$$
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& \text { NUMBER } 15 \\
& \text { Oct. - Nov. } \\
& 19932
\end{aligned}
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# ADo BARGAIN TNEMS <br> Dealers'\& service. men's Buying Guide 

Issued b)

## Federated Purchoser inc. <br> 25 PARK PLACE NEW YORK, N. Y.

A Portable Laboratory ... see page 58


AC Models employ 1-57, 2-58. 1-247 and 1-280 tubes.
DC Models employ 3-236, 1-237 and 2-238 tubes.
Set of Universal Tubes.. \$2.95 \$4.50 Set of Arcturus Tubes. . $\quad 3.85 \quad 8.25$

## Features:

## - GHOST TUNING**

- Built-In Antenna
- New Triple Grid Tubes
- Phonograph Jacks
- Illuminated Full Vision Dial
- Beautiful Walnut Cabinets
- 200 to 600 Meter Models
- 200 to 2000 Meter Models
- 75 to 600 Meter Models
- Radio-Phonograph Models
* Il hat lf Ghost Trming?

Herelofore, every set, no matter what it sold for, picked up all man-made static, had a sizzing, swishing noise between stations, with frectuent crackling and regenerative squeals. With "GHOST TivING," Acratone engineers have eiiminated these troutles $98 \%$ Complete silence reigns between stations which come in like the shat of a whip. This new feature will be a revelation to your ears. It raises raclio reception to the highest level of periection.

Acratome Engineers have also developed the lowest priced and most compact radio-phonograph combination. Housed in a beautiful two. tone wallut cabinet, $20^{\circ}$ high, $18^{*}$ wide and $1 \overline{5}^{\prime \prime}$ deep, with hinged top. Furnished with either $200-600$ meter or $200-$ 2000 meter chassis. Eyuppled with silent
duction moto: of
dit
dis duction motor of is
r. In min, Acratone Hydror.ph. .1.
Electric Acratone Pickup, radiophonograph switch, sepa-
rate volume control for
 phonograph, needle cup and arm rest.
Model 47, with 200-600 meter chassis for 110 V .60 cycle A.C. operation, less tubes.

ACRATONE Engineers have a new complete 1933 lines of receivers incorporating all the latest radio improvements. including "Ghost Tuning" and the use of the new type 57 and 58 Triple Grid tubes which entirely eliminate cross-talk and give a maximum of tonal quality. Of course the built-in aerial and phonograph jack features have been retained. All these features make iCRATONE the fastest selling high quality midget on the market. Sixteen models. covering every requirement. make it the most complete line of midget sets ever presented.

## Duo-Wave Models

200 to 2000 Meters
This Duo-Tave Acratone was designed primarily for foreign countries where most stations broadMast on ware lengthe above fel and below 2000 meters. Of course it is also a splendid receiver for American stations sending on 200 and 600 meters. It is two receixers in rine, but unlike so-callef "short and long wave sets" the Acratone is not an ordinary reer, but a real dual-wave re-eiver.
110 V ., 60 cycle A. C. Model, Cat. No. 42 , less tubes.
$818^{5 \pi}$

## Short and Medinm Wave Models

## 35 ta 600 Meters

Fon thoss buyers who are interested in short wave receplion
lown to 75 meters, we havr deignca the dreter demater set on which one ran lieat molice calls, and shori wave inoarliast stations. $13 y$ turning a know. the set is ready to receive rither $\overline{6}$ to 200 or 200 to 600 meter signals. No complicated hanges neressary.
110 V . 60 eycle Morlel, Cat. No. 91, $\$ 7.25$ less tubes.


| Cat. <br> No. | Receiving Range | Voltage | Cycles | Ourrent | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | BROADCAST200 to 600METERS | 110-120 | 50.60 | A.C. | 814.75 |
| 39 |  | 110-120 | 25 | A.C. | 16.25 |
| 41 |  | 220-250 | 50-60 | A.C. | 15.75 |
| 23 |  | 110-120 |  | D.C. | 14.75 |
| 24 |  | 220-240 |  | D.C. | 16.25 |
| 42 | $\begin{aligned} & \text { DUO-WAVE } \\ & 200 \text { to } 2000 \\ & \text { ME'TERS } \end{aligned}$ | 110-120 | 50-60 | A.C. | 18.50 |
| 43 |  | 110-120 | 25 | A.C. | 21.50 |
| 46 |  | 220-250 | 50-60 | A.C. | 19.51 |
| 6 |  | 110-120 |  | D.C. | 18.50 |
| 32 |  | 220-240 |  | D.C. | 19.50 |
| 91 | 75 to 600 Short and Long Wave | 110-120 | 50-60 | A.C. | 15.25 |
| 92 |  | 110-120 | $2 \overline{5}$ | A.C. | 16.75 |
| RADIO-PHONOGRAPH COMBINATIONS |  |  |  |  |  |
| 47 | 200 to 600 METERS | 110-120 | 50-60 | A.C. | 383.50 |
| 48 |  | 110-120 | 25 | A.C. | 37.50 |
| 49 |  | 220-250 | 50-60 | A.C. | 41.00 |
| 27 | $\begin{gathered} 200 \text { to } 2000 \\ \text { DUO-WAVE } \end{gathered}$ | 110-120 | 50-60 | A.C. | 38.50 |
| 33 |  | 110-120 | 25 | A.C. | 41.50 |
| 30 |  | 220-250 | 50-60 | A.C. | 42.50 |

## Terms:

$20 \%$ CASH MEST ACCOMPANY ALL ORDERS. Our terms are strietiy NET CASH. Remarkable waltes and extreme diveounto given by wh make of worth your while to buy that way.

Where full cash remittance accompanies the order, $2 \%$ discount may be deducted, otherwise a 205 depast 14 recuired with all ordars, balance C. O.D.

All goods are shipped 1. O. D. New York.
WE SELL WHOLIESALE ONLY.
RETURNING GCODS-A "Return Merchandise Tag" must be secured from us before any goods are returned. Returned goods must be shipped back in original containers. Write fully reason for return and give us complete instructions regarding adjustment. Merchandise that is defective within the limits of the manufaeturer's guarantee will be repaired or replaced FREE OF OHARGE, Items misused will be repalied or replaced and a reasonable charge made for such repairs.

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All our foreign shipments are understood to be dellvered Ex-Warehotse or Railroad Terminai, New York Cliy.

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Wherever the rate of exchange on forelgn money is considerable, we reserve the right to add an amount sufficient to eover thls difference to merchandise shippad.

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Main Office and Warehouse 2.3 PARK PLACE, NEW YORK, N. Y. Telephones: Barclay 7.7582.7583-7584-7545

## When We Economize, You Profit

The clrcutation of RADIO BAROAIN NEWS has grown tremendously since it was first published in Narch, 1931. It is to-day the recognized "dealers" and servicemen's buying guide" and the demand for it is world-wide and requests for it from new readers never rease. To meet this large circulation has meant an enormons expense on our part. We have never shimked from this experse, but have, on the contrary, constanily iniproved and enjarged the book in order to justify its repatation and its universal patronage.

However, we are desirous of having our catalog go to only thase dealers and servicemen who make good use of it. The only way we can ascertain that you want the book is by recelviag an oceasional order from you.

Therefore, henceforth the maling of our catalog will be restricted to those who have been sending us orders The others will be removed from our mailing list and our cfreulation reduced as a meamure of economy. Thts saving will be reflected in our low prices and thus be passed on to you. Your co-operation will be of mutual benefit.


No Sates Tax Will Be Added to Priees Shown in This Catalog Hecterated Pprchaser Inc. 25 PARK PLACE, New York City

## Utah Itemote Tuning and Volume Control



This amall $(41 / 2 x 2$ 这 in.) but sturdy deFiee will tune and control Midigot or auto Recelvers from a diftamet. They are shat which may be eoricealed if the will or along the baseboard.
Btandard length of flextble ghaft is 10 mt ., but longert shitts may ho had on apectas order at 250 per foot.
Cat. No, 0847
Our Prio

## New Auto-Radio Steering Column Control

## Feature \$pecifleations:

Propsed steel oonstruction-8II metal paris fat proot cadmium tad black, fin-isb-amall Elze $31 / 4 \mathrm{tm}$. $x 41 / 4 \mathrm{Ins}, \mathrm{x} 1 \mathrm{In}$ thick-ilght weight-key lockenwitoh-milcothet fesistimeos eontrol 100,000 onn ceilutold dist, Fumblshed with stemering Bolumis moulitint brackets atid eothdenter gest plate for $1 / 4 \mathrm{im}$. ohati. 20 in . Flexible shaft and cearln's standard. Bpecist lengthe te order.

## POSTMYYE DRTVE-NO SPRINGS

 NO BAOK LASR-STAYS PUT Cat. No. 5164 Butr Pritee

Complete With 30 in . Flexible Shaft and One Coupling
With ench contral is Inclutied 30 inchos of foxible shutt mind casing. Which cives a fexfble lead from polat at which control is elamped on $n$ teering column to a point under this imitrument baard. Any bedditional length required may be secured by coupling on additional lenpth of fler-
ible shafh, or solid rod with universal jolnts.

## Prices Additional Flexible Shaftings and Joints

Cat. No.
6163 Nasrible shatt, 1 or 2 foot

 G1ez Unlyorial fointi" for rod or sies gestremer skeel Hod, $1 / 4$ in. te ea. dlameter ................... . 05 fl . The sbove equipment will provide an excellent remote, control whoraver the autozadio may be installed - whother under the hood, on the dash, or under the floor board.

If you are not receiving "Radio Bargain News" regularly, send in your name and address.

## Silencer Kits

For all maker of aufomphtle ra. dtoa except Eitick. wte ${ }_{0}$ with overhead valven. These wise Caf No. 6534 sup. prestors,


Conststs of 4, 6 or 8 spark piug suppressoris, 1 distributor, allencor, and is 1. grid, senerifar silloncer. Most iths on the maricet uno a $\frac{16}{}$ Mrd, coudenser while we inciude a 1 , Mrfd.

| Cyunders | Cat. Ne. | Prieg |
| :---: | :---: | :---: |
| 4 | 43:17 | \%1.50 |
| 8 | 4 4.948 |  |
|  | $4 \pm 24$ | \%, 25 |

Fits for Bufek, Willy-Qverland and other ears with overhead valves.

| Cylinders | Cai. No. | Price |
| :---: | :---: | :---: |
| 4 | 7029 | $\$ 1.50$ |
| 8 | 7028 | $\frac{2.0}{2024}$ |
| $\$$ |  | $\$ .35$ |

## ACRATEST

Spark Plug Suppressor
 Bilencer in

MODEL, 1 Weathorproo! thbe Cennet
 beoct, fopr spork plis wite 10 mpark plus
$\times 2.6450$
List Price, 506-Cat. No, 6450 Pröce 2be P6.

## ACRATEST

Spark Plug Suppressor
For sil Butick, Wilige-Enieht and other 'overhead valvat' ceri,

Cat. No. 6534


Pariee
MODEL R 20e ea.

## ACRATEST Distributor Suppressor

Used in center of diftributor cap or coll Aemove center
wire, insert wire, insin sert wire in other end.
Itst Price, 50c-Cat. No. 6451
Price 20c ea.
Faradon 4 Mfd, 600 V . Condenser

 guttaple for A.O rane Futers.

Cat. No. 5604 Our Price $\qquad$

Distributor sifencer for Automobile Radios
The disfrtutlat of an mutotnotile is
 the source of most nolie dae to tha anke ind -urente now then of the rator, Thls rondenset pud chole coil, when
competed in series Winh the tow tenston line und the ean erounded to the chasis, wII eliminate a II distributor notses, Uged and approved by potme
Cat, No. \% 218
85e

## Generator Sileneers



Farten case
to senerator or ether me* tal part of car a $\quad$ d comnect tife to cut out the generator.
Cat. No, 6448 mfd $\qquad$
Cat. No, 6448
1, mfd. $\qquad$ . 38 e
Cat. No. 6449
65 e

## De Luxe Car Anterna



PEATURES

1. Mory sentitive, to Moat cacen Exocit Roof Recmition
2. Triple Aetion Sprint Burpenaion
3. Imposibio to siont os Ground.
4. Unverasily Adaptablo to Every Auto
5. Al Poblo Parts Rustproof and sturdily
c. Hult, Tension Non-Bhosting, Iead Wire,
6. Ward hubber splain-Cuard rumbine with ench Antenna.
7. Permanent, Efiftent and Easy to in-
8. Citumat Break of Crum
9. Proven pirformincer on Philleo, Motorola, Majestic, Geniotal Motoris, Spartor Crosley and all other innised of Auto Fidio.
$\mathrm{Cnt} \mathrm{Ne}, \stackrel{34}{4}$
$82^{22 .}$
Our Prioe
2
Flexible Car Antenna

Gat, No Kength Wiaib
Prige
80.85



Made of elosely woven, eleotrolytio copper mesh, and eqverid with a black mertuas synthette leather. It is 52 in . lang and is mounted underneath the oar, tied to springs or sxles, as shown, by means of the four aturdy canyas stiaph. Extrotnely peasitive, and efteient.

## Special Automoble <br> Antennaz

 as the Jo. man mirwa AgMes va, exopp that the frllis hove book omitted in oraps to bring is cown to a pojulat prise. Cat. No, 818
$T^{98}$

## HUD POLICE THRHLLER <br> SHORT WAVE CONVERTERS

What a Thrill to Get Police Calls and Report or Pick up Snme Other Event Which Never Appears in Print!


Socket Type Tube Cat. No. 2276017
 List, \$2.50

BUD POLICE TMRILLIEP fils a leng Waine hed for a simple aerios that can the nee altiche to ho radio wor ping in the siecrsin of chu whe ary other then the sit or incirimg phis for BED POMTCE HGBILIER. ZBUD POLICE THRILLERS are made it two iypers. One type is io he usod fhere uncre ir umple syice for the adnpter andi culse to dit into the soiket. The other typo is to be ulta where the enblnet of the radip iet is so conatructed bhat the police Intilles woind fos at in botause of tusudficient spacs in catham Bralase of rhas me bive ghic Whtt has piug attaclied io the police Trinier This pide is to be placed into Detectar Tub sociset
BUD POLICE THARLLER when connected oo bropdeast recetvor charges the tuning from 80 to 500 meters on the droadicast re. celser This will equale you to bring in
 POLICE THRSLLER in biondease receiven Porinted on esen box is which BLD POLICE THRILLKR, is picked́,


External Tspe


1. 1 s 1, $\$ 3.50$ Nin. 3048 for seth using serpen gidd de- No. 6050 for tiets usimitserpeth erid deetar ubes.
No, teatz ror sets ymenge 227 or 327 delectar rubes.

## Our Price $\$ 1.50$

and
Wo, coln for tets using 22 of 2.8 defoceer tubes.

## Our Price $\$ 2.10$

## SHORT WAVE

 Superheterodyne Coil Assembly

Short Wave Superheterodine Coll Assembly for $10-200$ Meters Cat. No. 6.572

## Dur Price $\$ 3.75$

An amembly of short-xare cons and a ow cappety switch eliminating the inconvertente of phag-ing calss, Jusi a turn of the switeli enables the chigiee of ine $10-20,20-46,40-80$ of $80-200$ mater cols, Cols may be rendis Fired luco a short-wave eniverter cincuit for use with TRF. or switrizeterodisat brodacso $\ddagger$ receives. Clrcuit is so arranged thes all power for the converter is iurnilined by the oroadcest liet Complete wating alsgram and ineiructions for buildine shortWeve colarerier furnished wilh ench are senibly. Eich assembly tquipuod wilh knob and efcurineou plate hurlked with waye lensth. Overatil dimensions of entire colt and switch assbmbls, $1 / 8 \mathrm{in}$. Wide by $41 / \mathrm{s}$ in. niph br ols in ion

## Midget Set Table

This radio table of stianle vornstriction.能 bandsome destit, finds jts place in the home whers hatace is Lione factor. Donstract ed if seleoted finmanoi for stremeth and hand"mety bigh luhted. 28 in int
hish, 12 in, wide. hiph, 3 , bois.

$$
32.50 \text { Cat. Ne. } 507
$$

## Naald Bakelite Shori Wave Plug-Im Coils 16 to 200 Meter:

The inell arade Lis: Wire Found on bakitate fermas. Will fit stapdurat UAS sockets.


Cat. No. 7150
per set of 4...
.... $81^{50}$
I. C. A. Short Wave Plug In Coils

Groove Wound


Cat. No. 6080
Our Price $\$ 2.95$

Per Set of 1

The fineat quallta shart wave co."s carefully and accoraiel udosignea to fit U.X. suikets. Tous cults iovering pajho ${ }_{5}^{-} 16$ to 215 tretes.

## THE A-C DAYTON

## Fleweling Short Wave

## Adapter

Whare lengthx range $18-18$ neters: Jan 3 puc-in colls for 8 wave leagth rauges-prov-20, $27-4 B$ and 47 to eit yeters, what we the orly active hrondenis benas. Nib Bcaticial tubes of batertios reculred. Adaplet comes complote with nuthines else to fuy.
No wifinge change th jour nch, Adapter is hotused Ished in Adam brown with axd engraved control pancl, malding a vesy handsome appearape whish will harzanize with the Enest of radlo cablnetis.
Cal. No. 72 The Trive ex
Adapter, int price $\$ 15.00$, fits bry set wasing पस-201A
UX-109. c No 7 ?
Cat. No. 73
typer flution
Aue Jim UY
 only that key
 A C it bes Tallo siesuency smplfie: of as driectirt 111 the


Price \$4.25
For Either Type

## Air King Shert Wave Plug-in Coils



A remsonathe priced short wave piteo-js oglt set, 10 circatts requiring high ampalleatinn with low tots Forme exe of bakelits. Tandien engraved with fotembity bige cobd number. Fout puis in set, porerJais fance from in tis 210 jimetors Fbem Ult d with . 0002 midet colmideritior

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\text { Cat. No. } 4300 \quad \$ \mathbf{1 . 5 0}
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## Naald Coil Forms

Color Coded THes-In Cobl Forns Ganuine Makalot-berlilant= by colosed code ritigs of reat Ereeth, yeilow and blue. Di$2^{2}$ neter $1144^{\prime \prime}$. Whading spake Fhited with dane fur ensy Femoser satimal easy gals mosixul Natural eacy gaip tanat recioves orn witholat tomothpe or alntarting whindme. thention enel whititpo tand behrough then y hot ong toto to


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Cat, No. Eazt
G(6), 4 Promg--1#0
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## ROLA DYNAMIC SPEAKIRRS



Series "K"

These are the new 1932 Rola Model F EsFios Witio greatly smo proved reprod $a<t 10$ m. Where prevz ourly the F
series was spocificaily denigned for use whth midget sets, the new $K$ series was engineered for public ndaress and large audttorium worti mainly. Extremely large Aeld pots are used, giving greater magnetio atrength as wefl as finer tone reproduction. Greater undiptorted putput eas now bo handied wiligot oveslond.

| Singie |  |  |  | P.P. |
| :---: | :---: | :---: | :---: | :---: |
| Output |  |  |  | autpue |
| Cat. |  |  | Our | Cat. |
| No. | Madel | Sive | Prise | Nor |
| 141 | K-5 | 61/2853" | \$4.50 | 178 |
| 148 | K-6 | 812x5 3 2 | 4.95 | 179 |
| 143 | K- | $976 \times 512^{\prime \prime}$ | 5.25 | 184 |
| 1.45 | K-9 | $11 \times 5{ }^{\text {c }}$ | 5.95 | 18 |

Equipped with etther single or Purth Pull tranafortuer, Sundard field coll resistance, 2600 ohms for exoltation by 43 to 80 mfitiamperes of direct current af $T h$ to 150 volts.

## Utah Balanced D.C. Chassis

2500 Ohm with Input Transformer


## Dynamic Speaker Field Coils



Series "F"

These new Roll speakera are de signed for wee wifin mifiget radto sets and smai electric phonopraphe. They are hiphly suliked for muniy sumed for stallations, such as in netras chools ang. hosptaser is overa
Model $\mathrm{F}-\mathrm{Z}$, for 45 cubes in push-pull Cat. No. $286 \mathbf{8 3 . 7 5}$
Model F -P, for one 48 Peutole Tube Cot. No, $187 \$ 3.75$

Model F-M-Urint less inpat tramsformer. Cal, No, 188 83.25

Model F-S, same as Model F.P. but 6 in. overali dismeter. Cat. Ne. 199 \$2.75

Magnavox D.C. Dynamic Speaker Chassis
Made by the proneer speaker mantifacturer What all the precision What goes inte duallity frequency repponse ratige of thete speak. exples siving perfect reproduction from the loweits to the fiehest lowest
Realife only 10 mil
 et 50 te 200 voles.

## cat. No. Tripe


398235 and 238 . Diannter $9 y^{24 \%}$....ss. 95 2500 ohm fel for Fushotioll $245,171 \mathrm{~A}$. Wadth $221 / 2^{2}$. Di-
e50 ninth field of p........... 3.15 $26 \%$ 238, 28a. Diameter $1178^{7} . .2003$


RADIOLA
Model 106 Speaker D. C. Chassis

This speater has a
sistance of
of itstance of 2000 ohms ema to do 15 tene for 110 thal. It can. howtholi. It can, howaver, be uried as B chate iss A . C Bots or a seld exciter unit bullt To furalga thin necessary excltation. Caknef
 equipped with
former dertaned to matern any single tute tormez desigued to matoh asy single tube
in to the UX-250. volce Coul irivedame


Cat. No. 114 \&te?5

Utah 12-Inch Stadium A. C. Dynamic Chassis spectas aropze
100 woll A.
 A supez10 heary duty unvi for berne, thestre, lerge hall of able of hand cap extrans volume Without ditortion. Employs filse fectives end extra heav?

 suppory for feld exestelion
midividuany pactect. sotpptng wntght, et tus
L. $\mathbf{3 1}$ \$ $\$ 3.01$

Cat No. $166 \$ 8.50$
Genuine Victor D.C. Dynamic Speaker Chassis


Ourtp leie wits. pug tor examer. ? ims to tix wratos unplater.
Used in Vretom Riceivors Nos R 22, ead R -52, 12 egntunction whits P) Stor 245 Push: Puli Amplifiers.
operates frum 110 voll DC. Volive col. mopectanes 15 oshas, D.C. fied resate hice
 phragri in. A seprotiocer of wrexcelied




Cat. No. 149
$\$ 5.95$

## Majestic Dymamic

 SpeakerA IUned in Majestio 70, 80 and 80 mectivers

piso Ohms, D.a fleid. Tand ayk outp in Dlametor ef Cates, 8 m .

Complete Flth Connecting cable and vermana! strip. Very rulgeed canstructian and sultable for replacement in
other sets and ogner 8 ets and
for public addreas invelitistioss.

Cat. No. 157
$\$ 5.95$
4. order blanks have been included in the center of this cotalog for your convenience. Use them.

## R. C. A. PHOTOPHONE Dynamic Speakers



Cat. No. 1 in Lens BaMe

## 1600 Ohm

 FieldThese genuine Jo $C$ Photopizathe Dynamic Speakers were denigned tor use in zarge thentres. danee halle, nuditortem ate. where large nssembiages are addressed They will take great Buiput without distorthon There are very few of these speakera lext and when they are gone, you will not be able to secure them for many times their present prices. Rus thow for sulयte use.

Cat No. I/81 - RCA Photoptrane, 1000 Owm D.C. Aeld, wath coavenient $\$ 7^{50}$

Cat. No. 110-RCA Photophone fot 110 V. A.C. use supplied whith one Cat No, is Field Exelter, which $\$ 12^{50}$
uses $2-280$ tibes .............

## Sound Truck Photophome

Cat. No. 95ㄹ-RCA Photophome whith rob cield coll for use with ob or 12 volt storage batiery ios auto $\frac{8}{7}$. ${ }^{\text {ot }}$ trucks, portable systems, etc.

Matching Transformers for RCA Photophones


Shlelded outphat tratze former for $245,250,1714$ and 230 twhes in Dushpill.


## OPERADIO Automobile Dynamic Speaker



Cat. No. 153

## Dur Price $\$ 3.95$

The product of ane of the ordest peaker manufaciuters, this allo dynamio is very sensifive ard will carry ample solume. Fionsed in in intractive black ctystaline metal case $9^{\prime \prime}$ i3 diameter, with 3 mounting bracketn.

Federated is heudyuariers jor wll public address equipment.

See pages 50 to 62.

## opERADIO

"Heflex Field" Speaker Chassis
Overall Dianaeker, 4 In. The unicue ponstrichion of the Operadio Dytanmic speaker piaces If ine a class by Itself. The field coll pot is 20 eated in fromt of the dimphragm instead of the iear ane is sutpborted ty extra heary rigid cast tron fratae, makivg the spesker rastleproof and ulixa stanamed neda ofrnages and tor nil power tubes,
at a senaationally low price.

| SINGLE OLTPUT |  |  |
| :---: | :---: | :---: |
| Dait. No. | Tulbes | Fisld Ofmens |
| 191) | $1{ }^{1} 1 \mathrm{~A}, 245$ | 2500 |
| 191 | 217 | 2500 |
| $19 \%$ | 9718, 246 | $18000_{e}$ kapped at 300 |
| 101 | $24 \%$ | $1800{ }_{2}$ tapped at 300 |
| P. P. OUAPUT |  |  |
| 195 | 273, $2 \pm 5$ | 2500 |

$\begin{array}{lll}195 & \frac{7}{7} 121,215 & 2500 \\ 186 & 247 & 2500\end{array}$
All at the Remarkally
$82^{15}$
Jensen "Concert" D.C.


3Vadel D : D.C. 10, (1) ohna Fietd 10 tm . Diameter 8 ohn voice cuit

These unita cantain suitable pasti-pail trankformers and aro absotutely hum= free. Connect di-
free. Connect at free connect di-
roctly to the set - Mo outablde wites,

As mont stapdard manufacinted A.C. sets aro etgjtaecred for D.C. speakers of this ohmage, the possibluties for replacement with this realy good speaker aso ualimited.
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List $52 \% .50$
Cat. No. 121
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CARTON OF 2, $\$ 11.00$
Ortigimal factory pecting of $z$ ith a oertome
Utah Dynamic Auto Speaker

of in. TVLI. BYAAMIO SEEAKIRS of Utadis high Tismdard. 6 Foit feid. Apeakers suxf in. leads.

List Price $\$ 19.100$
A) Iubie tor use with 112A, 171A, 23a or wi wr hes in sincias or push-pula case with movable stie-brackets watch facI ate mounting at any desirable angle. Cat. io.

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Single $17 \pi, 933,286,238\{4.45$
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## Wright-DeCoster Dyanmie IReproducers

A popularly prised Wrine of the famous Wright - DeCoster
speakers with no speakers, with no wicrittse handie qu to sitit. Will handie up to 6 watts without distortions. Overall diamater, $\frac{g}{}$ in Fyilip ped with outp115 franstormar, Thie torlowing mpodels ald
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3586 For single $171 \mathrm{~A}, 245$ and 250 :41 For P. P. 171A, 245 and. 250 -11 For Pubes Fot 8ingle 247 Tuhea
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Super De Luxe Speakers
Overall
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6 fin. Dynamic Speaker
Thut alie of this Hicke unit greatly bev lies its mecomplistmments. You win really have to luar the No, 255 before you ofri beileve a speaker so small is capabie of roproducing with stach splendia focelty, for thre cmajous to bave everyone looicing for real quallty in a small speaker hear tais Mottel No. 255.

Thae mood looking telt lined metal eabtnet with its ricb biack Crackie finish enttrely shleldn and anst-proafs the mait Complete shinlding of the Chassls Ereatly drcregses the chances of the apeaker pickIng up ignition noises.
Drgciat. Givin. In. Depth $3^{\frac{3}{4}} \mathrm{in}$. Drgctet. ETy in. Depth $3 \frac{1}{3}$ in. 4 ith,
Oreand Diameter 6
in.

 343 Por 81 ng le 47 ,
2500 Ohm Fiold 344 For Single 47
with 1800 ohm Freld tapped at


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## Wright-DeCoster Automobile Dynamic Speaker

An inexpensive Aato is po a ic er whth Wright-Decoater guality, Bhme. chassia as deseribed abcve.
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The Genulne BBL Magnetie Speaker Chassis
Employs the vell.
 sturdy met framewark, 8 in. burtex dtaphragm. Yery eompact. shiguling welght 6 $+$
For miny years
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Bles:
124 tm high. 12 in , wide. If th. deep.
Lust Pritee \$9 5.00


## Equipped \#ith in hithily sensitive over-

 size magmet snd a criving unit that is one of the finest, the Koluter reapondi Instuntly to the falmiest impulse, if felth. fully reproducts both voieo and orchestra from tine fantent whitper to the fallesi volume of in brass band, Yet, due to IL rattie or biast at hisy freguencter, and it always brtigg out the lower moten in their full mueteal value.
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## The Standard of Quality 2,000 Ohm

Frost Popes evintintie to maintain theit populirity With the raglo ppblic, There is a very definite demand for thoroughly high grade phomes at ifretonable price and Prost Punes ratigfy, the exteting demands of these wifility to obtain extremely gensitive initruments, fight
In welght, comfortable to wear und easily majusted.
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For Victor Models R32, R52, RE45 and RE75

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## Aeratone Magnetie Speakers



Where are mntny peopse who ithl pre. fer thit magthetle speaker to the dyinmie and hif speaker mand for pertect magnette repro di us ef a and embodies the tie principles
Can be usea as fit auts radlo speaker and with uty batwery or electrie retesvet
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Attractive hlack erystaline esse, per formed metal getil and efoos slik cord. Chtith titr told tepartitely
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SPEAKERS
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For Kidster Magnetic and Dynatmie Speakern $111 / 2$ in Thiaphregm th heft lenther border. 15e ef.
Con be ithet for repiacement on othe


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FEATUILE SPECIFIAATIONS
UNIT-A new devolopment-aimple in conitriction ind extremejy faticient-inag. tht ef "Chatate" iteel.

| Majestie gl |  | 599 | 1.80 |
| :---: | :---: | :---: | :---: |
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8 Tube Super

## Complete With Eight Radiotrons

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Brand New in Original Factory Scaled Cuses List Friee, 8200

ralsing hinged upper section of receiver. Tubes weed and furniahed with recelver Mre 7 UX -199 Radiotrons and 1 ive-120 Radrotron samet fubes uised whether re-
celver if oparated by battertes or eliminator:
Jutt the set for the homp without eleetrieily, for sailsoath tourlist camps, houses on whets, otct wil work anywiere without external comnections, Fuliy selfcontatned.
This set is very serisitive and powerful and yet uses dry eells throughout Empioys twelve iv V. No, 6 Dry Celle-Cat. No. 6656

Three $221 / 2$ V. B. Batteried-Cat. No. 6685-and two 45 V. B. Batteries. Cat. No, 6905.
Complele Wiih All Hafteries, Tubes and Speaker Ready to Pliy
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Glmensions:
2431 in.
10 in deep, fow in wefp MODEL TS Hats sliding top. A Midget gliced on top Radio ean bo and does not have to be removad when uhomograph is wived.

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## COLUMBIA AUTOMATIC PHONOGRAPHS AND AMPLIFIERS

This DeLuse Columbis Automatid Fedard Changer und electrienlly operitud, Phonograph is the greatest buy we have ever effered to the putble. The the of ine re-orcers fromi custotners who origimaily pargnased at single aample, if deftnite prooi to us that is is matisfactory univermaliy. Buis into a mandrome fiected wainut eabinet, is compints of a opiumpia Fiecirie pick-up); a powerfui Kointer Amplifier, using
$1-227,2-2455$ and $1-280$ tabo fiving iremendous
 Dymmio Speaker: ind in addition to afl thls, an Dynamio speakert and in suditiom to all this an sectitively.
Just thint whint jou fut fot oufy sis.st. Why, then record-ehanging devied alone is rorth more, to siy nothing of ithe Ampliler and Dynamie Spenlet and Pick-up and the gorgeons walnut console cubinet in Which this outtit is poused.
Thls tinit has many unea. A servleeman of \& denler could find excellent use for it in his own plape for demonatrating records, gind for pasking records of your eustomers volçes for lome talkiag emplifiers.
Ant mitmber of otmantationt in Four home town of nielghborhood cati use this equipment; dince hall, clubl, restaurants, ind Innumerible otherk. Another good sugsedtion which has beth put toto whe by geverat of our eustomiers has been the adaitlan of a tumer to this plionograph. All the volfages can be obtalned from the power implliber already installed. There fit bumesmt gitace to the right of the amplifier on the botion of the cabinet so that an turer couid be bullt into it, and with a remote conTrol deviee gith as ia rised in antamobieht
the tuning diat could be piliced underneath the ild richt alougiide of the record-changing derice, It ans prozed tery antiffactory and in one impticular cese it euitomar of that purpose.

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Cat. No. 200
List Price, $\$ 295.00$
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$\$ 29.50$
Enaployst 1-agy, 2-tis and 1 -28u Tuhe SET OF UNIVERSAL TUHES BR.50

Victor 2-Stage Power Amplifier R. C. A. Model AP-736

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(3. P. E. 20)
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Tles rye 208, one 250, and fiva sisic. Tsed with Vietor Electrie Ofthophonle Whonogriph No. ip-15 kieodrola and the R. C. A. No. 105 Speaket

Outpuf tratifformer in implifier matched for 11 , olim voled coll, impedanhe with 1.000 ohm field reblgtance supplies dynault speaker field of 110 yolt 15.O, at 110 milh. Undistorted output ht 5 wait which is enough to handle at least thrte dynaEnle spekerf. Amplifier operates on $110-$ 120 60-60 ivele A.C. evrrent, Excellent
tiver simplifier for use with phonograph ptok-up or radio sets.

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\text { Cat. No. } 81 \quad \$ 11.49
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4 order blanks have been included in the center of this catalog for your convenience. Use them.

STEWART WARNER Magnetic Speaker Chassis
It is the onily maghetie ppeaker having famintited pole pieget increaing the mámetof fux. Coll impedinit 1714, 245, 200, or 231 tupen,
Cat. No. 150
atice 4 tiod ohmi, mateh-

## Our Price $\$ 1.95$

For many years this has been the standard of comparimon in apenkeri. A mort time ate thit sposker chilits wits used, by sueh well known manafacturers 8 Ampllon Newcombe-Hawley, Marco, Steyarniwarnen ete. This speaker fe: produces the fun musical seile with us muth nodility atid mallity io a dyhitnto. Its abillit to hapale a ireat dal of volune whithout rattio or distortion mares it "ppplidable for use hs a monitior or Eail addirds apoaket Spental eoball iteel fang-
net ina net ind oversleg enils make for faithtiil roproatiotion Will hande 450 volfs witi.
out burning out. out buring out.

## Superior Shielded Audio Transformer



A real quality fob for pure tone and velume.
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## ARCTURU: TUBES

Arcturus Radio Tubes have earned a reputaflor for absolute dependabiity. Their countryw.de popularity is based on extreme efficiency of operation and unusual length of service.

Arcturus Tubes carry the endorsement of the Fredarated Purchaser and sre guananteed for a perivd of six months from dete of sale.


Quick-Action-Arcturus pioneered the original quick-action fube. Imamunity to Overloads-Arcturus Blue Tubes resist overload as high as $50 \%$. Less HiumComparative tests show that Arcturus Tubes have $52 \%$ less hum than other tubes. Long Life-Arcturus Tubes have established an unchallenged worids record for long life. Life-luke Tone-Comparison in any recelver shows the improved core of Arcturus Blue Tubes.

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Another 7 second Arcturus tube,

Lst Price, $\$ 1.05$
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| No. | Type | List | Net |
| :---: | :---: | :---: | :---: |
| 126 | Araplifier | \$ 85 | \$ . 45 |
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| TX099 | Detector-Amplitier | 2.55 | 1.8.5 |
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| e12A | Detector-Amplifier | 1.55 | .88 |
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## New Arcturus Tubes

55
Detector-Amplifer
Triple Grid Amplitier-Detector.. 1.
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2.80

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133 6.3 V. Var. Mu R.F. Pentode.... 2.80
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1.55
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Wunderlich "A" 2.5 V . DetectorWundorlich "B" 2.5 V . Detector. Auxiliary Anode used as a Diode Rectinier; cunnected to top cap... Wunderlich "A" Automotive 6.3 V . Detector. 6 Pin Base IL ORDERS TO A A
See Terms on Page 3


TAYLOR TUEES
Amplifiens



HRE at last is a most complete line of repincement power transformers，which are the resuli of the most exhaustive research and compilation of records which embrace every electrical set ever placed on the market． The transformers below will suit over $90 \%$ of the receivers on the market today．They have been manutactured to our specifications by the largest and bent kinorn manu－ facturers in the country and have a wide marsin of satety and are of improved design．They will make a set fure－ tion like it never functioned before and onco ant ACRA－ TEST power transformer is installed in a set，your cus－ tomer＇s transformer troubles are over．The ininsformers
have been so designed that they are universal in applica－ Hon，that is，thes can be mounted in any position．ver－ lical of horizontal．The laminations are of a special steel desiened br cur engineering staff and only the purest electrolytic capper wire is used for the windings．Every dealer and serviceman should have several of these types of power transformers in his stock，so that he is prepared nt all nimes to replace the power transformer in any set vithout the slightest delay．Our transformers may not be the cheapest ois the market，but they are the best chat money can buy no mater what you pay for them．Order an assortment and convince yourself of their spectal merits．

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## Standard Replacement

 TransformerWith Universal Mounting Bracketa


For Sets Using Up to 6－321 or 227. $2-245$ or 248 and 280 Tubes
site $43 \%$ in $\times 3^{3 / 2}$ in．$x$ 45 in．
（No， 51811 supplits the following 23 V．it $10 \%$ C． 5 ．at 2 ampin． 245 V at a amps． $\begin{array}{ll}\text { C．T．} \\ 7 & \text { v．} \\ \text { at } & 75\end{array}$ Cat．Na mI91，forefil Cucles －碞 Piou $\qquad$ 50175

For seis using up to $4-226,2-22 \%$ ， 2－171．and $1-280$ tubes．


Size $43^{\prime \prime} \times 312^{\prime \prime} \times$ 418

$$
\begin{aligned}
& \text { (6ities) Subphies the following }
\end{aligned}
$$

amps 62 V at tol mils．
Cat No． 6025
mila c．T．
Our Price
＊or sets using up to 5－29\％，2－1\％1． and $1-280$ tubes．


300 v．at 70 mis potential．


## Universal Midget Replacement Power Transformer

For All Midageta Using Up to 1－224， 1.215 or Pemtode and 1－280 Tube


Supplien the fol－ toving Foltagess 5 F．at 2 antps． P1／4 V．at 7 amps． 575 V ．It 00 xalis． Rectitheri： 225 र，nt 30 thile

Size $3^{7} \mathrm{~s}$ in．$\times 3^{\frac{1}{4}}$ In，$\times 3 y$ in．Cidmilim Platod Frame．Ihls thatifet power trans－ pornier atclaoueth of riall dimenvions is ress juged ana will furcial suticlent

 athotic overicating it will it co cof the ridgelf rets oti the marikes，itke olrsi－




 this one es．copt fat mpetliod of multritig．

## Cat．No． 5186

## Qur Price $\$ 1.19$


rill tradectormer is iceal for frantintt－ ting lind puthe faliress operation．
 pores， $2-7{ }^{2}$ vols windings at 3 eelperes and a 1200 voli center－tapped plate wino－
 birat
8190

## Meavy Inuty Side Mount－

 ing Midget Power ThemsformerFor Sets Using 4－224 or 227，2－245 or 247 and 1－280

 Mounting Koles 2．4．sel in． C．to C ．
Cat．No．2゙ふ3之
Our Price ．．．．
212 Supplies the folloring roltages：
 $21 / 2$ C．T．to shifld．
muts．，СT．
Electrostatic Feature：
1－－Electrostatic Feature： $3-$ Heavtly Insula－ Snield．silicon ted coll． stezl core suicon 4－Exirzmelr A surdy，compact power unit capadle of supplying flament and $\mathbf{B}$ current to ons receiver uing the zbate mpntianed fubes．Easy to install snywhere．This trabsformer th huill to a mite but for
lang life and sfeads serformiance．No
lon lamination hum．

$21 / 8$ is 1401 Supplies the followint

 Chis transformer is excellent for use in powis transformer is excellent for use in biandari seis．The unique bracket ar－ Jhnfomiont on chis unlt makes it estreme－ is stinnte to lavall．
Cat．No． $\mathbf{5} 1:!0$
$89 \div 1)$
Our Price
We carry Power Trans－ formers for over 200 stand－ ard receivers．See back of book for complete list．

Cenalest
Midget Set Power Transformer
For All Midget Sets Using 5.224, 2.245 and 1-280 Tubes Wth Uprlifht Mounting Bracketo

$$
1233^{16 n d 5}=-22 \text { viph }
$$

12,4 amp. 2,24,
 former abore


Cat. No. 2572 2 and 4-2ta V. low amb. (245). 3-Start of primary. Right fuse cll Left tus. tap. Left fuse clip7 and $\mathrm{E}^{-5} \mathrm{~V}_{\mathrm{t}}$ (280).
 10 and $12-\mathrm{H}$ 1 E h 10 voltafe. 11 voltafe, of sbove.

## Price \$2.85

Supplles the following voltages: 2? V, at 7 amps. OT. $\quad 5 \mathrm{~V}$, it 2 amps . 219 V . at 3 amps. O. .4. 625 V , at 120 mlls . Rectifind: 650 Y , et 85 mils. $\mathrm{C.T}$ gire only 4 in. $\times 4 \mathrm{in}, ~ x 3$ fin in Equipped with esfoty fuse block, For 110-120 v. $50-60$ cjeles A.C.

Acralest
Midget Receiver
Replacement Power
Transformer

## For Sets Uaing up to

$8-284,235$ or $551,1-245$ or 247 and 1.280 Tubes

Supplien the following voltnges:
 600 V. at 70 mili.
Rectifleds 375 V, at 70 mils Can be used as replacoment in such seta as Gioriotone 4 -tule, Pansteel Roposter,
Traveler 4 -tube, Joction-Boll, Peter Pan, Traveler 4 -tube, Jeckion-Boll, Peter Pan, Paramount, Bchophone $4-$ tube, eto Witing soheme inciaded
 with each Trunsformer 310x294897 Weitht, 2hibs.
Gil. No. 6027.

## Price $\$ 1.35$ eat.

 (eratestReplacement Transformer With Universal Mounting Brackets For Sets Using. Up to 5-226, 1-927, 2-250 and 2-281 Tubes.


Supplies the

roitowing
$114 \mathrm{Y}, \mathrm{at} 7 \mathrm{I}$ A 212 V , 㫙 214 A . 3 Amp. ©, T . TH. V, $\frac{\pi 1}{8} \pi$ 1100 mllp , Q.T.
Cat. No. 5193
quas. 95

## Acratest

Filament and Plate Supply Transformer
For Short Wave Adapters and Osellators
Supplies $21 / 2$ V. for $4-227$ Tubes and 165 V. at 20 Mils .


Cat. No. 5194

$\$ 1.45$

This transformer is partieularly uaeful in oscillators, short wave acts, ehort wave converters, power suppiles for tunors, preheaters for tubes, tube checkers, mise and photo-cell emplifiers. Very compact con: struction. Garefully designed for contin. wous operation under normal for for operated at $25 \%$ overload for sonable fengths of times.

