat. durable and mountings Orerall dimensions $3 y$


No E7O44
NOI'R AELCLAL PRICF


Thorderson Push Pull Inputs
T-2408-Deslened to cou ple a gtage of gtraight audio amplification into a stage of of the existing types of
o 0 er amplifying tubes
now fr mmplifyink tubes.
Ratia 21 . Measureg ${ }^{2}$
No. E7045.
LIst. \$4.00
$\$ 235$
T-1:30-S-Same is T. 3408 . but ponserges 3 ratio of $8-1$. For uge with 210. $245,2 \pm 7$ and 350 tylue power tubes. No. E 7046.
Ift, 84.50 .
COIR NMF JT1CE
863

## Therdarson Plate Sugply

 TrantinformesDesigned primarily to mupply A-B.C eurrent to two alo type power anmitfytug tubes and $B$ current to the recelver. To be used with two 981 reciffler tubes. Conerrvatively rated. Cand in operation. Primary-110 voits 60 in opele A.C. Secondary-1.120 v. C.T


 2, Shpg. vi.. 16 lhs
No. E7047
L'at, \$9.00.
\$5 29

## Jefferson Universal

Jefferson Star Shielded Audio


An outstanding value in a hikli qual-
ity audio transformer for any aet. $A$.C. or D.C. Machine wound con sisures uniformTrampformer is sealed
 No. E4420. 3 to 1 ratio. TOI: PBRER, EACH

* I

No. E4391, Nhlelded L'micernal Output Trumeformer. For 11\%, 1:1. .3 $\$ 1$. 33:3. N38, 245. 247 or 2,30 lubes in sin. gle or push.pull. wt. 3 lbs.
List. 56.00 .
YOER PRICK


Tapped Audio
Very popular For push-juli replacement work on botls A.C. ar b.C. repelyers. Mas be uned as straight a ufio by omiliting centertap. Mounta In erery conceivable position. Supplied Fith both lugs and leads
2 \% $\%$. Shpg. wi. 2 lba.
No. E4400.
List Prime, \$1.9\%.
\$103
No. E4392. Enlversal Tappad Out put. Similar in eongtruction to transformer above but of oufput $\}$ ? TOLR PRICE.

## JEFFERSON REPLACEMENT AUDIO

sfuall ronivact transformer-juat the kind to fit into tight places. Itm low height makes it a favorife for sub-base installatiou. The sturdy skilled con-



## COMPACT-UNIVERSAL

Its amall mize and recognized high quality maken this audio a favorite whith service men. Inlversal mounting permity instaliation in the most con venient pasition. either horizontal, verticai ur on rad. Size. $0 \times \times 2 \mathrm{k} \times 1$ in. Shys. wt. 2 ibm. An extragrdimes value. No. E4423.
NOIR NET PRICE:

## SENECA OUALITY APPLIANCES



Hennilful chromium finish. Graceful round hood. For every type of fabric. For 110 volts A.C. $7 \%$ in. base length. Shps. wt., $81 / 4 \mathrm{lbs}$.
 lite loundles. Handy aluminum lift racik and porcelain inside cup itrs.
No. E E 6633,
Rotali. $\$ 5.95$.
YOUR PRICE


YOUR PRICE


## 3 Heat Heating Pad

Absolutely safe. Ad Justable to 3 heats. Controlled by two thermostats wired in a meries. Fluffy eider. down cover with cush ion constructed blanket interlining Measket interlining. Neas Complete with silk complete 3 heat switch cord and 3 heat switch and plug for 110 or $\mathbf{D . C .} 5$. Shipping weight. lbs.
No. E6R21
Rotall. $\$ 3.95$.

## AUTOMATIC EGG COOKER

Cooks eggs exactiy to your taste. Thermostar teally controlled. Cut rent shuts of automatically when $\mathrm{eg} \mathrm{g}^{-}$घre done Cooks from one to Pour egps. Bealutirul
chronium plated. Bakechronium Dlated. Bake-

SUPER SAFE WETPROOF HEAT PAD

Interlined Hit it Samsonite. 3 heats. Chinchilla elder. down cover; Patented eluded. Measures 12 in . 15 in . Cej. lophane wrapped. With cord and plus. $110-125$
D.C. 55
Folt
a
A. D.C. 55 wa it ${ }^{5}{ }^{5}$, Shipning weiphr, 2 libs. Extremely neces
No. E6634. Orehid. No.E6626. Green. Rotall. Each, $\$ 6.00$.

## SENECA 1000 WATT NEW ADJUSTABLE AUTOMATIC IRON

Full 1000 watt - yet consumes no more current than a 660 watt iron. Vew type hish arc thermostat. Lifetine unlt embedded in vitreous carborundum. 25 heats. Comfortable in use. Standard $61 / 2$ ih. welght. Auto matic heat control. The housewife whll appreciate this new automatic appliance which mokes for mich greater ease in ironing and the same time greater economy


## HEAT PROOF CRINA PERCOLATOR SET



Smart and of great utility. Chima is so ouch in texture as to withstand high beat withont cracking or breaking. Fittings are Anished in soarklling chromilim. Consists of Percolator, Sugar and Creamer, and Chromism. Tray, sugar and rreampr nidtch the beantiful floral design of peacolator. ${ }^{7}$ cul babacity. For 110 volt A.C. or D.C. 450 watt. shps. wi.. 15 lhs.
No, E6635.
Retail. $\$ 17.95$.
YOUR SPECIAL PRICE


## AUTOMATIC

 TABLE COOKERHffectively cooks meals at the table auton matically. Thermostatically controlled. Handsome chromium plated. Panslled doslon Book of complete recipes packed with pach cooked right nlways. A great glft item Shpg. wt. 7 lbs
No. E8636. Retall, $\$ 12.50$
YOUR PRICE


## AUTOMATIC WAFFLE IRON

An automatic Waffe Iron nimont human in lis operation. Light tells when to pour batter and when waffle is done. Thermomtatically controlled. Graceful lowboy design; finished in oparkling ehromium. Bakelite handies that harmonize. Nichrome unita. Dle cant aluminum grids. Helght over all 4 in.; diameter 11 in .; diameter of grid $81 / \mathrm{in}$. For 110 volt A.C. only. Bakelite connector, attachment plugs and 6 ft . Rayon heater cord supplied. Shpg. wt., 7 lbs. This beautiful wane fron will make a handsome gift that will be treasured in any home.
No. E6637.
RETAIL, ge.g.
YOLR PRICE

## BREAD AND ROLL TOAST BAKER

Something new: Will toast any gize bread or any size roll. Beauliful round design, atractively chromiumplated.
 Hixhly polished bakelite erumb tray and bakelite handles. Cleans easily. Fine quality mica beat unit. Height. $7 / 8$ in.: length. $11^{1 / 4}$ in.: widyh. $7 / 1 / 2 \mathrm{in}$. Shipg. wt., 5 lbs.

## No. E6638.

Ratail, \$5.95.


## AUTO FLIP TOASTER

Handles two full sized sllces of bread. Positire turn-over action, Beautifuly paneled Fin. lished in heat ested enamel and chromium. Quality mics heat unit Th in. hish Exceptlonal ralue. Shpr. Wr.
No. E6639. 8 ils.
 YOUR PAICE

## THERAPEUTIC

IEAND LAMP
Ofers health-giving, infratred rays. which penerate deep into the tissues of the borly with healing Warmth. Highiy polished aluminum bowi pith mir ror-like finish reflects rays perfectly. Nickel plated push button switch. "Easy Grip" handle. W'ith cord and plug. Shpg wh.. 3 lhs. No. E6649.


YOUR PRICE ONLY

## INDICATOR WAFFLE



IRON

Wetal lowboy racefully designed metal handles. Hest indicator tells whon to bake. Nichrome units polrnea on han autiry refractors diate. on porcelatn 1lue giv. Black sicnt Dane and porcelalin-llke finisll Shipg. wit. 64 Jb
No. E6623.
Retail. \$5.95.
your price
$\$ 365$


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Green in color.



## Feature Values in Electrical Appliances

## ULTRA-VIOLET SENECA SUK LAMP FLOOR MODEL

Radiates health. Seneca quallty and dependability is expressed in this handsome Iitra-vlolet fon Lamp using the new mercury vapor bulb. Medical authorities arree tial for well being. Beautifully finighed in statuary bronze. Complete with Samson Type 140 San Lamp Bulb, 8 ft . Cord and special transfornuer. Height 67 in . Dlam. of rellector 11 in . For $110-120$ volts A. C. 50.60 cycle, 100 watis. Shps. ${ }^{4} \mathrm{t}$.. 25 l lbs.
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## TABLE MODEL

UTra-Violet SUN LAMP
The Seneca Tltra-Violet sun Lamp, exactly as described above. in a table model. Health giving ultra-violet rays emitted from a lamp which is at onec convenient and lends distinction to its surroundings. Can be thited to any desired angle Morcury, Vapor Type sun lamp bulb, Height overall 32\% in. Shpg. sit... 15 lbs. Price.


## RLECTRAHOT QUALITY

 APPLIANCESWhen sou buy an Electrahot protuct you are sassured of receiriog the best value obtatnabie in plecirical poods. The devices listed below make doal gifts. Not onsy
beauty, lut a lso eficiency and economy are beauty, hut also efficienc
reflected in these fitems.

## CHROMIUM PLATED FLIP FLOP TOASTER



Inexpensive-but speaks quality. Toasts two larke slices at once. Automaticaly turns toast with tiful lustrous Anish
Mica Element
Nifehrome element ut mica. Toast hotciers re electricalls spot-welded, $110-120$ volts. 550 watts. Slipe. wh.. 341 k No. E2700 PRICE

DOUBLE SANDWICH GRILL AND TOASTER


Distlnetive cesign-Beautiful Lustrous Anish. Two snndwiches grilled at once, all delicious juices jreserved. Toasta two sices of bread. Nichrome wire element. $110-120$ tolts. 400 watts. Shig. wt., 6 lbs.

No. E2701
$\$ 365$

\$12.75

NEW AUTOMATIC WAFFLEMASTER


COMPLETELI AUTOMATIC No guessing- light slonal and utomatic fles of make burnowames impossibie. Waistes are alway unt plete with cord and plug. Shpg. wt.. a lise. No. E250 2 ind and phog. Bapg. Rotall Price.
VOUR PRICE


## ULTRA-VIOLET STRIAN LAMPS

New-the ultimato in home lighting. The Areturus "Girian" lamp provides both modern illumination and healthful sun-bathing directy from your electric light socket. No additional equipment required. The beneficial ultrawiothont dangers. Special glass precludes use of gosgles.
Sage anthe Sun-Use In Any Socket Tust closest approach to the sun-and just as safe. Fits into ang lighting nocket on any lighting line. replacing incandescent bulb $11 / 2 \mathrm{lbs}$.

HLUE GLASS

No- Watts NET E570 $60 \$ 1.03$ \begin{tabular}{lll}
ES \& 101 <br>
ES72 \& 100 \& 1.37 <br>
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E5 \& 23 <br>
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Delicious golden waffes can now be made right on the table. makes them automatically.

\$995

WHITE GLABA
No. Watts NET
E674 60 \$0.62
${ }^{575} 100{ }^{100}$
$\begin{array}{ll}\text { E } 676 & 150 \\ 5 & 1.37 \\ 300 & 2.57\end{array}$

## 9 CUP COLONIAL PERCOLATOR

## Magnificently de-

 signed-latest type. Instantaneoua cireulation through a less pump. makea delicious cotifes delickits. new v-type design. New non-drip spout. etched motif. encraved bage and highly polished aluminum tinish. g.cup capacity. Complete with standard cord set. Mukes a beanti- ful gift. A useful and dianctive addi- tion to any home. 110 rolts, 400 uxtts. Shus. Nit.. 4 lbs.

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## Rapid Ray Heater

quick lient-Efticlency at a low price. The combination of the deep reflector and the quick heating feature makes this a very effective heater. vents slipping.
Chromitum Plated
Brilliant innish of
 will not tarnish. Easy to clean. A most fajthful servant for thoge chilly days, at an matoundingly low price. Height 13". Reflector $11 \%{ }^{\prime \prime}$ diameter 110 volts. 500 watts, A.C. or D.C. Comp plete with cord.
No. E8975.
SPECIAL LOW PRICE

## Electrahot 600 Watt Automatic Iron

Beautifully chromium pleted. Great heat blorage capacity. Set dial button at heat required. antomatic

thermostat keeps it there. Streamune. tapered point. Complete with cord. $110-120$ volts A.C. onls. Shpg. wh. 7 lbs.
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Retail, $\$ 0.96$

## 8-LIGHT MAZDA XMAS

## TREE OUTEITS

Elght colored lamps on long cord with plag and extention attachment. Several strings of lights may be combined. For standard 110 volt current. With genuine Mazda bulbe.
No. E2915.
IOCR PRICE

## E.

ull extension set with spring contact rocketsuibs eannot work loose. With 8 Mazda lampa No.E2916.
No E2914. Bor of 10 Marda Lamp YOUR PRICE

## Latest Model Sets T] $\boldsymbol{T}$ Class 'B' Amplifiers 1 to 8 and 73 to 80 24-25-27

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Sets ....
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Suppressors
$47-54-55$

Bus Bar Wire.
32-51-53-55
Buzzer
CABLE, BATTERY Connectors .. $31-38-41-16$ Microphone Speaker
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Centralab
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R. ${ }^{\mathbf{F}}$.' 48-65
Clarostat 34-44
Clips. Shield Grid $12-49$
40
Cocke Practice Sè - ${ }^{2}-75$

Coile, Antenna
Forms.
R. F.

Shields
33 34

Attachiment
Condensers. Automobile. $\mathbf{F}^{47}$
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48-58.60-61-62
Filter ..... 13.48-59-60-62 Fixed .....44-58.59-60-6.64
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Convenience Outlets
Converters, Janette

D
ETECTO-LIGHTS
.36-4
Dial Lighte
Drum Dial Cables
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Electectrad Parts. .52-53-56
Electric Appliances. $37-70-71$ Plocks
Eliminators $\mathbf{A}$ \& $\mathbf{B} . . . . . . .$.