## Acralest

## Tube Tester Replacement Transformer

Supplies $11 / 2,21 / 2,5,6$ and $71 / 2$ Volts at 2 Amps
All from a single common


Cat. No. 6024
Bize: $21 / \mathrm{fn}, \mathrm{z} 2 \mathrm{~h}$ in

## $\$ 1.40$

Thls tranaformer is a perfact replacement in about 50 por cent of all standard tuhe checikers, Many experimenters are looking for such a transformer an this for Iaboratory wark. The fuxd voltages of this traniformer are $11 / 2,23,0,6$ and $73 / 2$ thats tranatormer are yot and, 3 , volt tubes may be run oft the $11 / 2$ and $21 / 4$ volt windIngs as their current is low and on low current the voltage goes higher.

Acrates

## 25 Cycle Midget

## Transformer



Fof 224, 235 or 551 245 or $\begin{aligned} & 247 \text {, and } 280 \\ & \text { Tubes }\end{aligned}$

> Upright Moumting
47. in, lomis, in , high

Cat. No. 5454
$\$ 2.95$
See Our Complete Power Transformer Listing Contain ing Over 200 Transformers in Beck of Book.

## Acralest

Side Mounting Midget Power Transformer
For All Midget Sets Using Up to 4-224, 1-245 or Pentode and 1-280. Fully Enclosed in Cadmium Plated Case
 Stiot $3 \%$ fri, z 87 in. $x 8 y \mathrm{~m}$. Sowing filter forlowing voltapest
 5 V V. nt 2 amptis. 500 . V . at at ampth 90 mils . Rectifind sis $\mathrm{v}_{\text {. at }}$ 00 mple
Cat. No. 5187 for 50-60 Cycles Price $\$ 1.95$

## मिcralesf

Midget Replacement Power Transformev Supplies:
For 4-284e or 2275, 1-247 of 245, 1-280


1 d $2-5 . \mathrm{V}$, at 2 Amps,
3 \& $2=-7$
5 \& 6 -Primar
 Mis

$11-\mathrm{d}$. T. of sogro grounded to erames. $3 \mathrm{z} / \mathrm{is}$. lons. $3 \% \mathrm{fm}$, wide, weight 5 ibs Cat. No. C25e Our Price.
${ }_{4} 1^{95}$

## Acratest

Power Amplifier Transformer

For 224, 297, gro and 981 Tubet
23. Voth at 874 Ampr Th/, Volte at 213 Amps 7\% Volts it $2 \%$ Amps. 1200 Volta st 150 Mtla .

Cat. No. 6918
Priee \$3.25

## Crosley Power Transformer For Model 608

Eeplacement Part No, 5145
For Bets Usingt
月—226Tubes
1—227Tube
1-171ATube
1-280 Tube
Fer 110, 60 Cycle A.O.

Cat. Na, 5075
tour Prico $\qquad$ $95{ }^{4}$



Type $P$
transformes for every purpose at prices for etery purse．＇The fentures of these iransformers sre：

Rugged construcifon
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Universal Applicatio
Models listed belur are for 1195－V．E0－
0\％．Ac．
Type F－5 Tubes
3－224，1－247 and 1－280

| （1） | （3） | （8） |
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| （3） | （6） | （9） |
| （3） | （7） | （10） |
| （1） |  | （11） |

 Chasis opening 2521．＂ 1 \＆2－Primary 3 2． $2 \frac{21 / 4}{2}$ V．at 7.25 A ． 5 \＆9－625 V．at 60 Mils 6－C．T．of High 10 \＆ $11-5$ V． 22861

CE7 फu． $\mathbf{6} 757$

## Cat．No．675？

## Our Price $\$ 1.95$

Type F－8 Tubes 5－224，$z-247$ and 1－280


Size $43.4 \times 3 / 4 \times 31 / 4$ 。
Chansls opening exa7i＂ 1 \＆ $10-2!\mathrm{V}$ ．at 9 A ．
6－C．T．of above $2 \otimes 11-2^{1 / 2}$ V．at $31 / 2 \mathrm{~A}$ ． 7－C．T．of above 3 \＆ $13-5$ V．（280） 4 \＆ $12-675$ V．at 90 Mils 8－C．T．of High 58 24－Primary

## Cit．No． 6758

## Our Price \＄2．25

Type F－12 Tubes
$9-224,2-247$ and $1-280$

|  |
| :---: |
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Chassis opening $2 \pi 3^{n}$ 1 \＆ $9-2 \frac{1}{2}$ V．at 16 A ． 6－C．T．of abore 7－C．T．of above $33 / 2$ A． 3 \＆ 11 － 5 ver $4 \& 12-675$ V．at 110 C．T．of high grounded to frame

## Cat．No． 6759

Our Price $\$ 2.85$
cosilnued in Nevt Column）
（Contnued from First Column）
Type P－9 Tubes
6－221．2－24\％and 1－280
$\left[\begin{array}{ll}11 & (7) \\ (2) & 8 \\ (3) & (10) \\ (4) & (11) \\ (5) & (13) \\ (6) & (13 \\ \hline\end{array}\right.$ Sith $4 \times 3^{2}+x^{3} 3^{2}$
Ohassis opentiog 2－81／1Ex $2^{*}$
1 de y－Primary 2 \＆ $9-730$ \％．at 75 Mil 0．Tr．of high grounded 9 a $10-5$ Y．（ 280 ） 4 \＆ $11-2 \frac{1}{1}$ V．at $101 / 2 \mathrm{~A}$ is d $12-215$ V．at \＆A． G－C．T．of above （．17t．No． 6760

## Our Price $\$ 1.95$

Type P－12 Tubes
$9-924$, 2－247 and 1－280

| （1） |  | （8） |
| :---: | :---: | :---: |
| （2） |  | （9） |
| 3 |  | （10） |
| （4） |  | （ii） |
| （5） |  | （13） |
|  | （7） | （13） |

siate $4 \times 3+14.1^{\prime \prime}$
Chasest opening $2-11 / 16 \%$
1 \＆ $9 \mathbf{T}^{21} \mathrm{~V}$ at 16 A. 8－C．＇r．of above 4 －c． $5-5$ of above $3^{4}$ \＆ $10-5^{2}$ ，V．at 32 A ． 11 \＆ $12-875$ V．at 110 C．I＇of hight groinded 6 \＆ 13 －Primary
C．a．No．6761

## Dur Paoice $\$ 2.85$

## TYPE F－9 TUBES

 5－6－21 V，at 124 ．and $1-280$耳又土 100 －C．T．ot
7－4 bave．
8－4－8－2／2\％V．at 3
$10-11-5 V$ at 8 A．
9－3－12－High， 30 V ．
at 80 mils．
（1）（2）（3）
（3）（6）（7）（8）
1－2－Primaty
（9）（B）（II）（B）
Cut．No． 6243 \＄2．85

## TYPE F－6 TUBES

？－201，1－297，2－181 and 1－980

| （1） （2） <br> 0 （3） <br> （4） （5） |  |  |
| :--- | :--- | :--- |
| （6） |  |  |
| en | （3） | （8） |
|  | （3）（10） |  |

Size 3 ， 3 Size $3^{37} \times 3^{1} \times 5^{3} \mathrm{~B}^{\prime \prime}$ $7-9-2: 2$
Yellow Lead－C．T． of abore．
$6-8-10-2 / 2 \mathrm{~V}$ ．at 3 A．C T．
$1-2-2805 \mathrm{~V}$ ．at 2 A 3－4－5－High， 300 V ． Primary－Black
Cat．No． 2600 \＄2．85
Radiart Step－Down Transformer


Dur Price \＄4．25


Dur Price \＄2．95

## Kolster－Earl Power

 TransformerFor Replacement In Receivers Csing $2 \% i, 2: 2,1 \% 1 / 2$ and 281 It．bes．
 －Primary $3 * 4-T 4$ of 5 $\frac{8}{15} 5 \mathrm{~V}$ Viare mil） 6 C．T．of 8 \＆ $5-5 V$
8 d $5-3 V$ 19）\＆ $11-24 \mathrm{~V}$ ．
$31 / \mathrm{in}$. long， 3 m ．wide． $37-A \quad 1251$ Weirtis to 1h 11 \＆ $13-112$ A very popular replecentuti trant－ former vihich can be useq tha thany of the parly A．©．receivery like Farl，Preed， Koltter，Philharmonje，Ning，etc．Nowut－
ing Brackers． mg Brackers．

$$
\text { Cut. No. } 2559 \quad \$ 1.95
$$

## Philco Replacement Power Transformers



| Cat．No． | For Mucdels | Part ${ }^{\text {No．}}$ |
| :---: | :---: | :---: |
| 4321 | 20， 220 | 4234 |
| 26011 | 65 | 3516 |
| 6248 | 70 | 5117 |
| 6？4？ | ＇6， 76 | 3868 |
| 6241 | 82， 86 | 3271 |
| 6243 | $\begin{array}{r} 92,95,95 \mathrm{E}, \\ 296,296 \mathrm{~K} \end{array}$ | 37.72 |
| 6214 | $\begin{aligned} & 111,112 \\ & 211,212 \end{aligned}$ | 4446 |
| 6247 | 90 | 4938 |
| 924： | 90 | 5362 |
| 2320 | 500 Scries | 3106 |

## RCA－Victor Power Transformers



Made tor replare－ wint in Radiols otets butt can be utilized in otiver sets using the sawe tubes．All brand new merchandise．

| $\begin{aligned} & \text { Cat. } \\ & \text { No. } \end{aligned}$ | Pari No． | bet No． | Our Price |
| :---: | :---: | :---: | :---: |
| $9 \%$ \％1 | 8885 | 37．15．33， 51 | 81.80 |
| 57： | 8472 | 44， 46 | 5 |
| 37： 9 | GW262 | 84，46，220V． <br> A． 0 ． | \＄．65 |
| 935：1 | 818.90 | 48，12 | 1．80 |
| 250， | 8244 | 66， 62 | 2.25 |
| 26\％ | GW4 4 | $\text { sio. } 1: 2$ | 2.75 |
| 208：3 | CW147 | 136 | 8，915 |
| ： $3: 76$ | 6114486401 | s0－5：， 86 | 1.810 |
| 545\％ | RCA－victor | 3i4，its，39， 87 | 1.810 |
| 25： 1 | RCA－Victor | P6－14， 35 | 1.81 |
| 185\％0 |  | is， 25 cycle | 4．9\％ |
| 15814 | 8403 | 41 | － |
| 37：3： |  | $\begin{gathered} 17,15 .: 8,51 \\ 20 \mathrm{~V} . \mathrm{A.C.} \end{gathered}$ | 83，95\％ |
| 2655 |  | 64.65 | 1， 4.5 |
| （5004： |  | 161 Speaker | 4．50 |
| 15059 | RCA－Victor | RE－ $2 \mathrm{~S}, 39,51$ | 1.50 |
| 6751 |  | superelte | 1.85 |
| （6）19） |  | Theramin | ： 3.60 |

## Universal Replacement Filament and Power

 TransformerOversized Power Supply
For $39 \%$ ，24\％or Pentude and 280 Tubes Can be uned as reulacencht in $90 \%$ of receirers in the market today． All taps mounted on one bakelite panel． Adaptable for 105 to 125 rolts． 60 cycle A．$C$ ．

| 3 ${ }^{\prime \prime}$＂wide， <br> $54 \prime$ high． <br> Sunplies the <br> following rol tages： <br> 212 V ．at 1.5 <br> Amps． <br> $23 . \mathrm{V}$ at 3 <br> Amp． <br> 3V．日屯 2 Amps <br> 575V．at 100 |
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## Cat．No． $2560 \$ \mathbf{\$ 2 . 9 5}$

The center tap of the 927 flament wind－ ins and the center tap of the high tension winding are grounded to frame．
The 3560 Replacement Power Trans－ Sormer is acsigned to be used for replace－ ment pursoses in all radio sets rhich use the followine combination of tubes：

6227 ＇s or 224 ＇s or a combination of these Tubes，
9 245＇s
1280 Tube．
The Tranfiormer is detrened to supply poth piate and rimmans voltazes．The Transformer will delver 100 M ．A．at 300 volts when a standerd 300 ohinn choke is used and with a 2 MFD．Condenser ahead of the first ctoke．
The prlmity is tepped at 105， 115 and 185 velts to teke onere of any voltago con－ eitions．教

## Arcatest

## $2^{1 / 2}$ Volt Filament Transformer

Delivers $21 / 2$ V．at $51 / 1$ anps．

The T－290 Trans former finds lis prin－ cipal use ju whort wave sets Where it is de－ sirable to light the filaments of tro or three tubes．Excellent ror pre－heaters． Primary．
115 rolts．
Secondary，
2.5 volis at
5.25 ampl．

Lengeh， $2^{7} \mathrm{a}^{\prime \prime}$ ．
Telcht， $2^{3}{ }^{\circ}{ }^{\prime \prime}$＂．
Whath，${ }^{3}$＂＂：
Welent， 1 lb ．


Cist．No． 6022

> Dur Price 55e ell．

Tials transformer ts of the same appear－ ance as the above except that，it delifers， 12 amperes und is center tapped．Vory useful for pre－heaters，short wave con－ rerters，tumers and tube testers． <br> \section*{\section*{Cat．No． 6620 <br> \section*{\section*{Cat．No． 6620 <br> <br> <br> Dur Price $\$ 1.10$ ea． <br> <br> <br> Dur Price $\$ 1.10$ ea． <br> <br> $71 / 2$ Volt Filament <br> <br> $71 / 2$ Volt Filament Transformer} Transformer}

Same appearance and size as above， but delivers 71／． volts at 3 mps ． Fof transmitters， amplifers，etc．

Car．No． 6023

## 2 $1 / 2$ Volt Filament Transformer

Delivering 12 Amps． Center Tapped

95 c

## Zenith Power Transformer

For Nlodels 52，53，54，55，60，61， 62 ， $64,67,602,613,622,612,672, ~ 71, \% 2$ ， $73,7 \%, 522,532,512$

## ELECTROSTATICALLY SHIELDED

Part No．：15－9ts Employing 227， 245 and 280 Tubes． $63 / 8^{\prime \prime}$ high， $51,{ }^{n}$＂wide． t deep．
Weight， 10 Jbs.
Cat．No． $5122, \$ 45$
Our Price．．．．．．．．．．


## Csed in R．P．zE 50－60－70

Description：Equippea with t appea primary and two 213 volt A．C．Windings． Ideal icr all Pentode power packs．Ex－ actly like original in every specification， made only as rigid requirements demand， assuring a replacement unit as satisiac－
tory as may be secured． tory as may do secured．

## BRAND NEW VICTOR

Replacement Power Transformer

for Madels： R－39，R－ㄴ․，RE－13 And RE－75

Cut．No． 6830

### 82.90

［us not confuse this transformus with surpits and reclaimed tranilomert，which we Hud other mall order houses liave bren selling for as low es $\$ 1.95$ ．Thit inamiumare 15 the current protuct of this of the largest transiortier manufac－ thrers 113 the country who have been
 oripilial manutacurers specincations have acte factor aded and the tronslorme sulety cicter all zround so thet it ras finbhed betrer bll around so that it has ye value beide standing up utaer the severent，terts．When jou install thi transformer in a set you may rest assured that 11 whll stay hisialled as long as the set lasts．The electrical charactersstics of this transfemer are as follows： $11 / 2$ Volts or $5-226$ tubes， 2.20 ． $-245 \mathrm{~V}, \mathrm{C},{ }^{2} 10 \mathrm{C}$ and 800 V．C．T．at 150 rille high．Call to $4^{1 / 2} \times 5 \times 5 / 2$ inches．Weight 8 lbs ．
Cat．No．2．554 $\qquad$ ．．．．．
$83^{75}$

## Surplus Victor Power

## Transformer

These prancormers have heed reinoled from discontimulit Victor Amplifiots，and are guararteed 10 ne in peifet working order．They are scratciond here and there due io handluge but merhanicelly pet－ fect．A marvelous buy at 81.93 ．

Cat．No． 2558
$\$ 1.45$
DEALERS und SERVICE MEN：

## Utility Power Pacle

For 5－226，1－2i9\％，ご－171A Tubes
Here is an item which will erable your to convert your trade in beftery sets into
 A．C．seccivers a．c．jeccivers at a minmum coss and With very．
This com－ plete power beck frmish－ Dack flimisint and plate cursent for－ I＝$\because \dot{0}$ and $\because=$ 171A fubes and will con－ water Kent battery set trito a modern electric set．The unit encludes power transformer，filter condensers，clokes and C blas．All terminals are corvenlently brought out on top with crev terminuls for easy connecisons， 380 thbe socket at－ tached to outside of ousl．Lquiptient with ＂H2－LO＂ $5 \pi$ itcle．Two leads breught，out for panel Ewich of set．Designed for zonversion of Atwater Kent sets but may be ueed iof any other teliery sipt．Com－ plefe 1umachions surnibed vith cacla unit．
$3 \mathrm{in} . \pi / \mathrm{de}, 171 / \mathrm{in}$ ．long，5n，fc．tall．
Cat．No． 3155
Our Price
$58^{150}$

Complete AK 37, 40, 42, 44 Power Pack Replacements


These packs are houspd in a can fdentical with the original, but withrint the cover, as the old cover wit ft. Made
scoording to orlgian specincations and scoording to orlgianal specincations and guaranteed, Do
Etrip or sockob.
since its intreduction by us to the trado this power pack has met with the highest praise and approval. such se: claim is natural when only the highest grade materinls are used in its construc-
tion. Do not confuse this fine power tion. Do not contuse this rine power
supply with makeshift tin enin iiffingesupply with makeshift, tin can arfangements. our pack is housed in a heavy
gane sheet stel can of the ergct phyical ganee cheet stuel can of the oract phys the orleinal pack, The condensers, chokes and transformer are rated far above the standards set by the original manufaoturer. Each wire is piainiy identined and with earh unil. The cover from the old pack will ft thit one and provistons for mounting the resistor and cable strip as
well es the fube socket can be attached Well as the sube socket can be attached Cat, No, 2609 $\$ 6.50$

Original - Genuine Atwater Kent Power Packs


Thase are genuine power packs munufactured by the Atwater Kent Manufacturing Co. and packed in orisinal scaled factory cortons, Only a fow availabie at this price.
$\left.\begin{array}{cc}\text { Cat. No, } & \text { For Models } \\ 7050 & 42 \\ 7051 & 50,52\end{array}\right\}$
Power Packs for Other A. K. Models


Replacement Power Transformer for Atwater Kent Model 37 Sets
Bunt to bighest apecif. cations and with a entety factor.
Cat. No. 2642
$\$ 2.75$

## POWER PACK

Consisting of Power Tran. former and Choke). Used in the following sets: Silvertone 1928 and 1929 Models, King, Models H and J.


Cat. No. 6504

## 6\% $2 \times 3$

 Welght, 8 Tha,> Aur Price \$4.50

Genuine Earl and Freed Power Transformers


For Model Nos. $21,22,55$ and 56 Cat. No. 2522

## Our Net Price $\$ 3.00$

complete with bracket and strip.
For Freed Models 78, 78s, 70, 7ps, 90, 35 , 65, and Earl 31, 315, 33, 325, 23, 235 , 21, 41 Cat. No. 3738
Our Price $\$ 4.25$

## Acratest

Universal Replacement Power Transformer
With Universal Mounting Brackets
ELECTROSTATICALLY SHIELDED

For Sets Using 5-227, 2-245 and 1-280 Tubes

Helght, $33 / 4 \mathrm{In}$ : Wath $64 / 3 \mathrm{in}$.
Thickness, 41 m in. itfolnttry Hition Horizonal $31 / 4 \times 2$. 8616, Vertleat, $31 / 4$ x2\%i: Weisht, $6 / 4$ 1bs.

Cat. No. 5414


A most popular replacement sransformer sad used in many factory buill seven, elght and nine tube radios. Liberally designed and well adapted for nill racolvers where four or five 227 or 224 , two 245 and one 280 tubes are speciaed.
Primary-115 volis $30-60$ eyein.
Fhament 1-2.5 volts 8.75 milaps.
Fllament $2-2.8$ volts 3 amps ct .
Flament $3-5$ volts 2 amps, et.
Primary watts-full loed, 50 .

## Jefferson Power Transformer and Chokes

For Sonora, Zenith, Stromberg-Carlson, Sparton and Other Sets Using the Following Tubes: 4-226's, 2-171A's, 1-287, 1-280

This untt conthins the proper eandenser is it 4 IS 8 , Styr of irimaty otat of primary. tap.
Black-120 V Ansth.


8eenndary cannections comn on in
 diagram.
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Cat. No. 6541
itur Prie
${ }^{6} 1^{95}$
Earl and Kolster

## Power Transformer



Cat. No. 2658
For 25 Cycles, 83.00
Kolster Power Packs
5528
5529
5520
5530
5531
5532
63
$6 K$
$6 M$
6 F
8 R
Sumply tlament ind plate voltages for ith bye sets, Can be used for other sets and of battery sels.


Dur Price $\$ 9.85$ ea.
Atwater Kent 55, 55C Replacement Power Transformer

Cat. No. 6013
(Dur Price
$\$ 4.25$

## RADIOLA

## Power Transformer

For Radiola 104 Speaker
Primary opetatea
in $s=2 \mathrm{~L}$
 UV876
Furnishes gitn. mept sad plate current for $2-281$ 1-210 and 7-199 tubes in serles: $5 y^{\prime \prime}$ 10nt. $4^{\prime \prime}$
wide $5^{\prime \prime}$
tall Wid
Woig Weight, in jbs .
Cat. No. 6009
84.50

## General Replacement Power Transformer

For sets using: ${ }_{5-227,2-171 \mathrm{~A}}^{1-280}$ anc
Cat. No. 5421

## ©ur Price $\$ 1.95$

4 in Ling. $3^{1 / 4}$ in


Wiae 4 in. High. 1 \& $5-5 \mathrm{~s}^{5} \mathrm{v}$, 1250 $\frac{1}{2}$ \& $=12-5 \mathrm{~V}, 1280 \mathrm{a}$ 3 \& 12 - H1 1350 V $3-125$ at mils. 1 $3-125 \mathrm{~V}$. tap of primary 4 \& $13-5 \mathrm{~V}$. (171A) $8-\mathrm{C} T$
$10-115$ of 4 \& 13 $10-115 \mathrm{~V}$. tap of
 11-C. T of 2 \& 12
A well bulle rutged eran former that Will siand abute and not overicat in the worst conditions. Silicon sued laminations are tienily macked and hetd ith place by fron frames the piminate viorbthota Coll wound with sure electrolytec
cowper and all fermit?als are mrourht pine copper and all ermitals the broutht out
 it easy to hatall this transtormer

Earl Transformer Coil and Terminal Strip

Ready to be assemoled with laminathons of old power transformer.
For Earl Models 51, 32,323 and 41. Freed Models 78, 79, $79 \mathrm{~S}, 65,90,95$.


Cat. No. 3172
We Also Carry in Stock the Following Power Transformer Coils:


Dur Price $\$ 2.00$ ea.

## General Electric

 Step-Down Auto Tramsformer 220.110 A.C., 275 Kat


Cat. No. 6014
$\$ 2.75$
712 in. long: ${ }^{43}$, in. wite; 314 in . tall.


## ZE7 Filament

Transformer

Sulplien:
$2^{1 / 3}$ Volis int 6 Antp 11. Votes at 7 Amp 7t, Volts at 3 Amp . 31. in. long $3^{3}+\mathrm{in}$. wice, $33 / 4 \mathrm{in}$. hign.


Cit. No. 5736
$\$ 1.25$

## Filament and Plate

 Supply Transformer

$$
\text { Cat. No. } 5858 \quad \$ 1.85
$$

See Our Complete Power Transformer Guide in Back of Catalog.

## R.C.A. Victor Audio Transformer

With Pick-Up Coil Wirding
For Reglacement in All Victor Seth
Cau beralied for 8 ny itbe ut his in leppede ance. Hiss special windiug iol piosno. Eraph picir-ip. Magucimedy hiet ded pre rentits inter-itage iced onek. RATIO 3tex1. This irinsfesmeet has
 ino primary watiligs, one to match either hish inhpedinee plokup or the pata of a pre ampliner inbe. The other wiending as appooxmately veuo chms Ior either a single button mike or low inmpedince colsule cen he used to compla a mike plak high

Cused in hrass electromagnetio shleld. Brosth flully calse.
Cat. No. थ2Fsis
Our filee
29 e
for 81.00
R.C.A. Victor Push-Pull Auslio Transformer Pach


Output Natches Moving Coil on All D) namic Speaṭers

Cat. No. 5714
Per Pack
59 e
R.C.A.-Victor Cinolie

30 मearies, 150 M Ms 200 Dhrss
3x2'ax5" hish
WCighas $31 / 2 \mathrm{ln}$.


Cat. No. i: 18
29e

## 4 for 81.04

Fioused in a heavy brass clase and Impremilited in componiad co prevent vibriltion and overnoating Catr be istd in all filt-r ciroults white a sood choke is ensen ian Can be molmted in any position by bolderint brackets to the case. Ideal for transmitters and amplitiers. Invest $\$ 1$ for 4 of these fine chokes while the supply lasts. The sirat 20 b wif more then joy for the four.

## Filament Supply Transformer

For 226, 227, 224 and 171 A Tubes
 Hes foltowing leads $11 / 2$ V. (226), $23 / 2 \mathrm{~V}$. C.T. た24 or 22お 5 V . GT. $11: 1 \mathrm{~A}$ or 112

Cat. Ne. 3821
Lach
95
Thiv transfinmer is idong for tubo iestfag onitits. The socandary can bn Monked 1 i zevies to supply ang desiricd
 $t$ amant. of V . whadiag rated at $I$ emp.


ACRATEST Audios are already ranked among tho finest svailable Much care is exerclsed to see that only the highest quality core and coll ge into thetr construction．Exacting engineers con－
stantly watch the nutput of the production belt to see that each iransformer is laboratory tested，as a peor produck is a dangerons enemy．This preco cision sounds costly，but geat volume production and mintmized returns help combat high price．

## Acratest

Sbielded Push－ Pull Audio
Trazeiformers Permalloy Laminations
Cat．
Noi Denaription
2asse Audio Trantornite，ratio A／2，
Prife for usa in 18t or 2 nd stags． $\$ 0.05$ 20M Fush－Full Tnput for use with 171 ， $245,250,247,231,223$ ， 288， 210

tess Push－Put Output，ratio 80 is． Yor use with $171 \mathrm{~A}, 245,2100$ ，
231, for tonnection direct to 10 ohma rolce coll of dynamic．

## Choke

2ses sonals heary duiy 30 honiy chake， 155 Mats，match？s above transformers．
.10


## ACकाख्त

Midget Dynamic Speaker Output Ti raneformer
This type of transformor is standare equipment 0 such nidget dsmaraic sperk－ ers as Rols，Jensen，Oxioid，Quam，Mag－ anvox，Utab sud others．These trans－ iormers afe extremely poputar becarse of heir emelency and small siae， $13 \mathrm{ss2}$ its， A good many speakers used in midget ots have an early edition of thla trans． colutied ta poor quallty and burni－out． Replace them with the new and froproved typs．They are ast designed for stazdard colce cosl．
Cat
rist $\sin$ I？tube ousput for ure whe
171A and $245 . \ldots$ ．．．．．．．．．．．．．
Our vith 233 and $34 \%$ ．
Ges！Purh－Full Oninut for use with 3nas Pusha－Pul！Pentode output for ust wih 233 and $247 .$.

## T．C．A．Shicided Super Input Transformer


 tubés．Dainntum plated siteld 310 long， $2 \mathrm{~S}^{7}$ wide， $3 y^{\prime \prime} y^{\prime \prime}$ tall Weight 2鲌 lbs．

Totaly sile fied and seated akrainst mola seased syrainst meel lominaticis．A renl bergatn．


Their the in audio circtats gives in－ creased neasitivity，greages disfance，and dasurea a cood volume of clear，pure and undistorted reproducition of programs，with all the vitas harmontes and rich overtories so essenilal to trute tonsl gisality．
Heavily insulatet throuthout，sate for use with potrer tinles，assermbled and sen led Inin a bealstiful taiack enameled metal case．
The primary frupedince til extremely hluh fud exacty carrect for A．O．tubed．
Senlive makes it impervious to moisture and eliminates the possibility of opens， either primaty of hecondary．
Cat．Ne．Deseription
Frice
2647 Pull－pgell Inpui，iugs on botron， for use with $171 \mathrm{~A}, 245,280,247$ 231，23t， 210.
81.45

3839 Push－pult Output，lugs on hot－ tom，retis $3,1,1$ for ure wity $1.14,24,23$, for conneciiol To 1001 m vaice coll of dyatanc 1.45
36.3 Pueh－pull Input，jugs an aide， for use with $171 \mathrm{~A}, 245,250$ ， $2 * 7,231,233,238,210$, Feocm－ mended for use where flae some quality is waited due to the filt responae carve of thls trans－ former
2374 Pish－pull Oithut，lugs on one stde and inp jacks on other， ralio $35 / 1$ for connection direct With $171 / 2,245,250,231$ ，
Siss Push－pull Pontode Output，for or connection direct to voteo coll

1.45

371480 Henry， 150 Mil Choke，Wth lues on botton tike 2647 ．

## Acratest Choke

 at 100 Ohms
Lug terminals on bottom

Cat．No， 3714


Our Price $\$ 1.20$

## Unshielded Push－Pull Audio

## Transformers

Forkontal Hount



Here is s compact traneformef which equals in peziormance eryy one on the market today，The cuse of raisulating tond wirlng of these inctrumer ts makes them saltable for almost eny set．The highest quality silicon teel and pure diawn cop－ per go into this splendid tremsiormet． per go into whis spiendid treastormet


Price oelf 3－1 Audio will leads ansd mounting brackets for 1714 ， 5118 Push－Pull pentode culpot io 256\％－ 1 Tapped Input Finh inads and mounting bractrets for 171A，245， 247 or 850 an＝


Unshielded Push－Pull Audio Transformers With Permalloy Laminations
Cat．
vo．Deserintion
Prlve
58313 to 1 Straight Axdia 505 use 5M34 pust，－Pil！Input opt use with all tandard lubes
25：0 Push－Yull Oupes tor पise with 171A， $245,256,251$ For cons nection to rilisnathe speak－ briv or to dynamics having built－In input trans：ormers
5333 Push－Pull Oufput for ule with abore twhes ratio $8.0 / 1$ for conneciol io 10 whers voice
thes PLith－Pull Outnut for zise vith the above qubes，intio 80.1 for conviection 10 high in pedance sioe cail of di－
Sian Pusly－Pili Output for use with Pentood vubos aniy t2d7． 23．2531，fol comberims di－ rect to valce coll lar dy＝ reinle．
1.80

## T．C．A．Translon Iners and Chokes

Cone is of cer－ Trallote steel lam－ Ir土tions bound by canvenjent raotinting braclet Which also serves Eienクmiv！2 $x$ 11＂。


Eat．No Vo．

Type
Frice

 ¥505 A0 Henry 100 Mi 250 45

Amertran Audio Transformer
Volume and Tone Quality Cat. No. 2577 55e ench


Grebe Audio Transformer


Contains $4 \pi$ siticon stecl limuriations. Exce? lexst for Public Address Systems. g\% in lone 3.4 3 n . wide, 4 in. tall. Weirht: 2 Jbs.

Cat. No. 5105

## 95e en.

Grebe Input Audio Transformer
Same Size and Appearance as the Audio Show in Above. Cat. No. 6651 \$1.50 eff.

Kolster First Aurdia amd Interstage Pack


Cut. No. 553.7
$\$ 3.35$
Fort ivo. 183105 .. Useid in Modeln 5022 and 980. Monsed in sleel ctas and mointed on steel base, "11/3 til wire leadl. 6" long 3!" Wade, 31a" 1all.

Kolster Deuble Cheole


Pari No. A58010 Eised in Modic is 6. $\mathrm{M}, \mathrm{KK}$. 6M, 6R, 6F
Cat. No. 5543 $\$ 1.95$

Aolster Dutput Cholice


100 Nills
tapped at 50
Same dimensions A5 Audio transormor.
Cat. No. 3725
95e

## KOLSTEK <br> Wouhle Andio Pack <br>  <br> Cat. No. 5587 <br> $\$ 1.95$

Part No. Absums, Usect 10 Moũels keb and PII, $150 n$ hmb eacil Ste resi olrme ench. Lead th yellow spagheth in eare. of both tranisformert. Tillniotimers mounted st right anele to eack otner. $37 \mathrm{~s}^{\circ}$ lone, $2^{4}$ wide, $3 \mathrm{H}^{*}$ tay.

Philco Audio and PushPull Transformers


9647
Cat
No. Description J831 Pisi-pull Input
2651 Push1-pull Input


9651-52, 2\%

2203 Filter Chalre $65,87 \quad 3518,3872 \quad .813$ 26t: Puth-pull 96, ,6A. 63. Input
2652 Push-pull Output
$25 \pi 2$ </I St r't
Usedin Part Models No. Price 20. 20A, 40 .
$90 \mathrm{~A} 30,70 \mathrm{~A}$, $320,210 \mathrm{~A}$ 423? 10.9 $86,77,77 \mathrm{~A}$,

3314 Filter Choke

## Super Power Audio Transformers



Theve larme tranto :Otmers are buith for helly daty vark an mendiers, and laike Ific copper Elecricia istic copper vound on a jerge illiconz sulated and mounted suiated and mounted
on untversal bracketw. Them are the lowest prices at Which such high quality transformer hare ever been sold.

Mounting holes s3" 0 . to 0 . Fetght "3". Weicht 2 ibs. $3^{11}$ a to 1 Audis.

Cat. No. 7:392, 315 to 1 Audlo
Our Price
45
Push Pull Imput for $171 \mathrm{~A}, 45,210$, 250
Cat. No. Fis23
Our Price
75 c

## Sangamo Push-Pull <br> Input Audio Transformer <br> Model BX



Stll ndard myjat rplacement adio in nsiormer used in Push Pull formbtion em ploying 171,245 tubes. Core as of permalloy t teel 1 a m 1 n a thoins boind b m cons renient monntine

 - 130.

Cat. No. $7: 12: \%$, Push Pull Inpitt ioz $171 \mathrm{~A}, 243,210,250$
Our Price
75

## Push-Pull Imterstage

## Transformer

For Zenith 50, 60 and \%o Serien
For coupling Push-Pull 227 to Push-Pull 171,415 , 2 in or $4+7$ Output


Made by the original manufacturer to oryginal specifications. May be used in other meta,
Mounting holes, 0 . to C., $2-5 L^{10 \times 2}$ in. $85 /{ }^{6}$ in. tall. Weight, 2 lbs.
Cat. No. 6:85 Oar Price, Each
${ }^{8} 1^{83}$

## Carl and Freed Audio Transformencs



For Model 41 Recelver
Also used in
rend Model 95
Cat. No. :3テº $11^{50}$
Our Price
Push Tull Input TransPormers for above models, in same can.

Cat. No. 37: A
our Prico

Universal Replacement Audio Transformer


Cat. No. 2502 75c ea.

Universal Push-Pull Imput Transformers


Cas. No. 5597 Input

An ideal replacement jols because of its compact size, efficlency and low pilce. Fits under sub-panel of practically every set, including midgets. Universal mounting brackets.
Approximately ${ }^{2}$

Cat. No. 5598-Output
New Universal Tapped Ontput Transformer For Use with All Types of Tubes, Coupled to Either Voice Coil or High Impedance
Exaticesimg thgonu1ty ans endowed this now Jeffersou tapped nutple transuormes wificibility beyond the average conception, totelber wlils quallty toteiber with quality
sat votmanship exsacted only in as transpormer of much higher jormer of much higher in evice. It sense of the prord-t can be used for cetpling any combination of tubes (Nos 171, 245 new 247 pentode either sinple or pushpull to wny dynamic or magnetio spiaker either low. medium or high impedance volce coil A patented bracket permits mouniing in any position.
The windings are thoroughly impregnatei. Fach transformer is supplled with complate instructions for instaling, in-
ciud int frepedance chart cludins frepedance chart.
Cat. No. 6028
Dur Frite
98e

## DYNAMIC <br> Output Transformer

17t coupling
$11,25,2511$ to
or imgle tube
wetpist on set
Cat. No. 2637


Widtin, $13 / 4 \mathrm{in}$. Length, $2^{3 / 8} \frac{10}{1 n}$. Height, 2 in Weight, 1 lb

Our Price 35 c er.

## RCA Matched Push-Pull Imput Transiformer and Output Choke

Used in ell Radiola models bus, are small and compact and cen be used in any set. Can be mounted linrizontally or vertically. INPUT Terminill 1-Clad Termina $1:-1$ Inte Termisil 3-"C" batiors
Termirg : 4- "B"
Tefminal bunarid simblit to RCA
eint


CHOK
Terminal 1-Plate and speaker
erminal 2-"B" Supply
erminel 3-Plate and Speaker
Cat. No. 2556

## 49e per pair

Output Choke Only, Sold Separately
Cat. No. 2557 10ceea.


Double Audio Transformers


RATIO $31 / 2$ to 1
used in
Radiola Models
$17,1 \mathrm{~S}, 33,51$
Cat. No. 25 L $1^{40}$ Onr Price

Triple 30 Henry Choke
Triple 30 Henfy Ohokes-40 mils. each, giving total of 120 mils. in stries. Can be used in any power supply.
Cat. No. 2518
95c Euch


Erla Audio Transformer


Fully Shielded
Cat. No. 2515
Bse Euch
Earl Donble Choke
with

Mounimg Brackets Car. No. "talis Oue Price
楽 105

## RRUNSWICK

## Low Impedance

 Inpur Transformers

For losy inypedenct phone piel:upi, arid whed in Frunswick Models 32 and 42 .

Cat. No. 7204
$\$ 1.35$

## Stromberg Carlsen Filter Chokes

The standard of Qual liy. steed, jackeied and hum prook. Best edapted or all filer circults. ConFrcellent for sxcelfent for Ilter in meanm powered transmit, ers or for replacement on eries flament $A C$ or $D C$ recevters.

## Single Choke

8 Henries, $000 \mathrm{Mils}, 3$ ohms resistance, inductance much higher at sisisller currents.
$6_{i n} \mathrm{in}$. long, $3^{3 /}$ in. Wide, $\beta^{1 / 2}$ in. tyll, weight 11 lbs. Bakelite termmant strip Cat. No. 525:

65
Stromberg Carrlson No. 3-A Audio Transformer


Permalioy Lainmilltons. Totalty shtelded. Retio शis to 1. $25234 \times 212_{2}^{\prime \prime}$ high weight 1 in .

Cat. No, 7:4 12
85
1/4 Amp. D. C. Choke

rised in All
Farly Models
for Power Supplles and DC. sets. \& in loing. 2 the $^{2 n}$. Tlde. 5 in. high. Cat. No. 5118 90c

## SANGAMO <br> Quality Tramsformer

.Type "CX1:1" Push-Pull Output Transformer. The impectance of this transformer is destgned to raatch UX-171 and CX-371 and UXX-250 and CX-350 power tubes.

List Price $\$ 6.510$


Atwater Kenent Replacempent Tramsformerss Cat. No. For My odels. 206mi $-0,30,35,27$ essit in, end audie own P.P. Iip oi
 Toms is Input


## Acratest De Luxe Phonograph Piekup



This piekup is especially recommended where paricuiar stress must be placed en beanty of tone. This plokian far exceeds the performanee of normal putilo ddress equlpment and is for those radio. ngineers who desire the furest electrical reproduction, The piekup is skifuily ounterbolanced so that it may be used for 78 or $88-1 / 0$ r.p.in. No volume cons. trol suppliod due to lixe fact that generally volume controls decrease the sensttivity and cut. down the frequescy response of an otherwise excellent piekin. Maximum output is volth, walch execeds by more tran 1 roit the pulput of lts nearest competitor

Overall length $10 \mathrm{in} .73 / 4 \mathrm{in}$. From center pin to needle point.

| Cat. No. | Imapedane | Our Price |
| :---: | :---: | :---: |
| 0878 | 200 Chms | $8{ }^{95}$ |
| 6977 | \%00 Omms | e) |
| 69.78 | 5000 Olms | Each |

The New Federal
Steering Colum Comirol


Cat. No. $7 \$ 385$-List Price $810 \quad 8 / 495$
The Fedecal Remote Contral conslets of a control unit, condenser driviug wints, frexible drive cable, mulifile-wire cable, and eiectrical connecing plug. It provides positive, simple, manuas ceantral of the reoelver through a one-eightis inch flexible osble which is thosougbly westherproof. The opersiling cable, firmly nnchored to both units, and enimy sdjustable to any lengit, dives the trining candenser of the radio reociver by means of a pulley sitached to the condenser shaft, and onclosed in the smug-Atting housligg of the condeneer driving untt. One complete turn of the hand-grip tuning control covers the exilire faning range of the radio receiver. The untt it espectally constructed to give prectse, aecourate tuning.

The dhuminated dial luses a ntandard pilot Jight eardiy replaceable. The mut-ilple-wire tabie fot switch, pleot light and volume control oonsista of Ive wiren, in accordmee with the $\mathrm{R} . \mathrm{M}$. A. standard colot codes

The electrical connecting plus, sturdy In construcition and attractire in appearance, protects the colmecions io batteries and speaker leads and simplifles instaljations.

The control unit is besutifully fintahed to hathonize with the rest of the equipment in any well-appointed sutomobile.
All control mits are equipped with a
mat lock-switch
ipare key.

## Brown FHer Twin Recording Motor



May also be hised for Where con witant epped is absolutelj required. This motor is the ulimate for recording has the ability to turn at a coustarst apeed cyen with a recording jesd of a loa. This motor in diven by iwo mocors, orio situated at each end of the casing. A special elutch control governer entables tha mainsenance of constant speed at 78 t-D.EA. Fuminbed with 12 in, tarntubie and ipeecial mounimis cushtons to avert vibrations, mbizh is rainous to good rocording. For 110 V., $50-60$ crele eper ation only
Cat. Ne. 274
${ }^{*} 17^{30}$

## Fienst 10,000 Ohm IPotentionieter

Graphlte Element, Only $7,10 \mathrm{ln}$. ithick $1 / \mathrm{y} \mathrm{in}$. fiat shait with so im , thread and lockentst will it all /4 in. knots. of a groal majorits of the receivers on
the cramket totiay the aramike atoriay potentlomeies as as potentlomeier as a valumbe control. This potentiomatier wisi tit
$50 \%$ of thase nets Secaine of its compactneis ond these sets of because of ita compactneas and length of shatt. Absolutely nolsoless. Positive wipInf action. Perfectly insulaied for 500 volts, Every serviceman shomid have a atupply of these controle on hand for any amergency. Made to sely for buc, we are alfering them for half whe pwice wive to a speciel purchase.

WHILE THIEX LABT
Cnt. No. 5ets 4
Oar Price
$29 c$

## Replacement Jars

For Philco, Willard and
Exide "A" and "B" Eliminators


Cat. No.
3663
TYPE "A" small found for 4 yoult $A^{\prime \prime}$ elaimin
81.39

Each


Cat. No. 3664
TYPE "B" for 8 etiminators 81.79
81.79

Repleno Rectifier ceils are guaranteed to give natisfactory service and f 311 charging rates in Fower Units properly designod for thelr tus.


Here is the genuine Victor Volume con(ro) manufactared by Frost-not to be conthied with aurplus controlo-and in: corporating several improvements over the old type. Mounting pane) on front of rnit makes for ease of initallation. Meta nfrap holdis the two untis rigidly, Completely shleded and enclosed aqainst dust and znoisture. Enaft $/ / 2 \mathrm{in}$. threaded and 1-3/36 tn , long.
CaL . Nir 7450
Out Price
95 e

## 4 or 5 Tube Midget Replatement Power Transfiormer.



For sets using if to $3-224$, 235, 551, 227, 66, or 57 tubes (or a combina. tion of same) $1-245$ or 247 and $1-280$ tubes Supplies the fol
size: $3 \times 216 \times 3$ - high. lowing voltages Weigat, 2 lbs .
 2 arops: 300 v evel tide of C . T.; 280 v. rectured at 60 आया

Tals compact, yet ruggedty bult power Iransformar can bo used al a replacement in almont every mideleet recetver on the markey using up to five tubes. It is ariversal in ataptability, having 4 long 8/a2 mounting serews for horizonta mokntiog. It hay a shteleed lop. The wire keads are adeqtatelr long nind are instantaneously identited.
Every service man should have several of these fine transferiners an band for ons emergeney and the firns foh wich more than pay for hall a cozen transformers. Buy them new at ithe oxtreme low price as ywis masy not bave enolber opportimits like it agale.