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& \text { Auto } \\
& \text { Refils }
\end{aligned}
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... ${ }^{47}$
$\underset{\text { Extenkion Cords.....4244-48 }}{\text { Refile }}$
FAHENSTOCK CLIPS. . 41
Flash Lights ............ 28
Flash Lights
Friction Tape
Fuses
Cind LeAKS $_{\text {RID }}$
amps
Head phones
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## Parcel Post Shipments

If shipment by parcel post is desired plesse send additional remittance to cover postage: amy surplus will be promptiy refunded. If Insutfictent remittance if enclosed it will be necessary to send C.O.D. for the balance.

## Express

If you hare an expresa a rent at sour statlon it is not nacessars 10 include transportation with 50 ut order. If there is no ex press agent. include trans Dortation charges with your order. All exprest ship ments are insured. It is preferablo to ship radio sets and bulls merchandise bs express, All shipments containing acid or inflammable merchendise munt be shipped express or freight es it is not acceptable for
percel post shipment.

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Merchandise should be sent by freisht it repid shipnient is not necesger and the order weighs near 100 pounds or more. The minimum frefoht charge is for 100 younds.
If you have fretght agent, do not send ship. ding chargens. Your freight gigent whil collect. If Fou are on preraid station mend advance charkes. Any balance will be promully refunded.

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All forelem orders must be accompanied by at least $50 \%$ remitiance in 0 . St exchange. Orders for less than $\$ 25.00$ must be pald for in adrance. All auotations net. F. O. B. Chics no.
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| WEIGHT, © POUNDS | ZONES |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | First, <br> Unto 50 MILES | $\begin{aligned} & \text { Second, } \\ & 50 \text { to } \\ & 150 \\ & \text { MILES } \end{aligned}$ | $\begin{aligned} & \text { Third, } \\ & 15080 \\ & 300 \\ & \text { MILES } \end{aligned}$ | $\begin{aligned} & \text { Fourth, } \\ & 300 \text { to } \\ & 800 \\ & \text { MILES } \end{aligned}$ | $\begin{aligned} & \text { Fifth, } \\ & 600 t 0 \\ & 1000 \\ & \text { MILES } \end{aligned}$ | $\begin{aligned} & \text { Sixth, } \\ & 1000 \text { to } \\ & 1400 \\ & \text { MiLES } \end{aligned}$ | $\begin{aligned} & \text { Seventh, } \\ & 1400 \text { to } \\ & 1800 \\ & \text { MILES } \end{aligned}$ | $\begin{gathered} \text { Elghth } \\ \text { Oner }_{n} \\ \text { T800 } \\ \text { MILES } \end{gathered}$ |
| 1 2 3 4 5 |  |  |  | $\begin{aligned} & 10 \% \\ & 14 \% \\ & 21 \% \\ & 246 \end{aligned}$ |  | 124 196 33 406 | $\begin{aligned} & 148 \\ & 232 \\ & 414 \\ & 504 \end{aligned}$ | $\begin{aligned} & 15 \\ & 26 \% \\ & 37 \\ & 48 \\ & 594 \end{aligned}$ |
| 6 7 8 9 10 |  |  | $\begin{aligned} & 194 \\ & 21 \\ & 23 \\ & 25 \\ & 274 \end{aligned}$ | $\begin{aligned} & 284 \\ & 316 \\ & 38 \\ & 384 \\ & 424 \end{aligned}$ | $\begin{aligned} & 384 \\ & 434 \\ & 494 \\ & 594 \end{aligned}$ | $47 \%$ 546 816 754 | $\begin{aligned} & 596 \\ & 88 \% \\ & 884 \\ & 956 \end{aligned}$ | $\begin{gathered} 704 \\ 818 \\ 93 \% \\ \mathrm{~s} 1.03 \\ 1.14 \end{gathered}$ |
| 11 12 13 14 16 | $\begin{aligned} & 194 \\ & 214 \\ & 234 \\ & 244 \end{aligned}$ | $\begin{aligned} & 196 \\ & 214 \\ & 224 \\ & 246 \end{aligned}$ | $\begin{aligned} & 294 \\ & 314 \\ & 33 \\ & 354 \\ & 374 \end{aligned}$ | $\begin{aligned} & 454 \\ & 494 \\ & 524 \\ & 564 \end{aligned}$ | $\begin{aligned} & 644 \\ & 764 \\ & 804 \\ & 864 \end{aligned}$ | $\begin{gathered} 824 \\ 994 \\ 984 \\ \$ 1.03 \\ 1.10 \end{gathered}$ | $\begin{array}{r} 1.04 \\ 1.13 \\ 1.22 \\ 1.40 \end{array}$ | $\begin{aligned} & 1.25 \\ & 1.36 \\ & 1.48 \\ & 1.58 \end{aligned}$ |
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| For Each Additional Pound Add | 14 | 14 | 24 | $314 \%$ | 54 | 74 | 96 | 11 |

 by RCA, Westinghouse, General Electric, and affllated companies. This new radio development means double only does the Double Pentode Audio produce a greater nolinelesu volume but it spreads over a far wider range of frequencies leading to true tonal reality. Donble Pentode power and the mew triple grid Super-phonic tubes make the amazing Knight 10 circuit possible.

SUPERHET AT ITS BEST
Everything that is best and newest in radio today is found in the Knight 10-Seven Super-phonic tuhes for quiet, super-sensitive. economical operation; Antomatic Uniform Volunte Control to prevent blasting and fading and to equalize volume; inter-station Noise Supprenmor to silence static and noise; Full Ramge Tone Contron; unique Spot-light Tunlag Visual Dial; and the Bi-acoustically arranged Jensen Dual Dynamie Speakdescription, see pasem 76-77.

SILENT TUNDNG
The new inter-Station Nolne Supprennor renders quiet operation between stations, cutting out static and electrical interference.

BEAUTY
The beautiful cabinet is of the uew if lea dealgn. With matched walnut layw. 42 in high, $241 / 4 \mathrm{in}$. wide. and 13 in. deep.
 MATCHED DUAL OVERSIZE SPEAKERS Two Bi-acoustic oversized Jensen speakers especially designed for the Knight 10, effectively master the complete tonal ramge. One speaker records the high noten, and the other registers the low end of the meale. The result is amazing, because many of the minute overtones lost in most radios are captured clearly and reproduced faithrully.

TRIPLE GRID POWER
The newest thing in radio is the Superphonic triple grid tube. The Kulght 10 en, ploys these tubes with wonderful resultm. the wident tone rnnge yet possible, create tremendoum renerve power, economize in power consumption, and operate more quietly*


COMPLETE LESS TUBES
The Knidht 10 is offered here complete in cabinet, with speaker, but without tubes.
No. E9742.

Retall Prlee,
KOUR PRICE.

WITH R. C. A. TUBES
The Knight 10, complete with the following genaine RGA tubew $3-56,1-57,3-58,2-47,1-80$. No. E9743.
Retall Price, \$10225.
\$4695


## PURCHASED 20,000 CLOCKS!

We bought 20,000 fine electric clocks for cash. We pass the enormoun maviugs on to you A line of real electric clocks built by the house of Lincoln which has already served over two million satisfied users, Varlety, quality, and price feature this smashin̆s presentation. Clocks for every purpose, clocks for every occasion, decorative as well as buslness-like, and at prices belun cost of manufacture, warrant carrying large stocks. Stock up on the complete Lincoln line. Huy in q⿴antitiem. Better your profits. Write for special quantity guotations today.

## MOULDEDCASE UTILITY MODEL



Great value and beanty Must be seen to dated. The perfeeted Lincoln Electric move ment in a walnut Molded Novallte case with clear erystal lens and atiractive sepia Well dimen. sioned measuring $41 / 4$ in. high and 4 in. Wide. Flasher ispe indicator a alue, certain to sell and with enormous profits. $\rightarrow$ c Shpg. wit. 2 lbs.
NOEX SORECLAL PRICE .

## ART MODEL

Of unusual desltan, oblong $\ln$ shape with moderace lines. Absolutely correct time always-direct from the electric fromet. The Lincolnet. synchronous coin bynchronous moused in a rich houred in a rich Walnut Novalite
cuse, set ofl by a chse, set ofl by a
deep set oblong dial and oblons crystal lens with trikingly formed als. Height $51 / 2$ in. base
4 in. Shpg. wt., 3 ibs. No, E3259
NO.E3259, THIS PRICE:



Will attract attentlont everywhere. Always aectrate electric time. Of metal bronze finist Metal dial and $s$ weep second indicator. strength glass lens. In three convenient sizes at prices that can't be beat.
No. E325: 9 in. Dial. \& 45 Shpg. Wt. 6 lbs . HET NET
$1-3$
No. E3252. 12 in Dial. $8 \geq 25$ Shpg. wt. 9 lbs LIST NET
No. E3253. 15 in. Dial. 8225 Shpg. Wt., 14 lbs

13

## LIST NET

## SQUARE MODEL

Another popular store and office electric clock. The fine Lincoln movement in a Mahogany filish wood case. $151 / 4$ inches square, 14 in , dial. double trenct glass leng.and nweep second hand. An extraordinary value. No. E3254 Retail Yaup, \$15.00.

## BARELITE CASE ELECTRIC ALARM

A very hand some. essy to operate, olectrlc atirm clock ind at one-half the price. Of bakelite, price. Of bakelite attractively fin Ished in Wainut
with gluminum with aluminum $3 \% \mathrm{in}$. dial.

## Sweep Second Ennd



With aweep sec ond indicator and convex crystal lens. Size in. hibh. base or in Shpg. wi., 3 lbs. The low-s Shps. wrice ever asked for a ${ }^{\text {s }}$ est price ever aine electic alarm clock. No E3275.
NPECIAL NET

## DELUXE

 TABLE MODEL

Another beantifalLincoln Clock. Always accurate electric time. Of attractive Walnut Monlded Novalite, with lens of convex crys. tal and spun silver finigh dial. dimenoiong $51 / 4 \mathrm{in}$. high, base 6 in Shpe. wt.. 3 lbs. No, E3261. YOUR PRICE

## NO. 80-A BEAUTY

A popular seller. Attractively patterned. full size accurate electric clock and the price has hit botiom. Great Exact time from the electric light socket. Costs but a trifie to operate. In Moulded Novalite, walnut finish: spun silver 35 convex crystal lens. Height $5 \%$ in. base $\overline{0} 1 / 4 \mathrm{in}$. Shpg. wh.. 3 lbg
No, E3262, A SMASH- $Q$ C
 electric clock presentation consists of beautifully pattermed cases containing the famous Lncoln eyrchronows electric elock movements. Constant correct time from any do cyele, 90 to 135 volt A.C. Ifght mackete, universal practically every where.

No bother, mo fuss-accurate service day in and day out, once the plug is inserted in the A.C. light socket. Prices are waj down. Place a clock in every room. There is one for every purpose and place. Buy in guantitles and save money. Order samples today and ang ug for quantity pricen.

SUPER VALUE
KITCHEN CLOCES


## All Metal

 Model A the electric clock suitable for etther kitchen or office. Another outctanding prlce value. All bly constructed for long time service, 8 in. square. Esasy to Flasher indicator. Suppiled with 6 fo cord and plus. Shpg. wh. $\frac{1}{2}$ llvs.No. E3263. Green.
No. E3264. Ivory.
NET, EACH, ONLY.
DeLaxe Model
A neat. wall model electric clock, ideal for kitchen use. Durable metal case in beautiful finishes. Full 9 inches square. Buff dial and crystal lens. In two attractive colors. complete with 6 ft . cord and plue. Aratlable Swees Second Fs. each

## No. E3268. Ivory.

No. E3286. Green.
LIEt, $\$ 3.50$.
YOUR PRI

## Finsher Model

No. E3267. Ivory,
No. E3268. Green.
Lint, \$3.50.
$\theta 118$ TOUR PRICE.

## DILURE ATARN CLOCK

 BALTIITE CASE

Attractive moderne deelgn. Efticient electric time always. Ideal for bedroom use - no disturbing tick.
Gentle byzer alarm.
Valnut Bakellte Of oakelite, smoothly finished in walnut 3 siver in. silver finigh dial lens. Sweep second indlcator hand. Size $6 \frac{1}{2}$ in. high. base $5 \%$ in. Supplied complete with 6 ft . cord and plug. Shps. wt.. 3 los.
No. E3257.
NOUK SPYCIAL PRICE
$\rightarrow 7-18$

## QUANTITI PRICES

Increase your profts. Carry display stocks for rapid sales. These beautiful clocks will sell twice as fast when Droperly displayed. Suggested as sale builders for other lines or as premiums. Write today for quantity prices! Buy in quantities ! Increase your sales and enjoy larger profts
UNBEATABLE VALEIS
GOTHIC MODEL


A genalne Clectric clock at the
sobson's mostnenAatlonal Prico. For Der: sonal use; large prof. its; exploit ness. give the es your customersas bremers or prizes. The cost is small. Walnut. Shpg. wit. 2 lbs. base. 2 in. deep. Shpg. Wt., 2 lbs.

## A \$2.5e VALUE

 No. E3255.A SUPER VALCE.

## 430

## ATBSTOB

I8 , Th Tanbour

## Inch

Model

## CLOCK MOVIHITTS

Lincoln synchronous electric clock movements completely assembled ready for case mounting. Furnished with ail necessary gerews and nuts and str feet of cord and plug. Rear start and set. Change to correct and economical electric time at small cost.

To Replace gpring Wound Mevernents: Type CW


## Type J

Large dial and bezel- $51 / 2$ in. dia., $2 \%$ in. deep with back plate. Dtameter of back plate, 4 K 1 in . including flange. Aluminum dial with embossed numerals. Convex crystal lens. Sweep second hand. Shpg. wt., 3 lbs.
No. E3279.
$\$ 43$
YOUR PRICE

## Crandiather Clock

## Mevements with Dint

A complate cabinet unit - compristag a handsome bronze etched square dial and moremeat as sembly ready to install in Pier and Radio Cabinets, Secretaries. Desks, etc. Full aweed becond hand. Gracerul skelhand. Gracerul shelute hands. Rich apute hands. Rich ap-
pearance. Wit. 5 lins.
No. E3280.
$7 \times 7$ in. dial
No. E3281.
$8 \times 8$ in. dtal
No. E3282.
$9 \times 9$ in. dial

$+2335$
2.35

ENJOY IT'S CONVENIENCE ATLOW


## FULL RANGE TONE CONTROL

## TRIPLE GRID TUBES

## A MATCHLESS SUPERHETERODYNE

The Superhet circuit of the Knight 10 is licensed by R.C.A.. Westinghouse Electric. General Electric. asd affiliated companies. Thim means that it emboties every single new radio feafure yet developed by the best engineoring skill in the work. The new Super-phonic tubes increase efficiency. Automatle Cniform Volume Control prevents blasting and faling. Inter-station noises and static are eliminated by the Inter-itation Noise Suppressor. Tuning is made simple by the tunique Spot-light Full Vision Dial. Full Kange Tone Control and the Bi-acoustic apeaker arrangenient produce the most brilliantly real tone in radio. And all these wonderful results are achieved in a compart shlelded chassls measuring 13 -in. witde. $91 / 2 \mathrm{in}$. deep and 7 in. high.