Our Price
95e
Cat. No, $73 \%$-For 220 V. A.C.... 81.50

## Acratest Field Exciter for Dynamic Spoaker

 This urit is arpango of desiv. ering 200 milil:amperes at approximately 300 volts. It is designed to operata With elther 10 hee
of the new 83 of the pew 83
type bercury va. por fall wave recillleril or two reciuflex or two
of the 280 type wave rectifers. Greater efinctenty and more currens is attsined with the 82 thioe, due to the lower internal restatance of thls tribe. The unit is boused in a cempaet black crackie finished cat with mouting holes in the base. Readime rom loft to right, binding posts ${ }^{2}$ and 2 and 3 and 4 are separtie paira, and
may be used to mupply lield cosyrent for may be used to mipply
two individual speakern.

## Cat. Ne, 8h

$855^{50}$

## Ccralest wis tectrolytic condanscrs

## No Liounid, Lightweight-Long Life, Compact

## SELF HEALING

Surie limittog eharacteristics. Unilike Wax potper condensers the chemical fentures of these condensers are such that hey will imis high voltage surges wben be set is turned on of oft thus preveatizag to a jargo extent condensers.
While only rated at E00 rolts peak, theze inits will withstand momeniary overvoltages as histh is 600 volis without producing any detrimental effects on the eonducing aty detrineental effectis on the eonconadensers is such that when the corscondensers is such that when the condenser is broken down due to the eppica-
ilon of over-roitage, it wil heal itself as thon of over-roitage, it Wil heal ins
toon an tho over-voltage is remoled.

Summary of Why Acratest Dry Farads Sliould Be Used:

1. Low cost per microfarad per volt rating.
2. Migh voltage rating.
3. Low Voltage teakage.
4. No liguids to run or leak out.
5. Long lite.
6. Saving of spmce, less space required per microfarad than paper or slmalar condensers.
7. Filtering action is very nearly equal to that of paper condens. ers of the same capacity.
8. Complete recovery from breakdown when over-voltage is removed.
9. Can be mounted in any position.
10. Low power factor.
11. Minimum chemical action on dielectric film.
12. Unaffected by ordinary temperature.
The aluminum can type is furnished in


## Multiple

 Anode Upright Units, Type M> Penk Volts 800
> Mounted with Eings

414" Hich

| $\begin{aligned} & \mathrm{Cat} . \\ & \mathrm{No.} \end{aligned}$ | Cap. | Dia | Amontw | $\begin{aligned} & \text { Our } \\ & \text { Price } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 5314 | 14 Mfd . | $212 "$ | $8-4-2$ | 1.10 |
| $5 \times 16$ | 15 Mid | 2 | 8-8 | 1.11 |
| กำ\% | $16 \mathrm{Mrd}$. | 21. | 4-4-8 | 1.95 |
| 5318 | 18 Mrf . | 21/4" | 9-9 | 1.65 |
| 53824 | 24 Mrd . | 3 |  | 1.614 |
| 658 | 20 Mrd . | 21/2" |  | 1.30 |
| 5382 | 32 Mrd. | S" |  | -.11 |
| ¢ats | 36 Mfd . | 3 | 18-18 | -6\% |
| 53:4\% | 36 Mra . | $3^{\prime \prime}$ |  | ค.31) |
| 5354 | 54 Mra. | $315{ }^{\prime \prime}$ |  | 8.3\% |
| D352 | 54 Mra . | 34 " |  | 3.25 |



Single Section Electrolytic Condemsers

Type 1Inveried

Dtameter $13 \mathrm{~h}^{4}$
Peat Volts 500

| $\begin{aligned} & \text { Cat. } \\ & \text { No. } \end{aligned}$ | Cap. |  | Ienth | $\begin{aligned} & \text { Our } \\ & \text { Price } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 3301 | 1. Mid. | 400 | 510" | 6. 38 |
| รีก | 2. aid. |  | 1-7-16 | . 47 |
| 5301 | 4. MIfd. |  | 2\%" ${ }^{\prime \prime}$ | . 51 |
| 23.30 | 8. Mrub. |  | 41. | . 25 |
| 6510 | 4-4 Mrd |  | 414" | .95 |
| 6220 | 6-6 M8d. |  | 4 $/ 1 /{ }^{\prime \prime}$ | 14 |



## C Bias

Condensers for Pentode Tubes

| $\begin{aligned} & \text { Cat. } \\ & \text { No. } \end{aligned}$ | Cap. | Peak <br> Volss | Anudes | $\begin{aligned} & \text { Our } \\ & \text { Price } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 5ivas | 5 mta . | 50 | 1 | 8.27 |
| 5310 | 10 mta . | 50 | 1 | . 27 |



2hese Jow voltage tubularis embody all The charateristics of the 500 volt Acratest Etiectrolytios. They are hermetically enclosed in a mon-hygrosconte tube senled
is both ends. Connentions are at both ends Commestions are zance by means of the pirtans at each end. Folar-
 ends, the positive having red wax and the negarive black
These for Pets are hiohiy effictent as $C$

Cat. Cap. Peak

## No

6685 10. 25

6697 2. 50 5 In. O.D. $2 \frac{1}{6}$ in
6648 5. 50 \% in. O.D. 22 IM In,



G662 1. 200 \% In. O.D. P? $^{4}$ in.
6663 2. 200 Thin O.D. $\times 2$ /sin.

6 6.6s ह. $400 \quad 1$ in. O.D. $\pi 21 / \mathrm{in}$.

8786 8. 30n 1 in O.D. $2 x^{1 / 8}$ in.
Mounting Brackets for Cardboard Condensers


| Cat |
| :---: |
| No |
| Na |

gang For 4 Mid. Condensers


## Dur Price 5e Each

Rerutess Is Standard

## Cardboard Container Electrolytic Condensers



SINGLE SECTION INITS WITH WIRE LEADS PEAK VOLTS sMn
Servicemen who in the past hatre been handiegppet in mak inf replacemerns now have available, throivsh the foretoe and enelnevence departmenita, a new type of electrolytie condenser. This unit is honsed it a entriboari an tamer and is extromely hand as $n$ replacemant
The carpucties listed are in sthridard size contamer for replacement of any dryispe condienser in a cordbomed container, Fuchisised with two 6-in. wire leads.
C

| No. Capacity |  |
| :--- | :--- |
| nig1 | 1 Mita |


| Cil9 | 1 Mid, | $1 \times 1 \times 2$ | . 30 |
| :---: | :---: | :---: | :---: |
| 6192 | 2 Mfd . | $1 \times 1 \times 2$ | 33 |
| 6193 | 4 Mid . |  | . 36 |
| 619? | 6 Mid . | $1^{1 / 2} \times 1 \times 4$ | 12 |
| $619 \%$ | 8 Mid . | $13 \mathrm{x} 1 \times 4$ | 13 |

## Acratest "Power" Filter

 Electrolytic Condensers800 volts working 1000 volts peak
These newly developed electrolytics make possible the constraction of iransmitiers and power amiliners at ex-
tremely low cost. These tremely low cost. These conilensers are yery compace for thelr capacity enabling their use in suy outtit.

## Features

1. Wigh capacity
2. Low ieakage.
3. Punctime-nroof.

Cat. Nw. Capacity
Cat. Nu. Capacity Size Net l'rlee
$6931 \quad 2 \mathrm{mfd}$.
6932 mfd.
13
69388 mfd .

4. Seff-lima ling.
5. Long lifed.
6. Small 天zze.

Net D'rice $)^{\$}$ $\$ .85$ .85
1.05
1.95

－Acratest has set a high standard of accuracy and eff－ clency for all paper dielectric condensers．In general all our new condensers are wound non－inductively of pure dinen paper and tinfoll，especially processed to ineure maximum insulation resistance in excess of that required by the N．E．M．A．standarcis．All condensers ara con－ servatively rated to bisure long lite performance and
maximum results．
－It is our aim to be of utrmost，fernice to fold deajet shas service man and therefore carry the langent and miost complete line of condenscr＇s avallable．ETery standetrd type of condenser is centect in stock by inswhem pemblts the service man to replace and repalr seis in as brlef a time is possible．


Wax sealed paper dielectric sections coated with hard black wax which thor－ oughly protests section from molsture． Equipped with two milulater stranded ＊ire leads．Ind very theft！for the service man in rentiring vections for fitter blocks or bypact eondenters．

| 18 | .1 | $\because 00$ |  | \＄ |
| :---: | :---: | :---: | :---: | :---: |
| 80\％ | ． 25 | 303 |  |  |
| 3078 | $\checkmark$ | 2013 |  |  |
| （1） 7 | 1. | 201 | ¢ $\times 1$ |  |
| क（t） | 1. | 203 | －＜ $112 \times 31-3-$ |  |
| 1081 | 2. | 201 | $9-1$ ¢5．1 11－16x |  |
| b082 | 1 | 307 | $5-1$ ¢5 $11-3$ तो， 1 |  |
| 1083 | 25 | ， 100 | ＊$\frac{1}{} 1,7-16 \times 1$ |  |
| 30．tis | 5 | 200 | \％－16¢1 $3-16 \times 1^{3}$ |  |
| 3083 | 5 | 900 |  |  |
| 3 0． | 1. | 30. |  |  |
| 3ns： | 1 | 100 | $\mathrm{x}_{8} \times 1+\mathrm{x}^{3} 3-6$ |  |
| 3088 | 1. | 307 |  |  |
| пох） | 8. | 709 |  |  |
| 8027 | ． | 409 | ＋$\times 13-16 \times 13_{4}$ |  |
| 3057 | 25 | （1） | 2x11－15x13． |  |
| 312？ | ． 5 | 103 | 11－1家 $1-11-16 \mathrm{x}$ |  |
| 309 d | ． 5 | $\leq 07$ | ：4511253 3－16 |  |
| 5094 | 1. | 601 | $4 \times \mathrm{x} 11^{1-1653} 3-$ |  |
| 8.095 | 2. | 4．10） |  |  |
| 309 | 1 | 400 |  |  |
| 3098 | ． 1 | fiol | ＊ $8: 11-16$ ¢1 13－16 | ． 21 |
| 3ma） | ． 25 | 609 | ${ }^{5} \times 11^{1} \sum^{31 / 4}$ |  |
| 8100 | 5 | 603 | \％$\times 111-16 \times 3{ }^{1}$ | ． |
| 8171 | 1. | 605 | 15－16＜95－20314 |  |
| 3112 | 2. | 809 | Tex．l hegty |  |
| 3103 | ． 5 | 1000 | $4 \mathrm{fx} 1 \mathrm{kx435}$ | 50 |
| \＄104 | 1. | 1060 |  | 10 |
| 3109 | 2. | 1001 | $24 \times 214543$ | 1．31 |
| \＄110 | ． 1 | 1250 | 7／5 1 1／6x 474 | ， |
| 3110 | ． 5 | 1257 | 7ax 7 － $\mathrm{K}^{49}$ | 81 |
| 8118 | 1. | 3250 | $13.31^{19} \times 4^{3}$ | 1．（M） |

## Official Refrigeravion Service Manmal



Compared vith ser－ picing a radio set or wiring a house for electricity，the servicing of a refricerator is 8 b surdly eimple，once you get the hang of it．
In this Refrigeration Atatual every part is risuly explainea；daa grats are furmubud of
every snown thechine． specfal care is giren to
the neryictus end．Ihs tools needud are llisucrated and explaityld；there are foubte slonothes chairs，sind other service
 a＊ 12 fexible： 100 te－leas len intrette binä－ cr and complaic arrice dala

Dur Price $\$ 1.00$

## Acratest

## NON－INDECTIVE：

## Standard Condensers

A complete series of con－ densers to flll almost env by－pess requirement．Vers
useful and employed in et－ most all popular circusts． ly rated and will continis－
 used under proper condi－ used under proper condit．ons， nom－jnductilelp round，frte－ dom trom leaterge and the utmort durabilits

| Cat．No． | Cap． | D．C．W．V． | Our Price |
| :---: | :---: | :---: | :---: |
| 3nto | 1 | 200 | $5(1.18$ |
| 2mis | 2． | 2001 | （2） |
| \＃\％as | 5 | 200 | ， 91 |
| Pryst | 1. | 200 | ．83 |
| 2998 | 2. | $20)$ | ． 51 |
| 3130 | 1 | 300 | ．\％？ |
| \％边 1 | 25） | 390 | $\therefore$ ㅇin |
| 50\％ | 5 | san | ． 32 |
| 305\％ | 1 | 300 | ． 3.8 |
| ．438 | 2. | 300 | ，防 |
| 3ibt | 1 | 400 | 21 |
| 81055 | 25 | 400 | ．3： |
| $3{ }^{3} 56$ | 5 | 100 | 3\％ |
| S05\％ | 3 | 100 | 45 |
| 二nss | 1 | don | ， 5 |
| 20： | ． 25 | 600 | 8\％ |



## ctucter

non－inductive

## High Voltage Filter

 CondensersThis reties is rspeciv． doigned ifir lied voli－ are condeysers，a mro－ Sion madi for suitabse mounting．On ll be sised fither for replacemest or for the mantacif in
designing fillosin） designing itansmantert Dnd such other heids Fhitre hisis roltt ge fec－
tions are reculred．

## Cat．No．

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| Cap． | D．C．W．V． | Our Price |
| :---: | :---: | :---: |
| 1. | 400 | \＄0．88 |
| 4. | 400 | 1.48 |
| 6. | 400 | 2.55 |
| 1. | 500 | ． 69 |
| 2. | 500 | 85 |
| 4. | 500 | 1． 31 |
| 1. | 600 | ． 81 |
| 2. | 600 | 1．${ }^{\text {P }}$ ？ |
| 4. | 60， | 20\％ |
| 3 | 6017 | ． 61 |
| 1. | 800 | ， 5 |
| 2. | 800 | 3． 28 |
| 5 | tibe | ． 16 |
| 1. | 100\％ | 1230 |
| 2. | 180\％ | 2．85 |

## Two New Type <br> Acratest

## Electrolyic Condensers

Multiple Section Inverted Metal Container Electrolytic Condensers

\＄00 VOLTE PEAK
To simplefy service wurk these cotednasers mire deacis．Two sed mire deack．Two sed phack leadi and two lemancere nimetre jends of pensitlie leads ean be common of aly ollher comblantlon mado depending upati the cir－ etult io fe repalited These electresytic con－ densers have the samp setiernt chathtintistles as the Actatesi jry Fined Coludeviets．
Cat．No
$715 \%$
oaps eily
7154
2454
2ild
3105
（1－4 Mfd
Prise
－175
7158
6－s Mff．
1.10

## Kcralesf

Multiphe Sectione Catdhoard Container Electrelytic Condensert


## 510 volts PEAK

＇To simplity servie wotk theve condenseft are equivired trith ilt wire drads．Iro red fasitere lasds and two bluok nega－ tive wiro teads．The nebl－ ture keads or posteve lead cap be coman ois of ajey oith－ er－combluachon vane te＝ Fending upon the ciscult to be repaired．These ele ciso iythe condenters have the is met general clamacteristict as，in ackatest Fry Farad Condensinti

| cat．No | Capacty | Pries |
| :---: | :---: | :---: |
| 71.9 | 4－1 Mitd． | 8．7e |
| 71 ch | G． 6 Mifd． | － |
| \％15 | e－8 Mate． | Lios |
| \％19 | 4－\％Mía． | ＊${ }^{1}$ |
| 7168 | 4－8 M ${ }^{\text {a }}$ | 8 |
| 7164 | （1）．8M！ | 1.20 |

See Our Complate Filter Condenser Listing on Pages 98 and 99.



NON－INDUCTIVE
Base Saving Mounted Condensers


These can densers are
used where the bave Epaco 15 h！is yrenium． Ihe dealer aned The dealer and
$5 \mathrm{c} v=\mathrm{c}$ min
mill hign ersde of condenset very practical both for eenersl seplacement and the homie set builder．

| Cat．No． | Cep． | D．C．W．V． | Our Price |
| :---: | :---: | :---: | :---: |
| 986t | 1 | 200 | \＄． 18 |
| 296 | 25 | 200 | （2） |
| 2463 | 5 | 200 | ．27 |
| 就 $0^{\circ}$ | 3. | 200 | ．3．3 |
| 24：4 | 1 | 300 | ． 24 |
| －8\％ | 25 | 300 | ． 22 |
| 28\％6 | ． 5 | 300 | ．31） |
| 戴：${ }^{\text {a }}$ | ， | 400 | ． 21 |
| 58．9 | ． 25 | 400 | ．t6 |
| $28: 9$ | ． 5 | 100 | .35 |

## non－Inductive UNIVERSAL BY－PASS

Condensers


Inds type was destened to permit farge capacitses sitd high whirgzes．Ths metal termathis aze all specially hot tinned and the cens pian senled．

| Cafi．No． | Cap． | D．C．W．V． | Ori Pric |
| :---: | :---: | :---: | :---: |
| 9，激 | 1－1 | 200 | 50.30 |
| 2：：1 | 5 | 200 | 2\％ |
| 3sht | 5－5 | 300 | ． 12 |
| ¢0x | 1. | 200 | ． 30 |
| 27 38 | 2. | \％00 | ．5． 4 |
| 3981 | ． $1-1$ | 300 | $\therefore$ |
| 827 | 5 | －30 | ， 81 |
| B819 | 1－． 5 | 300 | ． 10 |
| 27－5 | 1 | 300 | ．4．4 |
| $2 \cdot 95$ | ． 1.1 | 400 | 298 |
| 4729 | 35 | 480 | －5 |
| 878 | 5 | 400 | ． 30 |

Pigtail Condenser
Replacement Kit
JIST THE ASSORTALENT
FOR THE EERVICEMAN


## $\$ 2.00$ per lit

Kit Contains 20 Pigtall Cartridge Con．

| $6=.01 \mathrm{Mfd}$. | $3-.05 \mathrm{Mid}$. |
| :--- | :--- |
| $2=.02 \mathrm{Mfd}$. | $2=.075 \mathrm{Mfd}$. |
| $2=.025 \mathrm{Mfd}$. | $6=.1 \mathrm{Mfd}$. |

## NON－INDUCTIVE <br> Universal By＝Pass Condenser Kit

Contains an ajssort－
 ment of sises common－ if used in all sets．Very
hindy for the service hindy mal Contains 12 Assorted Condenser as follows：


200 Volts．
500 Voltis．
300 volis．
ino volis．
400 volts．
230 Volis．
$3^{25}$
$3 \times 1 / 10$ Mfd．Sections By－Pass Condenser

Can Neputive 2x1－4
D．C．W．W． 200
Used In General Motors sets．

Cat．No．Eal4
Our Price
40c
Tubular Condensers


These condeatera are made of the atgho est giade of electricos fibre trabing and those listed Ere risost comnionty issea Units are completely dipped beiote sell－ ing，thus maining the setusl unt itself mod ture prool and the entire unit is hermeltealy sealed．Very usent in gen－ eral retincenent rork and employed in mast efery circuit．


## PIGTAIL

 Cartridge Condensers

This condenser is by far the most use－ ful of any condenser on the market and a real sid to the service man for making repairs．It is a small，compact，unit， hermetically sealed and completeiy fnsu－ lated．Furnlshed with tinned pigtal leads which permit iree coldering to all parts of the clrcult and very handy for general re－ placement woris．Order a complete range now for your service department．

| Catu No． | Cap． | D．C．w．v． | Oar Price |
| :---: | :---: | :---: | :---: |
| 6637 | ． 1 | 200 | \＄0．10 |
| 2835 | 25 | 200 | ． 16 |
| 2836 | ． 5 | 200 | ． 19 |
| 2816 | ． 01 | 300 | ． 12 |
| 2817 | ． 02 | 300 | ． 12 |
| 2818 | ． 025 | 300 | ． 12 |
| 2819 | ． 03 | 300 | ． 12 |
| 28：0 | ． 04 | 300 | ． 12 |
| 2832 | ． 05 | 300 | ． 13 |
| 2833 | ． 075 | 300 | 12 |
| 2834 | ． 1 | 300 | ． 13 |
| 5688 | ． 15 | 300 | －17 |
| \＄639 | ． 3 | 300 | ． 18 |
| 2837 | ． 25 | 300 | ． 20 |
| 2838 | ． 5 | 300 | 25 |
| 5610 | ． 01 | 400 | ． 13 |
| Scat | ． 03 | 400 | .13 |
| 5642 | ． 025 | 400 | ．14 |
| 5613 | ． 03 | 400 | ． 11 |
| 56.44 | ． 04 | 400 | ． 15 |
| 5645 | ． 105 | 400 | ．15 |
| 56．46 | ． 15 | 400 | ． 18 |
| 5618 | 2 | 400 | ． 20 |
| 5649 | ． 25 | 400 | ． 23 |
| 55.50 | ． 005 | 800 | ． 12 |
| 5151 | ． 006 | 600 | ． 12 |
| 55052 | 01 | 600 600 | ．15 |
| 5653 | ． 02 | 600 | ． 18 |

Tubular Condenser Kit
An assortment of the small tub－ ular fibre con－ densers ready for any repair job Indispensible to the modern ser－ vice man．
Cat．No． 3531

> Contatins 18 Assorted Condenser as fillors:
$2-.25 \mathrm{Mid}$.
$2-.5 \mathrm{Mld}$
$3-.01 \mathrm{Mrd}$.
$3-.05 \mathrm{Mfd}$
$3-.1 \mathrm{Mfd}$
$3-.2 \mathrm{Mtd}$


## Illicamold Fixed Condensers

## MICAMOLD

Trimmer Condensers


A nturdy, necurate neutralizing, balate-
ins or trimer coning of trimuner con-
 baminding misumplo equalizint beparate condensers gatged for Pingle control Bulselito base, maca ciepec Iric, heavy phosphar bromze kpring plates
with fint serow adjustraent. The plites ifs tinned to permis basy solderitis.

For 1. 1:. F. Circuits
Cat. No, Eapacity Frose
 12e Be7.

For Superheterodyne Circuits Cat. Ko .


Precision Mica
Condenser Standards

## $1 \%$ Tolerance

Acratest, fris
aco ordance witu tuan a $y$ now fulftrint no vong wanter need for the The do lobert redio latuotis

seft butider
ind experimenter. Wo are listing and stocking a complete line of mica condenser Standards which can be used in critica circyits in tunes radio frequezeies and superketerodyne circuits, and can also be atod is itenderds for ohrecking espacity oüdres and microfarad moters.
These condensers are built of a selected grade. of clear India mion, tanted to ne reed of Bll forelgn matter and nublepted ro severe voltage teste and moldod is renstre bakelite unfer iaboratory supervision, rhey are rot affected by molsture or ta are alt castitions normal tolerance of $1 \%$ of thelr rated eaphelty with ex tremiedy high insulation reststance and low power factor. Accuracs is maintalned under the rivat trying condltions.

| Cas. No. | Copaetly | Our Price |
| :---: | :---: | :---: |
| 5785 | . 00005 | 8. 38 |
| 5709 | 0001 | 9 |
| 971\% | 09015 | 34 |
| 5\%,11 | . 00025 | 28 |
| A7) | +0005 | 6\% |
| 6718 | .001 | . 3 |
| 8124 | . 0915 | 31 |
| 5715 | . 002 | \% 6 |

## R.C.A. Buffer Condenser

0.42 on Eieh side
of vommton Negative

Cat. No. 2910

\$1.25 Dozen

## MICAMOLD

Molded Mica Pigtail
Condenser


Size $4 \times 45$
Paritcularty sdapted sor gialck replecemont Wires cai readlly be bent as apy agio and toe sondonser itsent elly be Cat. No. Cap. Mtd Oar Price

| (6ces | , 0.0 ns | 8 .10 |
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| 9809 | 9001 | . 111 |
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| \% 6 | .00035 | .10 |
| 655 | . 0 O 0 5 | .10 |
| G60\% | .06075 | t |
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| 6tr9 | 002 | . 15 |
| 68511 | -0.25 | 18 |
| 6 6.11 | .008 | \% |
| 66.42 | . 0 ces | 24 |
| 6643 | . 04 | 26 |

Gen-Win "5", Tube Super Heter'iodyme Coil Kít


Set bulders, servtoemity, experibentens. fealers, all shous bulld this tube Super fetoroayne yariel Ths i. tubo Super Het will pull all the erations jrom all orer the countsy, any time iny: Where sad hy anyone. It reaur asac frusy is the Ereateat jutte Noicer it2 Hong todas. Think of 3 t- th woiks lyke any yo tuber, brings in the stbilons as No expericrice reculted eithor so build it No expericnce requited eitnor to build it or sperate il. Cura be asserijsed in on mour mide sbout ail tre esabole material denser de is gad an..., Mra. Condemer und is ame smal caryon rellisurycet. We hlenIs aad sincersiy recomanead this receires. to out customere.
venitioneor ail is mide up into s con pre Setector coll majos As iollows?
pre selectar Coll and Detector Coil

 former -175 E.C

We are so enthused ofer the ingonfousness of the desiga and uniaue conotruction of these cou units tial we are sure you hilll be more than plossed when yout ictullitr sen thera. Whe inlly purarantee thear woil units ta be the finelt on the Market ant will prake up wheth asoembied the best supe i Heferodytie Jou ever heard. the Kit of ceur come compiole inth fan! instruction dacm and excellent wiring dingtom. Shifpigg welgint a. las.

Caf . No. 7485
oar Prien

## Micamold Molded Bakelite Mica Condensers



Type A
Mace by the world's largest manttaeturers of imica condeniort inder etianal process developed by them. These condensets are molded of cenuino balkelie umger extrexacy high hyaraule pressute, which seass the condenser and is an afmored casing againat all weathot condifcras, motsture of ohemical acton. The ariectic , in the nnsst erade of ciear icia ruby mica in combination with tinof plates.
Type A has insulated mounting holes to nitow for screw or eyclet assembly direet to a metal base.
cype $\alpha$ is a smait compact unit for general replacement worl tud set bulders.

|  | -тypeJ- |  | -Type A- |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Cat. | Our | Cat | Onet |
| Caminty | No. | Price | No. | Prico |
| , 206056 | 3122 | 16 | 3134 | , 19 |
| . 0001 | 8123 | .mom | 8135 | . 19 |
| $\bigcirc 009$ | 319 | ,09 | 3136 | , 10 |
| 00025 | sers | en | 3187 | 19 |
|  | 5455 | . 10 |  |  |
|  | 318 | ,09 | 3185 | . 10 |
| . 00 | 3197 | .09 | 3139 | 10 |
| 0031 | 3128 | . 19 | 1110 | . 13 |
| 001 | ชเต | 1. | \%i1 | 71 |
| . 01515 | 3130 | 12 | 3152 | . 14 |
| 008 | 3131 | . 14 | 3143 | 15 |
| 1072 | 3132 | .14 | 3144 | .15 |
| , 003 | 8188 | 15 | 2145 | .18 |
| .1023 ${ }^{\text {a }}$ | 4.3s | , 15 |  |  |
| . 004 | 5129 | . 18 | 3145 | 21 |
|  |  |  | 3178 |  |
| .076.... |  |  | 3118 | 24 |

MICAMOLD
Bakelite Condenser Kit Type A

Contains a corizpieto assortugent of tae cone manly used convesser used with intylstes mounting holes for screv mounting dheed to meta: ohaskis.
 Assorted Capaeitles
Cat. Nit. SW5a Par 楽橧

## MICAMOLD

## Bakelite Condenser Ǩh

 Typo $z$ A very useful wics condender in ony the compacities in every circuit.

Cat. No. 3529


Contains 35 Condensers Assorted Capacities $\$ 2.95$ per kitt

# fiechillem SUPERIOR CONDENSERS 

Nors-Inductive Compact Type Filter Condensers<br>Type GF, Rated at 400 V. D.C. (220 rms. A.C.)

A brand rew troe
of fuser coldens er of the manulereturer's type, at in very inttractive price. Solder-lus
 connections to these condencers a trifing patier of a few seconds. Exceliently inprimeriled for buis, to siand up, demending ithit load duty.

| Ong cal. |  |  | Our Nes |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Tspo | Capreity | 512 e , 10. | Price |
| 5273 | Cre ${ }^{\text {a }}$ | . 10 stfo. | 3453.481 | \$0.74 |
| 5278 | CP 25 | 23181 d | $3 \mathrm{x} 1^{2}+51$ | -27 |
| $5 \% 74$ | C 150 | . 50 Mra . | $3 / 4 \times 134 \times 61$ | .3.3 |
| 8275 | C\% 100 | 1 Mtd. | Wk3 $211^{1}$. | . 43 |
| 5275 | G2 200 | 2 Mff . | $11 \times x^{2} \times 1 / 8$ | . 65 |
| 52\% | tis 400 | 4 sid. | $1 \times 1680 \times 138$ | 1.30 |

Non-Inductive Compact
By-Pass Condensers
Type Gr, Reted at 200 V. D.C. (120 rums. A.C.)

pheil cotsotfuction, small and gent, they shem effetive to the roth degree. Providing anlropedrd tadts fretusincy paths and not-teakime direct ciarten olvitacles, tspe GR shovid be in voir suecincatlon.
Foto coritimunu operating voltages up to 2(0) volts D.C. (1:0) rms. A.C.) Xn . Type Capactiy SLee, it. Price

 gifh CF100 1 Mfd , ing K17/8 इ27 GB40 \& Mid. $113 / 1652517 / 4$

## Non-Inductive Uncased Filter Condensers

For Continuous Operating Voltage up to 600 V. D.C. ( 400 rms . RAC)

Frinout aloubt the shatmade type NU is also condenaer whaning is tmpiegated in a non yggrosoople compound and the whole is wrapwrapper, thus making the Candenser absolutely noist ure-pruot. bity for truly e pexiduble innefsed condenect lo enplay in sll sour repals work, se fally xecommend type NU sas the finest obtainable. Falipmed with rubber covered wire iends hat kon't pull out, it is a real tab that you will alwass use in puterenco to otheris.
Durcat.
Now Typt Capets size. in. Our Net

 5281 NU 100 Mrd. $2 \times 11 \% \%$ 水


## Non-Inductive 1000

 Volt High Voltage UnitsTyp HSM Rated at 1004 F. D.C. 1860 rms . RAC)
Mt odern, beimitic methods of production bave mubstantiaily re-
a tuce d manufacturime a te 6 ed manufacturing
eosts and have as the eosts and have at the
came finm tmproved the ontrapity of ine fitished product. Type HSM represents the hiehest periection ${ }^{\text {is }}$ the art of makiak high valtage
niter concensers of thils Inter
cjas.
Ercelient ror use with Pentodes, Pence, type HSM thas been

to fit into the smallest space and to pruVide completo depetadatility in all sorts of circutis.

## Our Cat.

## Cat. <br> No. Nur Net

 5206 fiSM 10 . luMfd. $2 \times 13 / 16 \times 11 / 16$. 69 5261 HSM 25 . 20Mfd. $2 \times 13 / 16 \times 21 / 15$ 5362 KLSMSO DOMA. $2 \times 13$ Gi6x11/16





## FLECHTHELM Superior

## Transmitting Condensers

Tyme TH: For Coninsious Gaeratine
Voltage up to 2000 Voles B.C.
( 1600 rms. IVAC)
Porcelato intula-
tors do nat make the 80 ndomacis
Thiero aro adverTherg mer adverscript branise of condeusurs "enulpped with porcelmin
insulatoz.: It dues not pay io buy th serior ores - exaleserated ciaims ar made for tiem and a dubtous replachement policy iops
theto rinime. it it
it
 Jeat io get a mul detiser will known for its dependable conkuction and rethat manufture. You cant. go wrong in getinas Flechthein
cat. Pist our No. Tspe Canaciey size, in. Pircer Price

 6354 HH 400 Mfd . $6 \times 8$ xb 22.0011 .90 Type Th to the uife be humdreds is
 Whthont dospt the beat 2 gono-whit trawsyis new form. contatilng the spechay' cy' indrical windinges es cmplojed in the herch er valtatie ignes oi conarnsera, it is better in eveit respect. Heavaly butheci porcejain inmators proride in empic facior of insalatimin afoy prevenifis fisortcifenit to grounded case.
Type T: Continuous Operating Voltage up to 150 n ) vils D.C.
( 1000 mms RAC)

- Tmitation tis the flattery. ${ }^{\circ}$ Th is
 ed here for sea-
son that many manufaciurers have lume and and amsio tried tranmitug cont lembers. Fhwerer trathe fiela of transmittiag candensers rechitinie true pioncer.
 We have invalj-
-D ie knowiedge Which we biflec sat the setentine ansatyructure of oirr sendensers. Na ane can possibry mako a reapy a-pencable condenser better of baro cheaply. I y shealess to pay bille, yot more ounstianabio to puy ies. mere are oneapel collaens:ers on the mathet, blat yout yet exactis mat on pay for, more pronubly even yess. When yoil buy a Ryechtherm condenser, you tan rest athuith of lioneat value. Cal. Ty pe topants size, in Pritice price


 T. famplar to honsands if them, is siti the bent bet ior use vith tha so warier with 1800 folls of reetified A.C. on the plate. Absio mproved in its constructicn. this type condenser is mon better thas ever.


## cont.

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## Zenith Quadruple ． 2 Mfd．By．Pass Comdenser

Replacement Part No．2e－it

Used in Models $52,53,54,55$ 5\％， $6 ? 61,6 \%$ ．


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## Condensers

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## Potter By－Pass

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bith FOLT TEST
Cat．No． 2759 30cea．
Potter Midget By－Pass Condensers
Worhing Voltage 80


RCA．Victor Uncased Condensers（600 V．
D．C．Working Voltage）


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## Atwater Kent Replace－ ment Condenser Block



This falter sssemble for atwater Kent sets is not to be confused or corripared Nith similar but inferior innitations being ottered for less money．Our block if manufactured in our onra plant out of the finest jngredjezts and tunder ine su－ pervision of Acratest engineers，unly brant hew condemters ate ched ame not eid leaks sections which mro often used in Imitatioths．Erery condenser is thor－ oughly of eured and impregnated with wax and pitci $10 \tau$ protection against molstare．The working voltale of pux con－
denisess in fat in excess of the ortinal dentess are far in excess of the oftinita manutactarer＇s specticatlons．Itwo dull sise chokes are psed snd the entire an sembly is housed ini axtractive ne\％can of exact physical dimetamion，The color cherme of the wire latels ite exuctivy is the original，maring it very casy to re． pince the old Bjocis with tide Acratest． Compser the Acratest block Tith otheri and 500 Fill see why it psis to get the
 an Acratest meck is

## Hook－up for AK－3\％Block

 Creen sire to 280 sacket．B：ack wire to R Fuite．Yetto wito to oomer whe plert．Write wise to flist aujio by－pass Whive wirt to 0．T of 220 resistance，Red Fife to detecter piate．Wire from can to iround．
## Genuine Atwater Kent Filter Condensers

For AK36 and AK＇B＇ tite．

Cat．No．
50 e


Model $\mathbf{Y}$
Cufnenser anu choke tot Model sa and 远 Uni
Cat．\＄3． 7053
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6．E． 3 Mfd． $600{ }^{\text {V }}$
Filter Condemser
Fibh Ladi ang Moanting Btacke． Dunenglas： $53, \times 21+x+13$ in
Cat．No． 6045
49 e

## Acratest <br> Replacement Condenser <br> 

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$\$ 1.98$
This Silles assembly for Majestle Sets in not to be contused of cungated with striblar bat infertor tmitations bethe ef－ tered for less mones．Our block is man． aractured is our owa plant out of the Hinest ingredtentil and tinder the saper－ fruest ingreazemts engineers．©ishy bratad vistun of Acratest engunecss and not olc now eathensers are usea often used in jeaky sections which arser is thoroughly imitation．Every condemser is thorough oltch for srotectign agatnst mosesture．The pitch for zrotecthon agaume mosture is fat working vitage of of thital manufacture：＇s In excess of the origizatimamuachaly is speclications．itre entre can of exact hotised，in altractive nempare the Acra－ test kiack wilh others and yout will it iot why jt phys to get the loest even if it Why it phys to get the oent encen if ence an Act costs is instilled is a fet it will gatlast the let．

RCA Filter Block and Dutput Chrke Assembly

For Radiolas
18， 35 alow 31
Car．Ne． 2710

## Special 39e ea．



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Coutaing $2-1$ mid．fiter eshodetase is 1－1，mid cutput ioedenier and a cholee
There are ofet nitt a miltion of ingse various types of Readiofs recevivers on the matket ardi evcky dealex shoula be pre－ bulled for service enlis bod them bs havine 2 carton of six of these 8 en ateat cordentatrs in stock．

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## Condenser

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genulie brand new Victor Replacement Condenser Block For Replace－ ment in All Vicior Sels Total capazity it wition． 400 \＃ortija rottige．
Solage． $53 / 4$ 12．jone．
5 site： $53 / 4 \mathrm{sin}$ jone．

Honsed tre metal ean．
Cint．No． 2709


Tap $1-2 \mathrm{Mtc}$ Tup 2－4 Mu Tap $3-6$ Nid
Tmp $4-4$ Nid． Tap 5－0round

## Our Price 95e

## Radiola Filter Condenser Bloeks



## RCA 4 Mfd． 800 Volt Filter Condenser



Pax Nb
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an un arolnd an cesofenier for illur tramamitters ot 1 c Will stand 1 eop volr fash test．

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## HEA 3 Mifd．Filter Conlenser Bleek n．e．W．V． 100



Excellent fot：A．C．Hae
Ejtats ang stother niters H156 oa transmietas of in long

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Cat．Ya．Tra45
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## Polymet 2 Mfd. Auto Condenser



With base mount ing brackets. Just the thing for $u=1 n g$ -cross the car geninstallations.

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65 e


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## Dubilier 4 Mfd.

 CondenserPL. 610
D.C. W.V. 200
$2 \times 13 \times 5 / 4 \mathrm{~m}$.
Cat. No. 5603
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95

| $8$ |  |
| :---: | :---: |
| Multiple $1 / \mathbf{4}$ Mfi. ByPass Condenser |  |
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Contains 9-7/ Mfd. sections $\overline{\text { With }}$ one cominon negative for each 3 sections and one 1 MId. section, all at 300 W. V. D.C.
Enclosed in mecal cun with 2 mounting lugs.

Used in Kemnedy 20 Sets.
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Polynet 2 Mfd. Filter Condenser

200 V. D.C.
In metal can
134 $513 / 4 \times 13{ }^{4}$ hach.
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General Electric 4 MFID. High Voltage Filter Condensers
D.C. Working Voltage, 800 V.
 These Getreral Elec tric Filter Condensers 5 are tesied from 3 to v times their in ated stuidv, seientincallv destgned product, far excelling the average Elter Condenters now bine used. Encesed bra eturdy Encesed tainer with 8 inch flexable insulated wire leads. Equipped with handy mounting bracirets.
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Dubilier 4 Mfd. Filter Condenser Blocks PL571 600 volts working test for replacement in all eliminators and electric sets.

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$1 / 2$ Mfd. $-1,000$ Volts
As used in Pearless Sets 100 Volts, for Kylectron 100 Volts, for Kylectron
Speakers


Note: These condensers were made for Kylectron Speakers. You will find them necessary if you do any repair work on Peerless Kylectron Sets.

Cat. No. 2903
30c ea.

## 6 L.B. DE LUXE HOUSEHOLD IRON



## Stromberg Carlson

 7 MFD Filter CondenserFur RCA 104 Power Speaker 600 Volt Test


Used in Victor Electrola Hyperion Model, Victor Boritia Model 2. RCA 104 Speaker, RCA Model 30A Pack, RCA 81951 Pack.
$4^{3} 0 \times 5 \times 1 \frac{1}{2} \mathrm{in}$.
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3.9 Nifds. 1000 V . in same can.

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75 c
Sprague 8 Ifd. Upright Mounting Electrolytic

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An excelent condenser for re-
placement in all sets usbug infd. electrolytic condenters or for replacing the old type paper cundesters, its simplicitr of
montiung raltes it uniceralis adiaptabie. Only ome hole netne sary. The removiate pate in instered to the set chassis and the condenser then scrested into the bese. A shell is provided for the top to kecp out mollure sind dust. Wire lead irom condencer comes thra the hale in the cap A very compact unit measuring 1/h in. in ciameier by 4 ing high. Copper cuntsinet Punc. ture pronl Rated at 450 worlsing roltage.
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Output to 10 Ohm Voice Coil For Radiola 46, 47 and 66. Can also be used in NO. 10 B Speaker with $22 / 10$ mfd. condensers.
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6 TUBE MDDET CHASSIS fur receiver or ampitier. Cut exid dobled with utantard boles. 24 in , 10 ng , 63/3 in wide, 9 华. tail.
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Blauk Rerelvero or Amplifer Chassts

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Secricemen and setpuldeas who cinalse thetr own" will weloome the uppertainity of securing this fiae turaziobile sted fipot weided chassta. It is la ine enaligh to ave euratrodate uD to 12 tubes

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## ROCKER-CONTACT

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In this control, Eiping contact is made If a double runner contactor positioned -o that each of the contacting runmers make line contuct und not point contect wis the inside of the resistance strip finch we are able to mare by far the smoothegt portion, as there are no irregwarities introduced such as are encounteled thers attempting to accurately hape, shave or grind the strip edges $1^{-}$the old stife edge contact. Thesp ane contacts permit the use of e much hisher contact pressure than has herelotore been possible and the inaineenamce of a lower and more uniform on preas reduces the chances of scoring to a neg ligible derree and accordingly greatiy lacressen the life of the control. Completely enciosing the unit in a tightiy covered meta! shell prevents the entry of dust and foreign particle which musht cause scoring should they reach the raceway, and at the same time this complete metallic enclosure presents damage to the linit from fough handling.

A turther contribution to the exceptionally Jong life ard smooth runaing of chese unuts is the use of a neutral on on the conttucting surtanes to plotide coninvous lubricsinut.
Whthout Switch
Wilh Switch Cat. No. Ohms Control Cat. Ne. 1i13\% 200 Variable-Mu Cathode 614s 6138 M00 Microphone Button 6144 6139 1,000 Untuned Antenna $614 \$$ $\$ 1 \pm 0 \quad 2,000$ Untuned Antenne 6126 itic1 5,000 Anterna Shunt 674:
(ilt? 10 000 Antenna and Cathade Blas bity $3,54 \%$
35000

| Dur | Out |
| :---: | :---: |
| Price | Price |
| 50ce | $70 e$ |
| Withowt | Wisb |
| Switrb | Seitich |

## FROST-RADIO

No. 70 Series Composition Element Volume Controls
Supplied with three terminals. May be used either as potentiometers or wariable resistors.
No. fo Series

| Dur | Dur |
| :---: | :---: |
| Price | Pioice |
| 45e | W5e |
| Without | 1Finh |
| Suith | Swich |

## FROST 80 SERIES

 Volume Controls

Contact resistance of these switches 10 not only how but uniform as well, whet the in sutomobile sets.

Yout can sarociate these controls di rectly with the GRID circuit and sit the ie sill be no pick up lrom the powel cercuit.

Politionne luss for preventing rota bical of the control on the pashel ar provided if accordance with requifmeri of the Underviriters Labothlaties.