## PENTODE AEDIO POWER <br> PERFECTED TONE CONTROL

The new llouble Pentode type audio eircuit is featured in the Knisht 10. Its characteristics are a greater undistorted power output, and an ability to reproduce tone as fawiesnly and accurately at low volumes as at high.

You can accentuate the thes you desire to hear by the simple manipulation of a perfected Tone Control which emphasizes treble. bass or intermediate as you prefer them. It gires an individual touch to radio performance.

## NEW PENTODE TUBES

The luse of the new super-phonic tubes in the Kulyht 10 assures greviter selestivity and sensilisits. quieter operation, inproved volume conirol, better tone qualits, and real economy in reduced mower consumption. $1-58$ tabe is used in an R.F. gtage. $1-5 \%$ in the First Detector, $1-58$ as Oscillator. $2-i 8$ as I.F. Amplifier. 1-56 as Second Detector and A.V.C., 1-56 as First Audio, $\because-47$ is Double Pentode Ontput, and 1-80 Rectifier.

## COMPLETE, LESS TUBES

The Kmight 10 chassim is offered here with Jemsen Dual Dynamic speakers, but withont tulies.
No. E9740.
Retall Price, \$65.00.
YOLR PRICE

## COMPLETE WITR RCA TUBES

Here is the knifint 10 chamsin with Dual Jensen kpeakers and 3-56. 1-57, 3-58, 2-47, and 1-80 RCA tubes. No. E9741
Retall Price, \$78.75 YOUR PRICN

## SPOTLIGET TUNING DIAL

Note the pose with which you bring in station after station. and the unerring accuracy of the unique full vision spotilght dial. Each station's number is brightly Illuminated as it is reached. Tuning is therefore pusy and pleasant.

29

# SUPERHETERODYNE 

## Flawless Performance

Every ounce of engineering genius available has been concentrated on the new Kniuht 10. The results are amazing. Consider the quiet Automatic volume Control which eliminater blasting and fading. Notice the new Interstation Noine Suppressor which abolishes noise and wtatic between mations, and also the new Super-phonle tuhes, operating more quifily and with double the rensitivity and selectivity hitherto possible. All of these features built up masterfully around the RCA Licensed superhet circuit, assure you long-lived rado mleanure.

## Exquisite Comsole

A fine radio receiver deserves a fine console. The cabinet pictured at the right is a veritable masterplece of furniture-making. It features six beautifully turned legs braced by a gracefvi curved stretcher. The front panel is of splendidy matehed walnut fanked by curved pilasters. A shaped stretcher and a cut-out grille further enhance the rieh demign. The cabinet stands 41 in . high and is adapted acoustically for use with the dual speakers of the Knight 10.

## Power to Spare Sparkling Tone

The advanced superheterodyne circuit achieves surging volume and power far in excess of normal de mands. It is alwns: under control by means of the Automatic Volume Regulator which prevents blarting and fading. With this flawless background of power, Knight tone is exquisite. real and vital, projected through Dual Dynamic-Speakers arranged to handle the whole range of tonal freauencles. Then, too. perfected Tone Conirol further completes your radio pleasure. There is a distinguished difference in the broadcast reception of the Knight 10 that you will be quick to perceive and

## enjoy. <br> New Super-phonic <br> Triple Grid Tubes

Seven of the new type triple Screen Grid Super-phonic tules are employed with mighty effect in the Knizht 10. They double the sensitiv ity, create keen-cutting selec tlvity, make possible perfect nutomatic volume control. quieteroperation, greater economy, vast reserve power, and above all, a purity of tone that aspires and attains to reality. There is an absolutely new qunlity of toneand power punch in the Knixht to superhet that is unapproschable in other radio sets not using the newest super-phonie tubes. You can be proud of the Knight 10. It is new in every respect and out in front of the radio field.

## Interstation Noise Suppressor

A wonderful new device has been incorporated in the new Knight 10 circuit. It is the Interstation Nolne Suppressor regulated from a knob on the front panel. It rejects moisem and wtatie between stations and allows you to tune from one prosram to another with absolutely quilet operation, free from disturbance and hurn. This device contributes remarkably toward preserving the wonderfully pure tone which is in-

## herent in Knixht performance. <br> Complete Less Tubes

The Knight 10 is offered in the console pictured above together whth dinal Jenmen mpeakers but without tubem. No. E9744. Retail Price, $\$ 110.00$. TOUR PRIOE

## Complete with RCA Tubes

Here the Knight 10 is offered complete in console with dual Jenven speakers and 3-56. 1 -$57.3-58 .{ }^{2}{ }^{2}-47$, tubes.
No. E9745. No. E9745.
Retall Price.


## Supersensitive Dual Speakers

Everymewknisht 10 is equipped with two fanous Jensen dynamic speakera in dual arrangement. designed to operate bi-meountlealls and to handle adequately the tremendons output of the circuit. These speakers are metentifically pitched, one to cover the higher. register, the other to include all of the lower frequencies. You will marvel at this lntest radio Innovation and be impressed with the wonderful manner in which it makes wheer tonal realism of the air waves which it picks up. Knight 10 tone is further enhanced by the Full Range Tone Control which lends an individual touch to the performance, emphasizing $3 u b t l y$ high or low noten as you may ifmire.

CLASS B'AMPLIFICATIO UNDISTORTED
OUTPUT output

CHASSIS
R.C.A.
LICENSED
cuit of the great Kn


NEW TYPE TUBES•POWER•TONE•

SUPERH

## SUPER POWER RADIO

Nothing has been omitted from the new Knight 12 in the desire to place it at the front in radio. Consider its astounding features-its 12 new type Super-phonic tubes-its true Clasp "B" umplifleation with 20 vatts of undistorted output and the widest tonal sweep yet attained -its quiet Automatic Volume Control, Full Range Tone Control, three audio stages-its Dual Dymanic Spenkers, Mercury Vapor Rectifier. Spotlight Tuning-and its wonderful new Inter-station Noine Suppresmor. These are amazingly new, and they place the Knight 12 at the top for power and tone.

## NEW 6 LEG CONSOLE

An incomparably beautiful cabinet model has been chosen to house the new Knight 12. The pilasters are of curved matched hutt walnut and maple burl, with apron of lacevood and an exquisitely matched butt walnut radio panel. The quarter doors are of matched walnut set off by lacewood arch and frame. The cabinet stands $471 / 2 \mathrm{in}$. high, 25 in wide, and 15 in . deep. The reproducer chamber is perfectly baffied for the finest acoustical results in connection with the Dual Dynamie Speakers.