Insulatrd thimble and shati has bee, morked out so that eapacity betreet these members and "llve" parts of the conirol is jpse that 5 micromikes. breafidotirs in expess of 2000 rolts.

Lake all our sighest Erade robiro:thele No. 80 berties units hate suractems atioby contact to insure treepitie down currusion ont the contecting member, yess the No. 80 is quet in operation Witheut Switeh With Switeh

|  | Ohms | Controk | $\begin{aligned} & \text { Cat } \\ & \text { No } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 6538 | 1.0 | Untune is Antes |  |
| 6i. | 1000 | Cithode Bias | 141 |
| (i) 80 | 3.000 | R.F. Primary Shunt | 11 |
| (6; 31 | 000 | Ahtenna shunt | St2 |
| 6楊! | 110.010 | Antenna or $R$. Primary Shunt | 6its |
| 6, | 25.06 | Phonoeraph Plck-u |  |
|  |  | Screen Voltage | 6:3 |
| 6.318 | 50.000 | Screen Volta | \% 85 |
| 6-3) | 75.000 | Veriable-Mu Cath |  |
|  |  | B! |  |
|  | 100.000 | R.F. Plate Voltar | 674 |
| 873: | 2500010 | Audio Trenstormer S.aunt |  |
| Gris | $500.0{ }^{\text {50, }}$ | Audio Transiormer Shunt Tone Control |  |


| Dur | Dur |
| :---: | :---: |
| Price | Price |
| 50e | $70 e$ |
| wihoutsuito | with suith |

 with suits

We are prepured to quoie special prices on all Frost Folume Controls to Manufacturers. Johbers and large service organizutions.

## FROST-RADIO

## No. 40 Series Composition Element Volume Controls



No. 40 Series Supplied with 10. shaft and -in. inread. be selts. In addition to sence of inductance and any anprectable capacitance particularly adapts this conriol to use in radio frequency circuits there de-tuntag cannot be tolereted.
A positive wipiag action between the resistanee element and the dise, limited ifi degree and uniformly distributed over the entire are of rotation is obtained br a texing disc firmly secured and eccurately positioned over frosted cone carrsing the reslstance element
The narrow contacting surface atio polishing action, together with the Mird resistance element, obrein unusulup smooth resistance prograssions and to maintam true eurve forms regardles: of whether near ihe high or low limits - pecified.

| Cat. No. | Ohms | Cat. No. | Ohmis |
| :---: | :---: | :---: | :---: |
| 6180 | 1.000 | 6185. | 25,000 |
| 6181. | . 2,000 | 6186 | 50,000 |
| 6182. | . 3.000 | $618 \%$ | 75,000 |
| 6188. | 5.000 | 6188 | 100.000 |
| 8184. | . 10,000 | 6189 | 250.000 |
|  | 0190 | 500.003 |  |

Thar Price 5 隹e eat.

## FROST

40 Series Dual Potentiometers


Yu. 40 Serles randem

The No. 40 serjes have been in use by several of the 1 argest set manuracturers in the counand for the past yenr every case have fiven complete satisfaction The high insulation proridea between the hait and live parts control in circuit positions where the positential to ground fia be several hundred o --
 tientireser and back cores ale of genuand incuatance. Abrimbla capacitinct eritital restance. Ance grabiezte ond mial a maxilium amce gra ole ats hath will calr time-tred amount of current. Is or the contect asend prover rocter erm-1athet proved seshomache, elexnent.

This is the Frost Control With Interchangeable Shaft
These Fitost contruis have interchargeable shoith und the standaril resistance Can be ased in sets similer 30 tiomberyCarlang and Zenth, which were destgred with a special shait truet fan be rales from the ald con'rol and be replaced in ibe ruets. We contlaue to guan rite Erost teuistance curres and nousenas to bo whas as combetcial standards of eiectricas and meshanieal aceuracy.
Writhout Evitch at. No. Oneme W:th Svitch

| (1) | Orms | E....No. |
| :---: | :---: | :---: |
| 61: | 5,200 | 6128 |
| 6138 | 10,600 | 6129 |
| 6600 | 15.000 | (68) 4 |
| 6125 | 25,000 | 61130 |
| 6136 | 50,000 | 6131 |
| 6,fiol | 75,010 | 6605 |
| 6127 | 100.000 | 6132 |
| 68. | 250.000 | 6306 |
| 6603 | 500.000 | $660 \%$ |


| Dur | Our |
| :---: | :---: |
| Price | Proice |
| 60e | 80e |
| Suitr | Suict |

Panel Mownting Tome Control

Only is in. dieep. hill Fit in any Set.
Alows six diftet cit tone odfust. ments No poise porsible. Ex E Y Tillouth aporatlon.


Regulater tome from a nigh. Ireble to the avep ivass, Mudernize old sets. Eakes lote casing and 74 in . ahaft

## Cat. No. 5251

Dur Price 85 c ea.

Genuine Zemith Volume Controls
(MADE BI FROST)
These controls are greatly improved units und we guarantee them to outperform their predecessor.


Cat. No. Type \& Recelvers Our
s201 Dual type with switch-52, -3, 522, 532, 64, 542 66, 57, 6!, 67,60 , 61, 84 , 60 , 57 , 6i: $2,692,872,71$ 72 612, $722,732,71,72,73$, 7\%,
in le Uult, With ewitch-52 613. 522, 532, b5, 562, 55, 57, 62. 67, 64, 60, 61. Uned 10 ente models of 602, 813,
infle Unit- $33,94,35,35 \mathrm{~A}$ 34), 352, 352A, 362, 35APK 11. 12, 14, 15, 18, 15, 31, 32, $333,353 \mathrm{~A} \ldots \ldots \ldots, \ldots$............ 80

6122 Sinple Unit With switch- 39 , 394, 40A, 392, 392A.........

## Table Tone Control



Cut. No. 4354
List Price, $\$ 2.35$

## Dur

Price $\$ 1.35$

Tone Control is the ke note oi 1931 Hadiu. All the better types of sela are provided wibl tone poorrol Tist fo the outstanasie differene between difizene betwer present those of the and vear of the jasi radio set is ob=olete without Tone Control.
Table mode beputifully finlined in blark und gold felted base, lony
thasis dec comector
Panel Mountiag Type


Cat. No. 4557
List Price, $\$ 180$

## ©ur Price $\$ 1.05$



Encluted tia beathiul black and gstu cristamine case, vith whre and adiaters cata je lontailed in a jaty.

Cat. No. 6961 S5e

# CLAROSTAT 

## Ad－a－Switch Wire

Wound Units and Switch Coverplates


The Clarostat Wire wound controls have been specially destgned to fil the dealer＇s and serviceman＇s demand for reliable wire wound single controls which can be used elther with or without switches as re－ quired．They eliminate the necessity of leeeping on hand duplicate sets of con－ trols，one at with switches and the other without them．By stocking these unim， switehless units and a fey switch cover－ plates on hand．
The plain dust－guard coverplate sup－ plied cin be pred ofi sind a Cit．No． 6750 swltoli type dust－guard enverplate can be snappec in ths place to cante fato sowith unit．
When used witholit the switch．the only diñerence is that the fitht 35 degrees rotation of the controls has no entect on rolume due to the fect irat that portion of the resistance element has sero resist－ ance to aliow for the operation of the swith，when trie swith is employed． Cat．

Olms Type and Suggested the Price 3710 Standard Po，no taper． 80.17 $\begin{array}{lll}\text { jin\％} & 100 & \text { standard Pot mo taper } \\ 200 & \text { Standard Fots no taper }\end{array}$ 712s 300 standard Pot，no faper． $1099 \quad 409$ standard Pot，＂，no taper．

 ？issi 15000 Tapered pot．for un－ \％0に 2000 standard motentiometer，
T0as． 2000 Tapered Pot．for un－
Fouss 2000 tapered Pot．For＂C＂
3\％in 3000 standind Potentioneter，
：0）3 3000 Tapered ？as．for cors－ bined int．and＂C＂ blas contifol
\％ 13363000 Thpered Pt ．for＂C＂bles
3ios 5000 standard Poientiometer，
7037 5000 Tanered Fot．for com－ hined Anl and＂C＂ blas controll for＂co
ร03\＆ 5000 h＇antreal pot．for＂＂C＂ 7029 7500 Srandard Totentiometer，
8010 1500 Tapered Pot．for com－ blaed Ant．and＂$C$＂
Tilll 7500 Taperect Pol．for＂C＂
3：0f 10000 Stiandard Potentiometer，
gile 10000 Thinered pot．for Ant． iuls 10000 Tenered pot for com－ binue Ant．for comi＂ C ＂ tias contral

55
步
Grio valtare monds
951. 15060 Standard Potentioneter,
:016 15000 Tanered Pot. for cors- bised Ant，und＂ C ＂ bias reintrol
：015 15000 Tubered Pot for Sereen s\％os 20hoo Standard Potentomeker． suts 20000 Taneredi Pot．for＂G＂ tias control
tcontinued गत next columis）

# clarostat 

## Power Clarostat

Feary cily fariable re－ aitiof iot radio poeser ris－ its，irdismitters，or gen－ exat clectrical Eppheations． A tarorite 10 line－voltage conirol Dastpales heat rapldty and eftrientir．Pop－ ular as C －bins zonirol in aushatium smplitiers．

| Cat． No． | Slodel | Resistance Renge | Carrying Capacity |
| :---: | :---: | :---: | :---: |
| 59018 | Fu．Control | $3 \mathrm{c}-10$ 3h ms | 80 Fatts |
| 59115 | Lovl rango | 25－100 ohms | 80 watts |
| 5906 | Unversal 20 |  | 80 watts |

Clarostat Phonograph Pick－Up Control


List Price
$\$ 2.00$ Cat．No． 2727 $\$ 1.18$
A Clarostat Graph－ iv Illement Volume Contrul of the po－
temitumeter tras for haridy cosimection hatidy eownection
bether the phon－ ograph fuck－uそs wnit tixd the radio re－ ceaver of ampliner．
Supplied with，two fip jotete asted cord mith phone tips．A handeome balceite cose with kiaob io match．
May allo be used fur the conntol of the litudplones atid मुagrotic ipeazera．

## Trbucur dic <br> Line Voltage Regulator CIAROSTAT



Here is pettect Line Volcoge control．Not a plaln floed resistance，but an Aufomatic Line Volt－ age Regulator fot seîe onperation on fluct vatioly coliages．

Cat．No． 5 fill -50 Watt
Fof sefs consuming up to 6t watis．
Eul ate Cat．No．Thy！－Ty pe A matis． For Cat．No．S100：－The B wates．

## Our Price 95c ea．

iContirved（roln precedine columis） 320925000 Staridard Potentionever． rotb 3ovio standard
stio 40wo standard Fotentionezer， Sill 50000 इthudird Poteniomeser， Note：All the above units are foten－ fiomezers and are provided with laree terwitase．They may be used as theo－ stats by wising the center contact atim terminit and one of The reststance fie－
ment terminals．Supplleti without shows． Switch for AU Ahove Controls Cat．No． 6750 25e Euch

## caROSTAs

## GRAPHITE ELEMENT VOLUME CONTROLS

Life tests conducted in our laboratories under the severest and most gruelling ron－ ditions have demponstrated unquestiunably that the Clarosiat Graphite Element yo： hat the Clarosfal Graphite Elemem yo ume control vill outlast the averase ren （aver or sound equipment and Fill con inue to function silently without an 115 change in overall resistance．


Without Switch

| Cat． |  | Suggested Use | Cat． |
| :---: | :---: | :---: | :---: |
| o． | Resistance | Taper for |  |
| $590 \%$ | 1，000 | Untuned Antenna |  |
| ¢908 | 1，000 | Standard Potentiom | 303\％ |
| 5903 | 2，000 | Antenna Untuned | 6930 |
| 3910 | 2，000 | Standard Potentiometer | ．936 |
| \％，911 | 3，000 | Stsidurd potentlometer | 2938 |
| 12 | 5，009 | Sthnalara Potentiometer |  |
| 13 | 10，000 | Antemes or R．F．Coll |  |
| 3914 | 10，000 | Antenna \＆C Bla Cumbined | 0 |
| ［3］ | 10.000 | Stancla id Pomelsometer |  |
| 5.516 | 25000 | Sla nuand Putentiometer |  |
| 5917 | 25.000 | Plonograph Pic．－Up |  |
| 53118 | 50，000 | Screnc crid Vultage | （6943 |
| 5319 | 60，000 | Sthzial rd roir ntmmeter | \＄035 |
| 3180 | 15，000 | C Bias Rheor <br> R．P．Stages | 596 |
| 5421 | 75，000 | Standra Poteniomed |  |
| 59\％2 | 100，000 | Anterne er fe．f． Primary Shunt | 5948 |
| 50：3 | 1（10），000 | Fone Corimol | 3919 |
| 24 | 100000 | Sinndird Potentiometer | 015 |
| 20＋25 | 200．tin | Sersen Grid Coni rol |  |
| 5139 | 200，пи， | stankird Poter tromet | 39， 305 |
| 5948 | 200.010 | Fenode Tone Contrul | 995 |
|  | 25000 | Stamatrd Potr nt wriet | 515 |
| Fice | 356，0wim | Standard Protris omem | กด |
| 5480 | Gionom | standa Pustution | \％o． |
|  | 2 rwels |  |  |
| 20， 28 | 1 硍 | Tont Control | No． |

80e
90 c
Without Switch
With Switch

## clarostat

Constant Impedance Controls

Por constaft Mith jeduace whr 11 $r$ ：$d i G$ bind sound equap－ ment and atwo
 yreuits． $\begin{aligned} & \text { reqg } \\ & \text { ve whangs }\end{aligned}$ vire whadings are neqessucy
because in thit because in the low renitence：
is ed ind be－ couse mil anis－on nine shpit must clenge uniturnaly
These comstint apoptanos controls con－ ist of ane fised bas resistor sind one the hivul iThlofor vith the ferinable firms or fotar connected in combincit

Dual Type＂L＂Pad

## at．Nu．ohe ar volce coll control

28n sio ohm int line or mucrophone
oxit 500 olan ier line or mixing
क518 2froo ohm or phossursaph or higti
impedance fpesker cotition
Dur Price $\$ 1.75$


Cat.
No. Type
Sofi Prulfrting
shinit
fos Pralectige
vbaft
910) Stumclerd

## Volume Controls for

 Stromberg CarlsonCentralab Twin Potentiometer
10,000 to 250,000 Ohns Used in Earl 21, 22

Añ ideal volume witrol fog all sets. Will not busal out .nlformis sifliys.

Car. No. 3820


35c etu., \$3.60 doz.

## Replacement Volume Control

 For RCA 18, Victor He14, R-15, Westinghouse WR-4, Graybar and G. E. Sets Part No. 62940

Cat. No. 5158

## Our Price $\$ 1.45$

## Freshman Models "M" and " $N$ " Volume Control



Cur No. 3772
(1) 1 urer
price $\$ 1.35$

## 

Accurate. Smooth Oparating and
 Compact. The shafts are extra long to mest any mounting condition. The types 1'sted below can be used as replacements in 343 standard models 1). receivers.

By simply attaching the switch coverplate, any volume control is turned into one with bullt-in switeh. This obvinter the necessily of keeping boih types in stock. The switch coverplate is standard and fits on all
 Electrgd "R I" controls.
$-$


## M Fagimisiv kran pres

## clarostat

Speaker amd Phonograph Fader

This control nables one to
 either two fither tixo Mhonotreph speakers，coil－ trol the rol－ me rato thein and fade them on and on at
fourth ferminal potentioneter． 2000 ohms $-0-200$ ohms．
Cat．No． 2957
81＂
efcratone modulator
A volume control－tor use with phonoernopl prectups，power smplin－ no kok microphone hook－ups．Obtains better
tone quility．Controls volume from．Controls maximum．Has a $24-$ incol maximum．Has a $24-$ inc：1 phone cord．
Cat No．
Our Price
Ont．．．．．．．．


## Frost

 Heestats （6）ohm－Cat．Su． 3f ohm－Cat．No． Our Price 18
## CLAROSTAT 2000 OHM POTENTIOMETERS

New Type Air Cooled
Used in Sonora Sets
Cat．No． 3759 15


## Replacement Resistance Strip for Atwater Kent Volume Controls

Burnt out or defective strip repiaced in a j15斤⿳．

> Cat. No. 3713


For AX $36,37,38,40,42,44$ and 52 Sets

For Ar 55，60， 66 Sels
Cat No． 7303
Oter Price，Ezolh
$4{ }^{6}$

Hum Control
20 Ohm with
Center Tap
uned to elluminate A．C． hum．
Only a remp leff at this
Cat．No．：375 10 e
MAKLETY
Panel Mount Hum Control Wire Wourd

SCREWDRETER TYPE
$\begin{array}{cc}\text { Cat．No．Size } \\ \text { s．tht } & 260 h m\end{array}$
Our Price


Cach
per doien
$.3 \pm .75$

## Yaxley Patentionesers <br> For Voiume Control，Wire Wound， <br> Air cooled

## cut．

No．size Price
：$\%=5 \quad 40$ with ksob 1 ine
：37 3 ：3 300 V．C．
7：75 15000 with
swlah Dracket ジ．


## STIBOMBEERG CAIRESON RHEOSTATS

（Made by Amsen）
Cat．Nu．
： 075
$407: 3$
$40-1$
Our Price
Each


Laboratory Model and Speed Control Clarostat


Especially adapted to con－ trol of variable speed motor in thevision in nd
other piecise other Diecise work．May alser be used as a menv－duty rari－ the renstor for ticoratory work． Propided With neavy metsi cas－ ing nrotectad crew bindinic posts，and thort－circuit but－ ton．Cabrjlag copucty of 80 wathat

Resistance Carrying
Cat．No．Madel Ronge Capacity 6．541 Labotarory 200 to

0,000 phus 80 wates （iots Spect Conirol $25-500$ chms 80 watts
（1ur Price $\$ 2.94$ ea．

Centralab Slide Contact
Volume Costrols and Potentiometers


Cat No．
： 5 т．．is
37
1．000 Olm Volume Control ：3\％\％$\quad 3,000 \mathrm{Ohm}$ Volume Control



## Electrad 250，000 Olom

 Volume CobztrolWire Wound－
bakelite frame．



Electrad 1，000，000 0hm Volume Control
Used as Tone Control by Victor Cat．No． $5 \sim 62$ 25 c
Our Price

## RCA No． 106 Dynamic

 Speaker Rectifier StacksAlso Tised on Radiola 62 Speaker Alivo 100 Volts 100 Mila

Whll supply suffi－
cient 8 voltage on
cient byy byamic
Speaker having 600
onm fipld．
RCA Part Ne． $68: 8$
Cat．No． 5734

## Dur Price $\$ 2.50$ ea．

 $\$ 4.50$ per PairFederated is headquarters for all public address equipment．

## ELECTRAD Travelt Fixed Resistors

（Every Fixed Unit Can Ee Made Adjustable）

 Cis are Evallable in all the urial wattage rettiog sind is wade

 electred feature 18 gratily appreclated of serrice men，nince thent．These reatorit Anoware resiaturs jotal for replace mute then tio Volts D．O．preserit．

Ca：No．386？



－<br>



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| $\begin{aligned} & \text { C-1 } \\ & \text { C- } 1 \\ & \text { C- } \end{aligned}$ |
| :---: |
|  |  |

$1+p e$
$c-18.5$
$c-15$


| Current st114－ amperem | Bur Price 8ach |
| :---: | :---: |
| 230 |  |
| 182 |  |
| 158 |  |
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| 341 | 74 |
| 129 | － |
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| 91 | 3？ |
| 84 | ．8： |
| 32 | ．${ }^{\text {a }}$ |
| 9 | 81 |
| $7 t$ | 8 － |
| 71 | ． 96 |
| 85 | ． 96 |
| 38 | 96 |
| 50 | 1.05 |
| 45 | 1.118 |
| 41 | 1.11 |
| 35 | 1.11 |
| 32 | 1.17 |
| 29 | 1.28 |
| 25. | 1.31 |
| 225 | 1．8？ |

Cal．No． 5863
Type D－is Watts 8 Inches Lung

| Reriatafice in Olims |  | Our <br> Pince <br> Eact |
| :---: | :---: | :---: |
| $\begin{aligned} & 109 \\ & 200 \end{aligned}$ | $\begin{aligned} & 805 \\ & 815 \end{aligned}$ |  |
| 803 | 30 |  |
| 4.8 | 482 |  |
| ， 5 | 116 |  |
| 800 | 306 |  |
| 2.00 | 974 |  |
| ：250 | $2+5$ |  |
| 2.000 | 196 | 4 |

Cat．No． .1862
Type C－50 Wiatt 4 Inches Long

| Ispe | Retisiance is Ohms | C＇urrent Milli． amperes | Our Price Eneh |
| :---: | :---: | :---: | :---: |
| C－1 | 100 | 700 |  |
| C－8 | 200 | 500 |  |
| C－3 | 3 co | 4.0 |  |
| 6－4 | 400 | 3 s | 54 |
| C－5 | 540 | 316 | 13 |
| C－$\% .5$ | 750 | 939 |  |
| c－8 | 800 | 252 |  |

NOTE－Above wattage ind current ratints apply only whert unjti ate fuspended in free air．ditcrwted loads exceculige 50 fors cent of their tatiags should not be spplied．



[^1]
## Acratess <br> Flexible Wire Grid

## Resistors

What Acralent Wire Grid Peslators are utilized izi iti bigh grade radio bets，the
 seceivers，such is Nosidges stis，Autamoditit fond Aeroplane receivers，ete，Thes ate －11－witc，completely covaite iy fripreenat． ed fabie，compact，nori－condustive ond ca tabeid，compact，nori－conduesive and can be bent nto atiy dexired shape，These
Resintozs are made of fine Nich：me wite Resinto：s are made of fine Nichiome wite in many cases thiey can be concected directly between the tesminals of two com－ conety between the tesminis of two cami－ pomnes in a radio reerer，that

| Cal．No． | Besif． tante in Ohmis | Can．in <br> Milllim． p际を |
| :---: | :---: | :---: |
| 5654 | 5 | 3s\％ |
| 5433 | 10 | ？ |
| 5656 | 15 | 時 |
| $565 \%$ | 31 | 178 |
| 5658 | 511 811 | 187 |
| Sepor | \％ | 164 |
| 771 | 100 | 86 |
| 478 | 158 | 73 |
| 1712 | 250 | 61 |
| 4131 | \％ur | 30 |
| 4783 | 330 | $4 \frac{18}{8}$ |
| 1730 | 404 | 43 |
| 4715 116 | \％ 8 \％ | 38 35 |
| －176 | \％ | 85 |
| 6193 | 5 | 30 |
| 1723 | 736 | 39 |
| $3{ }^{6} 61$ | 10\％ | 49 |
| ＋711 | $1 \mathrm{Lf} \mathrm{\%}$ | \＆7 |
| Staz | 1104 | 86 |
| 1113 | 1200 | 35 |
| 4730 +200 | 11300 | 䘖 |
| 453 | 2500 | 8 |
| －033 | 1606 | 81 |
| 5085 | 1200 1803 | 20 |
| 3665 | $7 \pm 0$ | 19.8 |
| 5ter | Y（\％）0 | 135 |
|  |  | ${ }_{10}$ |
| －6．0 | 2003 | 14 |

These đuits can siso be lised fos other patposet prostded the shove porting eutrent is nut excesaed．

## Rcralest

## Wire Wound Grisl Sapppressors

|  |  |  | 0 |
| :---: | :---: | :---: | :---: |
| Cat．su． | Ohms | Eats．No． | Onss |
|  | $3_{0}^{50.5}$ | 4829 | 150 Cz |
| 4714 | \％e． | $4 \% 05$ | 408 |
| \％ | S．t． | ＋015 | 550 |
| 4\％ 4 | 口¢T． | 5 | 739 |
| 7318 | ¢T． | 4719 | 1400 |
| \％ | $\square$ | \％ 7004 | 2700 |
| \％ | － | ST03 | 2500 |
| \％ | c． | \％\％os | 2 L 00 |
| Per Das． |  |  | \＄100 |



$A^{c}$CRA'TEST carbon resistors are the resull of years of experimentarg to produce a resisior that will be absolutely moisture proof and stay permanent refardiess of atmospherie conditions.
The Acratest resistors all have \& highly glazed surface which makes them non-hygroscopic in character and the onls fesistance of tit kind that will nut absorb moisture These zesisiors ate is solid molded mass, strong and durable.

Anather very important feture of these unuts is the fact that they liate no voltape co-efficient. They are consertatively rated and the temperature rise in opera-
tion is unusually low. Tin wise leads are soldered to the caps of the resistors which are forced on unaer a high pressure, thus insuring a permanent, noiseless conlact This is a very important feature in resistors as it eluminates any possibility of poar contact.

All resistors are laboratory tested and labeled with the proper resistance value and will maintain ther accuracy under the most trying conditions

Acratest resistors are guaranteed to be the finest on the market, nolseless, unbreakable, moisture prool and durable.
The 2 watt resistors, 1 watt and $\frac{1}{4}$ watt all the same characteristics.


$\$ 1.00$ dot.cat. No. 5850 ASSURTED


Every serviceman should have one of these bands litie B M A resitior colot code in his tool uox. Made of criluloid. The three revolving wherls bre intio
graphea in hare colors. No charts to graphed in mite colors No charts to Just tatiat the thees to culori portesponditis to resiscor and the vsllue is Eiven fratanfly. To secure this vamable chale $\mathrm{k} E$-FREE- hil you have to do is 10 Nurchase shas bue of the RESBISTOH KITS on chls vape wi ThREE LOZEN ASEORTEL RESISICRS.

## ONE-HALF

 WATTSlze: I Tach baing
 tu 000 bou 000 200,000
mieg.
nieg. aneg.
mite
mive
mes
mee

\section*{ONE W AT'I <br> Size 134" <br> | Ohms | Ohaws | Dinme | Ohms |
| :---: | :---: | :---: | :---: |
|  |  |  | 25,000 |
| 100 | 1250 | 12000 | 150.000 |
| 150 | 1,300 | 15000 | 180,0011 |
| -00 | 2, vou | 20000 | 200.000 |
| 350 | 2500 | 2sfuco | 250.000 |
| -ue | a usu | Je 000 | S50.000 |
| 300 | \%,vue | 70.000 | 400,000 |
| GU0 | $4 \pm 00$ | 50.000 | .00, 000 |
| esu | ¢, veu | subutu | -000, 600 |
|  | 5.000 | 70.000 | TLO vou |
| \% 50 | - vou | is vou | 1 meg. |
| ¢.i | 2. 300 | su.000 | - mire |
| 1, uve | 10,000 | 100.000 | 2 miet. | <br> Cai. No. 3500}

## $\$ 1.00$ doz. Asstd.

## Carloon Resistor Kit


fontents:
331 Watt
Carbon Pigtall Resistors
One Each of
the Following
Assortment:

| OhT\% | Ohma | Shins | Ohrme |
| :---: | :---: | :---: | :---: |
| 100 | 2.500 | 15.000 | 150000 |
| 160 | $\because \mathrm{VOU}$ | -u 000 | 200000 |
| 30 | 2.auu | 20.300 | 850000 |
| 300 | 3. vee |  |  |
| 400 | 3,510 | 0.000 | 5 ju unu |
| 500 | 3, vut | 10 ues | 1 sits, |
| 7su | 5,vou | bu vei | 2 mec . |
| 1.000 | 1, 20 | 15, 000 | 8 mre |
| 1,230 | 26.ugu | lue 00 a |  |
|  | Cat | , 3501 |  |

82.75 kit of 33


## $\$ 1.75$ doz. Asstel.

Carbon Resistor Kil Contents: 25 z-Watt Carbun Pistull Resistors
ONE EACH OF IHE FOLLOWTNG:

| Ohm: | Ohms | Olims | Ohn/ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 500 | 2000 | 20.00 | 1.300 |
| 600 | 5.000 | 23,000 | 156060 |
| 753 | 6.900 | 50000 | : coous |
| 1.600 | 7.300 | 130930 | - :000 |
| 1.500 | 12500 | 10.000 |  |
| 1.230 | 10.000 | . 5000 |  |
| 2 U0u | 15.000 | 80.000 |  |
|  |  | 100,001 |  |

## S3.50 pere kit of 25

Carbon Resistor Kit
Contents: 36 -Watt Carbun Pistall Resistor
ONE ETCH OF THE EOLCOWING

| Ohtus | Jhms | Ohms | 0 hms |
| :---: | :---: | :---: | :---: |
| Suf | 5010 | 40.000 | : Ex.j0\% |
| . 50 | 6,um0 | 20.000 | -úa 000 |
| 1,000 | 015 | c, 0000 | bue vors |
| 1.250 | 10 0eis | 1. 0 Uut |  |
| 1.600 | 1250 | 110.00. | May |
| 2000 | 15,06? | 1. 2.000 | \% yies. |
| 2,500 | 20.0.) | 130004 |  |
| 3 vis | 26,00, | 180000 | - Muers |
| 4.601 | 30.000 | 200000 | 5 ther |

C... No. 105.36
$\$ 2.85$ Nit of 36

MAIL ORDERS TO NG
See Terms on Page ?

Federated Punchaser ine.
25PARK PLACE, N. Y, C. or 2 a our nearesi bratach

D．C．Convertor Thesistor
66 Ohm Virrohm Revitar and Cage for D．C．Receisers


Overtll length $13 \frac{1}{2} 2^{\prime \prime}$ ．Heat Lisspiption 0 ilatis．
This Ward I－nizatd Giffohm registor is 1．：chms and 1 ．ernter tapped，for cons－ it has ipo mountine hrackeis on the ends And a protectite wire cage gocs with it， Hsed in DC ents，transmitterk，fic
Cat．Nn． 7258
anou
Edison Rase Kesistora， Wire Wommal on Lava T＇ubes


| Cat Ne． | Ohms | Walis | Lensth |
| :---: | :---: | :---: | :---: |
| －73\％：\％ | 18 | 6.1 | Sixf |
| 5646 | 26 |  | $\therefore 1 /$ |
| 7：3\％ | fil | 116 | $4{ }^{\prime \prime}$ |
| －354 | $\div$ | 100 | $\square^{1}{ }^{\prime \prime}$ |
| －185\％ | 00 | 11111 | 「12＂ |
| Oin Price |  |  |  |

## Grid Bias Divider

13：KROD Ohms


## Dur Price 50c ell．

## Colonial Voltage Divider

Same size and appearance as No． 4017 above except that it th \％ in diameter and dissipates 10 watts．

$$
\text { Used in Colonial } 32,58,31
$$

$$
\text { Cat. No. } 5727
$$

## Dur Price 75 e en．

## Radio Socket Wrench <br> 

A fine is－manufactured and finished set for tighiening and loosenne the small hexazcon ruts and thumb serciss encount－ cred in radio construction and repait
Four sockels are funtish il：One each for hexagon nuts measuring $3_{A}, \quad, 16$ and $1_{i}$－inch between flats，and a four－pawed ocket for izandine knurled thumb screws －uch as found on dry cell．s．cic．The ockets are deeyly drilled to accommodate creat ends and the hexatoy pontion pe－ curatels broached to a site The sock－ clitare atrel well case－darciened． Cat．No，：Thfll
Our Price
B5c

## Actraiest

## 5 Watt Wire Wound Pigtail Resislors

A ieftistar devigned to whet then stemstis for a reasona bly liticed wish comipn ct high iess，rilnce umit，Recnmisionderl for is ith Misefet，weroplane．Automobile alid aither

 conat Batced Instlared Ininezel


FSATUEES：
Einperial Etastir insu－ Raken at low tomperatsite of onls 400 तe－ recs wid teid oit．Mosture and Fire Prool Eiresy
Civi．No． 5900
Maximum Wathege，b Maximum Dia．．
Maximim jepligili，${ }^{\prime \prime}$＂， Thlerance，plass or plutace buth rothenct 2．A！1 Acretest，Resinions ase wound mith Double Cont Enamel Allos wire that hat a pers low temperature co－fincent．
3．Ebery connection，hefive n termigal and wire，on Acralest Restorors aye Mard Snldered．There can be no noise as there oftell is when a Meftrmical Combection is used．

| Ohms | Olums | Ohms | Ohams |
| :---: | :---: | :---: | :---: |
| －1 | 8011 | 3．119 | ．17610 |
| 100 | にち！ | 2.51010 | － 5000 |
| 1 in | 7010 | 8．000 | 10， 11010 |
| 200 | 750 | S．0711 | 12，5010 |
| 2500 | 1 100\％ | 1． 511 | 15， 11011 |
| 460 | r．2．il | 5， 0 OH | 1．tomm |
| $\therefore 00$ | 1．500 | 0.6100 | 20.006 |

## Our Proice Zace eu． 82.25 Dロะ．

$30, \mathrm{mon}$ cilm ．．．．．．．．She Fan，se2 5 How 40,000 Ohms．！．．．．abe En．．\＄3．．50 Dny．
50,000 Orms．I ． 50,000 Orms

Micamold Bakelite Grid Leaks

## A）MICAMOLD

Cat．No， 4036


Our Net Price
40e Per Box of 10

## Lymeh Leak Proof Mountings



Mret ine mont exictint demands in design．mata－ ral and con－ st ruction Th a Are 5 perifed as
manufaculur ni Standaid by leuring preclsion app raths．
Cu．No．tikfi－single Mounting
Cat Vo－i：z－Double Fountins
$20 \cdot$
Oul Pricr

## PRECISIQN

Wire Woand Resibtors


 กतt rle dppy niatr

 cuils．Enimat Mrad Amplifies Sa net＂T
 try it Padt Attemustath，therode Raver ACRATRSI PRECIEION I YPF，FRF SE： TORE are wollich with ithe het credel，of Hay wirr．Every Eponl of Nixt is thore numbye ebreten for its nilationt bletidown，

 ed et an air the ouls eouspany ylsing double in inlafiod sire Fatis gize of wire coser in the mimufictate of our linits fre cire fun BARFD enat of elsamel imbla linn．

Cat．No（i，NH


## Wire Wound Voltage

 Dividers on Lava Tubes

MAIL ORDERS TO RE
See Terms on Page 3

## Wire Wound Resistors \& Voltage Dividers at unheard of prices

Wire Wound Fixed Resistance on Baked Lava Tubes


| Cat, <br> No. | Ohms Sive | Watts | Our Price |
| :---: | :---: | :---: | :---: |
| 3928 | 5.2 in . | 10 | \$0.25 |
| 39 Mb | 83 in. | 50 | . 2.2 |
| 3974 | 123 in . | 75 | . 23 |
| 5010 | 31.2 in . | 50 | . 25 |
| 3909 | 32 C. T. 6 in. | 100 | . 40 |
| 3902 | 55 l 2 in . | 50 | . 30 |
| 3916 | $49.11 / \mathrm{ln}$. | 25 | . $n$ |
| 4703 | 10013 Lin . | 5 | . 20 |
| 3975 | 109 2in. | 10 | .15 |
| 3932 | 10 NO | 10 | . 80 |
| 3991 | 100102 ln . | 25 | 2.5 |
| 3193 | 1750 | 2.3 | -5 |
| 3934 | 250 | 5 | . 25 |
| 3935 | 300 . 2 in | 5 | $\therefore$ |
| 3923 | $400 \quad 2 \mathrm{in}$. | 5 | . 25 |
| 3069 | 420 d. T. 2 in . | 25 | .25 |
| 3936 | 500.2 in . | 10 | \% 2.5 |
| 3921 | 60\% 2 in. | 10 | -3 |
| 3894 | 2100 c. W. 3 jin. | 25 | 23 |
| $393 \%$ | 700 2 in. | 10 | 23 |
| 3938 | 750 | 10 | -25 |
| 3878 | 781 | 10 | . 2.5 |
| 3931 | 800 2 19. | 2.5 | . 25 |
| 3971 | 900 3 in. | 50 | . 30 |
| 3942 | 920 3 4 . | 30 | . 30 |
| 3881 | 1000. | 10 | . 20 |
| 3855 | 1500 115 in. | 10 | . 20 |
| 3861 | $1500 \quad 4 \mathrm{~m}$. | 30 | . 30 |
| 3850 | 2000 2in. | 25 | . 20 |
| 3904 | 2000 - 2 im. | 5 | . 20 |
| 2989 | 800 c , 3. $4 \mathrm{in}$. | 50 | . 40 |
| 3979 | 2500 in. | 5 | . 20 |
| 39.38 | 9650 It 11 in . | 10 | . 25 |
| 3943 | $3500 \quad 2 \mathrm{in}$. | 25 | . 30 |
| 3944 | 40002 in. | 25 | . 30 |
| 2945 | 4300 in. | 25 | . 30 |
| 3.901 | 3000 2in. | 10 | . 25 |
| 3908 | $5000 \quad 6 \mathrm{in}$. | 100 | . 3.5 |
| 3947 | fioon 4 in , | 25 | . 40 |
| 3948 | 3500 2in. | 25 | . 23 |
| 3925 | $125002 \mathrm{in}$. | 25 | . 20 |
| 3858 | $15000 \quad 2 \mathrm{in}$ | 10. | .2. |
| 3917 | 2000004 in. | 25 | . 3.5 |
| 3940 | 30000 Kin | 75 | ..75 |
| 3976 | 400006 in | 75 | . 5.5 |
| 3946 | S00ino 6 in | 75 | . 55 |

Ward-leonard D. C. Voltage Regulator 50 Ohms- 300 Waits

[^2]
For colivetiar A.O. anes to D 0 . Whort acresba Etill tivents are uited.
Cat. No. 4245
$\$ 2.00$

# Gemeral Utility Voltage Dividers 

50 Wates

-


Thus ratisce divias bes many weas and
 Uranamillers and ampllarth. Will mand un uith a tride safely factar, artac by a mulimaint known nitabotaturer to mid for mereral times the witice wo aske. Gith a fex be this inw price and bo prepared tor the nest repalis tion.
Cal. No. 3000 25e en.

## Filament Series and Grid Resistors

For Atwater-Kent
61 D.C. Set
Cat. No. 6008

## 85c

Por Set of 3


Other AK Resistors

$1,0000 \mathrm{hm} 10 \mathrm{Watl}$ Wire Wound Resistors

An

Just Think: 168 of the above Assorted Resistors for omy.............. 3 , as
C解 No T455
Sald in Kits of 300 only.
1


## Vollage Dividers Used in All TEMPLE

Receivers
While these Wire Wound resistors taked on lava tubes were primarily designed to be used in Temple sets， they can be adapted for use in many other standard receivers，amplifiers and eliminators．Conservatively rated and all brand new．

## 30c



Cat．No． 3864
6850 Ohms divided $750,5200,900$ Ohms lised in Temple Models 8－60，3－80 and 8－90


Cat．No． 3867
33 Ohms－Used as Voltage Regulator in remple DC sets．$C$ an be used in place of Voltage izertilator Tube

30e


Cat．No． 3861
500 Ohm R－vitors for Aunio Biss．
－7


Cat．No，i80．5
tso Ohns with 200－50 taps．Uised in remple DC Sets．

Ward Leonard Vitrohm หs：5 0 hm Voltape Divider raperd it $5000,3.009$ and 350 onm： if in．bone


Cat．No． 3863 30ceercik
Tapped $750 \stackrel{1850}{7000}$ Ohm
Cat．No． 3914 30fe euche $\$ 3.50$ dozen

HY－WATT CARBON
Resistors on Lava Tubes

## 5 WATT－ <br> 113／3 INCHES LONG


tat．
Ohms Color
3968 1，000 Green
233：5 5,000
313315,000 Black
1207 10，060 Black 10\％ 0,000 Grecn zum hno 301222,000 Black $30611^{11}$ Meg．Black 421825.000 Bitck 3itie 3 Mer．Orthe 315148.000 Orange $39733 \quad 100$ Bleck
$39550,000 \mathrm{D}$ Gray 3035 30, rino orange

## Our Price $15 c$ ea．

\＄1．50 Dozen，Assorted

Victor Voltage Divider

far alt 102n andol fecesvers．Total 2.520 Uhes tappod at 200， $1,250,20,0)$ and 775. Cat．No． 3170

## Dur Price 65c ea．

Aerovox Crosley
Voltage Divider


## Dur Price 50c eu．

5，000 Ohm Resistance， Wire Wound on Lava

##  <br> Eperially De－ 5ifned fot Model 78，79and 25 Sets，Also for E．arl， 31. Fid 41 Snts． <br> Can be uced tor Any Typo sert． Ciat．No． 3907 <br> （1）Rup Price 3se ento， Sシ． 10 doz．

Freshman Fixed
Resistances
Wire Wound－Maked on Lava Tubes


18．000）whis to： 1 itsed it Frentinan on Model．TEpJod 1500． 4500 3s00， 6500 and 2200 olins．

Cat．No． 3963
For Freshmar iNodel Gi total 10,050
 atuhn， 4300 ohms． 300 ohms， 3000 ohms， 1250 chme．

## Cat．No． 3966

－ut Råce gec ea．
Radiola 28 Voltage

## Divider



USED IN $10:$ PACK
Wire round on hakelise．Identical if oriannil．This tem is visually iery dit ficult to secture and evers sertice man should have a few on hand．

## Cat．No． 6756

Our Price 75 c ea．

## Acralest

Wire Wound Vitreous Enameled Resistors


Acratest vitieous elnumeled resistor： are made of the best irade of electrical rofiactory tublngs Which have the same co－effclent of expen－
sion as the porcelain permitting saie ename！and wire，permitting safe heavs losds without lear of injury to the iesi－tor．We use the highest grade of resistange wire，wound on refractory trbes． Acratest resistor contact points are se－ curcly nade by a scientific process，where－ by the resistor at the contact point prac－ lically becomes an integral part of the soldering or mountain lugs，thus elimi－ neting siny possibility of open circuits catted irequently by poor foint contacts． Fsred it 1200 Deg．Fahrenheit，durable and formariont．A large assortment carried in stock to mect．every requirement．

| cht． |  | Tube |  | 0 ur |
| :---: | :---: | :---: | :---: | :---: |
| No． | Ohms | Sire | Wattare | Price |
| 3\％ | 100 | 2 ln ， | 10 | 23 c |
| 3 3 83 | 200 | 2 in. | 10 | 256 |
| 3tis！ | 250 | 2 in． | 10 | 250 |
|  | 500 | 2 in． | 10 | 95 c |
| 9681 | 750 | 2 in. | 10 | 25 e |
| 568？ | 800 | 2 in. | 10 | 25 c |
| \＄1䢕 3 | 1.000 | 2 tm. | 10 | 25 c |
| S684 | 1，300 | 2 in. | 10 | 25 c |
| 31585 | 2.000 | 2 in. | 10 | 2.50 |
|  | 2，500 | 2 in. | 10 | 25 c |
| \％ | 3，000 | 2 ln ． | 10 | 25c |
| ： 3 湤3 | 5，000 | 2 in. | 10 | 23 c |
| $\therefore 84$ | 7.500 | 2 in ． | 10 | $2 \%$ |
| 29，3 | 8.600 | 2 in. | 10 | 25 c |
| \＃60］ | 10.000 | 3 mm ． | 25 | 30 c |
| 枵管1 | 12.500 | 3 mm | 25 | 3 nc |
| A6川？ | 15 non | 315. | 25 | 30 c |
| 3f173 | 20.000 | 3 ill． | 25 | 30 c |
| S69\％ | 25.000 | 4 la | 50 | 4.50 |
| 20：3 | 30,000 | 4 in | 50 | 4 sc |
| Mata | 40.009 | 5 in ． | 75 | 505 |
| 363 | 50.010 | 5 in | 75 | 万ู่ |

## 3000 Ohm Davohm Resistor

 Accuracy 99？ Cat．No． 5699 Price 25e

## VARIABLE VOLTAGE DIVIDER <br> 

Cat．No．396\％－10，010 Ohms， 4 Sliders 412 in．long．
Cat．No．3915－ 25,014 Ohms，\＆Sliders 51 in．lows．
This Fariable wire wound resistance de sisned for heavy duty work can be used An anv radio circuit such as B eliminators， amplaners，pleciric sets，etc．When the timsired voltage is obtained to can be set Ind it，will not vary due to the positive contart and absence of chemical proper－ fies such as used in other types of varl－ able reflanco．This unit aside from be－ ive elociricolly perfect，is low in price and vill talse the place from 2 to6 resis－ tance List \＄1．50．

Especialls adapted for Freshman and
Dur Price 80c ea．

## Radio suporfrequency 0 - neterodyne

## ATWATER KENT

Model 55 Replacement
R. F. Coils


Ca. No. 3551 \$1.50 Per Set of 3 Coils

## RADIOLA

Super Heterodyne Coils


Tysed in Rafiolas at and 6f Victor Models 3.18, 4-51 and 9-5f. Fintimeled wise of balcritite formils in. dismeter $x 3 / 4$ in long. $R$. ${ }^{0}$. chokes incitutef.

Cat. No. 3732
$\$ 1.35$ per set of 3

## RCA Screen Grid RF

Coild for Radiolas 44 and 46


Complete $\pi$ in molinilis breckets. bereth erin lead and cotidelaser.
Cat. No. 4168

## $\$ 1.35$ per set of 3

Brwnswiek T R Coils in Shields

Wot - $000 \% 5$ condentess. With mountiag screma
Used in all early Branswick sets.

C3F. N6, 545
our Frice, Each
25

Genuine Victor Radio Frequency Coils


Compiete net at 4 colls consisiling of 1 Antrmon coll and 3 RF coilk. Dlameter 112 is., heteht 23 in. For ocoos con-
censeis.,

Cin. No. 4169

## 50 c per set of 4

Tramscontinental Sereen Grid 1R. F. Colis
With Shelds for .non 3 Condensers These colla may ne wed it $12 n y$ of Wound siti enpineive aound kith enmsueled ire ch batelite that ped when manntin betheleta thotin are brackers ohet are nımum thjeldis. Two tapped holes vartes. Pond whin winh hole

ingh griar eols tive five 2 oo.e pilulency Set of 4 Colls-1 Antenna Grid with shieldx
Cat. No. 4156 Prr set of 4.

55 c
Band-Pass, Detector and Oscillator Coils


An unus $14-$ कupenhecan ens is 1y be suls with thst unique
 These combilition. Thest colla incor-
phizte ai in K.C. gaind pess cos combinat!ne zad a sirgt dalecrot and osciliator conninadoti. They will inake a seastive, deloclive superhateiadsno which will rezeive irem great
distances. A specisi featire of these coll. distances. A specles featire of these colls. If the tap an the ofellator coll Winch rr riluves ell aenplange of mage fiecuen-
cifs abd hat manics. These cosls inie with our $85614-\mathrm{g}^{2} \mathrm{ng}$ condestber and cover the eftite frolldeast, basd. Tratig inest colfe with the tatermediates, condenstrs ond oher equipment listed on rimh whe will तake sp a pow prierd supernor af ad-
varced dekien. Wiring eleram find invarced dosign, Wiring elegram hind inotrictions furnished with each ies
Cat. No. Bras 4
*178
4 order blanks have been included in the cetter of this molnalog for your anvenience.

Tlec them.

Aluminum Shfelds for Tuhes amd Coils


All. one piece. neanlest consifucliam. highly polshed and properlp designed fot tices particaler purpole.
nereen Gild shield, Sap and Brise.
Cat. No. 1171
18.

3 Plece erield for Trpe ith, 5 T. \%h ata
Cat. No. $717 ?$
Per Set.
$20^{c}$

- Plece Shild lor Itpe si Tubet

Cat. No. 750 B
12
$\therefore$ Piene Shicla for Trpe 35 Tubas (at. No. 727()

13 e
Per Set
2 Ploe shield thi Smill bo:ll, Diameter. 2 din, he oht. $1 / 4$ in
Cat. No. 7:72
106

## Acratest

New Design "Conoid" Screen Grid R $\mathbf{F}$ Coils


Helght ing in
Diameter, 2 in.
or: air ow utico sed eolf-huporing Esct lite is tha rotel With ith respective conifection 马ues coils come in matched scia psposalij tracked on accurate stralaht lint ir quency condensers Enclosed 141 copier taine with remorable balell for ellss motititeg on chastis win fvo boress
 be removed wihiln the rest, of imn wirime is done The voils ere extremely selective and rugged. With 2 set of thet
 and coivematrs se rateched, sa ds tiu nd coizdemars \&
swill opernte $v i t h$ the 235, 230 tube: and with ine new eutomolite ellhoke had ter tuhe, anhouth in bance cases in hal ter whea, anough in sane caser is of the eall to prevent alefintion.

## Citt. No. 3217

## BBe set Dit 3

Consisting of I Ant. smal ? R.F. Caris
Cat. No. 3230
81.30 Set of 4

Consisting of 1 Ast, snis 3 R.F. Coils

## iadic frequency

## Acratest

 Superheterodyne R.F., Detector and Oscillator

Coils


Enameled Wire Wound on Bakelite Tubing
Everything is superhet this sear. Be ap-io-date and revamp your old set or build a good superhet from the diagram se furnish free with these coils. In conjunction wich a three-rang superheterodyne rariablo condenser, these colls will tune in stations from oreat distances with 10 EC. separation. The anterma coil is sepsrate whlle the first detector and orcillator ools are on one form to assure perfect corpling.

Cut. No. 5197 த5e set
Complete with Diagram

## AUTODYNE

 Super-Het Coils

Cat. No. 6973

## Coil Kit

$\$ 2.95$

This system sares the we of an extra oscillator tude and lowers the cost of constructing the receiver. The stability ob+a!ned from the Autodyne circuit as ures ifs adaptation univer ally.
With this set of high pain coils mno IF. transformers exceptional sensitivity end selectivity may be hud. This entire set of coils are matched at the factoyy so that the bualder may be assured of a preciston receiver capable of receiring stetions inany thousends of mules away.
The Autodyne Kit Consists of 1-Hyeh goin antenas coll,

- Hu fir gain intersigge coll.
oined.
1-175 K.C. Intermediate Prequency With complete dagram of a Modern Super-het uling 1-RF, 1-Detector and Super-net uing 1-RF, D-IF, 1-2nd Detector, 1-Penocilitor, 1-1F.

Radio Frequency Choke


Hor Short and Long Wave Receivers
3. Mis Fulty shfeldec fith 2 inlder terms. hass is ind mounsing -crew: Dis. 1/4N. Ht

[^3]
## Acrales

## Migh Gaim Intermediate Frequency Transformer

Thes well-shtelded, sharp-tuning intet mediates are lust the thing for that new super you ere plenting. Close eoupling between primaiy and secondary assures hieh voitage gein, enabling recaption from reat distaners. The $175 \mathrm{~K} . \mathrm{C}$. unit is furnished amplete with a diagram of one of the finest superhets you have pver heard. The 465 K.C. unit is furnisher complete with a diagram of an sll-ware surphet using the new band-switching colls FEATURES:
1-Condenser adjustment through to $\because$
Aluminum shield with holes for wires. 3-Heavy steel supporting tarackets. 4-Coils properly wound and shielded.
5-Compensator.
6-Mounting screms.
7-Mounted on porcelain base.


Diameter: $2-3 / a 2$ in.
Heigity: 2-11/16in. Sold in Sets of 2 and 3 . Cat. no. 5:54.
for 175 KC .
cat. No. 136is:
10r 465 KC .
Cat. No. 7:31:3
for. 5 t KC
For center tapped secondare for use with 3 ., rube Complete with Diagram Our Price. Each

## BAND-PASS

Or Pre-Selector Coil
For . 00035 MFD Condensers
Suitable for use on any rocefirer. This coll will add relec-
inver to the orvader sel. It ilvity to the orvader set. It
is specially desiened for the allis specially desiened for the ati-
tenna stage. The coll is extremaly high in gain. It han three windingt-a primary and two secondaries. The primary is connected directly between antenme and ground while the lover secondary is counceted io the stator of one turning condenser. The other scuandary is connected to the grid of the tuba and statar of the con-
 denser.

$$
\text { Cat. No. } 6910
$$

Dur Price 70c

## R. F. Choke

4 Millihenry


Suifable for shori Wire and superheterodrue receivers.

Cat. No. 6755

## 16C ed.: $\$ 1.00$ NDE.

We carry Voltage Dividers for over 200 standard re. ceivers. See pages 104 and 10.5 for complete list.

## BROADCAST

High Gain R F Coils
For .00035 Condensers


These colls are especially designed for the diserminatinig zet builder. Their special Leetgres Are:

1. Cante acts at high plate impedance.
2. Capecuy coupl a primary
3. Low dintributed capacity
4. Ese of mointing-its into tubs socket holes.
5. Comnaerness
6. All conn ctions marked

The cois are inatined at the fsctory, which is extrimely important if selectivIty and mentiritity are to be astured. Prer body is now lesning to Ingh Gain Colls.

$$
\text { Cat. No. } 6907
$$

Set of 3-\$1.50

## C3. No. 6908

## Set of $\mathbf{- \$ 1 . 9 5}$

Broadcast and Short
Wave High Gain R F Coils
Ior . 00035 Condensers Range: 70 to 200 Meters, 200 to 600 Meters.
Sime coils ss abote. Cover the Televilion. Police, Arplane, Foreige and Amateur Band. Coils si merely tapped in one soo lor ware changine. Short wave end is separate, heavs winding.

Set of 3-Cat. No. 6909
Price $\$ 1.75$ Per Set
Earl and Freed RF Coil
Used en all Earl
and Freed seis.
Dianazter 1.4 112 ,
brackets.
Cat. No. 537 S
45e el.
Acratest RF Choke
85 Millihenries
With Mounting Braskets
Cat. No. 2871
17e ea.: $\$ 1.75$ doz.

## Genuine RCA-Victor and Brunswick Catacombs

Brand New! Thess cotracombr wore used $\ln$ the RCA and viecor sets a fow years Bgo. They ate ex-
tromely compact trimely compact the intermediate frequency and a $u$ ando units. Dun to their peculiar consituction it is hard to replace any parts in them and so a new catacomb is necessary.

## Cat. No. 6221

8.tube Catacomb for RCA modeis 25

 Cat. No. 6220
8-tubs Superheterodyne Cutacomb for ROA models: $28,28 \mathrm{AC}, 30,30 \mathrm{~A}, 30 \mathrm{AC}$, 32 AO ; Victor modell: Hyperion,' Borgia, Cromwell, Tuecany, $8-15,0$, $0-25,9-40,9-55$ : Brunmed modell: BR-18, Cordork, $8,2-2-0$, BRP-4, BRP-1A.

## Dur Price $\$ 5.50$ ea.

Genuine Victor R.F. Coils


## 50cer.

$3^{3} \%$ in Lons, $1_{1}$ in. Dia.
Tred in in the vietor seat Enpmetect Wire woind on Thireaded Bitilito inmily ailoo has midyet luning eondenser ninichect

## Kolster Variometer

(Antemina Coupler)
Used in Koliter K2n, k 22. Columbla pari. Cl ond C3. A very hord to get
 ster, you should have a few in stock it this 100 p price

Cat. No. 5536

## 75e



## Power Amplifier

Or Midget Chassis Base of Heavy Gauge Steel

$167_{4} \mathrm{in}$. long, $9^{2} \mathrm{in}$. Wide, $11 / 2 \mathrm{in}$. toil. Wercht, s lbs.
Cat. No. 4.399
75 c
Wht the thine with whics io bulld eras empiafer or midzec reciver sous have been planiling All hols cht out and trilled for transioimut, contenses, choke. sockets, switch, elc Made ior stromisergGeriton porer amplifers. Has intiny libes.

## EBY

Triple Binding Posts "Short Ani," "Long Ant" and "Gud" "

Unre movable 1ap ponts mowated of makelive trip
Cat. No. 4106


## Our Price 16c ear.

## Eby Rinding Posts



50c per doz. Ass't
"Push-Down" Spring Binding Posts

Nothing is 1 arn-- makes pontle strons contact.
Cat. No stot-"Antrnna" Cat. No. Binf-"Ground
Cat. No. F19i-Blank


Dus. Erice 5e cucln
Complete R. F. Coil Assembly
For Radiola Models 17, 18 and 33


Contists of Antenta coll and \& R.F coils with R.F. chokes, triminet condeniers and R. F. her-pass condersis fiounted on metal fernisal sitiy reaty tol installation in above Radinin models and minv other sels. Colls the 1/d in. dia. by ith 115. lane.

$$
\text { Cist. No, } 3733
$$

## (Datr Price $\$ 1.50$

Per Complete Set
Midget Set Escutcheon Plate

## 2-5/16 in mish

Cat. No. 4043
I5e

## Eby Twin-Jacks

In a orown theite atrip.
Cat. No. 4060
Marked "Phono"
Cat. No. 4069
Marked "Speaker"


## Dur Price .0fe en.

## Eby Twin-Posts

Two Ebv ron-temotable bindung post balielite molded 1 m broin $n$ cornposition niat molltict ut a hakeltie strlp The an tenm iest meutated from melal pancls


Cat. Ň. 4068 Marked "Field" Cat. No. 6689 Marked "Ant.-Gnd." Dur Price Ilcea.

4 Gang Condenser


Cat. No. 4:3ns
Our Price
$45{ }^{c}$
A hash qualty condenser with electrichs and in chanical refinements thai stamp it as a limder.
Chas individual sections of this fine untit ste scientincally matched. Careful shicledange Cotipentilite condencers in eacis section. Cadacity, .00035.

## 3 Gang Super Variable Condenser


4.4" song, $412^{\prime \prime}$ wide, $24^{*}$ tall. ${ }^{3}$ " shaft.

A ver high grade is gang veriable comdeneer made expressily for superhetcrodyne receviers. Will cover wave band of 200 to $B 00$ meters when used conjunction with any standard super colls. Equipped with irimmer condensers. Ball bearings on both ends. Made to selis for twice the price we ofer them for.
Cat. No. 7337
$81^{2 n}$

## Tuning Condenser Assemily

As used in Radiolas 17, 18 and 33 Complete with aluminim drum and cable Capacity 00035 . $91,2 \mathrm{in}$. long, $\mathrm{a}_{1 / \mathrm{s}}$ in. wide, 5 in . high.


New Illuminated Drum
Smooth Positive Action


New type cable drive permats smooth, positis regulation, entirely iree of bucklash. Standard $1 / 4$ in. shaft and $x / 4$ in, coupling - celluloid scale, beautiful en-graving-cilibrated in numbers from 0 to 100.

Cat. No. 4201
i/4 in Sinalt
Cat. No. 4202
$3_{\mathrm{s}} \mathrm{in}$. Shait
Complete with Dial Might Sncket 70 Our Price $\qquad$ ...... ESCUTCHEON PLATE TOR THIS MODEL Cal. No. 4012
Our Priee, Eaeh
17e

Illuminated Drum Dial
For Short and Long Wave and Television Sets


Cet. No. 6903
$\$ 1.25$
Complete

## No Calihrations on Dial

 Geautiful Escutcheon Plate to Match Instead of the usual numbers the celluloid dial has 4 difierent colored band running around 17 , so that a diferent color may be allocated for each एaie band. For "a" shaft. Complete with pilot ilght socket and plate. $31 / 2^{\prime \prime}$ dia. $5^{\prime \prime}$ high.
## Special Dual Ratio Dial

 and Escutcheon for Dual Wave SetsThis 6 to 1 ratlo dial can he instantly changed to a 30 to 1 ratio dial by throwing a lever. Ideal for short and long qare sets, hecause a very slow moring dial is essential on thort waves. Very in genious yet simple censtruction Noth ing to break or snap $2^{1 / 2^{1}} 2^{\prime \prime}$ wide, $3^{\prime \prime}$ high. Transluscent celluloid dial.


Metal Belt Friction
Drive Tuning Dial


## 75 c

Complete with Pilot Light Socket

Spring Friction Drive Tuning Unit

Outside diameter of dial 37: in. Shait hole for either or or in iransilucent scale of 0 to 100 .

Cat. No. 4040
3/ in. Stioft
Cat. No. 4127
14if. Snaft


50 e
Complete with Pilot Light Socket

## Midget Fan Dial

A very compact full Nifion dial with trantliscent strip and pllot ligint socket mounted on rear top. Attractive branze escutchcon plate to mateh.
Dia. 3 In., $31 / 6$ In. high, M/s in, deep.
For $3 / 8 \mathrm{in}$. shaft.
Cat. No. 6911


Complete with Plaie
Fan Dial and Plate


60e
Complete with Plate and Sncket

## Escutcheon Dial Plates

 of Latest Designs

Cat. Nio. 4043
Cat. No. 404 F
Coin Enbosied Bronze Finisin Moderis1stic Derign. Espectally sulted for Drum Dials, similar to our Cat. No. 4201-4203 a in. higin, $\mathrm{O}_{\mathrm{f}}$ in wide.

The New 'Spot Tuning' Illuminated Dial and Escutcheon


Cat. No. 5505
67
The light traved along with the station indicator. Now being adopted by leading set manuficturers. Verp at haft. Translucent shaft. Translucent seale Bronze fn-
ished plate. Nonshed plate. NonComplece with pllot IIght soaket.

## Medium Sized Escutcheon Plate



Complete Full Vision Dial and Escutcheon

4. order blanks have been inclunled in the center of this catalog for your convenience. lise them.

Genuine Walnut Wood Carved Knobs

Dia. $133^{\prime \prime}$
Cat. No. 3215


Dth. 11/4
Cat. No. 3532


Dia. 1 /4"
Cat No. 3561
Our Price for Any of the Above Knobs
10c en.; 81 cloz. Assorted

Ornamental Knobs

grow halkite Knols with licetal Guerlag. Diameter 1 th in. Insert is in. Cat. No. 5106 15e ea. $\$ 1.50$ per dozen

Grecian Design Drum Dial Escutcheon Plate


4 in. $x^{5} 2^{3}+$ in.
Burfished
Bronive Finl:h
Cat. No. 5107

## 18e ea.

FEDERATED PURCHASER is the premier radio replacememt parts house in the U. S. A. 3,000 items carried in stock.

Complete Line of Modernistic Bakelite Knobs


Two.'Tone
Walnut Knol, Dis. 13, in

Cat. No. 5126
Our Price 81.10 doz.

Dlo. 1 in. I. in. shat

Cit. No. 5127
Our Price 81.10 doz.


Octagon Pramid Top Walnut Knob Dia. $1-1 / 16$ in. It in. insert
and $=a t=$ crex
Cat. No. 5130 Our Price $\$ 1.15$ doz.


Hexagon Two-Tone Walnut Knob Did in in in. i. in. insert
and sect screw
and Cat. No. 5128 Our Price $\$ 1.30$ doz.

$$
\text { Dia. } 15 / 16 \text { in., }
$$ 1, in. insert Cat. No. 5129 Our Price $\$ 1.20 \mathrm{doz}$.



Ornamental Top Walnut Knob Dia. ${ }^{16}$ in. in and xel s screly
Cat. No. 5141 Our Price 95 c doz.
Vernier Port Dial Ivory, Plate, Black Din. 4 in
Reumine 0-100
Cat. Nn. S142
Our Price
59c each
Dia ate in (for Midget.
Cat. No. 5143


Our Price 49c each
Walbert Univernier Dial
Caliorated 0-180. Ratio 10-1. Bakelite knob. Fiched plate.
Cat. No. 4117

## 10c ea.

Attention Short Wave Fans and Fiams ! A Precision Vernier Dial Geared 10 to 1 ! This fin: sernier dinl is a produc comparable to anp fine instrume.it. The simplicity in tuning rith this dial takes ail of the pues, work out of short-wave reception. The accuracy and sharpnest of its desistib for celevinio.t work fired from brekinth and slipping Sure-gripl

## Escutcheon Plate for Midget Sets

Burnished Bronze Findsh. 3 in . wide, $2^{3}{ }^{3} \mathrm{In}$. tall
Cat. No. 5108

## 15e ea.

Full-Vision Dial and

## Pointer

For replacement on sets now using ordinary dials. Simply remove the old. fashioned dials, slid the escutchconclenser shaf and replace old dial with a small knob. W llj en. hznce the appearance of any set. Bronze finish only, Fith trans. lucent celluloid dial strip. Con


3 :n. Wide Cat. No. 5737 25. dial complele dial if panel is cut out.


Hurz-Kasch Bakelite Knol,

for rheostals and Mahogany and Blact Cat. No. 412 . 5e en. 50c per dozen

Serviceman's
F noh Assortment


How many times have sou needed a knob to replace one on a set with a stripped or broken set rarew and hav of unable to get one? This assartment strles to rulace malarics of sets on stye ro rupara majariu of els on the marles. will yay for itself over and box in !its thoo for any emergenc:
Cat. No. Tis1s)
Our Price .

## A complete switiches for every assortment SWitiches

Carter Ir'ple Pole Double Throw Switch


A svitch Ehich Nivos Hanay applicatlon it ahori anc lon wist reveivers. Due in its speeini colletruetion it may be used, Es $\%$ three ciresit "on " ond "on" eiectite NWltch carrying up to 50 Fatts on each cireult wibhoilt danger of arcing or oret heating Shaft ! long by Caf. Ns. $5 \%$ Th 78
Our Price 2 ? For 115 fith our wo. 6700 coils.

## CARTER "IMP"

Inductance Switches.


List Prien $\$ 1.00$ Cat. No. PH. 5484 5485

40c ea.
Complete with Bakolite Arrow knobs. ompact and yugged and will stiand up ader hard isage. All shetal intabe, caciSum plited. Poiltive enep action. Dll. inter of fillme $1 \% / 2$ fa. Exidide back oi ancl only $1 / \mathrm{in}$.

## CUTLER-HAMMER

 Rotary Snap Switches
C.at. No. 6688 Sinke circhate nnd 12 in. lesds

Cat. No. 6666 Two Circtill ior Racici-bnollatison जna 12 in. esd With it a in shatis

## 45c ear.; $\$ 4.30$ dloz.

## 腊. \&H. Dhal Time Delay Switch

Two logele switches mownted on one loft and ob areangent thet one te thrown
 in a thane. हised omplitters is: timn fila ment on before turming the plate curroni ont, on shart and long weve sets. and for anienne switching.
Croloy pirt No. E1012 r.55a in madel 8 s. Front witich is a siatle efrcuith reat swifelh a fingie pole double throw. iss in inilled shat
Cat Nn. 71s:
Out Price
$95^{c}$

SELECTOR SWITCHES
With Knohs and Plates


Single Pole
Swifiches are 60 consiructed that switeh cannot bo inotened in panel by turnink nob, Deisilite heops are prorided so thet anfue foro cannot be sppliled to contacting members. Knobs ate keyod to wheits to prevent their slippag. Aft conAct inmbere are of spring phos in o broisas and all insulation of bakelized materiel. Bhafo is entirely jamlated from olectrics) elrexits, thus eliaxinating danger of shoels.
Furniahed complete with metal etched plate wilin walnut background and old ronee filures correbpoziding to the niumber of coniacts. Walput bakelits kaob witin key siot to prevent becklash, and hexagon nut, alco furnished
SINGEFPOJE DOEBLE POLE

| C. |  |  | Cat. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ni. | Contacts | Price | No. | Contsets | pricer |
| 4185 | 4 | FOR ${ }^{\text {a }}$ | 41 ar | , | 81 |
| 86 | 7 | . 90 | 4189 | 7 | 1 |
| 4187 | 9 | . 08 | 4190 | 9 |  |

Toggle Switch


With Lans Flextble lupade 5 amperel, 120 Foit. Approver py inderwitler 518 dn . shank.

Cat. No. 4112
17e
S.P.D.T. Toggle Switch KHORT SEANK Cat. No. 110 .

LONG SHANK
cht No. 410
$23 c$


Double Pole, Double Throw Toggle Switch Cat. No. 4115 finc ent.

Toggle Switch Wifh Long Neek (1) in.)

Tas, wooden
 pancls and eant
 C.N. No. 4110


Circuit-Closing Dowhle.Throw Switch


For Pinno-Radin mnk Fublic AAfress Systems
Used fin eathade cireult of radio for shorting to glound of closing phono prek-up eireuit

Cot. No. 5285 3Re ea.

GENERAL ELECTRIC Three-Circuit Toggle Switch

Same appearance na above, but makes and breaks three lines at one time. Has inlay wes in fadlo-phonograpls, fet sine. lyber and oublic address pork.
25 e evich Cat. No. 6566

## ACRATEST

Single Pole Double Throw Switch


125 V. 5 A. Approved by Inderwitters' Lab. Cat. No, 5256 49e

## GENERAL ELECTRIC

Filament Switch
3 ampere at 110 oolt 1 amnere al 250 vals. All bakeitte bocillag: One ho, meont whi
nit any set. 8 in. Io indt, Approved by the anderwit

Cat. No. 4121


Dur 1proiee 20e
Yaxley Filament Switch
Very fesi make apel break. Comyact, stiardy and essy to mount otir brile.
Cat. Ne. 4108


## WALL PLATE <br> Radio Dutlets



Cat. No.
To Fit Any Standard Electric Outlet Box


Type Price
5501 Ant., Gnd. and A.C. Outlet . $\% .75$ 5500 Antenna and Ground Bind-
Brass Radio Wall Plates


Cat. No.
6595 "Antena
"Spesker"
8491 With Sinete Circult Jnck
Our Price
Esch
25 e

## Sub-Panel Brackets

1" $\times 81 \underline{\prime \prime}$
Brachet́
द्राप000?
An ideal bracket for reoolvers using box or larse shlelding: or large audic Irtquency tiansiormera. Lesves enoueis clenrance paderneath ine stulb-psinel for aberese by-pa3s of ñed conderiser. Wrall accomnorlare any sub-panel up to
inches the widih. Alimimum constriction. Shipping weinht, 4 lbs.
Ctt. No. $78: 5$
Oar Priep, Per Pair
24.
$3^{\prime \prime} \times 9^{n}$
Bracket


An improred sub-patied oracket with cutout cornery inat fill at ane tyl) of cabinet. Alumaum confluction. Shipping weight, per pair, 4 lhs. Cat. No. -itises
Our Price. Per Pair
$3{ }^{3} \mathrm{e}$
Handy Extension Cord Sets
Hzay sik Cordwith Threr Rraid. Beantifal Astorted Colors.

## Approved

 Socket Approved Cord G. E. Bakelite Cap Only

| Cas. No. | Length | Each | Dozen |
| :---: | :---: | :---: | :---: |
| 3314) | 6 tt . | \% . 35 | \$3.01 |
| 4524 | 9 tt . | . 39 | 3.35 |
| 2iss | 12 \%. | . 32 | 3. 35 |
| 23.16 | 15 tt . | . 35 | 4.01 |
| 3,301 | 4014 | 40 | 4.6\% |

4 order blanks have been included in the center of this catalog for your convenience. U'se them.

## Bakelite and Alnminum

 Pamels

Special stzes of bakelle and alumtnum panels can be furnished at short notice. Prices on tequesi.
14. Gatuge Aluminum $3 / 16 \mathrm{in}$. Bakelite
Size No. Our Price Cat. Our

Size No. Price No. Price
$7 \times 10 \quad 5176$ \$r1.50 510681.09

$\begin{array}{ccccc}7 \times 14 & 5178 & .67 & 5171 & 1.50 \\ 7 \times 15 & 51 \% 9 & .4 \% & 5172 & 1.90\end{array}$

$\begin{array}{lllll}7 \times 24 & 5181 & 1.16 & 5174 & 2.50 \\ 7 \times 28 & 5182 & 1.180 & 51.75 & 2.75\end{array}$

Aluminum shielding can, is in. by 6 in . by 9 in . Filh 4 corner posts.


Aliminum Corner Posts for making aluminum boxes. 6 in. long with holes drilled and tap. ped at, each end.
Cat. No. 5153 Oure Price. Ench 20 c

## Automatic Electric Turntable Switch

This device. When installed on ajy electric vurgtable, will Whut the clatrent dif When the pick-1 1 reaches the end of the reford and then arm romes in contact with the swilen. Used on ald RCA and Viclor Radio-phono. graph coinginationts.

## Yaxley Phonograph-

 Radio SwitchUsed in Tomple seis.
Has nelitral position.
For poilel mounting rusd knob contiol


## 15e ea.

Rotary Snap Switch For Fada and AC Dayton Sets
1188 in. Shaft
Cat. No.
5287
25e


Cat. No. 4222 25c ea.


Giles instant seaccisin ap to 5 chish imperecre ot 50 nit impuesse ol baio oims A swith ol arinnced desigit for the in centrinized radio installathons, to mabling the lastener to brich to any of 3 prosrams with ionmaintained impedarace maintained thtoucholt the line. Constructed to fil into oullet bas. The impathune zois eleciric wurelr fiveted in the itmine and an while fonceaied. Dapth of insich $1^{1 /}$ int Screw conventions piarlded to $2: 1$ ies ds.
Equiphed with sttacite brown batelite knob, airnw poinier alad escistcheon plate.
Cat. No. 5488

List Price $\$ 5.00$

This diatram Illusteates the Tiring a E A botion of the Siritch.
Sit


## ACRATEST SR．

High Precision
Condensers

Features sient frame cad plater．
1 Shatt．
hard． ened
zeel．


Condenar frame provided With three poin chasis mouning
Cortact springs
conticu prange．on ball beerine me
fakl mounked on boib end plaies chemsm．nounted oning motion sull perfect aligninent
f Frame hishly reniloreed by means of inter－arage shield
－Perfect ejectrical Linolaison betreen \＃apt innts．
Exiremeis low diclecitic insiss．
a Proner rotor capecify disiribution．
in perlectly electicallo matched between sheceseme hinits．
（1．Stator ecition nfovien with indivilo Inal isimmers．
Wigh nsulation resliftance．for per Rovors prorided with kinake core ni mitring adiustment in take core oit Cistribulinh oi saparity then extended Condenkets provicled enimg
EOR STIPERS FOR STRAIGMTB．F． Fat．（osnts kize An，Gants price




Modernistic Full Visiom Dial and Escutcheon


Tsen exten－ simply on ey－ mantivn sels and xill en－ nance the sp－ pearasice of old wets．Plate $5^{1 / 4}$＂ long by $2^{\prime \prime}$ nide．Reonye fintrts．

Cal．No， 7175

$\$ 1.25$
Complate with eaculchann piate and piot light fankei

Santa Maria Full Vision Dial and Escutcheon


A very surgatie netan on $口$ gap： hisht trantis over pit： （192）travis imot is
 dit． 5 mis．
Caf．No，7i74

## 95 c

Complate what act retegoan and pilat lifhe becket

## ACRATEST SHORT－WAVE Tuning Condensers



These con－ densers are of the half shald type insuring foo－ latlon be－ tween alages． They aro all caned in neavy slumin－ 4m itnmos －nd tapered for remalk－ able ave spread．Ens－ iiy mounted sind preclie in operation．

| Single | C＇at．No． | Price |
| :---: | :---: | :---: |
| ． 00014 | 6854 | $\$ .95$ |
| ．00023 | 6855 | ． 0 S |
| ．00033 | 6906 | ． 95 |
| 2 Cramg |  |  |
| ，$n 0014$ | 6708 | 1.30 |
| ．80025 | 6856 | 1.50 |
| S Gant |  |  |
| ．00014 | 6609 | 2.50 |

## U．S．L．Midget Condensers

For Short Wave Sets When used as a
 neuralleing oon－ renser the DE JTVR Midest Condeneer the tar superior in of＂＂pring＂con－ densert．It can aleo be used as a re－ cenerative con－ denstr in cettaln cincuils or is a means of Emater zelecirity when slaced in se－ ries With the gnienna circuit．
Cit．No．Description Our Price



makelite

## U．K．

## Sockets

Cat．No． 4075
Spritig
Sockel 20c
Reinforced Spring
Wafer Sockets
Eratzz＝Prongs
Photrinor
Nen－Khoztins -4 Frons
28i）．281，172A． 245．201A
Cat．No． 4064
Bur Price 5e ea．

## BAKELTE Wafer Sockets

Speciel conntruction makes short，circurs or flashovers im－ poselbie．


Cat．No．4062－


Cat．Nn．Ancin－h Frank－227，221，th． そ．56．254， $135,237,235,285,247$. Cat．No 6934－6 Prong－5it，38，55
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## Geauine Ehy Sockets



Eby UF and JX Sitchets are the stavt atd sif quajity．Thes esis be moleatec above or beio methl Pakeita iv wood pastas．sposdec of Eersaine Bakelye with if builfan triso fos the tisbe ptrangi Phospliof hronse cohtavis so delfoned iret theif sp：ing aetion cannot pe damages no mattir fof alift the thioes nire ing－
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Base Mounting Sockets

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5－Prone－
Cat No． 5676
E－Praps－
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Sub－Base Moupting Sockets

4－Erntos－ies．Sio 40060 E－Frosp－Cat．No． $\mathbf{1 0 5 1}$

Cat No．Anta
Sub fato Mourb


12 c efses $\$ 1.20$ dez．

# Acratone <br> Supper Rewere Sempi－Class 245 Pow er A 

## Ciresit



Cadmisma
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Cot． $\mathrm{N}_{0}: 107$

Less＇Tubes

## Power（1itput－ 10.3 If：its．

Poirer Consmmption－5．5 watts．
Poiter Suppls－110－195，wolts fi0 eroles A．C． Size－ $111 / 2 \mathrm{in}$ lang，fil，in．Wide， 7 in．high． Emplogs 8－57，2－245 and $1-280$ Tubes．
Se of Universal Tubes
s淕。分的
Set of Arcurrus Tubas 3：3．859



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| Fexipnient | Cat | Price |
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| Acratone Semi－class |  | 15． |
| B Ampli |  | 819．．．n |
| Dyntmo spoaker ．．． | 11：6 | 15 |
| umbireral Model＂$x$＂ 2 Buthon Mike | 21 |  |
| Untureral Mictophone |  |  |
| Ring \＆Spring ．．．．． | 50：3； | 1.17 |
| Total Pric |  |  |

II hen in New York，be sure to risil our undy completed and fully equipped Sound Siudios．il 2．5 Parli Place． Experisnced sound engineers in charge will assist you in your selection of sound equip．inen．

Spreceial Amothivarium anot Staclio Searal Systom Nヶ．7012
This votem is ideal for mationtian
 and simpliciey．It ena bo rolled from phace io placo and is instantly frads for hise The camplioner wel if our dial rP marlificd class＂B＂ampliñer com－ olctely deteristed abrie．

The cound batrd and pack for the eribipment is a beatatifil ornamentsi fol－ tumn type portable ktand moutied ori bill beoring ribber catem Thume of oti reders wha are familiar with the pecial F．C．A．nnstallation Soind bearci will readit，recognize this stilnt by the deteriptian．The regulat nrice of the lound hoard is $\$ 275.141$ ．It is spteiully drilted in hold three dyilimio speakers so placed that each apolker covers a dif－ placed that each epeaker covers a dif－ sprakers are comnlentve hidaen from ficw．in feek of shielded heary rubber covred canle is prosided

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| Ring is springs ．．．．． | ：3it 1 | 28.8 |
| Total Price |  |  |

## Smozall Truck Soumal Sisiem No． 703

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Thin ound avamim nilizas our uzem ＂Modifird Class B Amp．＂Thas amp＂is A anial push plall ysilir $=$ at thopa inta i2 ¿ti lubin It has ais undisorted ont－ put of 111.4 watis．and Jas a remark zbl fidelits curs from 30 to 1 ur u evcles．TIe＂hishs＂Elitein are gener－ allv lackint in amplutiers capabl of reachine＂lows＂as iow as stl evelt are erident 141 thetr coz＊ect percentages．

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| Solnt Board ．．．． | 1111 | ＊：51．14： |
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## WHATT IS CLASS "A" PRIME:

This amplifier "packs a real wallop." Has an output of 30 watts from a phonograph pickup or microphone Accomplished by is push-pull stages using high gain tubes and Class "A" output stnge. The first stage uses two type $5 /$ high gain pentodes in push-pull, bridge-coupled to a pair of type 56 general purpose tubes in push-pull coupled to a special Class "A" Prime Transformer to a pair of 250 in push-pull. Class "A" Prime is a modification of Class " B " audio.

To explain its reaction, let us illustrate by some of your own experiences. Do you remember switching on a battery set that had either abnormal "C" bias or none at all? Recall the sudden burst of volume which just as suddenly lapsed into distortion? WVell, that is the basis of Class "A" Prime; but in Class "A" Prime the ci"cuit is so arranged that peak volume is always maintained with no distoriton.

Specially deslgned parts prevent any semblance of distortion with resultant marvelous quality.

## Quality, Power <br> And Performance

This amplifer is particularly adapled for airplane advertising. sound trucks, stidiums, broacicast tran=niliers and for mubli-speaker installations in hotel. wired radio systems, hospitals and convention nalls. Up to 25 dymarnic spezkers may be heoked up to ints citcult. It has a coverage of up to 10,000 persons and a splet coverage of over three square city blocts. The fonal reprotuetich of this amplificr tz as line as can be cotained from any, remadless of cost A irue straight line ctive from 30 to 10,000 eycles
proves this claim. The use of high quality audio transformers and bridge coupling assures consistently perfect repradnction.

## Attentuation Control

The Attenuator Control of this amplifier is no ordinary volume control but a specielly constructed dual potentiometer giving excellent reprodisction over the entire output range This eontrol has absolutely no audio frequency discrimination and the or1gtial quality is maintanned ac high or low voluine levels. A graduated plate aids in locating proper volumis fevels for virious installations.

## UNIVERSAL INPUT AND OUTTPUT CONNECTTONS

The input transformer of this amplifier ellminates the necessity for additional miciophone, input stages. It is wound for use directly with a single or double button microphone 500 ohm speect lire or condenser microphone amplifier. This transformer also enables the use of a low or high impedance pictup.

The outpir transformer is pound as follows:
0 ohms for Wright-DeCoster and similar spreakess.
1.5 ohms fo: RCA Photophone Dynamics, recarders and Dynamic units.

Fon olms for speech lines, multiple speakers and mixer lines.
tono ohms for magnetic speakers and dsparics already containing output transformers.

## MONITOR SPEAKER OUTPUT

Ito shecial ourput posts are brought out for use in multi-speaker installations or where speakers are distantly located for monitoriag or listening-in with phones or magnetic spoakes. This output is at a low level for comfort. This in no way affects the volume or quality of the amplifier.

## Power Output 30 WATTS <br> Power Consumption 200 WATTS

## Power Supply 110-125 V., 60 CY.

Size: 16 in. long, 11 in . wide. 8 in . high

## Cat. No. 125 <br> $\$ 07.50$ <br> Our Price

Less Tubes
Employs 2-57, 2-56, 2-250
and 2-281 Tubes
Set of
Universal Tubes
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Set of
${ }^{5} 14^{75}$

## Fentures:

> Triple Push Pull Class "A" Prime Audio Monitor Speaker Output
> Attenuator Control
> Gain 90 DB.
> Built-In Microphone Preamplifier
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## Especially Suited for the

## Acratone MODEL 35 CMASSIS

A beautiful example of modern radio furniture, of simple design, deiicate lines and exper: workmanship. Instrument panel of 5 ply center matched rotary cut walnut. Top center of rail elm burl. Balance of cabinet of :3 ply gum for strength.

Set compartment: 11 in. high, $21^{1 / 2}$ in. wride, $101 / 2$ in. deep.

Outside dimensions: 40 in. high. $2: 3$ in. wide, $11 \% \mathrm{in}$. deep

Packed in shipping carton: Completely asspmbled.

Cat. No. 749
Our Price
F.O.R. Indianapolis, Ind., or New Yorit City

## The New Federal Stecring Column Control




Thi Federal Remote Control consists of a control wait, condenier driving unit, flexible drive cable, multiple-wire cable, and electrical connecting plug. It provides positise, simple, manual control of the recelver through a one-eighth inch fiexible cable which is thoroughly weatherproot. The operating cable, firmly anchored to both units, and easily adjustable to any length, drives the tuning condenser of the radio recelver by means of a pulley sttached to the condenser shait, and enclosed in the snug-fitting housing of the condenser driving unit. Care complete turn of the hand-grip tuning contral covers the entire tuning range of the radio recelver. The unit is specially construeted to give precise, accurate taning.
The control unit is beutifully finished to hartionize with the rest of the equipment in any well-appointed automobile.

All control units are equipped with a lock-switch and key, together with spare key.

## Brown Flier Twin Recenrding Motor



May also be ured for isyback where contant is abolule
This mo tor is the uitinule for recosding has the ablity to turn at $z$ constant speed eicn with a recording lead of 6 los. This motor is diven by two motors, one situated at each ent of the casing. A special clutch control governor enables the maintenance of constant speed at is r.pin. Furnithed with $1 \geq$ in turntrible ard zpecial mounting cumpons to avert ribrations which is runous to sood recording. For $1: 0$ V., SH-61) cycle oneration only
Cat. No. 2\%.
Our Price
${ }^{*} 17^{\text {" }}$

## Multiple $1 / 10$ Mid. By-Pass Condensers



Cornjact, metas eamaneri by-pesg condencert suitabie tor Gemmel Motors and other recalvers Cierall dimentions of $\bar{x}$ $11 / 2 \times 3 / 4 \mathrm{in}$.
Cat. No 7-4.2x-4 $1 / 10$ Mid

Our Priec
25 c

## Frost 10.000 Dhm Potemtiometer

Craphite Elemert. Only 7,10 in. thick 13 in . Hat chaft with is in. thread and locknut. Will fit all
 A great majority of the recelvers on
the market today the market today
ase a 10,100 ohm potentiomeier as a colume control. This potenttoncier will nt $110 \cdot \%$ of these sets betance of its compactiness and length of bhait. Ajsolutely hoiscless. Postuve wip12: zution Pericetly insulated for , 00 wolts Eicry serticemon sholld have a samp'y of these controls on insad for any emersency. Jace 'o scl! for auc, we are ofterng them for half the price dive to a pacial purchase.

Wizile rhey last
Cal. No. intial
Our Price
4 or 5 Tube Midget Replace


Si2e: $\$ \times 5 \$ 3 \times 3^{\prime \prime}$ hiph Weight, E lbs.
 recibited at fio inil.
This compact, yet rugaedly bult power emanformer can be used as \& raplace-

## PACENT PUSH



## TRANS

Cenerulnsly pror fas use in sets fremtum. The ist berietth, in thet lest fiproductive lest riprocuctive greater curren. in. toll, 212 in . ver al moimnti.


Shielded Input Push-Pull Transformer
So we'l hermotically sealet within an utiractive black japanned steel case mat hif-long, uniaterrupled serrice is assuredt Ideal for universal mountine applications. Equipped with woll insulated flerible leads. $83 / 4$ in. tall, $21 / 2 \mathrm{in}$. long, $2^{3 / 3} \mathrm{in}$. wide.