## SPECIAL NEW 46 DRIVER AUDIO STAGE

All possibility of power tube overload is overcome by the use of the new 46 Super-phonic lube. It makes available a vast reserve power with greater economy in current consumption, and efficiently prevents blasting, rattling, and distortion. New attainments in tone quallty are therefore possible with a much vider fidellty range unparalleled in other sets using other tubes.

## 1 MICROVOLT SENSITIVITY

The marvelous mensitivity of the Knight 1:2 is rated at one microvolt per meter, which means an unprecedented ability to reach out over vast distamees with great ease. Tbe natural selectivity of the set does away with interference even from high powered local stations.

## GIANT DISTANCE RANGE

The new Knight 12 is in every sense of the word, master of the air. It tunes from 1\% to 550 meters, and within that range, is capable of bringing in far-distant stations with magie case nad power. You will enjos the thrill of reaching out into space and pulling in the faintest of radio signals. You will be amazed at the ability of the knight 12 to build these signals fnithinily and realintieaily to powerful clear volume. Thrill to Knight power and distance cov-
 erage.

## COMPLETE LESS TUBES

Here the Knight 12 is offered in cabinet, with Dual speakers but leas tubes
No. E9754
Retail
Valne,
B131.45.
YOUR
PRICE.

## NEW LOW PRICE

The knimht 12 is the finest Super het that money and the best engineering skill in the world can build. Nothing has been spared to make it today's perfect ranifo. It is modern in its operating excel-lence-and it is modern, too. in its price. That price is in complete harmony with the times. The Knight 12 is the finest of radios offered at the lowest of prices. Take advantage of this rare value.

BEAUTIFUL SELECTED WALNUT CONSOLE

## the SEASON'S OUTSTANDING VALUE

COMPLETE WITH R.C.A. TUBES

The Knight 12, complete, with 5-56, 1—57, 3-58, 2-46, and 1-83 RCA tubes.
No. E9755.
Retail \$140.50. YOTR PRICE

# SUPER... HETERODYNE 

## PHONO

## DUAL SPEED MOTOR

## FOR NEW AND OLD TYPE RECORDS

The Knight 10 Superheterodyne, famous for its ap-to-the-minute qualtites, has been built into an equally altramodern Phonograph Combination. The phonograph equipment of this wonderful instrument. incorporates, a new type Dual Speed Phonograph Motor and Turntable which plays either the ordinary 78 r.p.m. records or the newi Long-playing 33 y/s r.p.m. recorls. This fine equipment. coupled with the flawless power and beautiful tonal output of the Doable Pentode Bet audio and perfectly matched Dual Dynamic speakers. provides you with magnificent record and broadcast recreation.

## POWER PENTODE CLRCUIT

Seven of the new type Super-phonic tubes are bsed in the Kolght 10 circuit which is fully licensed by R.C.A. The audio circuit is built after the new double pentode power design which is a supreme attainment in radio power output. keen-cutting selectivity and greater sensitivity. quiet Automatie Volume Control eliminates blasting on local, and fading on distant stations. Quiet operation, trembadons reserve power, and the tone of life itself are Knight 10 characteristics. A wonderful bi-acoustio arrangement of bual Speakers hamdles the vast output of the circuit perfectly for flawlems record and broadcest entertainment.

## TRUS TONE

The brilliant tone qualIty evolved by the Knight 10 circuit and Dual Dy= namie speakers is enhanced by the built-in Tone Control which enables you to emphasize the notes you wish to hear.

## NEW FEATURES

A brand new Intermtation Nolse suppresmor doen awny with static and nolae in tuning from station to station, on the Knight 10. The unique Spot-11ght Tuning Vigunl dial is also a new feature.


MOTOR SPEEDS $331 / 3$ \& 78 R.P.M

## UNUSUAL BEAUTY

The aristocratic cablinet of the Knight 10 Combination illustrated above, features a distinctive 6 leg design with eracefully curved stretchers, shaped apron, curved pilasterm of matehed wood, and a pleasing front panel of beautifully grained walnut. The cabinet ktands 42 in, high and is splendidiy proportioned and a perfect acoustie housInk for the Dual Dynamic Speakers.

## SENSITIVE COUNTER BALANCED PICK UP..

## IDEAL PIONOGRAPE ENTERTAINMENT

There is true art in the way the Knight 10 Combination re-creates record entertalnment. The new type Dal Speed motor and the perfected counter-balanced pick-up are perfect complementa to the wonderful donble pentode Audio circuit of the receiver. The vast volume available is a velvet clear background emphasizing the full beauty of modern recordings and the year'm most realiatic radio broadcant tone.

LESS TUBES
The Knight 10 Combination is of fered here complete but withont tubes. E9746.
Lint
$\left.\begin{array}{l}\text { git9.50. } \\ \text { YORICE } \\ \text { PRO }\end{array}\right): 85$

WITE RCA TUBES
The Knight 10 complete with 3-56. 1 - $57,3-58,2-47$ and $1 \frac{1}{7} 80$ RCA tubes. E9747.
$\left.\begin{array}{l}\text { List. } \\ \text { 164.25. } \\ \text { 10UR }\end{array}\right) \rightarrow 25$ PRICE

## DUAL DINAMICS

Two dual arranged Jencen dynamie speakerm handle the output of both radio and phonograph with mperie and vividnemm.


## KNIGHT <br> MIDGET SETS

 T.B.F. Kaight 4 midget not only produce greater volume, but cover a wider range of frequencies, and result in that truer and better tone found only in the larger sets. 1-07 tube and 1-58 tube accomplish wonders for quiet. snper. selective operation, for equal sensitislty over the whole broadcaet band and lor real power paneh and tawless reproduction. Full vision dial makes tuning a pleanure.
## 2-TONE WAENUT FINISR

The compact Knisht 4 cabinet. standing $141 / 2$ in. high and 12 i/8 in. wide, is attractively dewigned in a twotone highly finished walnut effect.

## THE IDEAL "SPARE" SET

The midget 4 is splendid as an additional radio in the home. It fits anywhere and may be carried to the sun-porch, bed-room or den, and connected to any A.C. outlet with great ease. You can afford this "spare" set at our bargain price.

## DINAMIC SPEAKER

A powerful dymamic speaker, true-toned at both low and high pitch, is furnished with the Knight 4. It is capable of handing full volume without dintortion.

## LESS TUBES

The splendid Kitght 4 Midget is ofiered here complete in cabinet with speaker, but
withoat tabes. No. Eg
List, 824.00
YOUR RRICE

## WITE TUBES

Here is the Knight 4 complete with $1-247$. 1-280. 1-2.57, and 1258 R.C.A. li. censed tubes
$\left.\begin{array}{l}\text { No. E9701. } \\ \text { List, } 829.95 .\end{array}\right\}<85$ YOUR PRICE $\longrightarrow$


## AMAZING POWER E EFFICIENCY

There is a tremendous panch in this midget 5 tube set. Three of the new triple grid tubes do the trick, producing amszing volume, powerful sensitivity, keen selectivity, and a richness of one that is unparalleled in most amall radio sets. The dynamic speaker stands the "rafi" at full volume. The. Knight 5 is distinetively housed in a gracefally shaped walnat cablnet measuring 15 in. high and $121 / 2 \mathrm{in}$. wide.