## IG VA I IU ES  <br> liems featured in this supplement were received too late to be included in the pages of the Catalog

## Genuine Brand New Frost Victor Twim Potentioneter



Hore is the genimup vitor volume control minutcetured oy Frosi-not to be confuled with surilus controls-and incorporating several improvensents over the od type. Mounting sanel an front of unit mitke for ease of nstallation. Metal sirap holds the two ubits rithivly. Competely shielded and enclosed sramint dust and insture. Shuft is in. threaded and 1-3,1 4 in. lona.
Our Price
95 c
ment Power Transiormer ment in almost every midret recelver on the market usine up to Ave cubes. It is urisersal in adaptability, having I lonk h/:\% mounting screvs for horizontai mounting. It has a shielded top. The wire eads are adequately long end are
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Every service man should have several of these fine transformers on hand for any umergency and the first job will more than pay for half a dozen transformers Buy thrm now at this extreme low price as you may not have anothel opportunity like it again
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Our Price
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riloncd; not designed here pace is at a csact lize is a misrked 4 rie assured excelduallites. tug to the rying capheity. ?\%4 al/a in. stue Uni-

Outrut
No. 7


Cutput Push-Pull Trenfsormer Equinived with 17 ohem impodance cornailert-rithich maicher velce coll imp dince of R.C.A. Photophone Dytic in Speater, Racon Units, etc., reneen Diasme Spur use With two in Een Draznuc Spenker Volce Colis Similar
io Catilar in all mechantcal respects to Cat. No. $7+30$ INPUI trensformer. Fubers. 1 or $2-245,25 c, 245,171$


This picisup is enseosially resommended where particular stress milt be placed on he ity of tone. This pickip far excons the periormence of nurnal public addret's equipment and is for those radio enginters who desire the fintsi electrical rpporocuction The pickup it skilfully count rbalanced so that it may be used ior 78 or $33-1 / 3$ r.p.m. No volume conirol supplied due to the fact that generally volume controls decrease the sensislvity and cut down the frecuency reaponse of an otherwise excellent plekup. Maximum output .65 volts. Waith exceeds by more than 1 volt the output of its nearest competitor

Overall length 10 in . 754 in . from eenter p.n to needle polnt.

| Cat. Vo. | Impedance | Our Price |
| :---: | :---: | :---: |
| 69)7(3 | $\underline{2010} 0 \mathrm{hms}$ | *5!\% |
| 607\% | Finu Ohms | . |
| 697* | 5000 Ohms | Each |

Polymet $1 / 4$ Mfi. By-Pass Comdenser


With mountins lias ard pigtalls. Zenith part No. $22_{2-4: 3}$
size $1^{11} \times 1^{2}{ }_{2} x^{2}$ in. cat. No. asod 3 Ee

Terminal Strips for Mixing Panels and Amplifiers


Batoelito strips with specially designed nickal plated phosphor bronze screw terminals slip" collars. Find many a pplications in radio and publle ad ivrip A-6 post input strip for micro. phone and phonograph plekup and ground. Marked (7. M. Mc. P. P. Cpt. No. 7148 Our Price

50
Strip B-6 post output strip for volce coll, 500 ohm line and 400 ohms. Marked L. 9, 15, H, 5C, 4M
cat. No. $-1 / 14$
Our Price
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Strlo C-4 post output arrip for volce coll and high impedance. Marked VC, Hil. Cat. Vo. 7150
Our Erice
35
Stri, D-2 post input strip marked input. Cat. No. न1ヵ1 Our Frice
$25^{c}$
Strip E-(Not illustrated)-2 post output stiplp (same size as strip D) marked output.
Cat. No. 71.62
Our Price
$25 c$
\% Terminal Strip marked "M-Mc-M" cir mike input.
C.t. No. 7118

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4 Termingl Strio marked "F1 and F2" for 2 dyaamic speatrer fields. Cet. No. 7449
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THE FIRST-
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Size \(121 / 16 \times 13 \mu_{2} \times 3\) in

The only service device whtc'? measures every unit in a radio receiver.

The only Tester which locates every defective receiver unit when the receiver is entirely inoperative.

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Ail Values of D. C. Volts on Quadruple Range Voltmeter from to 1000 VoltsHigh Sensitivity Voltmeter. 1606 Ohms per Volt. Ranges 0 to 20.0 to 200,0 to sion, 0 to 1400 volts.

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Cat. No. 412-List Price \(\$ 250.00\)
Our Net Price

\section*{ist Prire \(\$ 250.00\)}

Range Capacity Meter from .05 to 1. Micro Farads. Ranges .05 to 1 M.F., \(1 / 4\) to \(15 \mathrm{M} . \mathrm{F}\). Capacities from . 0005 to .05 measured on Merohmeler.
TESTS ELECTROLYTIC CONDENSER LEAKAFE AND CAPACITY INDEE OPERATIVE CONDITIONS. OUTPUT OF RECEIVERS MEASURED ON MMLIMMMETER.
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Tests Radio Tubes by the most accurately known method by applying standard values of D. C. Voltage to Plate and rrid, reading standard values of plate current, mutual conductance and gas content.

All measurements without use of AuxIliary Apparatus. Instructions include Lcose Leaf Book in Leatherette Binder covering-Point-to-Point Resistance Measurements on Recelvers.

Cat. No. 413-List Price Carrying Case \(\$ 15.00\)
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Teats All New Tvne Tubes and Receivors

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There is a blg market for radio men that is being overlisoked. All over the country you wil. find window space decountry you wil. find window space devoted to special sales where a man or *oman holds up cants for the publle to spe What he warts io say. Who not say it through an ampliner. of courcel Price is of paramount importance in this case. This system will fill the hill under all cona. crowd of from 500 to 790 people will be ahle to hear perfectly.
1-3-stage \(245 P^{P} P\). Amplifer
(Cat. No. 120 i..............

1-RCA Speaker (Cas No. 10зі,
12.50
1.9.

1-Mike Battery (Cal. No. 6656 )
421.33


\section*{Three Stage Push-Pull 245 Amplifier}

Using 2-56's, 2-45's and 1-280 Tubes


Outpus: 1 Watis.
Size: 14 in . long, 10 in . wide, \(X\) in. tall. Shipping welyht: in ibs.

Cat. No. 120 * Tuhes. \(812^{75}\)
Set of Universal Tubes. .\(\$ 2.25\) Set of Arcturus Tubes.

This pmplifer has three stages, two of Which are voluge fain slages and consist of two of the new so type tubes. slst of two of the new iso type thes. Outmit siage is tro 240 s
and the rectifter is a 290 .
An exclusive method of providing for the use of high and low impedance invut and high and low impedance outinut is incorporated in this unit. The thput is suitable for use with single butluñ microphose or low impedance phonograph pick-un. The high impedance inpr:t is sultable for use with the plate of a radlo tuhe fo that a Radio Tuner can be converted. or wit's hizh impecance pick-uns.

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(Portable Advertising Systems)
You can use your service car to make you can use your service while matint jour survice rounds. money while making sour service rounds.
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in. of your truck is consumed by it. 1. of your truck is consumed by it
 \(\mathrm{I}=-\) Set of Untvereal Tubes.......... 2.25 1-G.E. Induction Motor CCat. No. 1351
1-Acratone Pick-up (Low Imperance) (Cat. No. (js!!s).
1-Victar Handmike cat No \(4 . \%\) 1-Mike Battery iCat. No. \(\operatorname{\text {Nasisil.}}\) 1-SPDT Switch Cat. No. 41041 2-Photophone Dynamic (Cat. No.

15.01
950.34
\(1-3:\) V. 150 Watt Motor
:33.75

Circuit of No．i91


 hyiden of realitors to 2 si interpoediate ampliner whiels is trenblorilues colipled to a plif ot 2 à of tunes

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\section*{Quality}

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\section*{Performance}

 －wh fonctkers wih ample nower．Specith output is provided


\section*{Atrennator Comirol}
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\section*{Power}

Cromerily amplifiefs of this type the rated ats hariag bift


 ：Trulifier

\section*{Acratone 3－Stage＂25け＂ Power Amplifter}

Cas \(\mathrm{Na}_{3}\)
101
\(\$ 24.50\)
Less Tulens


Policer Outpul－ 11 wafts．
Power Consumption－130 watts．
Power supply－ \(110-125\) walls， 60 egeles A．C． Size－ 16 in．long， 11 in wide． 8 in，sigh．
Employs 1－58，1－56， \(2-250\) and \(2-281\) Tubes．
Sel of Universal Jubes．
54.25
Sei of Arcrifus Tabes \＄1徒． 10

This Actatate Amplefer hat bech on，contunpus iest for ovet a momb to assure long life ana thedr gopsty in meet varring condatuans，The heavy duty power transformer is cornhructen for an extremery larpe safoty margin．An electronctific shifin in fised hrtwern the primary and high valtage windine for reduer the caspicmy and remave at posalouly of arcisig netween，The


\section*{IP．A．Systems in Which the Areatone Three Stage＂250＂ Amplifier Is Used：}

\section*{Large Truck Sonnd Syslem No． 704}

A treat miny eofsiombia and doglets ais takine adyaniage of ladays market， in equipping thrsir limekt with sonnd rrafems inktear of lelting them lie idje． Tinese truckt are rented for edrertising purinecs and thes are quickly reporiug The dealess fer their efforts．The sound ＂retelit recommend d here is rive most cittans ime for ronstant sound work on 211 sogialir centals．

The amplifer ilied in this onlfit is our threads famous 1111 anolifief．Tha amp－ fifer is a ilaye stage \(\because\) ill \(P\) P amplifiet wits alt uncistoriced entput of 4.5 DB ．on thithe anc \(7 ., \mathrm{DB}\) ，oll peolte．It will pasty hajaje fisti RCA Plosioplone speskers satte at 1 万 yatts cech．
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\hline P B Mike & － 0 ！ & 14.311 \\
\hline Unumertat Milet Pusk & ： 3131 & －\％ \\
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\section*{Somad Sysiem No． 70.}

For Auditoriums，Theafres and Outdoors：
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System No． 3 is adeal for offration al sinall danen lialls，funejal gayloss anca portable public address afk to its ta？ partsble public address ofk tai 185131 vatt，undistorted oulpul and wover an Watt，undistorted oulpus and moter ant aresacie city block in lengle tion or thate ficient powier to operale tivo or sherc． Trnamic penker，With very bilgat on pul．drop，approximately oper cent． nikation purphact，ont is easily lon sreat Hilation purpnses，Dut 15 eashl loa ereat it rolume．It，is Ideal for photioserpin reproduction asad miletophone rark，inla \(100 \mathrm{ft} \times 100\) ft or on Audthormith berl ing 1,000 to 1,500 people－

Fauipment Vaed（＇at Xo Pitire


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 RCA Planaithe Dr－\(\quad\)－ \(1: 1\)

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5．．．54



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Cat．No， 540
\(\$ 9.50\)

\section*{Loftiu-White Single Pentode Amplifier}


The single 247 (Pentode) smplifer: Gres \(1-224\). \(1-247\) and \(1-250\). The outpus of this unit is spout 4 waiby For hieh koin this unit is recommended for use in the semse purpoves al the 265 smplifier.
Cal. No, 82
\(\$ 14.95\)

\section*{The Loftin-White '250'}

For Theatres, Public Address and Mierophone

\section*{Amplification}
mplars 1-m, 1-*4, 1-6i Tutes
The "250" Amplifier will successfully bo the worl that much hirher-briced ramoll. Gers have been doing in thie pail. For phomegraph reprodaction thti moded can le relied upon to delivar suficiens volume to fill a hail contaming up ta 1,500 penpie.
The undatorled oistaut of this unit if 5 watis For pmail pubic addreat bystems this wob is used extensively. The manpli. fier for afsptatite for phoangraph. microfier ia aqeptasie for phe
The putput of the "ny \(50^{\prime \prime}\) is trem 6 la 8 watts, sudistorted
"2tion AMPLIVIER-Wired and Tenied
(less tabes)
Cat. No. 78 काष को
250 Push-Pull De Luxe Amplifier


The puiput is rated at 18 walk and
 4non ohms The input is actaptabie to 2licrophap, Radio ane Phonograph which ste bult into the ampiner. This is thin isn yord in s.224s in nuin pull feos. torn and uses 3.224 p un push pul reos-
 rectiners. At 400 givems, the gain it
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At full voltrome, the pericpmage oi fif lenten te abait to and the amplifer chacel tromiso to pan cytes
 bitak) fambed ohabir iha unit is the lost worg in amplitiera from eurry angel A tappot oulput wres for eane of operntion The thapial is alise tspped for microphonic ratio anc phoneersph inputs The gala carerol Eultaple for Phonn, Mike and Radio Iuve Cas. No. 79

Law Tubes
\(\$ 42.50\)


Type PA=1
3 Stage 250

\section*{Amplifier}

In presenting the PA-1 implifter a precedent has been estabilshed. Never before yas an amplifier of such outstanding merit been produced of oflered, in the low-priced feld. Combining of the wathy features found it more costly amplitier: amplifer represents a trinimph in exginamplifier represents a trinimph in engin"
eiring skill and manufactatils mgenulty. erriat skill and manuractartirs magenuty:
It is a ibree stage amblifer embody. It is a ibree stage amplimer embooypall 250's. The high gain of the mew tubes neariy fourtern watts of undisserted outpat from the 2 2at's, low hom lovel, and an umumalig ine frequeney Fenponie renult in an amptitice frieaty sultabie for ifistallation in theatres. muditorlimis, dance halls, stadiums, and other. puble places, Where musle or a, aecoh mash bo amplified to fill tirize spaces, and gnod qualiy is paramount.

Atanas the noteworthy featire: is the extreminy fat irequediry reiponse, an evinead hy the frequeacy reaponat evive published cluewhere on this nheel. Ints Is fiat through the cosire upver regsatery rensiting in a crispuens am brimaic on tome uniefly defferent in amimers. otaer salient features are tus raluze acturs ment prolective fuse, losarimine chperts ed valume onatra4 master reed-char
switelt. Beiden line cotf with anbrakswitelt, Beiden ling cotr vith inbreak:
able rubber plag. Pieid eurrent is Bynll.
 Whe for A.d. argeaker may po conntcteif without the use of external thokyh of reilstors as required by most amplisers suppiting feif current.

Cat. No. 12 :
OUR PRICE, Less Tuhes
DC High Gain Amplifier


Fas an undistorted output of 3.5 watts USEs 1-237 38d 2-257 outputs tobes in push pull. This output is equivaleat tis the output of tho averabe 245 amplanr, A tolle conctoi is supplied to vary zat tone to any degret desifed, The vircult if in bish gain two gtage, unit Lakigg advantage of the new D. C. pentades and giviue a tone guality grver berom ace Eomplathed on D. O. at thif volame It is ideal for microphous input very compact. It has the waphalis low carreat concumption of is smpere. In addition.
 of the saţe power.
Saltahle for Phono, 3yike and Radib Iepui
\[
\text { Cifl, No. } 287
\]
817.59

4 order blanks have been included in the conter of this catalog for your convenience. Use them.

The amplifer is construcied on a heavy steel base, 471 parts berity "10t.
 fiaith throughovit, is is amooth biack inc. Alue. All materiatis are caretully seleciaci huer testect. a wide safety ratersit iving tad trated, a wase saraty fial is in un: provided The cowntene craptrmaninip. paralised (xample of ine cratuetios isale SEECIPTCATIONS
Tube -115 -tage 1-lis. end stage 10
 \%- 2 s 1 fyll wave.

Laput-Ta any nith mapedanes plekup. Couplits trenaforme ahould be yhed int niceplione inpul of sew mpedance piekup.
Oupht-son impedance milfput sirect to standsra in of \(1 / \mathrm{ith}\) ohm valce coll Hish trapedence puiput to coupin io fhime sam input tramsormes

Maximuse Ondstorted Fower Outpal 8 watts.
Input Eivnat to obloin Max. U, P, O \(\pi .5\) volts.

 Hum level 4 her chil or as mos below maximum anditioriod ourpoty in ret Sneakerh-Wil sumpiy up in in intce
 Fiere Supply-win turnits curreme
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Victor 2 -Stage 245 Amplifier

For Vietor 思eccivers RE-7h, 32.42 and 15

 ont 280 A. Alapibiter patcloed fot is athes vol.a coll and 2.506 ohm fith werlatasm Buppues dynartie apeaker fale of \(130-70\) it DC. at so mita. Uiedisigried gutpyt at 1 watts Finf for wis wih phenterraph peck-2ly or rafio set. Oparates on 110. f130 volis. 50.60 egcle \(A \cdot\) e curment.

Cat. No. \(62 \$ 7.65\)

\section*{Universal Model " \(\mathbf{Q} \mathbb{R}\) Q"}
 cald Eruada ppearance. a p pearance. high and in Anished in beautiful polrished chrome is Model sintle-

Furnished with 3-ft. packied whone tin cord. oz Cat. No. 212
List Price \(\$ 5.00\)
\(\$ 2.94\) bution. 200
ohm cartion micioniwne with hich sen ohm carmon inciophune uith hion senThe buttond is folid nithral reproduction giving it extrentid long hise.

\section*{Universal Baby Mike}


Cat Na. 206 List Price 87.51
8.3 .35

Biby Mrike is gemuiac aingle hitton carbon nlerontrons of 200 ohins resistince if is mounted in f19\%-cast rooumt. \(?^{1}\) Ith-a replica of Brandonst midels It mis be cont nerted to atingl! heis or caneed ría set it the mar.
ketiaby Mike is a oreutifut minia tare in crophane fulthod tiatrera cisome

If is shanser in son secarets packer rd complefel furnmathed pith pion dapter itir colnectins to thbe. Din pluo lor canizection as zocirs or findiem Dolta in thort iverythas needed to hook up ready to eplor the fun

\section*{Universal Model "LL"}
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oy \(13 / 4\) inches thick and is siandard 200 olma per bution. Polished chrome ánish.

\section*{Universal Model "A"}

America's Most Highly Developed Single-Buthon Microphone
Now Heavy Daty Design Time new deita Ge sesvy duty Meap "A" hive phaze tacor-
aurater mproverient that lift the peitorm ance of tils most ri fined ingle-button mi crophone above ans Ching prerinusly constdered possible. The net lype of perforsted protective incang more than doubles the cfrective area of the diapilaym.
Model "A" is conErructed with Solid 24 K . Mol faced bulton and highest urade carbin granulos whith reduce hiss to a mantimum. Equipped Fith an extremels thas, tight
Neielt


Cal. No. 208
Net weight 1 lb Packed weight 112 lbs . List Price \(\$ 15.00\) \(\$ 8.82\) Which is allo
Which is allo geld iaced The weientific Commin permits Medel "A" to hatale frearencip from 100 to 3.000 cselel.

Tive single bution is 200 olm tematance Model "A" 15 in in. in diameier bs 11 . 13. thids. It is bearitiulls mated in polthed chrome and can be tamated in fariconk wate. Model K Jess shatd or \(5^{1}\) 32. swithtion sifs tecommencind

Universal Model "BB" 1933 Value-New Super. Design

C.1. No. 209

Net weiglas 1 ib Pacised weight \(1^{1} \mathrm{e} \mathrm{lbs}\).
List Price \(\$ 25.00\)
814.70 addresins Nork and or tmatetif oralacos0 and er ishad the beantifinly In1shed, highab polished chrome plate.
Model "EB' has ex:ra leotry \(24-\mathrm{Kt}\) Pure Gold Spot Centers, Duralumin Dia phratim and has a ireguency ranse ot Iront 70 to rezil over 4,000 csules, 200 ahms per bution.
Owing to the large size and weimht ot Model "BB." it is recommended that Model "L" dests stand be used for mounting intead of Model "K," eapecially when cotert are uted.

All Microphones are shipped in original factory sealed containers. Due to the delicate construction of these instruments, repairs and ark. justments are made by the factory only.

\section*{Universal Model "KK"}

\section*{A Top-Notch Double-Button Broadcast Microphone}

Only supreme perormance and year afler fear dipendafocisy chas exblam the fach that the "MM-
proved sodel "KIK" proved Model "KK" continues to be the mont popular and inicrophone on the microphone on the market


A substantial, solId, two-button broadcast microphone, with a very minlmatm of nhs. Model "KK" is arefully constructed of the finest maierals with a \(24-\mathrm{Kt}\). pure gold spot center ator diaphrarm Finch 15 held under tension. Disphragm nal \(R\) thickness of

\section*{Net weight, \(1 \%\)} Packed welght, Cat. No. 210

List Price \(\$ 50.00\) \(\$ 29.40\)
aiv. 002 in .
The trequency range of Model "KK" is all that can be desired in a carbon microphone, namely from 50 to well ove 6000 crcles. 'The buttons are of 200 ohms resistance each. Entire microphone fin ishe d in 24-KKt, polished gold. It is 2 h in. In diameter and \(11 t^{\prime}\) in. thick.
Fach unit is carefully laboratory tested before shmment.

Universal Model X Two Button Microphone

A Sensational Microphone at a Sensational Price


Dia metier, \(212^{\prime \prime}\) Thiaknets,

Weisht pactied itb. Polished
Nussel Plate
Catt. No. 524
List Price \(\$ 10.00\)
\$5.88

A twa-button mic. rophone listing at only \(\$ 10.00\). Model ' sets a new higl tandard for quality at a price that do des competition
Model " \(x\) " contirms he reputation for quality and performlice that characterproducts. Every es. monial teature ne--paiary to insure superior performance and long, care-free corporatad in the sign of this the deonly the non-essel. lial trimmings have bein eliminated to ensble us to offer this remarkable mícrophone at this pophler price.
Paithful, truly natural tone. Pure Gold Coniact. Durblumin non-breabable diaphrstm, 200 ohal per button. Very low use level. Scientifieally Damped. Freare nity range from 1,000 to 4,000 cycles. Model " 2 " is ruggedly bullt and fnished 12 non-corrosive, pollsined nickel plate. C. b be mounted in any universal mountmis Dimmeter, \(21 / 2 \mathrm{jn}\). Overall thickness, 1 Nowher
purchased at a better mlcrophone be ishmely low price.

Sprelal Derk Mount for Moal \& Mike with 8 \({ }^{4}\) prings.

Cat. No. S:31 So \()^{106}\)
Our Price


\section*{Universal New Bullet} Type Microphone

with tone
CONTROL AND battery
compartment
Carbon Granule
Type with Jilis Euminating Filter
A double bution mian binone giving the zapest ance of a condenser mike Recommended to be wec aholever the mike is in ral? vsew of the gudence.
\begin{tabular}{cccr} 
Ballet & Cat. & List & Our \\
Miroplonn & Nn. & Price & Price \\
"BB"" & 217 & \(\$ 50.00\) & \(\$ 99.40\) \\
"KK" & 210 & 75.00 & 14.10 \\
"LL" & 223 & 100.00 & \(\$ 8.80\)
\end{tabular}

Yote: All Bullet Type Mierophomen suplifet with cahie as shown. Shippen whe out bsitery. Butlet rype Mierophones are the lest, Word in eppenrance and pertormence for ine lowest possible coll. sinecially recommended for use is pubWopecialy recommended for use he pubtirce of appearance, beauty of design arce of appearance, beavice and sound ane srate reprod
Carelul tests have shown that the hirs level of Unifersal Bullef Type mleraphenes is far below any bachprourid holse encountered in public addres or imales work, making tise proved per adir caron microphones especially favores for that tyse of work.
Universal Bullet. Type Mictophoaes callsist of a tube filh a center parilion, No 5 dry cell balters. Microntane No \({ }^{5}\) dry cell batiers. Mictophane hend is inted, adsurme tertivil ponmond athreugn side of tube, fermitisw, microphone adistenent for vatying acousite condhors. Flexibie vite connections, lonis neath Rupber cushions and oring ccment. Rubber cushions and sorims rase a very rueged asembis mion slaes make a very rugend astembit that permits a reat deal at nanoline formance.
Finished in highly polished alumintitm and errome piate

Desk Stand for Above Mike
To be mounted incerted
CaL No. Nas
\({ }^{86} 2^{35}\)

Foor Stand for Bullet Type Mities Cat. Nn, \(3^{3}+11\)

雷
Frost Microphones


The: macrophomes enjar an ebvilbble reputation for thelr excellent, performance and appearance. Their design in besed on arer thirty-five sears esiperifnet in the elephone manufacturing field and the tion xhen veed in proper circuits. Tries tion aren veed in proper clrcuits. Tries sie not designed for commical braidand seneral apparatus work rhate micro mories are very epmolptle and rugged in honarvetion Avelichin in twio greien stangara styler complete with fard

\title{
Universal Torpedo Type Microplhones
}


This zew typn oi Oniversal microplione brppried io mert tis steadty crow ine deantrd fos maciopliones which in themerves are fully protected, a re more coripacs. adat can be avich Tyme Microphones of che desto, fllustrat a sis supiene in thes netib. rhey com A sit suprene in this neib. They com
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Connection is trata to tibsee spring jackh ioto whict resphan pin termina! are plusged. Xot suppled what coril Tin wolished etiome plated perinaraced anco cereened eup houshage hre, of hehvy hrasn and are firmaly fastened. Can not ter re. noved accidentaty, suppiled in stbndarc Morets "ris" "Kris' and '13."
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\] & Our \\
\hline Torpedo "B8" & cen & 89710 & 518.68 \\
\hline Taranda "kK. & 203 & 858 nn & 539.34 \\
\hline Torpede "1. \(\mathrm{S}^{\text {c/ }}\) & \(3 \%\) & \(190 . \mathrm{nm}\) & 817.04 \\
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\section*{Universal Single Button "Hamili-Mike"}

Pre-eminerat for ali usea where a fand mitroppotine of dealime it in intsncied fos volee onity and its this fielia if has milucimum volume with clear and cesatm-cus "puecis repiradibetan:
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 sihoae is recolvinue is estabbiaing it withat corvpell. comitint.
fonnt-Wike is intshed in Neautialle miltstad entore It is couspoed wah po "aft" font enit and ntorkiker mil? ala nto at ntiment for heng哣 white in of oat of lise
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\text { Lh Pries } \$ 10.00 & \text { fni Home } \\
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Cat No Bi: Model Cot. Nn.

\section*{Metr Propec 85. 88}

\section*{Universal Double-Button "Handi-Mike"}

Same stoe and appeniaige on the Blacto Gution Stise

 and with in ouft wis biald covered cable

Cat. No. 227
(1)ur Proice SR 8.82

\section*{Universal Handi-Mike} stand
Dibshed In ITAncl-Mike either one \(\mathrm{Ciz}_{2}\) two-butten, I ratiticuinrly Eood for holaing the nicrophone when make ist home nocordings, It also permis tand-Misly to bn afed its a
micentinme.
Furnished with s. Fwhloer covereg base and rinished ir gha: metnl.

Porked weight 2 ds thas
 Our Frice

\section*{UNIVERSAL} Miniature Microphones


Thitereal Model "W" it the smalles" completely protected and workable single. button microphone manuinetured. Supplted purticularly for the many opicia pees requrine a small. very sexative compact microphone that cin be dspenced compact microphone fulity performaner A IRvorite iype int use in ardiden position: ravorite type inr use ne far on the coat tispel.

High sensitivity, light weight and cam pictness are the outstanding features of this model. 200 Jhms. Equippid vith Pure Gold Sgot Center Dlaphragm, onm pletely enclosed, protecting it against injury during handing and use. I\% in. in diameter. 1 in. thick.

Our Price, Model W.

\section*{The Super-Sensitive Midget Microphone}

Universal Mondel " \(Y\) " is even light" maller and more senstive than Mode W," cescribed above. It is of the name general construction that the front lace of the natero cept that the front gace of t.
phone is the fiaphregm proper.
Model " Y " is extraracly sensitive. When placed in any hidden position, it will plek up sounds and conversations. hecommended for use where high senaltivity and -xtreme compactness are necessary. Should be placed in protected locations, behind screen or grill work. Sultaible for use sith somo of the less expensive types ol ear phones. Because of the exposed dia phragm, grest care must be exercleed in handling
Cat. No. 2:2\%-List \$:2 (M)
Our Price, Model
\(1^{10}\)


This fine mterophone ts being used by RCA-Vicior in their 6750 radio and phonokroph combluetionk. Its extremely site responce curve malsen it suiteble for home recording. pubic address and ameteus hroadreating. The entire \(c\) asing and hendle ta of steel in gun metal Anish, mak!ng if. sturdy and rugaed. It requires but 10 mils of current which may easily be obthined from a \(11 / \mathrm{m}\) volt dry cell or pover pack. For home broadeasting it is not negerisery to use a coupling transformer \(\sigma\) ith this mike as it will verform perfectly when inserted in serles with the cathode of the detector tube. This mike cathode of the detector tube. This mike is manulactured for RCA by Kallogg ment it akandart in \(O 0\) per cent of the morld's broadcasimg thilions

\section*{Build The Radio News Condenser Microphone With This Complete Kit For Ouly 83.00! \\  \\ The superiority of the conderiser microphone over the carbon type 15 ack nowledred. No hiss, ho bution curreris necessary. This miserophone can be assembled in less than an \(h\) our and the amplifier bulls into any conrenient box
or can. Kit includes or machined untr. iotective screenng. Dural diapmrakm, ase and brass backplate, pronglens Radio
 nike: 'Ir fact, this nex umit is superior Ito the original Western Electric anit) in that it is reary for use and does of any kind!" Complete inetruction sheet firnished with each kit. \\ Cat. No. -4.51 \\ \(8.3^{001}\) \\ Our Price. Per kit. \\ }

\section*{Acratest}

\section*{Auto Converter}

Furnishes 110 V. 60 Cycle A. C.
Current From A Storage Battery
NOT A "B" ELIMINNTOR
OPERATES-
A.C. Midget Sets
A.C. Fans
A.C. Amplifier and Turntable Ind any A.C. appliance consuming up to 65 watts
This unit is only high. Weighs 6 lbs.


This device furnishes 110 Volt 60 Cycle Alternatin Current from a Standard Six Volt Storage Battery.
Wirh this derice soir can use rour Standard 110 Volt Alternating Current Midget Home Radio Set in any Automo bile, Boat or Aeroplane Use your Radio in your automobile whle travaling and then mercly pull the plug and take your set into your Home, Cottage, Bungalow, or Hotel Room to use there.
This device allo lends itsolf to small Public Address Systems, drawing room from 40 to 65 Watts. Elimbuntes the necessity of gasoline or other expensive types of Generators. This is ble: you to use your Public Address on yL ' F Automoblle for Advertising Purposes, Jutdoor Meetines, Picnics, ect.
Small Electrical Appliances drawing from 40 to 65 Watts may also be used yith this Converter. Such Appliances as Fans. Heatir \(\underset{y}{ }\) Padi, Baby Bottle Warmers, Curling Irons, Juice Extractors, Drink Mixers. Trouble Lamps and many cthers come in this classifation
The Battery Drain is very small. Due o the fact that the current is taker from he Battery intermittently, the Ammeter oes not accurately record the Drain, but registers only the peak load. Nowerer, the am nter reading. A fo Wait Radio Set \(\mathrm{dr}^{-}\)between six and seven Amperes by act sttery Test.
Cat. N
Our \(\mathbf{P}\)
ith Cable \(824^{50}\)
Comple ith Cable and Control mox

\section*{Aeratest Matehing Stage For Mike, Phomo and Radio}

Input hiegh impredannes for wee vith radia sels und hich ixnpedsince plionograpl pick-ups. mput low ime with low impedance phonorrap: picle - 18 ps and sinele-button m crophones Output \(1 \mathrm{~m}-\)
pedatuce \(\frac{1}{2} 00,010\) pedauc
ohms.

\section*{Batie \(5^{1}\) x \(3^{1}\)}
in. If icht \%
Weisht \(\$ 105\).


This unle compact hotised ats a small black crackle fimshed tactal cast. Equinped with a Folume control whiefi nssure fire, noiseless control of the cutput Pir ticularly sdantable for use with LoftinWhire amplifiers ithich ere gentrally supplied withaut input tranoiormers, of any other amplifler not equipsec with inpur stage. The use of this mput stape in conjunction With Loftin-White amplifier will permat greater roltsate gain and bot er ir quency response, due to the fact that all units are properly marched to the ampliner. Space th the can is prorided fot a \(1^{1}\), volt fanhigh cell to provide current for the microplione
Cat. No. - 870
\(\$ 3^{2 \%}\)

\section*{Acraphone Microphone Input Stages}

These units vach contaur the well

 corriters, m1crgphone buiton currefit conifros illad
curcut swirch 10 eutaut swizch ro
wristresthe life of the microphone. Freglency ronge 30 0 sfoo byeles Initut st molard microphone tmpedamee: output. Ion, 11100 olims. Completels wheided io nvoid pxcenbie feed-blick A rolunite consrol with on "on-ots" switch for antrolling current at the microphone are included. The solume contril has a recy finc bajustment nof ordine-15 iotuis ila offiot input stapes. A finvie No. if ciry cell is ubed for microolione curient suphly and is entrifd in the flat spoce, Tree sloe and finish of this unit barmonine with fituf surroundines.
Brown crathif Jinithed stell case, 7x. 3
\(\times 23\)
 less battery. Single Button NHes
For Sither


Cat No.
Our Price
85

\section*{3-Conductor Telephone}

Type Plug and Jack
For Mike and Mixing Circuits A special desist ol sion
 conductor plug nipd juck for microphone ute. Standard Tar. Connection madie by solder joint insuring posi=
tive connection Plus \&ize
 Dianestar, orfrall, \({ }^{29} 7\) lengtiz meter in in. Jack fits \({ }^{\text {in }} 1 / 16\) in. mounting hole and may


List Price 75c
Our Price
44
Cat. No. 7:2:-P1.t Our Prine
\(8 B\)

That Brings
New Nhrill
to You
Home and Comverts Your Radio
Into a n EFECDRD MARER
Phonograph
THE PRESTO Record Maker is not a toy or tis experiment. Is is the crow ing achlevement of a nailonaliy fnows mantacturer will twenty yeire kuc cesitul background in the production of bund recording detices. It, 15 a proven cientific instrument that reproduces any

sound whth starting realium- the resuit场 Iife italin! The records ate, peranalent ant eari be played inamt hendieds of times "ithout ans lows of the erie inat brilliance of reproduction. It is ideally fulted Ior mus icians. Epeakers, illoth and teachers 10 tess the it ciretings and Toice infection.
THE PRESTO ReNord Nowker is sifumte ThE Prew To Renura Nank is sumple and compact. No selicate or complacared frats to chusp trouble if incompritefice. The PIRESTO is ulvarit rendey to ro! In aditions 10 girime rim rime jors of home recording, ite PRESTO reobed ruaker cats. rerts rour sadio Jito bil ELECTizIC PHONGGRAPA that will thar hil shandard records. It irines sobit be mixtial gem of all times whens, and as ofiten ast you warit inerith
THE FRESTO Pecard Mhater is in no why similiar to othes secord=ntsatrif de-
 isrimarils to produen a supertative mestid Which cannoh be dutsitasted. grezsich
 and cuts its own frompos an it recondso DSturivg 32: ticcurate and latilis eveold
 pre-kiopved recoras. A sperfina iscorif
 ing. aloo insure of merfoct reminomethath There is no substifute for PREsto:
This tristrument
contes the yan oom-
ple te winlo ymber:
urn-taste, volume
coniseh micto-
onote, melewtor

tiful compaot posianle levimereita clame. Cat Na 1 s.
Our Price
"295
Look! A Fine Mienophone Floon Stand for lless Thann 85.00

ACLusimbl.
sraximam helzat, \(6, \mathrm{tt}\). E. in
Minimitas helyht, \& it, 10 in.
Antighe bionze falath
Suthetanflal meighted buse.
Macrobhone cathe reats thru the eerates ot the stand and comes nut as the brse.
remarkable value.
Cat. No. \&:B1
Oun Frice
*

\section*{Mixing Transformers}

\section*{Mierophone Shicided Impur Transformer}

Thas unit is the
result, of many months of designing and lests. Tize trequeacy 15 exceptiotiafly flat, from to to wer 1000 cycles Primary is split - 100 ginns each side of the recondaty impedance is of the order of to0, fion ohms. A others listing for ine others listing for ine is \(3^{3}\) watwe price. The size iots inenes. Matches impedunce of ail standard type carbon 2 -bulton micrephones.
CaL Ne, 24ais
Oar Price


Twn Butcon, Enshieldied Mierophone Transtormer Fame Characteristies as but No. 26 B

Cat. No. :-7:
Our irice
\({ }^{8} 1^{23}\)

\section*{Two bution unobiselded micropinone irantorme: whth 5 000 olime witedint for standinci folckup amid a center fapzed hecoadary sed with is in \(\$\) h -D u! used \\  \\ Cat. An. \(\overline{7} 14 \%\) \({ }^{\mathrm{g}^{75}}\) \\ OUR Price \\ Wherothevac- IPhenograph Transformer}

This transformer is alfinar in appeas dsee so No. \(\quad 145\) and has a primary 60 mistch th iwo-lutionis microplophe atid at secondary in matel the phenograph rickup posts of biny thatio set. It may alse be used as ats ombolit tranaformer from a single コ2\#, 06 or lio bype tube inta a 200 or \(\overline{6} 01\) ohm Jne.
c=1. Nn. 7isisa
Our Price

\section*{Push-Pull Dutput Tramsformer 10 Match}


Cat. No. 6917
\(\$ 1.95\)

Class If Tratisformers AUDIOS, CHOKES POWLR SGIPLY (Circuit diagrams free with each item) Chass B Amplifers, a recent development, nave already serin the emmusasue ncceptanco by serviemenc, enzincets and smateura. Every radio eatbasiast is anxions to bulld has ows Class B Ampither, Lut they have been hamipered in securing the spectur parts goiag imio its makeap. Below we have assembled a complerif the of nudio transtormers, power transformers, and chokes espectaly designtd for Class B operation. Parisicuiar care was taken ip their design to thature best tone ounlity. The bent nilieon, steel is used for thit coren and pure eiectrolytic copper wire for the coils.

\section*{Class B Power}

\section*{Transformer}
supples niament and plate for 10 tubes, rank \(3-2 \%\) yolt windine the 182 Rectur Electrostaticaly shielded.
\(\$ 2.85\)
Class B Coupling


Transformer
Inpul For a Sinelt 46 Into 2-46.s

Gat. No. 7127
\(\$ 1.95\)

For 2-227 or 56 's inta 2-46\% Cai. No. \(7244 \quad \$ 1.95\)

For 2-245's itto 2-46's
Cat, No. \(7129 \quad \$ 1.95\)
Oufput to on ohm, 15 nhm .500 ohm and 4000 otim from \(2-246\) 's.
Cat. No. 7128
\(\$ 2.95\)


\section*{Class B}

First Choke
Cat. No. 7126 95 e


Class B
Second Choke
\(\mathrm{Cat}, \mathrm{No}, 7130\)
95 c

Acratest Special Matehfing Transformers for Mixer Paticls


Fach of inese ransformert were lpigned ror a pirsiculs purpose in onnection with pubic address and studransformers hisese bangininery hs a basis, input and output mixing pare's may be constructied at, exceptionally low quency excellent frehich eftheientr were quency primary constiderations in their fesien.
Cat. No Description
Prien
Ti3i Mictuptront to 200 or 500 ahm line transitrmer. Two of nore nf the use may be used for two or linve misercphones on we tive
84.50

7132 Mirrompone to 50 oinm tran frommer. Folli of these transLnfers is, with their for 4 antres into 200 for sins Dinirrim int ohins, Dinitram fur11 hed
\(\$ 4.50\)
2625 Pince at 232, 224 or 257 Nute lo 200 or 501 o h m sinpul limpedsrice 950,000
\(\$ 2.75\)
atims
\(\$ 4.50\)
7133 Prane of 230.297 or se Tuh to 200 or
sion ohm huput frans. corfer
71.34 son whm line to from one to six 15 ohm
\(\$ 4.50\)
Microphone or Phonograpli Input Transforneer large audio mounting

This 18 an ex-
cellem tringstor-
mer for use til mer for use uil
env ampliber o. ritio roctures. It matcines the stend. ard mictophare. vit. 200 oltint eil eath side oi cen. ter tap ror dol. ole buitor micro thones 8 nd e 5.000 ohm nlyono. \(2 \mathrm{rap} \mathrm{ph} \mathrm{pl}-10\)
 The secondary of
hes an itopeciance of 250,000 ohm
\[
\text { Cat. No. } 7145 \quad \$ 1.95
\]

Filter Choke to Match
is Henres at 150 MLs.
1dentical in appearance to the 6915 input transformer.
Cat. No. 6916


\section*{Brunswick Low Impedance Electric Pick. Up Head}

An exceptionally fine pick-
 up head with a cobalt steel permanent magret housed in bronze finished brass case. Made by R. C. A. and used on R. C. A., Victor, Brunswick, G. E., Westing: nouse and other makes of radio-phonograph combinations.

200 OHMS
(at. No. 3870
Dur Prite
70

\section*{RCA-Victor Low Impedance Pick-Up Wilead With Straight Neck}


Brunswick Low Impedasece Pick-Up Head
Same as No, 7201 hoove, except with fomate piug.
Cat. No. -200
\({ }^{238}\)

The Latest and Greatest Bit of the Day
Gen-Win 5 Meter SuperRegenerative Coill Kit

Fot the new
hrills that redto l.as 10 offer todar se recommend the lew Super-Recenraw Stiper-RegenRECEIVER for the
 Ulita-HIgh Fre-
quencles. The new qelerision brondeas ing stations are experimenting on this wave length and thousands of sadio amwave length and thousands of radio ammarvelous recelver offers the following leatures:
1-It has high sensitivity.
2-Freedom from microphoutc nolses,
3-Simplicity and effectiveness of adjus ment which makes it unnecessary to touch the tuning set at the least \(\nabla 1\) bration as is usual with other Short Wave Recelvers.
4- Exceptionally quiet in operation.
The GEN-WIN 5 METER COIL KIT is expertly constructed with precision and infialte care and of the ftnest material The kit consists of the following: LI Tuning Coll; LT Tuning Coll.
Special Radio Frequency thoko Coil.
\(\mathbb{L}:\) and Lispecial Auxiliary Oscillator oils.
Included with each Coll Kit is a well drawn blue print. Shipping Weight 2 lbs. Cat. No THEA
Price Complete
\(\$ 2^{75}\)

\section*{Phonograph Motor Governor}

in all CtE and Fictor Motors.
Cet. io \(\$ 781\)
Our price
75 e

\section*{A New Super Hydro Dowble Action Pick-up}


Can be used in combination lladio ant Phonograph Eroadcasting Siations, Public Address Systems, Whoratory and Experimental Work
This unit is very efletent with much greater output, and we recommend it as a competstive unit, against any make, regardiess of price, size or outpiat. A positive working principle and of the indestructiole trpe.

Neat-Simple-Compact Construction All workmanghip Prectilon Bullt, with the finest grade of mairial obtainable, unconditionally guaranteed. Beautiful statuary bronze finsh.

The Free Movement
of armature while in riding position will prolong the life of the record materiafly and allow for any warp in the record. The needle will raise sufficiently with the stylus to overcome this and not gouge the groove at the warp. Rubber insulated needie screw top will stop any ressitance points where screw may come in contact, with the case. The rubber bumper and rubber plece mounted in back plate holds armature in position In case of drop or sudden pressure on needle poilt.
The mikenetic flux is equal on all four sides of the Pole Pieces, giving a positive magnetic center and air gap at both ends of the armature.
The New super Hydro brings out the fundamentals lost in most pickups and With less scratcin and a full round tone.
STANDARD PHONOGRAPII PLCKUP
WTTI VOLUME CONTROL
\(10^{\prime \prime}\) overall length, \(73 \mathbf{y}^{\prime \prime}\) from center pin to needle point.
Cat. No.
ha?
Regular Type
.200 Onm Impedance
6898:

\section*{Dur Price \$4.75}
- Can be uved on Victor and similar recelvers. Can be connected dri
microphone innut transformer.
Standard Theatre Balanced
Pickup


15yz" overall length Arm is balanced for required type.
Cat. No. 5996
85.25

\section*{THE NEW}
"Upco" Chromatic
Professlonal Piek-up With Butt-in
Volume Control
As Used in Theatres and Public Address Systems


TPCO'S engizeers, barked by limitless skill and expetience, have evolved this fruls scjentife, sensitive instrument. capeble of reproducing all of the world's fines music with full justice to the consummate art of 4 ts creators
Our Price \(\$ 6.95\)

\section*{General Electric Induction Start-Symehronous Drive Phonograph Motor}

After you read the deevintion of that motor you will wonder why we gre "Ewing the 2 n
a wh \(\begin{aligned} & \mathrm{w} \\ & \text { such ridis. }\end{aligned}\) ulously 10 w price. The nswer is lucky pur. hase 150 m the G. E. company and we don'trart to hold thens. but pass our

to our custaners
A compac, pokerful motor which realinduction embor ixo separeie motors - one induction part overcomes the starting orque so that it sraris of immedtatels bit as soon as it rotates at amediateis 78 r.p.m. the synchronous mot sperd of into action and keeps the molut comes exactly 78 rpm . constant No brushes no radio interference. At the price asked. You can afiwrd 10 buy several of these motors to replace old, weak and worn out motors; to dismantale for parts like coils, governers, gears etc., and for window displays. Amateur experimenters in radio, televion and macninery should lakn edvantare of this opporlunity. The wotur will drive anything within its povir.