## 3-CANC CONDIASER

The Knight 5 has big set design evidenced in ita 3 gang condenser and its thorough shielding of all parts. It is built around the new super-phonic tubes to give glant radio results.

SET, LTSS TUBES
The Kinight 5 is offered here complete, lems tuben. No. E9706. \$ YoÚR PRICLA.
YOUR PRICL.
The Knight 5 , complete with 1-247, 1-28, 2-258, and $1-257$ RCA licensed tinhen.
No. E9707.
List, 838.85.
YOIT PRICE.

## SPOTLIGHT DIAL

A unique new feature of the Midget 5 is its Frill Fision Dial With the Spotlight effect which makes locating and tuning sta tions simple. pleasant. and ex tremely accurate.



Bure to aell feat on sight! Praclical and yet of tremendous enter. mament value.

## PAACTICALINSTRUCTIVE

A read workable toy that every ooy is certain to want, and grownups too. Each instrument a complete semding and recelving noit. Operates up to 1,000 feet, on any standard dry cell batteries. A oplendld हift Item.

## DRY CELLS

quality dry cells recommended for use with the above Slgnal ractice set
No. E 704
NET EACH........ ?

## GEM MIDGET MICROPRONE

Do your own broadeneting a cith the offlefent Gom Hand Mke!

ARoallite
Practicall Sclestificsily comstroctedsingle buttan or 200 ohm rith circult switch May be connected to ampllders or direct to any aet. Easy to inatail.
TMIILCABOES
Brosacast at home. Cut in on redio programs with joken, cormmonts and ancouncements.

CHOMIUM PLATED
Attractive chromium plate. Complete with prong adspter and 25 ft cord. Includes in. struction sheet.

423 No. E 3228
57.50 Value SPECIAL PBICE





Famous Blackbird Crystal Set The Artsto erge of cryatal radio receiv: ers. Fine for
local
end the great chain program. Leal Require no batterterno tobet.

## LOUD

## CLEAR



Local programs come in loud and cleat Whth that purtty of tone for which crystal sets are famous. Housed in a compact case in neat black leatherette aniah with oleck cryateline front Danel.

## ULTRA-SELECTIVE

The 8lackbird tunes sharply and easlis from - Eingle dial It emploss a supersensalive cryotal doteotor enclosed in a dust-proof gless casing. Will give splendid rasults in locations which are not at areat disiance from broadcastiog 8 tadioms ertensive chsin broedrasts male distant procrams arailible through local stations. No. E 6940 . Set only, less accessories.
TOUR SPECIAT.
S3 5

## WITH ACCESSORIES

The Eiackbird eryafal sot complete with one atr of fist-quality head-phomes and eatial formanes at cie ftarting low pries.

## REAI PHONES

Moderim - Ueoful Economical. Now yod phone system whith Real ohones, the new two--ay telechones that opoll ha stan celle phones - compset. good-lookligs, up-to-dsta, ruraished th patrs-all ready for use. Only the betteriou noed to be added

## DRT CELLS

Standsrd dry cellin top tas wile reabhoam


## A Complete Transmitting and Receiving Unit

Two complete transmitting and recelving onlts. Equipped witb key, buzzer, and code plate. Full instructions for operation. 78 ft of wira. Sets in attractive Maroon Gold contained in beautifal display boxes,
$\left.\begin{array}{l}\text { No. E Gase. } \\ \text { BPECLAL } \\ \text { PLEE..... }\end{array}\right\}$

## New

Feather-Weight Bead Phones


Weigh only 5 ounces- $\$ 0$ Lght and so comiortable you rearcels know you have them on. Only the inest materisis used in their construction.

THE TOE DS
Extremely senalidyer widely recommended for DX and weal sisnal reception. Feadband is made of nlexible steel. Shipping Wt. 1 Ib. No. E $795-4000$ ohm 38 NET PER SET... No. E 790-2000 ohm
SPECIAL NET...

## ELECTRIC TELEPHONES <br> stmes bumeri cloverts

 cobcealed in base. No diffcult instailation accensary. No complicateo mechantam. Furnighed with full Initructions for repid connection. Coen plote mots include 2 Real phones wibl buzzers. as feet of Wiring and th structions. The wirta mappliod, is sufticient for room to room com mumication. Additional wirlay may be sdded as reauired. Connecting catbles for banger diatancen and Ary cells are listed on this pare Tro try colls required poe ot Tolaphone craliable in farAt Bomo-At Fork
Expecially corvendeat as rootn-to-500m of house-to gerage telephones Equally useful in offices, fectories. public garages. rettouranis, storet. tho.

No. E 1010-Biect No. $E$ 1011-Green No. E 1012-IFory
No. E 1013-Chinese Red
NET PBICE, BACH 8ET


# Snightis 

 SUPERHET 75 TO 550 METERS
## NEW DUPLEX DIODE-TRIODE TUBE

Todny's radio-The Knight 6 tube Dunl Wnve Superheterodyne with a range of 75 to 550 meters. This set has distance, power, selectivity, super acute sensitivity and, above all, clarity of tone. Here is a ladio that has everything; at ndvanced Superheterodyne circuit, long aid short wave reception, the new Duplex Diode-Triode tube. tone control, antomatie volume controls in short, all up to the minute features kinown to radio todas

## BUILT IN CHANGE-OVER SWITCH

Your reception range today is increased many fold With short wave reception, and is available in the new Iinicht 6 tuhe Superheterodyne by a simple turn of the switch. Dual scales on il single dial provide for wime plified thatit, The thrill of police calls and forelgn country reception is always yours at the easlext manipulation of the Kinight simplified, unified, tuning wystent. No coils to blug in, or trimmers to adjust

## POWERFUL MAGNAVOX DYNAMIC

A powerful Magnavox dymamic speaker adapted for use with the advanced Knimht 6 circuit. ronders rich, vihrant pertormance that makes Knight entertainment a continual mpeasure. Complete overtones are captured, building the tonal output of the receiver up to rare beanty.

## Single Dual Tuning

 For simplicity in operation and ease of tuming this set has no parallel. Single dhal control with ingle thal control win bilit in change-over switrlt for changing from short wave to long wave provides for unified conprovidtrol.

## SET LESS TUBES

Here is the Knight 6 with cabinet and genuine Maghavox npeaker, less tubes. No. E9712.
$\left.\begin{array}{l}\text { Netail } \\ \text { Value, sug.so. } \\ \text { YOUR PRICE. }\end{array}\right\}=5$

## FUIIT SHIEIDED CHASGY ©

ADVANCED SUPERHETERODYNE CONSTRUCTION
For those who wish a chassis only for console installation, the Iinight 6 tube Dual Wave Superheterodyne is here offered. It attains a selectivity never before reached in a 6 tube set. Makes for pleanimalife operation on both long distance as well as local reception. Just another proof of Knight modernity. Chassis measures $111 / 2^{\prime \prime}$ long, $7^{\prime \prime}$ deep, and $6 \frac{1}{2} " \mathrm{high}$.