Dil meter \(\mathrm{z}^{\mathrm{in}} \mathrm{in}\). overall, depth s in. Wat No 1 f lbs. No turntable supplied Our Price, Less Turntable
\(75{ }^{c}\)

\section*{Utah Electric Pick-Up}

C.t. No. 4551

\section*{Dur Price \(\$ 3.85\)}

The tone grm is scientifically degigmed to give the correct support to the pickup unit. The weight of the tone arm is carefully calculated to insure the right a mount of inertia for best reproduction. The pick-up is molnted in \(\begin{gathered}\text { mander to }\end{gathered}\) counter-balance part of 1ts weight, thus naterially reducing wear on records Standard impedance 7500 ohms at 1000 cycles. Supplied with 6 it. cord with phone tips. Artistic brown finish. Individually boxed. We recommend our Cat. No, 8610 Acratone Volume Control at 90 c .

\section*{Universal Tone Control}

A new accessory that means much added value. The tone control is used micronhone to change the tone io fit adrerse conditlons. Shrill ligll pitched volces may be toned dowr to normal, and grue deep voices may be tuned to more pleasing positions in the voice frearencies. The tone control. permits an adjustment in permits an adsubtment in public address and loud eliminates the "f eed back," resonamce of ringing echo folloving the pronunciation of certam words. It provides a fer


Size, \(216 \times 2^{1} 2 \times 44^{\prime \prime}\) Net welght. - 1 lb Cal. No element againtt a mea.ble adjustable working in a bullding haring bad acoustics.

Dur Price \(\$ 4.70\)

GENERAL ELECTRIC Synchronous Motor With 10-inch Turntable


\author{
Cat. No. \(215 \$ 3.95\)
}

\section*{G. E. PHONOGRAPH Induction Motor \\ With 12-inch Turntable}


A compact, powerful, heavy duty induction type phon ograph motor coing muta-commutators, brushes or it cannot set up any disturbances. Large bearing surfaces provide adequate support and insure long ife.

\section*{Quick Starting Torque}

Excoptionally quick starting torque. Full speed is attained instantly without manual assistance. Equipped with 12 -inch turntable, cord and 2 -piece plug.

Cat. No. \(135 \quad \$ 7.95\)

\section*{Remsen Aluminum Record for Home Recording}


\section*{Universal Pregrooved Records}
\begin{tabular}{ccc} 
Cat. No. & Size & Price Ea. \\
7176 & 6 in & 18 c \\
\(717 \%\) & 8 in. & 29 c \\
7178 & 10 in. & 44 c \\
7179 & 12 in. & 59 c
\end{tabular}
"Echo" Pregrooved Aluminum Record Blank
Can be used on any phonograph or electric turntable. Just sing or talk into horn or mike.
Cat. No. 5363-Diameter 6 in.

\section*{\(\$ 1.80\) dozen}

Including 2 Recording Needles

\section*{The New Two-Speed Green Flyer}

\section*{Model D}

Motor,
78 \& \(331-3\)

\section*{R.P.M.}


One demonstration and they want it. Put on a new Long Playing Phonograph Record. Explain tts merits. Show the slow \(331 / 3\) r.p.m. turntable speed. Then change to a Regular Phonograph easily to 78 with turntable speed shifted easily to r.p.m. by pushing the speed-change lever. They want the Two-Speed Green Flyes Motor. They want new Long paying or \(\$ 25\) ords. You're making a \(\$ 15\) to \(\$ 20\) or \(\$ 25\) sale, that will bring the same customer back for more records. That will bring you otizer customers for motos ecords.
Backed by over 15 years of Flyer Phonograph Motor and electrical garanteed. Order a sampte TODAY.
New Green Flyer Two-Speed Governor Controlled Electrical Motor-33 1/3 and 78 RPM complete with \(10^{\prime \prime}\) turntable speed indicator dial, speed indicator pointer, speed change escutcheon plate, pointer, speed cointer mounting screw and washers
Model "D"- 110 Volts A.C., 60 Cycles Model No. Turntable Price
\begin{tabular}{ccc} 
Cat. No. Turntable & Price \\
253 & \(10^{\prime \prime}\) & \(\$ 9.75\) \\
275 & \(12^{\prime \prime}\) &
\end{tabular}
\(27512^{\prime \prime} \quad 10.75\)

\section*{"Bine Flyer" Motors 75 R.P.M.}

A slightly heavier and sturdier type Ah the "Green Flyer, Recommended for non-synchronous sound or other heavy duty installations where a specially dependable motor is required. Very high torque, on actual test will out-pull any slmilar molor. Will not heat in enclosed cabinet. Complete with 12 inch turntable.
Cat. No. :304-For \(110-120\) volt 50-150 cycle A. C.
Our Price, Each
\% 7.01

\section*{Special Blue Flyer}
for 3 : \(1 / 3\) P.P.M.
For new style recordings and syruchronous moving pictures.
Cat. No. 305
\(8]^{75}\)
Our Price, Each

\section*{Special Acratone Carbon Steel Recording Needles}

This needle has been developed especlally for recording. It may be used on either pre-grooved or blank discs of elther aluminum or composition.

This recording needle is made of extremely hard carbon steel which is mickel plated and highly polished. Backgroundnoise is reduced \(50 \%\) with this new type of needle. The tip of this needle is blunt and tapers acutely to a point. This cuts a \(U\) shaped groove which is more
satigfactory than the \(V\) shaped groove of satisfactory than the
ordinary cutting needles.

Cat. No. 6975

\section*{15 Needles for 25e}

4 order blanks have been included in the center of this catalog for your convenience. Use them.

Genuine Sapphire Reproducing and Cutting Needles
GENUITE WHITE ORIEN249 No. TAL SAPPHIRE USED EX 249250 CLUSIVELY. This sapphire is rated, according to scientiste' tables, hardness of which is \(10 \%\) of that of the diamond. Consequently, it is very durable. To in be tas long life, care is no dropped on a hard surface or used on rough surfaces.
GENUINE Type AW, for cutting SADPHIRE (grooving) and recording on on practically all commercial and home made recorders. Itc radius and angle is specially made to cut a fine groove Same needle when used with a powerfu motor, will also cut on ERAYDO. Cat. No. \(2 \mathbf{2 0}\)
Our Price \(\qquad\) ...
\(\$ 250\)
for recording and play
Type BW, for recording and playback Victor type black cimposition pregrooved home recording blaniss, also pregrooved aluminum or celluloid with a minimum of surface suratch.
Cat. No. 210
\(82^{50}\)
Our Price \(\qquad\)
Type CW, for playback on regular commercial records such as Victor, Columbia, Brunswick, etc, also electrical transcrip. tions when all above are made to play at the rate of is revolintions per minute.
Cat. No. \(28!\) ) Cat. No. Es!
Our Price \(\qquad\)
Type DW, for cutting grooving and recording on CELLULOID. This needle does not push axay the materia? but cuts out a fine thread of celluloid while recording.
Cat. No. \({ }^{29} 90\)
Our Price
\({ }^{*} 4^{\text {an }}\)
Speclal DIAMOND NEEDLE for CELLULOID, used for professional recorifing. Cat. No. 2!)
Our Price, Each.
\({ }^{*} 16^{50}\)
All above needies are tested and inspected before shinment and are guarspected before shinment and are guar-
anteed against defective materials and snteed acainst defective materials and
workmanshin, They are usea extensive-
whin ly by recording studios, laboratories, undversities, language schools, etc.


\section*{Fibre Playback Needles for Aluminum Records \\ Cat. No. 6429 Our Price \\ 25 e \\ Package of 50 Needles}

Cat. No. 69:29
Needles.
25 c
First-Perfect Reproduction.
Second-Plays many records without repointing.
Third-Plays all makes of Dise Records. Fourth-No Surface Noise.
Fifth-No Injury to Records.
Sixth-Improves Tone Quality.

\section*{Wall-Kane 10 Record Needles}

The original iamous Wall-Kane 10 -Record Needle.
No better needle made. 50 to a made. 50 to a sox, orted loud. med um and soit, 1 m
 display stand.
Cat. No. \(4: 371\)
Our Price, Per Package

Microphone and Public Address Connectors
comparition．rieel covered eadmum plated．The udjustable cinmp efriph the pord tizhtly，thius relieving the strinin trem the biading ports，and atio prevents the cater cures of coril fram unpaveling．


6854－5 Cat．No．
 1．3th 2 －Wire Connector fatis 3 －Wire


6atr 3－Wire Connector
Gids .50
\(\qquad\)
whe 3－Wire Polarized Cilp with
6．3．1 3－Wre Polarlzed Bpay with
6ace Fuah Receptacle to fit above caps ．．．．．．．．．．．in．．．．．．．．． 65

\section*{Armoured Bakelite Cable Connectors}

Three prong cabla，connectors insuring perfient contacts and \(100 \%\) insulntion．The steel armor plofects the plug and ex－ tendil over making the cable clamp as shown．No better ping on the market for carbon inlerophoncs．The proag avrang？－ Frest perintts aszembly in one postifon ainly． \(1^{1} / 2\) inches in diameter．

Cat．No．RSilh－lody
Nei Price Gide
Ca1．N6，21sh－Plue

Culd Mold Compulizon Con－ necsor，aame as above，but without armour．

Banty－Ne．：14n－sine
Cap－Na．Jill－？
Base Receptacle and 4 in．Cover
Elush．with 4 －lu．Round Steel Boz Covers Aitached for Trueks，ete．
Cadmium Sinsb，outlet box covers are stamdaza．


10 Aunperes， 250 Volts 1．Ampores， 125 Yoks
Cal．No． 6361

\section*{Price 95 e}

\section*{3 Wire Microphome Coupling}

Folarized Ping and Cable The is inchs cabie 移 perma： nently aitached pluore and the fommase plug al－ lows the intant－
aneous cosbiect－ aneous contrect－ ing ot fisecm－ nectine of the macrophone to Wie tive Pre Cabie hose is of trike and soven time Cabie hoss is dis－ fanment colared conductars．
Cat．Na． \(721+1\)
 \(45 \cdot\)

THREE CGNDICTQR MARE CAP
Cat．No． 7141
One Prlee

\section*{Three Wire 10 ft ．Micro－ phone Cable} micropho coupling and other uses．

Ciat．No． 3626 25e en．

\section*{3 Conductor Micro－ phone Cable}


A tough rubber facketed yet extremely hexible cable which witl stand 211 sorts of tbure without shorting．Water，on and aeld resiating．Fech conductor rubber insulated and cotton bralded．The Ideal microphone cable．
\begin{tabular}{|c|c|c|}
\hline Cat．No． & Length & Our Prico \\
\hline 1195 & 12 ft ． & \＄11．80 \\
\hline 4412 & 25 fl ． & 1.35 \\
\hline 4442 & 50 ft ． & 2.25 \\
\hline 483 & 100 ft ． & 3．75 \\
\hline
\end{tabular}

Armored 3 Conductor Microphone Cable


A conductor heavily insulated cable en－ cased in a steel flexible afmor which acts sist a shield（when grounded）．Will re－ you all weather and the hardest，wear． You can run a 10 －ton truck over it with－ out inguring it．Ideal for all outdoor publle addreen work．
\[
\text { Cat. No. } 4446
\]

\section*{4e per ft．，\＄3 per \(C\) ．}

\section*{Microphone Cords}

Made Up Cables With Akmored Connectors．

\begin{tabular}{|c|c|c|c|}
\hline Cat．Na． & Iength & List & Net \\
\hline 695\％ & 6 It． & 82.75 & 51.68 \\
\hline \(48 \%\) & 12 年． & \＄4．50 & 3＋．71 \\
\hline 4478 & 25 ft ． & \＄7．50 & \＄4．90 \\
\hline 1139 & 50 ft ． & ¢12．00 & 87.20 \\
\hline 4141） & 100 It． & 819.00 & \＄11．40 \\
\hline
\end{tabular}

For outdoor use．over eravel，patement plitforms，in whter，or where ciowds aro walking，o rubber corered，shlelded cable if un ab．olute necessity，Fitted yrith gen－ uime G．E．Bakelite connections，Supplied in 3－condictor shielded finly，the shield being sold rid to the center enariuctor of ibe plus sind socket．These ssembles made up complete as shown corriot be duplicated enywhere lof ilie pilce．

\section*{Microphone Suspension}

\section*{Sumain Springs}

For waypension of malerophoizes iniz ringa， deak monnts，foor stanets，etc．A muci needed small part handy to pare and sometimes hard to obtain．Speclal heact With one iang 3eop．beamufiuly flilitro of highest grade aping steel ajlowing maximum fexibility without．sivetoh sleht are generully used per set．
Cat．No． 36318 for 35 c

\section*{CARBON GRANULES}

\section*{For Mierophones}

Caye 期 \(45 \%\) be exercised fis hanisling friunules，and careful messuramert nust be made in zeflling of d buttons．They must be loept reales pefcre ulse and must not be handied by fingets． The sery best grade of trans． mituer ca゙bon granules，each via one oralnar two－buiton rarbon phone．No．－ 00 sire．
Cat．No． 6974 59e
List，per Vidl ．．．．\＄2．00

\section*{Shielded Microplane}


Cat．No，Wires Ter Ft．Ihe Ft
\begin{tabular}{llcc}
4410 & 3 & 60 & 85.54 \\
4180 & 5 & 100 & 5.691
\end{tabular}

The ehfelding is fultr insuiatod asd may he used as an adaliomel conduetor．

This multiple ennduct of hes a tinsoti copper shield benenth its exira thack rulh． ber insilition and may alion he used as an additional conducior．Each madizekor is Insulated ants brasided．Will stand Dlenty of at ise．For nil Dublic notdresis Woris，indoors or out doors．Acid reslstiag．


This plate will be foumst exeellent for publie addreas ampisiers，faders，plano graph mick－ups，atc， 50 is madiated is 30 equal divilions and 10 nimmered places． Etched aluminuth with slfer maxacrels．

\section*{7 Wire Shiolded Mierophone Cable} With Conpling Rlums


50 FEET LONG
For eondenver micra．
phones connects battery cupply and \(!\) 啨pbt to matn ampliser．

Col，No．1454
\(88^{001}\)

\section*{P. A. HORNS}

\section*{Saspemsion Horms}


6 foot Exponential AIR COLUNN

Designed primatily to reinforce the voice reproduction in the atres. It his ioulad usefulness in portable talking picture installations, centralized radio systems, for sales conventions, chools etc. Its compact size, carryims and tonal qualities are startling in realism
Air column, 8 feet; depth, \(2 B 3 / 2\) inches weight, 25 pounds; bell, \(29 \times 2\) inches.
Espectally gdapted for: Small Copacity Theatres, Ice Skating Rinks, Dance Hals, Small Auditoriums, Churches, ctc.
Cah. No. 117 -List Price \&85 \(\$ 92^{31}\)

Bell, \(12 \times 15\) in Depth, \(1+1 / 2\) in
Overall dimensions, \(17 \frac{13}{2} \times 16 \pi 141 / 2\) in.
Air columa, s seet.
Equipped with cast sluminum throat. bronze loose coupling.
An excellent horn for monitoring ano for all types of sound systems requiring a portable horn.

Welght, \(71 / 2\) pounds
Cat. No. 119 -List Price \(\$ 18\) R 10 is Net Price

\section*{Public Address Dymamic Units \\ TYPE GAC-IN}

Giant Electro Dynamic Horn UnitOperates on an Output of \(10-30\) Watts - Weight, 19 lhs. - Standard Threads - Response 50-8.000 Cycles
Requires \(\Omega\) feld supply of 1.6 amperes at is rolts DC. The nurce of supply mas lorame batters or a rectificr that will pive fi-s rolls D.C. from 110 rolts A.C. Them stondardi volce The standara rolce tope GAC-iN is 71
 rpe

Arailable also for 110,220 volls DC. Cot. No. 1 (iz-List Rrice kno \(_{60}{ }^{10}\) Rur Price

\section*{TYPE GAC-3N}

Junior Electro Dynamic Horn UnitOperates on an Output of \(7-10\) Watts - Weight, 10 lbs.-Standard Threads -Response 50-8,000 Cycles
Eequires a field supplf of 1.6 amperes at is rolts DC. The source of suppls Tipey elther be a fi volt storage bliticty or a rectifier that will tive li-a volts D.C from 110 solts AC The standard voice coll impedance of trpe GAC-2N is 16 ahms.

Arallable also for \(110, \ddot{2} 0\) volts DC.


\section*{Exponential Stormproof Cone Trumpets}


Bell, 30"
Depih, \(24^{\prime \prime}\)
Weigint, 11 lbs . Opening, \(9^{\prime \prime}\)

For the Amplification of then an Speech Used in Classrooms, Department Stores, Hospitals, elc.

A bell flare makes a directional speaker of a mon-dirictiminal one, concentrates the oind ena iating from the cone and senids it to A dirfect course. thereby adding greater eficiency to the output. It loads the diaphragm of the cone, thus giving it on uif column. This prevents blesting and in addition retalns the high notes.
Cat. Non 192-Lisf Price \(\boldsymbol{\beta}_{\boldsymbol{4}} 20\)
\({ }^{8} 11^{70}\) Net Price


Type s-n. A ift. Squate Cont Trumpet oi specisil bill Betiler miterial. All oints. metal reiniorced. Standerd fintsh -aluminum. Speaker Enclonure.
Iencih, 48 ina; bell, sox22 in; welght, 21 lbs.
Cat. No. 105-list Prict \$830 \& \(1 \boldsymbol{7}^{61}\)


Tspe 5 -30tic. A 6 il. Square Cohe Trumpes. Nietel reiniorced foints. Speclal all weather material. Standard fin-thh-aluminum. Speaker enclosure.
Size hell optime, \(31 \times 91\) in; jength. i) It; welght, 26 lbs .

Cat. No. 109-List Price Eivi
\(821^{17}\)
Net Price.

The R-201T Squaker Unil consistis of a baje hoin with speaket enclosure. inlo whiciz may be mounted a dynamic cone type speaker.
Dirizensions: Horn open-int-heigint, is 13s: width,
 30 in.; toial depth, in.; welghi, 14 lbs. Standard French gray firush.
Cat. No. \(11: 2\)-List Price \(\$ 17\) \#(19) NHEPrice

R-O07-W. Sime as R-20T bibt bull for outside us\%
Finish, luthimum weitht, is lbs
Cut. No. \(11: 8\)-List Price \(\$ 14 . \pi 6\) \& \(0^{4!}\)

TRUMPET MORNS for Amplification of Direet Speech
The types described are especiaily rr commended lor:Conventions Open A15 Assemblies Political
Gathering: Gathering.
Hotels, R.R Sations, Race Tracks, Athletic Fields, Ste diums.
Stadiums. in, round, length if it.
He vy Duty, equipped with demoun able oluminum throat one inch meta able aluming suspension fing, finisin French gray. Standard threads.
French gray
Weight, 1 b .
 Net Price
Standard: PA-6 equipoed with metal beaded edge, cast aliminum rhro
Wetght, i4 Ibs,
Cat. No. 167 -List Price \(\$ 18\)
界2 \(y^{23}\) Net Price ...

Beil, 2 其 in. round; length \(3^{\text {is }} \mathrm{ft}\).
Heavy Duis: Equipped isith cemountable throst beaded cdge and suspension rint, coupling for dsnamic un.ts.
Wejeht, 111 lbs .
 Net Price

Bell is in: length, ifi.
Siandard: PA-4 equipned wath ca't aluminum throat, beaded edge, and suspension ring. For interior use and tem. porary exterior use.

Wetght, \(>\) lbs.
 Net Price

31. FT. STORMPROOF TRUMPET

Boll, \(\because 2\) in round; lenrth. \(\because 12\) it
Equipjed with metal beided edce. calt Euminiom ferrul and susporssion Inse Gumarantecd for one rear. For outdoor use in all cilmates snn For out
Weight, if 15 bl
Cat. No. 18:-List Price 810
\(23^{\circ}\)
Net Pries
6 FOOT STORMIPROOF TRUMPET
Bell io in round: lensth. is ft .
Bell. :0 in. round; length, is 5 .
Equipped with metal beaded edge, cast Equipped with metal beaded edge, cas aluminum throat and 4 meh suspension ring.
For outdoor use \(\mathrm{n}^{\circ}\) all climates anc weathers. Stngle unit horn
Werght, 21 lbs.

Multiple Morn Couplers


For connecting two or more horns to a single dynamic unit. Standard threads.

\section*{Double Connector}

Cat. No. \(7: 3(10)\)
8.5 .10

\section*{cat No. 7 T:}
811.60

By using these adapters, two or three horis may be connected by a single unit. Sound is evenly distribuied, covering a wide range of frequencies: Dispersion: angle of double coupler it degrees, of angle of driple couplet i 0.1 degrees

Esco Rotary Converters
Transforms 6，18，32， 110 and 280 Volte D C．to 110 Volte AO Cyele A．C．Current


Feca Yorary ennveriers afo
the perdected the periected prodvors of a bomeer man－
whacturer who Lfacturer who
has bees lavilumg mos lors，generz tors conseri＝ eis and other ho matrage machincs for －lone hum－ ber of veavs．Pico machives sre peniked is Standard by the Umiled States Armv．
ith Whted giaens Nary the Pureall of Sianderds ind hundrois of the peading colleges and universities．It was the ext－ chlent performance of the Esco high Oltae menersior lhat anahia Commander Bird to kreep in roueh with the outsite ＂terld．
fired to to aty canveritis stre manamfact flued to the same ciegree of accurhes all oiher Etaen machines，I aele convertess open a terge rield for the ridio diealef
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\hline ： 683 & 9R15\％ & ＊ & ？ก0 & （11．38） \\
\hline ：：65 & 2R176 & ＊ & 40！ & 7．6． 11 \\
\hline \(: 770\) & 2R1需 & －4 & 8 BH & 413．11 \\
\hline ：\(: 78\) & 2Rア䧼 & 290 & 200 & 47.00 \\
\hline 857 & 2R2s5 & ＂ & す10 & 51.45 \\
\hline ：\(\%\) ¢ & 2R386 & － & 4015 & 132． 18 \\
\hline ： 50 & 2R23\％ & 4 & Stin & 8\％．1\％ \\
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\section*{Copper Sleeving for Shielding}


That shelaige of uted at andalifters． peyters public addrest candisit．Buto． mople iadink and wherelar it is delli ate in elimusate fip．trital inierterence， ife comductais are run througk thos theeq． The and ib forging is crounded fhat if douncery fexible ariginal lemgin．
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\] &  \\
\hline 407 & 2 & in． & na & 8.86 \\
\hline 1150 & 3 & －Im． & ， 47 & A． 3 月 \\
\hline 44\％ & 4 & \％ 17 & As & 4.819 \\
\hline
\end{tabular}