## FULE RANGE TONE CONTROL.

Commete solection of tone cmplraxis is at your command with tine tone enntrol built in the knight 6 Super. A turm of the chal will accemuate either high or low notes in acrordance with your desire. An advanced antomatic olume cuntrol provides for smoother tuning
and pievents blasting and faling.

## CRASSIS AND COMPLETE WITE SPEAKER

The new Knight © tube Superheterodyne complete with power. ful Magnavox dy. namic spealier. lens tubes.
E9710...Retail Value. Sil 50.
nice.....

The Knight 6 tube Superheterodyne chassis with speaker and $1-37.1$-57. $1-55$. $1-47^{\circ}$ and $1-80 \mathrm{RCA}$ tubes.
E97!1. Retail Value,
STM.
YRICE
YO.


## Class "B" Amplification

The latest, greatest development in radio since the advent of screen grid tubes. It is powerful, life-like, advanced Class "B" amplification. Tremendous power coupled with starting realismi has brought to life notes hithertofore blurred. An absolutely new radio receiver, incorporating full Class "B" Amplifiention. static control, quiet automatic rolume control, full vision dial, Dual speakers, and twelve new type tabes.
20 Watts Undistorted Power Output
The two powerful dynamic speakers are driven by a super-powered chassis deliv. ering 20 watts pure, undistorted power. They are capable of full, rich, vibrant tone equaling in quality the finest radio sets on the market.

## FULI RANEE TONE CONTROL

Brings out the high, sparkling tones of the dance orchestra or the low bass notes of classical music. Controls the tone to whit sour tagte and moond. Together with the super dynamic dual spealiers, faithfully duplicates life-like tones.

## DUAL OVERSITED

 SPEAKERS
## Spotlight Full Vision Tuning

An attractive fill vision dini on the front panel features a traveling spotlight, clearly indicating the dial setting. The Knight 12 tuhe Super tunes from 175 to 550 meters, which takes in most of the nolice calls in addition to the regular broadcast runge

## EXTREMELY SENSITIVE

The Kinight 12 tube Super registers a sensitivity of 1 microvalt (one millionth of one voit) per meter. Because of this extreme sensitivity and great power, pettreme range has heen pulled in with this most modern of radio sets. This sensitivity, coupled with quiet antomathe volume control shuts out background noises and extraneous interference and renders the fine life-like tone of a perfect radio.

## Complete With Gencine RCA Tubes

The Knight 12 tube Superheterodyne offered complete in console with 5-56, 1-57, 3-58, 2-46, and 183 genuine rca tubes. No. E9753 Retail Value, 5 $\$ 165.25$. YOCR
NET PRICE

## Set Less Tubes

Here is the Knight 12 tube Superheterodyne complete with Dual Dynamic sperkers, less tubes. A sensational value.
No. E9752.
Rotail
R14.
S14.
yOCR
NET PRICE

## Distinctive

 New Type ConsolePerfect tone requires perfect acoustic construction. The massive tone chamber of this magniticent organ type Console with seientifically designed dana ballle. reproduces powyou have never heard in a radio before. The cabinet follows the popular trend in Console design. The front panel is of heautifully matehod butt walnut with overLass of Carpuhitan EIm. Six sturdy, futed pillals Eracefully enlance the cabinet design. The cabinet stands it in. high, $281 / 2$ in. wide and $131 / 2$ in. deep.

## PURE POWERFUL TONE

The new full class "ib" amplification Knisht 12 tube Super yields a clear tone of remarkable depth, tonal quality and fidelity. One speaker is pitched for the high tones and the second for the low tones, which gives full rance reproduction.
QUIETAUTOMATICVOLUMECONTROL
The new diodetype 56 antomatic volume control tube makes ensy tuning and eliminates blasting noises when tuning from weak to strong stations. The Knight 12 tube Super will deliver!


The simplieity with which this set can be placed in operation in places where current is available is amaring. The powerful, selective buitt-in intenna pulls in distant stations with amazing ease and regularity. Never before has there been so fine a radio at so low a price. No modern refinement has been omitted in the design of this set in the endeavor to place it at the front in radio today.

## AUTOMATIC VOLUME CONTROL

Full volume and unusual selectivity coupled with extreme sensitivity of one Microvolt per meter: in Improved automatic volume comtrol prevents blasting on powerful local stations when tuning, and tends to minimize fading by setting a constant volume level. Slnele control illuminited dial permits easy tuning

## Long and Short Wave Reception

Foreign countries! Ships! Amateurs thousands of miles away? Enioy complete short wave reception. No coils to plug in, no trimmers to adjust; simply a turn of the switch and short wave stations from all over the country and many parts of the world are at your command. Enjoy beantiful clear tones from 75 to 550 meters at extraordinary volume.

## 110 AC and DC Models

No. E972 I. For 110 volt 60 cycle AC operation. inchatise $1-55.1-57,1-58,1-17$ and 1-80 RCA tubes.
No. E9723. For 110 volt DC operation. including $1-36$. 2-38. 2-39 RCA tubes.

## COMPLETE

WITH
RCA
TUBES
25 CYCLE MODEL
For those who live in dis. ticts served by is eycle eurrent, the Knight is tube super is offered complete with 1 55. 1-5. 1-58. 1-47 and $1-80 \mathrm{RCA}$ tubes.
No. E9725. For es evele 110 voit AC current operation.

## COMPLETE

wITH RCA TUBES

## STATIC SUPPRESSOR

Now you can enjoy undistorted. trouble-frec radio reception. The new automatie Noise Suppressor eliminates static interference and noises from vacuum cleaners. refrigerators, oil heaters and dial phones and all electrical appliances. No longer any need to have reception ruined by 'man made' static:

## TONE CONTROL

Enjoy full range tone control from the hishest treble to the deepest bass. A positive, super sensitive tone control enables you to suit your own taste as 10 tone qualities. This remarkable fullness of tone reproduc tion has made the name of KNIGHT synonymous with the finest in radio reception

## BEAUTIFUL CABINET

The cabinet of the Kalght 5 tube Ibual Wave Superheterodyne is made of a beautiful two-tone walnut wood in a symmetrical and pleasing destgn. Measures 9 in . wide, 12 in. high and $6^{1 / 2}$ in. deep.

Value, performance and economy distinguish the Knight $\overline{5}$ tube Dual Wave suner which brings is new concept of power, distance and beautiful tone quality to radio,

## DEEP FUTE TONE

The unusual tone quality of the Knight 5 will captitate vou. Every note has its full value and every whisper is duplicated with exact fidelity. A full sized genuine electro-dynamie speaker, scientifically matched to work pelferty with the Knight in, gives a life-like resonance to its tone and its clear vitality actually convinces you that you are listening to the original convinces
rendition.

## Advanced Superheterodyne Circuit

With only 5 tubes. this adranced set develops a tremendous kick. Comparable to multi-tube receivers cosing a good deal more. The new circuit with the new high gain tubes gives you clear. undistorted rolume. It's the type of radio you've been waiting for.

LICENSED BY RCA


[^0]:    Na E6400. PEICE

[^1]:    No. E3593. DUAL- 10,000 .
    25,000 ohms.
    YOTR PRICE

[^2]:    just by plugring in. whe. a thes.