Delivers 180 volts at 30 mils and 135 volts at 40 mils．Requires but 2.1 Amps．at 6 volt input． Size \(10 \times 7 \times 3\)／in．
```

Cat. No. 273 \$14.95

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\section*{Janette Auto－B－Power}

Perter
Allo Radio
Free From－
Baltery
Renlace
ments，
Ratlers
Tapense，
Haltery
Voltage Drnos．

 its of a sniall JANETTTE drammotor and Altering device mounied in a strong，ai－ tractiveli finushed steel bos．It irans－ forms the 6 or \(12-1016\) current of an automobila or airnlane storige pzttery into the higher foltage＇\(B\)＇current re quired bs sout anto－ridio set．Whatever the voltage requirements of your auto－ iadio sel mer be a JANETTM＂Auto－B Pollsr＂can be turnisned for the correct loltage．isee table on reverse side of this page．）

\section*{Quiet－Compact Vibrationless}

ThP IANETTE＂Auto－R－Power＂has a dy namwally balanced armature：thas it lime with a minimum of vibration．Vir－ ually inaludible whers placed under the hond finnr boards inr seats．Requiffs but wete ronm－measures only ：2x6x5： 15. weigns an lhs．

\section*{Data and Prices}
\begin{tabular}{|c|c|c|c|c|}
\hline & & \multicolumn{3}{|c|}{Batierf Drain＊} \\
\hline Kal．No & Code & Input Polt． & Output 3 olt． &  \\
\hline P65 & ATTEX & 6 & 135 & 9.8 \\
\hline ？ 64 & AUTOB & 6 & 180 & 30 \\
\hline 96 & AUTAK & 12 & 135 & 14 \\
\hline 27i4 & ALTIL & 12 & 180 & 1.5 \\
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\end{tabular}
：Comewords include unit\％compjete with voltoge and 1 axtre ikp If ing fitrg taps Frerquirad add folloring endew ord． TABRY：
＊Those curtent valups，are masimum

 Pivider and Eatre Taps．．．．．．．．．sst mo

\section*{Mur Price \(\$ 18.82\) complexs}

\section*{JANETTE \\ Rotary Converters}

Transforms 6．12，32， 110 and 220 V．D．C．In 60 Crele A．C．Current


Creales Rig Market for A．Ce Sefs
The Jancile Rotary Convertals epd es pectally the new CA－2．． F ormint un a rertil feld ins AC．radio hales，Cuve； 500.000 farmers own 32 or 219 volt D．C lishing planit．Erery one of them is a prospect far a doutbe－pront sute consast－ ne of an A．C．padio ins and in yanelle Rotary Converier．Alert redio dealers and Jobbers everywh re are sinitiog blals oppore tunity to buird now volume．
And on ton of 11 all there，is the greas public address plas the mastine fiold．

Perfect Ranlin Receptint
danette Rolar Comperiers are enulppen With the Jonette pliter which prevents conterter inteiforence from retiching the radio．Janetie Conviters whe guaranteed not to interfere wih redio roception．

If consertern are to be used whore no timer ie emploved．the filceli may in omised．Shiphed from Nes Jrok at
Chicrign． Chichen．
\begin{tabular}{|c|}
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6 Volt Tupart to 110 \\
V．A．C．Qutpat Models orn thicl \\
Output \\
Imput \\
Filter \\
Filtor \\

\end{tabular}} \\
\hline \\
\hline
\end{tabular}

12 Volt Input to InO V．A．C．Dmiput Medells


32 Volk Impitt co 110 V．A．C．Dutput Models
\begin{tabular}{|c|c|c|c|c|}
\hline 28． & ＊ 1 & 4.5 & 2n．4．1 & \(x=90\) \\
\hline 20\％ & 111 & 65 & －2ivo & 21．2\％ \\
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\hline 28.5 & з & 15.0 & ¢ation & 44.70 \\
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\end{tabular}

\section*{115 Vold Inphit to 110}

V．A．C．Dutput Models


\section*{220 Fiplt Inpurt to 110}

V．A．C．Dutput Models
\begin{tabular}{|c|c|c|c|c|}
\hline 34 & 50 & & & \\
\hline 285 & 1800 & 1.0 & & \\
\hline
\end{tabular}

\section*{Solder and Tape}

\section*{- cratest}

\section*{"E-Z" Flow Wire Solder}

What Every Service Man Is Looking For
Diampter 1 MM.
Cat. No. Spool of Weight Our Price
\(6523 \quad 117 \mathrm{f}\). \(\mathrm{x} / \mathrm{th}\). \(\$ .50\)



Note Special Fluid (nos. rellim) in Center.
No Corrosinn No Oxidation Quick Action
Use Malf as Murh solder Twice as tung."

This finest of solders is weed by the zargest radio and electrical manwiactuters. Despile its extreme thinness (1 mm.) if has a flud core which tnakes it hold to aluminum, whehome wire and highly pollthod sherfices. The real adventage of this solder is that only sufficient solder to make the commection is used. While with many ordinary ant.m. solder. a laige globule is nected to make a comnection. Will last twice as long as ordinary solder. Once you use this solder, you will never go back to ordinary solder, Sample ffee on request.

\section*{"PPERFECTO" Soldering Fluid}

Any Solder. When wesed in corinection with Priecto Plua, Wat eranaie you bo sider sidastances whiep orAlghirs oider fill not mend Wis also fnciliate inder What of ot her riersis incessiles il to inuch tant fund with the tip in the fuid with the ip a Ci.6. No. 5377

Dur Proice 23e
Per 2 oz . Jar


Eveready Rosin Core Solder


\section*{A very} bith-grave saider for witing and generat howe work мise. Attractive spoots aml cans.
Cat. vil sire ourcerice
\(1136 \quad 3\) ive \(\$ 1.35\) per displuy cations of 10
\(41 \%\) ib ar 25 cacte
\(13: 61\) the .40 each


\section*{Reosita Cerre}

The amatl pactaze of Kenter Rose Coter soider, beeng of the fat of thibion type. Eeconsareuded hy lena. Hes, wirthe racinters for If as abicinely non-cor-
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cal. Na. T2上:
Fer carton of 10



\section*{SOLDERALL}


10e Retail Size tu Countes Dispray Carten of 24 Tubes
(dic. No. 4467

\section*{\(\$ 1.35\)}
per catton of 24
This is a compiete metal sotder and fux combined. A kina!l quisintsy mppleal io rbe joituts io bo coldered when beated will flow and winte the baris the same is wite flow aru umute. Furnishecti ts cellapstible
or sile solder.
fubes.

\section*{P. D. C. Plastive Metalic Soicter:}


\section*{"TWIN-TAPE"}

Rubbes and Falation
 two.
1-Min lla etorartig
2 simbter inje \%- Prictisen taze
 LTe nielaest erwite nt hambint lapy. mes
 in iss minnuaciure. Whith int it res uml formity and lotre the. one rall insceat ont iwh minesnk sorimik in inventory anol eniveti-
 ience to sto watkmats
\& Ounce Rolls-Ciat. No. 5565

\section*{9e ench}

Friction Tape
Cat. No. \(422 \hbar\)
1-Cugat Fol1s. mathed "5c Each"

\author{
THe of hat Roth
}


2-rintice Rolls, marked "10c Each.
Cat. Xis 1219 70
Pef box of 16 folls. \(8 \cdot\)
Cat No. \(42 \pi 5\)
\(\qquad\) 15


Packed in is infldull cortons and attractirt display fowthinert which makec coles ensler

Friction Tape "Ends"
S.oz. roils matien is lasees. Cat. No. 74st
Gut Price, per 13. 15c

\section*{LENK BLOW TORCHES}

\section*{A Model for Every Purpose}

Lean Handy Eloterch


Husuif for tery solifeting purpole Nave ot urass heavily
juckeded. 1200 berrees bredlepolnt ttane.

Quati 5 in \(x\) Tis in
Papked sive ass a courster isill play tard. Shlppotal weight per dukeri, theo pothads.

Cal. No. 6694
30c ea.
\$1.75 Bhpplay card of 6

\section*{LENK T@RCH}



1--Excen.lose b ate improved stence.
--Screw-rop mafeg it easeer to \(20=d\)
B- Nozele -cup polvents evapo-1-C3ion
4-Cappes heat conductor genierates guickly
5--figger Larrei hoids more Blant itmelf. Operater on aeractirc d pleghol. Bolid base makes at reechankesily leak-proof.
Size: firselsxi in pacterd if to il carion.
Cat. No. tiests
Our frice tach
66"
Disples catd of is
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\section*{L.eak Meuthy ibletorch}


A heinf duty
MAStER PRODUCt
fllime a demand ficon Mat TRCLAS a ha a

 Eale ard Top of heavy Eruzue Cossings wiek scienturicaley ExCAstion peetents belltas oved of sue).
Da. Lieed to preveni dembige when dropled of abuted.
Exta iotig rublore tupe whin ehomy moi'h piece. Urequ foeaily guarmateed. Size \(\mathrm{T}^{73} \mathrm{xad}\) in Shippian weisht il itu: Packed in individun corragated carton
Cut. No. F.s1 \({ }^{6}\)
57
Our Price

\section*{HACKSAW}


Cat. No. 5076

\section*{Price 855e}

They fre adjustabie from if 20 ta heches, Gich buck, armas and alipe made of a very hasd Erade of sterd. The nicaly-nhapec pistal gTip notile is made of sted stampIngs, corg ulutio to elve govi tris. The mandie is riveted to the srame all ether folnts are Eieriakingiy welded topether,

Lenk Duroulloty Blotorch


Sirvang Sturdy Struture! !
Duo-Flatie Cunitol
secale-point ard sumeen Blant Nechathicahy Batartiaced Heavy Cast Broner Ease
Chearine Pirn sevarats brid in cool habate.
dulit To Last a limime
Imequiverally Guarantera
Size fibxitixz4, in. Shipplag weight, 1 10. Proked one is a cention.


\section*{Lenk Master Rlotorch}

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Filer screen in del prevents pheging of efflice:
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事妇!
Our brice


\section*{Hand Nrill}

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Lai. Na EnO\%
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\section*{Serewdriver}

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Gur Pise
40

\section*{Electric Soldering Irons}


A handy solueriog freat for che radio fan. Equprea with temurnoiz toppes
 nitiol plug, tilos element.

EGLEY GUNANTITD
Cat. No. \(2720 \quad 59 \mathbb{C}\)
35 Watt High Heas Sodersfor Itin with
 cora
Car. No.
5113 \$1.65 eat.
 win trove rimvive made, approvel heat:t tors.
\begin{tabular}{|c|c|c|}
\hline Car . Na . & 3305 & \$2.00 ext. \\
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Mueller Battery Light


Cat. Na. 6586

A Mands 4ni tnexpenlive Newi Excielz Shen Toul

\section*{©ur Price sice elf.} Six for \(\$ 2.10\)
tie muetiler batiegy loght uee


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Heal as a Temporary Voltmeter
The NUELLER BATIERE LICHI pru-
 1fig up a ciod elt Fithuvi the necmaty of re riofing ile hatiery, trux the ith. Paded in Indiry

\section*{Abtomatic Dicill}


The new toul is wull for the home or shas io grovide a hatily eaciont bsill shap io grovide a hathiy eatient कsil t 3 ber bersumethe intie
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Lesigh gtis siches. Welght e. pognces.
Cat. No Sant
DuF E.n?
8125

Maemine and Woud Screw Assoriments


\section*{Angle and Bracket Assorimemt}

Ah Nickel Plated Brass 28 yueces it a box．
Very handy for ibe service malan

Ost．No．364s， 25
Owi Price，Per loos


\section*{Transformer Brackets}

Bruss，Nicke！Plated Tu 12．Wide．
\begin{tabular}{|c|c|c|c|}
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\hline 5367 & centis & Center & Set of \\
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\hline & 析 15 & ，\({ }^{\text {din }}\) & ． \\
\hline 2869 & \(5{ }^{2}\) & \(\mathrm{LI}_{3}\) 2n． & 40 \\
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\section*{DE JUR PIN JACKS}

Direet cansection to the lota tpeaker or eat－phones．fillhout the ite of a phule－plab it ta－ cultated ay the use of the记 JUR PM Joclt．This userul ilttle tecritral device finds ade－ quate appitation in mootra fecervers where riception over 4 Wiles band of mive－lengths is sccomat weat pith the use of platein wahls．Their use on terminal itrupe is also in great convencrice．

Cut．No． 4129

\section*{slle dozen}

Package of \(100 \$ 3.50\)
Solverless Phone Tips，Cat．No． 5373 ， suc Dozets．

\section*{540 Olim＂\({ }^{6}\)＇\({ }^{5}\) Bias}

\section*{Resistor}



Corf．Ne． 5103

 \(\because\)

\section*{Round Head Machine Screws}

\section*{These machine screws are packed 10
 Velope．Exeh envelope nes sti fllustration and the quantiv of the product on the} iront．


\section*{Our Price 5e}

Per Envelope

\section*{Wood Screws in Envelopes}


The wood E0rem： are packed 10 to \＆n envelope，each envelope illiastrates the \(t y p e\) ot the Food screw head and glvays stises
the quantity．
4788 is \％No．5， 10 Round Wood Screws 6474 \({ }^{5} \mathrm{~g}\) an Eno． 6,10 Round Food Screwt \(6475{ }^{3}{ }^{3} \times 6\) ， 10 Round Wood Screws to
\(64: 6\) i x No．6， 10 Round Wood Setews B477 11 ar \(x\) No．6， 10 Round Wood
Sc：ews to an entelope．

\section*{Our Price 5e per envelope}

Machine Screws，Nuts， and Washers
C．\＆．No．
su50 \(14,2 \times 6 / 32\) Oval Head Msehife
3651 4＊xB／3：Ovai Huta Nand Washe
s65\％
\＄65\％ \(1 \times 6 / 32\) Oval Hevd Muchite

The sbove mentioned mer－ chandie is pacted 12 of rach I sin eaveloye as rollows 12
machine screws． 12 nuts， 12 machers．The eniclopes are printed in three colors und have an illusiration of the pro－ nickel piated and packed 50 kn － nilckel piated and packed 50 en－
velope to


\section*{Our Price 10e}
per envelope of 36 pieces

\section*{Soldering Lugs}

\section*{คin \\ Tinned Brass \\ Cat．No． 4260}

25e per hundred

Hexagon Nuts，Knurled Nuts，and Washers in So．Envelopes
3959 b． \(32 \times 14\)＂， 20 nuts pathed 5960 8 \＄0 STh etrelove，
－ tyst 6 \(59:\) packed to sis eavelope． \(59: 8.5\) x \(5-16\) ， 15 nuts
 5464 Nacked to \＆a envelope
6 Washers， 25 wash ets fratered to an ith－
3903 No． 8 w trs Dicked to \＆a eb．－
relope．
All of this merchatidse pecked to at envmlopt with on tilustrativiz of the product on the iront side，tho the qualiti

\section*{5e per Envelope}

Brass and Copper Tinned Terminal lugs The No
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Is solderlite
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The No． 4 lug is a flut lug for bus－bet conrectlons．
The No． 5 lug is also fat but is ？in ri lengith．This thbe of terminal is ussils bent to iny desiota aifle oi kbate．
The No． 11 lue，Tire－Lock．il in it Senteth．
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\text { All trumal juys tre revirea } 100 \text { co bov }
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Style Cut．No．Style Cat．No．
\begin{tabular}{cccc}
1 & \(59 \%\) & 4 & \(59 \% 5\) \\
2 & 1973 & 5 & \(89 \% 6\) \\
3 & \(39 \%\) & 11 & \(54 \%\)
\end{tabular}

\section*{Wur Price 19t}

Per Bux of 1001
\(\$ 2.25\) has of 50 assonted envelopes

\section*{SCREEN GRID}

Tutse Caps with Lead－ Thest Screto \(0: 15\) ruse Cap have a lead wle red directiy to the manatuctured of a －Drinf Diase End is alins．im polted．

\section*{Cat．No． 3892}


Our Price 29c doz．
Cat．No．41：3－Without Leads 15e Dozen

\section*{FUSE CLIPS}


15e per elos．

Pilot Light Sockets
With Mounting Bracket


Can be used in any set Both contacts insulated froin mounline.

Cat. No. 4076

\section*{\$1.50 per dozen}

Cat. No. 4077-W Without Brackel

\section*{\(\$ 1.00\) dozen}

\section*{"Clamp-On" Type}

Pilot Light Socket
Can be attached to any dial not already equipped with pilot light. Cat. No. 6571

\section*{6e ea., 60c doz.}

Condenser Shaft Reducer

Adapts a 3 /" condenser shaft for a \({ }^{1,1 \prime \text { dial or knob }}\) Nickel plated brass Length Jon.
Our Price 15 e Ea.
Shaft Coupling


Cat No. 5306
15e ea.

This Îtrag connects two \(\mathrm{F}^{\prime \prime}\) shafts together. Very handy for conrecting condensers, volume controls, etc. With 2 set-screws. N. P. orass. \%" long.

\section*{Bakelite Tubing (Coil Forms)}

Cat. No.
4085
\(1 \% / 4 \mathrm{in} . \mathrm{dia}\),
4 in . long
Cat. No.
3812
\(11 \cdot \ln\). dias.

\section*{Dur Price 10 ea.}

\section*{The 酉andy Scratel Remover}

Mars and Scratches on Radio Cabinets and Furni ture Vanish Instantly.
Cat. No. 1:: :78
Per Dozen
Sample :i5c
(Sold one dozen to carton with counter displas.)

Special Screw and Nut

\section*{Assortment}

Contains a gener-
ous supply of screws, nuts, washers, lugs, etc., which are indispensable to the service man. Should be in every repair mants kit. Can also be sold across the counter to set builders.

Cat. No. 3662


\section*{19c ea.}

Professional Hardware Assortment, 5 Pounds

For the dealer's
and servicemen's
shop. Contains an ment of every size of screws, nuts, for esery redio purpose. This as-
 sortment is indis-
pensable to the man who does repairing and bulding and will pay ior itself over and oter.
\[
\text { Cat. No. } 381675 \text { c }
\]

\section*{KUPROX RECTIFIER}

Replacement Unit


Rubber Howl Arrester
Fits over the tube and prevents oscllation and tritcrodionic nolses.

Cat. No. 6669

\section*{10e ed.}
\(\$ 1.00\) dozen

Live Rubber Casters
For Radio Cabinets and Furniture

Prevents Fibrations, cuis dova sube nolses and serves floors and sugs. Placed under legs of cabinet.

\section*{Petall at 40c}
for the net of 4
12 Casters mounted on attractive
counter display.
Cat. No. 6470 Size \(3^{1 / 2}\) in. 75 c doz. Cat. No. 4427 Size \(2 \frac{1}{2} \mathrm{in}\). 60 c doz. Cat. No. 6471 Size 2 in. 40 c doz.
Supersensitive Crystals Indtridually boxed. A real mineral product.
Cat. No. 4054


\section*{\(\$ 1.25\) per doz.}

Melomite Cat-Whiskers For Crystal Sets


Three in a cellophane envelove, mountmay card. Retall at isc per card.

Cist. No. 4067
Retail at 25 c wer card \(\$ 1.00\) per doz. cards

\section*{EASY SOLDERING Phone Tips}


These new Phone
Ihps are fery easily soliered as may be noted by the illus tretion, merely ineert wire and drop tolder in the 1 de hole.
Cat. No. 6531 De per env. 10 to an envelope 50 envelopes to a boz
Yaxles Solderless Phone Tips
simply insert wire and tighten up on screw and you have a good solderless connection.
Cut. No. 7185 35C daz.
Flush Type Pin Jacks


Complete with solder lug.
Cat. No. 5629
45e per dozen \(\$ 3.50\) per 100

MAIL ORDERS TO ACR
See Terms on Page 3

Federated Purchaser Ine.
25 PARK PLACE, N. Y. C.
or to our nearest branch

\section*{Universal Condenser Microphones}

The model herewith dull－ traied il tho resuat of ex． haustive experimente to Toraduce a valcrephone sor Blat and dise recording，ith Which field 90 of the pro－ duction of thy model is Mictophones afe in use in Mently ell parts of the eiri－ lizea worla in film record－ tog and ia broadesst studios．

Universal Condenser Mic－ models，MSodel 1440 and 2440 ruphones are made la two －hae frot haviag a slagle stage of amplifications ats in the recond，a 2 stage armpliter ls used．They aze
otherwise the saise in sire otherwise the sasie in site ard appearance，Follo
are vetatl desertint ioill：
A single stage microphone wille st 440 tube with an of tout of spytorimetely Minus 15，D．B．，Wleh ata \(A 1-\) most fiat re？monse from it to Tooo eycles．Aunplifies drawn in one plece withons stams or tirets．Ampliffer base casting of tronte With irmsmitter bend tine of beak one Ne and on－iness－like in bippetranes，finisued in buguiftri statuby fronme giste．rito fery repatred ov＂A＂and 200才＂ 13 ，The cutput is deslgned ta feed ifto of 200 ohm load，of the inpus terminiass of in ampla fier，wheme a carbon mierodtuhe has pre－ vioushy been used．The current consunp． tiansers the 200 voith tap 11 onlf 2 ，anil－ arp．Eize 6 luctses by 3 inelie．Net welent 11 ibs．Pacised teimh， 17 jbe
Complete with 25 feet Rubber Covered
\＄hielded Cable

\section*{Cat．No． 2425178.40 List Price \(\$ 300\)}

A trastage mierophoue uisine two 440 theses whth an oulput of approximitedy Plus 2 D．B．This motiel it in rame it eviry porticular ha Moudel No．1940，es．
eept the cu！rent constimion on the 200

 5 toches by 3 fridien．Nith Fietsht， 12 jbs ． Penked weight， 18 ins．

Complise with ts feet Rubber Covered Shielned fable
Car．No． 243 §205．80 List Price \(\$ 350\)

\section*{Extra Heavy Cendenser Mierophone Floor Stand （IIfustrated abuve）}

Bulat expeciazly for eondenser artero－ phanes，Ap sateh of its tugitednese can pe astrined from the matn body tube whith is 2 inches in diamerer．The enitre wis cusably I statuary bronze plated sed pre－ serith a Ane stanfio appearance．A thange futmpaltowe for eary wounting．The sd－ fugtiont lock Berew is him nida postive fud poelzo or peleates by the stishitest


Cut．No． 244
\＄22．80
List Prfe Mo．0il

\section*{Telescope Portable Floor stand}

Earily zollapsed．Lightweight，No nazue Sole Molnhed Nowsei
Cat．Ne．stuy
Our Torice
草客

\section*{Universal Banquet Stand}

A hait helight rtand iot use on bables，at boluquels． deta，pulbits，etic，\(\frac{185}{}\) preierred by rome 1
dio manosher＇s une．
Adjustanle frome \(28 \quad\) io to－ 5 tin higt．


\section*{Model＂K＂Desk Mount}
with Covers and Letter Shield Pothmed
chronte Fintan

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fronz the carlons is se cured by the beautifsi－ is rutbed and sctemed covers of the coveted motel＂K＂．The cover ato sprung zuto park tion，elmanative frick riectanimen whers an liabie to tattle．Make －\＃ubsinntial and past ness－11ke appearasace．
 as o wiodel＂k＇velt out covers．

\section*{8 Susatnsinn Bprings Iuctuded．List 59.00}

Our Proice \＄5．29

\section*{Model＂L＂Desk Mount}
with Covers and Letter Shield
The game type of cuvers as deacrisea for Model＂K Wre athed 10 the otr then Cismeter of the Motel＂L＂moantling Exvis foara is prow dued inslade the sang and servened corets to．allaw freedears of nowement without sanger of far of sbatt ing of wires，Polshieci cisrome ？mathe at is mosit sittactive whed busiy leppearance．Ful inatruetionti fos motiait－ in ．casl leties flarndised．Aay iettes cats be \(n\) ovinued at no extra cast．


\section*{Ca3t．No． 232 \\ \(\$ 9.51\)}

8 Suspension Springe uncluder List Price 316.00
MODEE＂L＂DESK MOUNI WLTHOUT COVERS
Model＂L＂In 61 ine hes in ztameter and is ute ter dexnting Model \(\sin\) 387 W ．or NeV ty pe ＂ BE ＂，or ottier jaige Iheayy itpas of mirispacize Ah ov ed if chrome puate monat followlay the imel of Emiveriars peperar destins pie． sents a nitess protessiomali sppenrance．
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Cal．No． 239
\(\$ 5.88\)
Universal Desk Type Mountings
MODEK＂K＂DESK MOUNT WITHOET COVEICS
 in wased ior mownting Model＂A＂or＂KK． matrophomay 08 \＆foosis of suspenalor． ding 8 sprifite－the deal way to sulapend a snerophofte，is mas be vised for the mew yeavy＂BE but is rike


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Ih an．thick－8 susper nejon epfins
Cat．No．362：\(\$ 2.35\)

8 Suspeazion Springs Incruces

List Price \(\$ 5.20\)
Cat．No． 238
Springs

\section*{USALITE \\ FLAS雷LIGTTS \\ Two Best Sellers}


2-Cell Large Size Focusing Spotight wiil) throw a beam of ilfht ever 400 feet Size \(13 / 4\) " \(\times 6]_{3}\) "
Cat. No. 6679
85
Complete


3-Cell Large Size Focusing Searchlight, with Extra large Head
Will throw a beam of light gever 1000 feet. Size \(1^{3,} \mathrm{in}\). by \(9^{12} \mathrm{in}\). Head 334 in. Diamcter
Cat. No. 6684
\(\$ 1.35\)
Complete
1-Heary yrauge solld brass eases
-Body finished in black.
- Budy finshed \({ }^{1}\)

1-Fully Nickeled.
-Fool-proof safety switch that locks on and off in addition to matermittent flashes ior signalling ipopular with flashes for
Boy Scouts ।
- Hinged ring on bottom cap for banging.
6 -Head is Octagon-shaped to prevent rolling
-Shock absnrber at base of bulb.
8-All parts are tibbed for sturdy usuge \(\rightarrow-\) Each Flasblight is complete with Bulb. and Bniteries.
10- Prach Flashlight is sacised in an individual attractive ons.

New "Photoflash" Lamp and Holder

Photoflash Holder with 7 -in. Reflector and Batteries

Cat. No. 3377 65e
Makes pleture laking easy under any condition, indoor or outdoor, day or night. Nu fire hazard, nolseless sate and economical. Any child can operate it. Simply screw the new photoflath lamp into socket of this spectal holder, press button, and the pleture is made. A boon to the amateur photographer-a necessity lor the professional.

Photoflash Lamps Only
Cat. No. 3378 18e eal.
4. \(1 / 2\) Volt "C" Battery

4 in . \(10 \mathrm{ng} \times 3 \mathrm{in}\). high \(\times 1 / 2\) deep.
ciked 10 in a chipping carton
Packed 10 in a chipping carton welehing Cat. No. 6655
Our Price 20cen.
\(\$ 1.90\) Standard Carton of 10

No. 6-1 \(1 / 2\) Volt Dry Cell

\section*{This is a Dry Cell of the} highest quality and wall sorvice for which this sype of cell is adanted. It is especially qualifled for all
kinis of ionition work. doorbells, buzzers, Radio doorbells, buzzers, Radio general uses of the Drycell. \(21 "\) diameter * \(61^{1 \prime \prime}\) high Cat. No. 6656

\section*{20c ea.}
\(\$ 5.00\) per Carton of 25

> Packed 25 in a shipping carton welghing 60 lbs.

221/2 Volt "B" \& "C" Battery
\(4^{\prime \prime}\) long \(\times 3^{\prime \prime}\)
high x 2 2h' \(^{\prime \prime}\)
Packed 5 in Packed 5 in a
shipping carshipping car-
ton weighing 8 lbs. Cat. No.


\section*{Dur Price 58c eu.}
\$2.90 Standard Carton of 5

\section*{Merit Flashlight} Cells
LARGE SIZE
Fit Both Flashlights Shown Above.
Size \(1 \%\), inches by \(2 \%\) inches.
Cat. No. 6682-Regular Size Cat. No. 6083-Baby Size
- Dur Price Le en.
\(\$ 1.85\) per Carton of 50


\section*{Dur Price 30c Bux \(\$ 2.50\) per Carton}

\section*{NEON}

Pilot and Night Lamps
Uses Very Little Current. Burns 24 Hours Per Day For 5 Cents Per Month. Can Be Used Anywhere-

No. 3673-1 Watt. . . .50c
No. 3674-2 Watt. . . .65c
Standard Package, 10


Acts as Pilot Light, Night Light, Indicator on Electrical Apparatus, etc.
Uses Edison Medium Base
Works on Both A.C. or D.C., \(110-120\) Volts

For VICTOR and COLONIAL Sets Intermediary Base, Frosted Cat. No. 4227

\section*{\$1.50 Carton of 10}

NATIONAL
Mazda Pilot Lights


FOR RADIO SETS
\begin{tabular}{clc} 
Cat. No. & Volts & \begin{tabular}{c} 
Carton \\
of 10
\end{tabular} \\
3665 & \(21 / 2\) & BßC \\
3675 & 5 &
\end{tabular}

No Less Than 10 Sold
Independent Pilot Lights
Cat. No. Volte - Carton of 10
3676
3677
\({ }_{5}^{21 / 2}\)
\(45 c\)
Pilot Lamps
110 V. Candelabra Base


For Pilot Receptacles and General Use.
Cut. No, Color
5091 Clear
3091A Amber
PACKED
25 to the boy

\section*{Dur Price Sc ea.}
82.00 Box of 25

Round Decorative Lamps
Regular base, G181/2 and A19 Packed 10 to the box.

Cat. Cat.
No. Color No. Colot
5096 White 5099 Blue
3097 Amber 5100 Green
6048 Red

\section*{90e Box of 10}

45 VOLT
'B' Batteries
Cat. No. 6905
88e ea.


Carton of \(5 \$ 4.00\)

MAIL ORDERS TO A. See Terms on Page 3

\section*{Acrial Lcad-in- Ma,
Mand and Hook-up}

AERIAL WIRE


Catr. No. 4401

SevenStrand No. 96 Copper \(30-\mathrm{ft}\). Cofle

Lots of 25 coils . . 15 c ea. Lots of 50 coils, . . 13 c ea. Lots of 100 coils . . 12e ea.

No. 7.22 Heavy Gauge Cat. No. 4402
yo-ft. Coiln
Lots of 25 coils . . 22e ea.
Lots of 50 coils . . 20c ea.
Lots of 100 coils . . 18 c ea.
cat. No.
44621000 ft. Spool
\begin{tabular}{l} 
Price \\
\(\$ 2.00\) \\
\hline
\end{tabular}
7.24 Stranded Enamel Wire Cat. No. 4421-100 ft. coils Our Price 35c per coil
No. 14. Solid Enameled Wire Cat. No. 4416100 ft coils
Our Price 30c per coil
Cat. No. 44751000 ft . roll \(\$ 2.75\)

Gold Plated Aerial Wire Used on ull U. s. Batleships. Cat. No. 4213
\begin{tabular}{|c|c|}
\hline 5xamex & 55 \\
\hline  & \\
\hline  & . \\
\hline \% & \$5.50 \\
\hline & dozen \\
\hline
\end{tabular}

\section*{Indoor Aerial Tape}

Cat. No. 4311

\section*{our price \\ 30c ea.}
\(\$ 3.35\) dozen


Tape is a flexivle metallic ribbon antenna espec.ally manufactired for indoor reception. Gites reception iar superior to any other cype of indoor acrial or loop. Car be etinlf placed about the foom in convenient places. Placed around lie mouldinz.

\section*{LLAD-IN WIRE}

Solid Copper, Rubber corerered 50 -ft. Rolls

\section*{Cat. No. 4503}

\section*{15c ed.}

25 coils for \(\$ 3.15\)

\section*{100-ft. Rolls}

Cat. No. 4404 28e ea. 25 coils for \(\$ 6.50\)

\section*{SPECIAL SHIELDED}

Lead-in Wire
Shilded Lead-in Wire consitit ot Mranded cable witio
Easy - Strip
Rubber Tusulation enclosed in a braided milelo of thnned copper Fire. In service the shiejding is grounded Shielded Lrad-in Wire is solving the
 problem of troubletome interference and thus protects the ciEral en ity from interfertice carised by hits iencion linet, mionors add stinils: difiustances,
\begin{tabular}{|c|c|c|}
\hline Cat. No. & Lenth & Prite \\
\hline 1464 & 50 ft Cull & \$ . 36 \\
\hline 4461 & 200 1. Coll & .115 \\
\hline 4.64 & 500 ft . Coll & 4.91 \\
\hline \(416 \%\) & 1000 ft Coll & 8.50 \\
\hline
\end{tabular}

\section*{SOMETHING NEW!}

Continuous Aerial and Lead-in Wire SPECIAL OFFER!
Rubber Covered Tinned Copper Lead-in Wire Underwriters' Label Oin Each Coil 500 Ft. Coils
With thas wifo it :s not necestary to ute insulators or make any aqlices. You sirn-

ply the one end on some hith object \(u\) the roof end winim the othet end wew. oref tree side of the root rad into ine Window. For \% fultec and seente instation-
 she ansulatiod cobopt : Wire.
Cat. No Guase trpz Our itrice C'oll 442 Solid 16 \$2.65 \(4430 \quad 18\) Siranded 1.75
The tolld wife bas a \(3 / 6 \frac{1}{2}\) rubber fover and is cettorn braided ond westither prooied The lisacted whe han of hed.


Serviceman's Handy Wire Spool Assortment


Now! Every Serviceman can have 1 complete assortment of Wire in stock without a large Investment

\section*{Dur Price 95c}

For Ans Spool Listed Below
Knowine that it it ersentlal that every servict shop has a complete assoriment of electical and radio wire in stock for twry Job but very few servicemen ean iffot do isvest too much money in viare, Se have aitenged with a very large pire nill to furfich ins wita every popular ispe of trire, put ip in handy spools, so that a complete s.ssortment is the the teach if everyone. For a rmall infesiment of \(\$ 650\) you can hare g good supply of evers popular type of wite in slock. Cat. No. Deseription

4440 100 ft . No. 18, \(1 / 64\) Cotton Covered twited Freen and rellow
1418100 ft. No \(18,1 / 32\) Silk Parallel,
1454 issorted colors
thi 100 It. No. 18. \(1 / 64\) Silk Parallel,
H5: 50 3t No 14
Is No. 14 Cotton Covered Triwe d for heavy filome int ciscuits


W4 482010
No II. 1 (64 sinitle conane or Cotton Corcred, jor stial fila grownd sire. icad-in bire, hateent lfads and eential reparr
H9\% : 200 is
No. \({ }^{14}, 1 / 32\) Single conductor Cotton covered, ior hears
149 H 100 ft . No. 18, 1,04 Silk Covered twasted for filment leads and extwatted for fiedmint leads
1184250 it No. 22. \(1: 64\) Single conductat for hocis-11p win assnrifa cohors.

No. 18 Bell (Ammunciator) Wix-
A real cuant y No 18
tinele fire. Macie bo anzle vire. Miade of
oite of ine lar ware combinnith sad bitheed aternt.
Cat No. 4409
111 Colvise in geass


\section*{\%-lb. Coils.}

Tic ev.- \(\$ 1.50\) doz.
23.M. cotan, shine for lasube fork \% Cat. No. 6302
Dar Price \(\$ 1.25\)
Per Box of 25 Coils

\begin{tabular}{|c|c|c|c|}
\hline Gauge & \[
\begin{aligned}
& \text { Single } \\
& \text { Cat. No. }
\end{aligned}
\] & \[
\begin{aligned}
& \text { tton } \\
& \text { Price }
\end{aligned}
\] & \[
\begin{aligned}
& \text { Double } \\
& \text { cat. No. }
\end{aligned}
\] \\
\hline 18 & 6056 & \$. 15 & 6063 \\
\hline 20 & 605\% & .17 & 60 it \\
\hline 22 & 60.8 & . 18 & fi065 \\
\hline 24 & 6059 & . 19 & 606\% \\
\hline 26 & 5060 & .21 & \(606 \%\) \\
\hline 28 & 6061 & . 27 & 6068 \\
\hline 30 & 6062 & . 33 & 6069 \\
\hline
\end{tabular} Wery Dealer and Service Man Needs This litem
 A hen gradp nook-vp wire tor goberal nork The 19 -patge wire 16 thated, feady for soldet. The Corered with paratกิกed pubit-back invilia. tion Black.
Ulied fot withag sets and general repuir wurf. at this priae yoik cest atford to get bou feet.
 4111 soo-11. Ron 2..111 1112 1.000-~Roll 8.in
Stranded Push-Back Wire
For flament leads and whereves thexabilly is demired. Fimined fos quick sol dering.

Cat. Na. 4463
100 tt. e011. 30.41

500 ft cail 1.35
1000 11. coll ......................................

\section*{SPAGHETTI TUBING}


35e dozen
82.50 per 100 lemgths

Green Silk Covered Litz Wire


Lilz wire if uned for winding prectsion inatuction colls and fot making lony aeninls. It in the most semsife wise linown and is excelient sor indoor antennas.

1/4 Ib. spoois.
Curt. No. 4243 20c

Colored Rubber
Covered Siratuded Hook-Up Wire


Very fiexible tinned wire covered with blue, jeltow. sreen or red rubbef. Ideal forir wring or hookThe ve sets.
\begin{tabular}{|c|c|c|c|}
\hline Cat. Vion & 1.4.2ls & Eazth & Doyen \\
\hline [111.) & 25,75 & 116 & \$1.211 \\
\hline 1116 & 5011 & P16 & \# ! \\
\hline [146: & 36) ft. & tire & 4.54 \\
\hline
\end{tabular}

\section*{Radio Set Hook-Up Wire}

So many ci wht curbners have astied us to supily zhem wath the sarae type of hook-10p to ire that is noes thy the larke
 phis type of wire is imobialmable in the This type of wire trrace and is made ujo only on order, which orders must be bufficlentar large 10 makt ite whe bun a
 prodvellori hasis We have arransed io
atock tas wire for the dealor and serviceatocs tins wire for me doalor and ser
nale tride it extrensily low orices,

Sperifertious
 casy soldering. \(1 / 64\) ratober:
Elazed 6 atan glazed \(e\) atton
wald The brado wald. The braid
is thes lavquetec, 4s thes inoque iec.
miskint it abomivkinit if sabo.
lutelr
motature proot. The lacquer also calases the brald to ahere promunenity
ia the fuatope 10 the rakber.

VERY EASY SIRIPPINO
ALI. COLORS
Picked ia ztin ft, Spoots.
Cat. No. 4430
1 Spool. 1 Color-25it ft-0.ac
2 Spools. 2 Colors-340 ft.- \(\$ 1.85\)
4 Spools. 4 Colors- \(1.00 \mathrm{fi}-\$ 3.25\)
This is the sathe vire that ta used by Atwhrer-Kent Stewart-Warner. Majkerlle, Philec. RCA-Yletor and all the large set
manufaciufer.

Service Man's Handy Wire Assortment


Contaiss lisust of Wire C.N. No. 4415

A eompleie whs ot trmert of wite 子exs ty \(110: 14\) in 20诸 डth, of ertiy ty pe int wi I wsent in a servace cepart ment. Contain bcok-hy, fushblik, lous bar, shieided, beavy famment, A.O. lea ds an nod
others. Wul foss fur 1tikit mauns thmes atha save soll money on "ire very handy to buse on the bepan bench or in role selvice kit.

\section*{(1)ur Price 39c}

Special Heavy Duty Rubler Covered Stranded Filament Lead Wire


For 13/and 2 : rqlt filament leads and wher ever \& beaty huw of euricat causlea.

Cat. No. H1:15-14 Gauge- Wid carry 15 A피S. it 116 Vouts 1 couft for
\(95^{c}\)

Cat. Ni, 4459-12 dinuge will rarty 24 Amps. as 120 Voits

95
Some wire as above also furnlshed is twisted prirs for A.C. leads and uther us.s where two conductots \(2: 0\) requised

> 14 Gauge-Cat. No. 4493
> 1: Gauge-Cat. No. 4500

\section*{\(95 c\) per 50 ft.}

\section*{No． 18 Twisted Lamp Cord}

a cussely 需，ven ajouble braided and heavy rubber instatated strazaded copper whe or hif genstal whes．Crreen and yeulow，white or brown，cotion copered． Cat．No． 4418
\(\$ 2.15\) pep 250 ft coil \(\$ 3.75\) per 500 ft ． No． 18 Type＂PS＂1／64 Reinforced Cord


Flat Cotton Parallel Win suma Mire


No． 16 Double Lighting
\begin{tabular}{|c|c|c|}
\hline 1 &  & \begin{tabular}{l}
Wire \\
Jacquered Braid Tor Auto Ignition Wotk Oil Irool
\end{tabular} \\
\hline Cat No． & Length & Our Price \\
\hline 479 & 100 ft & \＄1．25 \\
\hline 4488 & 500 tt ． & 5.50 \\
\hline 4188 & 1000 tt ． & 10.50 \\
\hline
\end{tabular}

\section*{HEAVY DUTY＂SJ＂}

2 Cond．Garage Wire

Runza 10－6012zeriac in it：Jeave it ont wis sirana a 1 mon any obtise．Yery oopular for Irouble lataps，metor leads， temporary outsid nake a vacuan cleaner vord de luse． An extra heavy
 oovered eor rubber

Cui．Na． 4457 tively water ancl oil proel．Suitable for garages，shops，etc．A 1111 ， 00 Para rub－ pricend mice a bout 50 orlow marke
\(\$ 2.25\) per 100 ft. spool

Extra Special Value
Silk－Covered Parallel Wire
For Electrical．Radio and General Use
No．18， \(1 /\) in R C．Porallel Silk Wire for wiring nomes with base－ board confen－ ence outlets lamps，extension and a hundred orfier uses．
Thit is the raitest moring wire，and evers dealer mad ser－ rice mint shouk hare
Cat．No．
4410
4434
\(18-1 ; 64\)
\(20-1,64\)


Single Conductor Cotton Covered Fixture Wire


Whin frmer braid and rubber insula－ tion．For hooking up tson．to gerial sind kTound snd general plectrical uie

1000 FTr．SIPOOLS
\begin{tabular}{|c|c|c|}
\hline Cat．No． & （ Gatug & Colos \\
\hline 4181 & 18 & Brown \\
\hline 4485 & 18 & White \\
\hline \(\chi^{\circ}\) & \({ }^{\circ} \mathrm{C}\) & \\
\hline Cat．No． & Gauge & Color \\
\hline 4188 & 20 & Brown \\
\hline 4499 & 20 & White \\
\hline
\end{tabular} Our Price \(\$ 3.00\)

Ashestos Heater Cord


A cherf wioven

Cat．Ni． 4423 Cotton Braid Overall Per 500 ft ． \(\$ .5 .50\)
Per 2.50 ft ． \(\$ 3.00\)

Battery Charging Cable （Single）


Heavy，extremels Heavs，extremels Weable onttery cil ble prool and rume prouf，heavy rwober portred．Due to the mesry fexible con－
ductor iesatence is ductor cesatance is titl to \＆manimum， and inrenkage of whe dus to the manas
Cut．Nu． \(4 / 50\) strande used，
The snest battery cable it is possibie to minnetactute．

95 c per 100 ft ．

\section*{We Carry a Complete Line of Cables，Cords and Belts for All Standard Receivers \\ }

Our Disls and Belts are made in ac cordance with the original manufactur ers＇apecifications and are guaranteed to 215 right．
Cat．Set，Model and Type Our
No．
No．Set，Model and Type Price
5732 Amrad 84 ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 20 c E：31 Atwater－Kent，35，37，Left of 6563 Atwater－Kent，60，61，Set of 2 ， 6368 Atwater－Kent，30，Belts：Set of 2 6281 Atwater－Kent，55，Belts：Set of 2,
\[
\text { Left \& Rlght ....................... } 20 \mathrm{c}
\]

6364 Atwater－Kent，44，Belts：Set of 3，
Left \＆Right．．．．．．．．．．．．．．．．．．．．40
5234 Balkeit Cable ．．．．．．．．．．．．．．．．．．．．．．．．．．．． 25
5229 Bosch Model 58a ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 4290 Bosch Model 48a ．．．．．．．．．．．．．．．．．．．．．．．．．． 3 ．
5229 Bosch 28 ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 23 ．
Б\％31 Возсh 58,60 ．．．．．．．．．．．．．．．．．．．．．．．．．． 23 ．
6366 Brenter－Tuly，14，21，Cotd \＆Lug 14c Sis30 Colonial 31， 32 ．．．．．．．．．．．．．．．．．．．．．． 30 en 6367 Colonial 33，34，35，37．Dtive CH － bles，Set of 2 ．．．．．．．．．．．．．．．．．．．．．．． 45 6368 Columbia，All Nos．， 2 Drive Cables « Spring ．．．．．．．．．．．．．．．．．．．．．．．．．．． 50：36 Ciosley Model 40－S，60－S， \(804 \ldots\) ．．．．sic 3：38 Crosley Model 601－c02－607 ．．．．．．． 98 Nes？Emernh
.85
6iats Eveready，All Nos．，Drive Cables ．teh Whas Freed－Ewemann Belts，Model N．R 60
5：35 Freshman Model 2 ．．．．．．．．．．．．．．．．． 3 ．

6．501 Kelloges，Set of 2 ．．．．．．．．．．．．．．．．．．the
w581 Kolster，Heavy Cord \＆Beads on
6370 Kolster，43，44，Drive Cable．．．．．．．．4ic
5i：8 Majestic， 62 ．．．．．．．．．．．．．．．．．．．．．．．．30．
4379 Mojestic Band Model，70－71－72 and Comb ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 6331 Peerless，All Nos，Drive Cable．．．．．ic 5731 Philco，All Models
4セin R C．A． \(16,17,18,33\) ，Linen．．．．．．．． 11 t1383 R C．A．Dial Cable，Model 17－18－48－ PC． \(64.64,67\) ivery heary pho．．．．．．．．．．．．．．．． 5357 R．C．A．64， 67 （very heavy phosphor bronze wirel complete with Con－ nector
Sparton，All Nos．，Drive Cables．．．．．．．．．．．．．．．．．．．．． 675：？Sparton，All Nos．，Drive Cables．．4\％ie
（iszis Steinite，All Nos．．．．．．．．．．．．．．．．．．．．．．．．．．．． （finh Temple， 2 Drum Cables and Spriags
． 4 年

． 311 c

Cat．No．t240－25 tt． \(\qquad\)
\(\qquad\)

\section*{CORD SETS} For All Electrical Appliances


Best grade asbastos neater cord， 2 pe．bakelite cap only．
No．Type Each Doz 3318 With cold mold plug，no switch．． \(50.1 \%\)
51.80

3315 Same as above，plug
and sllis cord．．．．
33a？With Bakelite
switch plug．
\(\begin{array}{ll}.33 & 3.60\end{array}\)

\section*{Imanersion Heater}


This practien litlic spplismeg Nill heat is ites mumetis alyely the home，otrice，bar．

 socket sad plage the befiter iato she water Inciruc，iona thith pack bdares Attraclibely parised
Cat．No，fise
Our Pife
90e
Triple Outlet Cube Tap


Cord is of 4,18 shk parshlel with innes orail approved by undervirtert Gen－ ersl Electric attachment olug．Cap only Monowatt cube tap
Very handy for connecing che of more lamps，tadio sets，etc．．from rhe outlet． Cat．No．Length Dach Dozen
\begin{tabular}{|c|c|c|c|}
\hline S304 & 6 ft． & ． 11 & 5¢．01］ \\
\hline 3830 & \(y\) it． & ． 98 & ？ 0.0 \\
\hline 3382 & 12 tt ． & ． 25 & 2.75 \\
\hline 3353 & 15 tt． & 28 & 3.10 \\
\hline
\end{tabular}
\begin{tabular}{llll}
3353 & \(151 t\). & .28 & 3.10 \\
33.38 & \(20 \mathrm{It}\). & .13 & 360
\end{tabular}

\section*{Special Therapeutic Electric Lamp Relieve Pain With weat}


\author{
Each \＄1．65 \\ Complete with 260 Watt Bulb
}

\section*{Morpheus}

\section*{Boldoline ar} 1）est Tspe Heary Sodp－ tor＇s Durilloy Metal H2． \(4 \%\) Wd．5＂ Dp． \(2 Y_{2}\) that：Shtin slves Finish

Finish Nile Green
A distinctive lidiputias timeplece read－ ored ith tive modern matnays．Nobs the rlig tomate，sizaple Dut stivis reveried fith－ ings thats accent the gerefal coutout． whetber on a crowded deak of a tiny end－table of night－sitendi，ibere is al． ways fogm for Noiphent．
Cat No．\(\$ 11\)
＊ \(1^{15}\)

\section*{Winsctale}

Breakiost Neofi，Kitelent or Wuil eluch


Heary Seulptor＇s Imathoy Wetal Fit．815＂，TVO．81
Dp. 2\%

Dial：Whes 4ha＂
The breakfiast moone or kiteleth reedt a practieal dirt－restating．enutly iead－ able tinitpieze Itere＇s on real tepartwee in wall clock sibnotect？s，Sels，and starts from the if oll：etcloted lack， notched fos electrie coid，invilible wald hanger．
Cat．No． 1640 trors
Each， 4\(]^{105}\)
Cat．No． 4 （ivil blue
＂K WHK－L．ITE，
Delivers a Lighted
Cigarette When You Pall the Lever

New I Ampzug ！
 dte nkful Cese गife its Inter－ esta all miackets， ettues men of wa－ H，, 2.

Poí tive onse，it－ betary lising room， and buadoif，A wota－ ciertal and spprect－ Reed gifte as wrll is tast－velling tiem rist pecsotal the．

Pagh in 65 house citrratios doer weth
ilid，fils top with cigareties fit hoids a sull pack），and palls the lever．Kwis－tite itwhts and pufis the rigarette and delivers

Funs gueranteed
Cus．No． \(5295-L .51\) Price 83508809

Special Toaster Value：


GOLD SEAL
Automatic Water Heater
When fancert is
Kurned On，Hetting
When turhed off．
cutrut is 0ff，Also

Foswitches to Buthers体々タ－Curnjetely tiat ome tic

Minde \(U\) ithe sinest Mraterdals


T1，It Rubbir kiectric Cord
Noth－Breakeble Rubbe：Plug Adminim \(\mathrm{Cese}^{2}\)－Highly polished GUARANTEED
Just shp wer facet and alug into nems． 5b，Aucket．Permanent instulation in less tont too munises Operater on 110.130 Toll A C．hloo made in 290 vo！t at slight tidallonnl eost
Cat．No． 6570
\(\$ 2.25\)

\section*{Commands Attention} to Your Displays


GPOT LDHTLNG ir effectively employed o focist titeation on a section or por－ tivis of ol dibias io oring same out farcifataently
Varied betutiful lightimg efrects may be procured jy usine epotityaty with the colored tetatine sereens of five assorted －vlors furaished vith chis outtis．Finds －Iethy sale in all retall gtores，outomo． bite sion rooms，drum stores and should be ised is efeay show wiricow where you Lif io lave somt orticle stand out．Buil of beavy gauge sjuminumi with universsl jusket an jutceldin soctrec．Eurmisned comele with rdjustable brackets and Ite iblusored color films．SPOTLIGHTS will theto ellmirate daylight reflections in futeelvit windows which are so ganoy． In 10 Inerchants eager to compel atten． then to therfr window displays during thee destisal an well as at nitht．

MALL ORDERS TO AT
Sue Terme on Page 3

\section*{COMPLETE AERIAL} KITS
(We can supply Aerial Kits in quanatules oo your own specitication, Kit No. 4216
90 (t. 7/22 Stranded
50 Copper Wire
Covered Lead-in Wire
25 ft . Ground wire.
1 Approved
Lightning
Arrester.
1 Copper
Ground
Lead-in
Lead-1
Strip.
Glass
Insulators.


65c ea.; 10 for \(\$ 6.25\)

\section*{Kit No. 4217}

90 ft . No. \(7 / 26\) Stranded Copper Aerial Wire
25 ft. R.C. Lead-1n Wire
25 ft Hook-up Wire
1 Copper Ground Clamp
1 Lead-in Strip
2 Glass Insulator
2 Nulit Knobs

\section*{42c eu.; 10 for \(\$ 4.00\)}

Kit No. 4220
Assembled to meet the demand for a real low priced kit, yet sufficient for the modern midget recelver.

90 1t. 7/27 Strantents Copper
At Aerial Wire
25 ft. R.C. Lead-in Wire
1 Lead-1 Strip
1 Ground Clamp
Nailit Knobs
2 Glass Insulators
35c ea.; 10 for \(\$ 3.25\)

\section*{NEW GRIP-TITE GROUND CLAMP}


Makes s real good connection on pive up to 1 ln . diameter.

Cat. No. 6046
©ur
Price \(\$ 1.55\)
Box of 50
GLASS INSULATORS
\(33 / 2 \mathrm{in}\). length. Packed 100 to a box.
Cat. No. 2769


Smaller Quantities-4c Each

\section*{CROUND CLAMPS \\ }

Cat. No. 4251
25 for gac
50 for \(\$ 1.16\)

GIANT
Lightning Arrester Cat. No. 4210 15c
\(\$ 1.80\)
d®ะ.
rested Bnd Apsoved on-ig blotionime Arrestion, large type, Made from hly tenlion, thorougnty vitrifed porcesuns. hrown glazad. Expansion and ecatiacthon has no eftect on the hir grep of this firresier Our arresters are so zonitructed that tives nally be mstalled indourh atid out of denor.

White Wiring Nails
Packed 100 to a box


Cat. No. 6658
15e per 100
\(\$ 1.35\) pere IO00
Whang nalls are ideai for iantesamg ware to basebeard when making extre elecuic sutsets yof the ra-
etc. 'Ehey rre white coldio, lamps, etc. 'Shey tre white col-
ored to Diarmonme will the Noodvorts

Rodale Soft Rubber Handle Screw Driver


2 Sizes. Packed 6 of ezeh stze on a card.

Cut. No.
6490

\section*{B5c for card of 12}

\section*{New Grip-Tite Ground}

\section*{Clamip}

Makes a teal good cormection or pipo up to 2 Ln , diemeser.


INSULATED STAPLES
Naterat. rieme.


These staples elso furnitird with white or brown ffure to naich inciuor woodwork.

Cat. No. 6852-White
Cat. No. 6.853-Brown
\(\$ 1.60\) yes• 1000
Jiffy Baseboard Wire Clips

Jhy Wire Clip teplace the old-fanhbned double era teek for staple or fastening insuates wires: and co a NEAT JOT; for sou INSTANILY.


Your padto Lead-in, intide Aerial, relemone, and Lamp Wires ale held by this desice berween trima and wall and canrot that of darnage vous woodworl:-

Cat. No. 3264
50c pres 100
INSLLATED
Window Lead-In

Cat. No. 4208
Entirely inculated and equipped with Fanne tock Clips. Packed 50 io a carion.
\(\$ 1.45\) per box of 50
Lightning Arresters
Approved by Fire Underwriters


PORCELAIN
Lead-In Anchor
Nickel plated fitinus. Diameter \(2 \mathrm{in}. \mathrm{Ht}. 2^{1}\) in Cat. No. 5299
Dur Price 9c ea. 25 for \(\$ 1.90\)

\section*{CORD CONNECTORS}

Cat. No.
4253
fe ea.
10 for 55.


Packed in Neat Displas Eoxes
LARCE SIZE
one pieie rubler dills cieat reading on flon?
Cat. No. 4200 25e ell.
Extra Beaded Floas lie ea. Cai. No. 4203

PORCELAIN
Nailit Knobs
Two-Plece
Cul. No. 2767
\(\$ 1.00\) per 100


3-In. Screw Eye Insulators Gatranizea Screw Car. No. 2768
83.00 per 100

SPRING AERIALS


For Indoor and Outaoor the Solid Brase, 75 fl . Cat. No. 3657
30c ent, \(\$ 3.50\) doz. Copper-Plated, 75 ft . Cat. No. 36.58
10e en., 25 for \(\$ 2.25\)

\section*{SILK GRILL CLOTH}
orten ana acia
Dibrieter, 11 in.
Tor riplactinat is eraikera shà consules
Cot. No. 6686


Dur Price 10c ea.

\section*{PORCELAIN}

Base Knife Switches

thateraf handle couper blartes and stidet give
Cai. No. 4259
S. P. S. T. 95e Box of 10

Car. No. 4177
S.P.D.T.
81.60 Bax of 10

t, at. No. \(4!78\) D.P.S.T. 82.00 Box of 10

\section*{Cat. No.}

4179
D.P.D.T. \(\$ 2.73\)
Box of 10


Radio Cartridge Fuses 1, 2, 3 and 5 Amp. Car No. 4206

> 18e box of 5 \(\$ 2.75\) per 100


Universal Dry Ribhom
A Rubber Ineulated
\begin{tabular}{|c|}
\hline \multirow[t]{2}{*}{} \\
\hline \\
\hline
\end{tabular}

\section*{Cat. No. s © S}

\subsection*{81.75 Box of 25}

DE JUR AUTOMATIC PHONE PLUG


Our Price lse ea.

\section*{UNIVERSAL}

Battery and Radio Clips
Scew curthectiotis-no solder required Chabmel conatruetion invcumout Pedary
No. 15-pez wee catwintir Hatea, 142 in. Cat. No. 6485 30 e per box of 10
Ko.te-cyatiam
 Ca\%. No. 6486 35 c per box of 10

 Cat. Ne. 6487
60 c per bex of 10
No sin-lead coateit, 31, th. fink. Cah. No. 6488
81.20 per box of 10

Grip-Tite Ground Clamp
Cat. No. 4212

\section*{\(\$ 1.75\) for 50}

4c each

\section*{PORCELAIN}

\section*{Screw Insulator}

Eettet than the ordinats herlal insuater tecause it can
readiy be attached to a pole
wait roof etic lrown elazed porcelain, 315 in . \(0,5+2 \mathrm{El}\), with a tgalvazize. screv.

cat No. 6114
7c ent., \$6.50 per 100
I. C. A.

Nouble Phone Plag

Moulded of Browa kokellte and hasdware is micket piates crass. Tures two gets of phone cold which are held fivinly in plice by set soletith. Individually luaved
Car. Ni. \(6957 \quad 30 \mathrm{e}\)

Fused Triple Qutlet Plug


An isgerdual plag whila pet only protects quy cel. icate instrumeatis and ejectrigal bupliwicers ofs the ling, but aiso roreverita the fusea on the main
line fruti blowang cut. line frem blowang Jut.
Shot circuil are Jecal. lard sorchis that they ase salchly detected. Etang. ard carirldet twee fusta are inturted 1 a Whe ilous and ingtantiv aethecea Y,her. जecessar. Will protect radio recelveri,
 cessaty.
Cak. No. \#.2s7
Our Price, Each
25 c

Two Piece Attachment Plug:
Bakelite Plug Complete Cat No 3262 Package of 25 \(\$ 1.00\)
Cap for Above Cat. No. 3260 Package of 25
 ธ゙5e

Armored Cap Cal. No. 3268 se each

Bakelite Handle Cap Cat. No 3260
Pur Price
25 for \(\$ 1.00\)


Live Rubber Cap, same as above, Cat. No. 3276 10 for 50 e

Round-Cord Connector
 conanctor onky, No cap
Cat. No. 3338

\section*{10 for \(\$ 1.20\)}

Attachuent Fings for Sintime

Rakelite Midget Cord Connector

Smallent connec-
tor trinde.
of smakil moturs nulted mille ma-

chmes, ete.
Cat. No. 3345
\(\$ 1.60\) box of 10


Bex of 45 \$150
Here we afler what we coralaer and what ous hemual past experiezse pisias of its krovid. Well phlag of the knd. Well
mille of the finest evid
 thill purpose. Abroiutely cuaranteed Jatt figure the pront gur ow price givel sou.
inat Nis 28:0.s
OnT Prive, Each
\begin{tabular}{|c|c|}
\hline  & \begin{tabular}{l}
Baseboard Gutlets \\
Unit Carton, 20
\end{tabular} \\
\hline  &  \\
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\end{tabular}

GENERAL ELECTRIC Flush Receptacle
prowides an A.O. aunpeotion on any eloctrana
ippolaine for mater ippolatire for wourdiad fitactamen cop

Cat. No, 6658

\section*{10e ea.}

3-WAY CUBE TAP

\(A\) smail, neet anc arestact 5 -wher plive what Diadet sa momia to it pinh tyse re orphate. \(A\) veny vie fuil teem for whien inere to ativisi a b bis semand. in makes trree centers minie chrre was creventore
Cat. No. 3329
eakfite
B. of 35
\(\$ 1.75\)
Bakelite Side Outer
Pull Chain Socket


Pall chals Jwathandsen cotstrals hant ons lig it जrig: Blicie oaclet tur froh Gs other aupliante Teotalins milive A very hamay kjubla accestury
Cat. No. 3376

\section*{Our Price ETe ea.} \(\$ 2.30\) per Display Pox of 10

\section*{BAKELITE}

Twin Light Socket


Ons-piece conotrwetion

Cat. No. 3335

Our Price \$1.05
Caxion of 18

Bakelite Heater Plug
Sman and w execealraiy
stirectice apperance
Cx. No 3395

Vnt Cation, 10


Our Price fise
Box of 10 speclal
Eakeinte Heater Plue with
On-ar" swith
Cat. No. 3320
\(\$ 1.95 \mathrm{Box}\) © 10
Arn ored
Heater Plog
Car. No. 3304 linit Carion 10 for 80e


\section*{BAKELITE}

Feed Thru Swieh
Dima as a mant atio breat sutich of. eny electjiceal Rpoli Give cacryinge ip to

 Coba in tititue hyules \(0 \%\) as it pen-
 c. \(n\) ! . . biata

Car. No. 332

\section*{15e ea., \$1. 44 edaz.}

Twin Rlasher

shate it genulme bakelife fal bll des Fhich can be ussected directly wi recopfackes. Has two vitlets. obti of wibua

\section*{Dur Price 19e eu.}

Bakelite Current Tap

Crat-plete fonstruction wish
E hu Ihreat
Utull catiog 10
Cat. \(\mathrm{No}, 3334\)
Our Price \(\$ 1.05\)
Rox of 10

Just Think: An Electric Drink Mixer for Less Than \(\$ 1.00\)


A beantifujly finished rimid mizer, Does everythitg inall ach expensive macishe will do.
Cat. No. 420
Spocis1, Erach
98.

Shippue cartbll
of 12 ........ \(\$ 11.501\)
will sell the hotorakes
 DESCRTPTION
Siu-Total orerall hejght, is in. Widin 33 in. Itrogth s's its. Ctip howds amy alae fumber.
Flabsh-Motor cave is fintshed in ivary enamel with band in highly amished nieliel. tha netator alld sbaft are of specind polissed alckel ruate. The buse is petuce green enamofl vitiz suhiser pacir aitachear to bash sices of botton ta kerp [tass from shippins and entiare apparatu from sornceining zerfacm it iests lipota

Oonrution - For use oni \(5 \mathrm{f}-6.6\) Cycle 110 Vots Alstriatilas Current onty.

Superion Electrie Bell
 :1/9 Inch

Wurts ofir dy cells or bell-ringing tratisformer.
Very sturdy con. erraction tind guaram eed.
Cat. No. 3257
2\%e ca.

Superion Ellouttice Borizzer
Works of dry cals or aell-ritagine walatermar Same corlitrintion as Cat. No. 3256
Ple er.



105.125 V on Primary 6-8 Volt Secondary

Cat. No. 3331 55c ea.


Cat. Vo. Tixto
Out Prite
G. E. Kevless

Intermediate Mrass Socket

MaKes tu excolivnt hasidy west or zrouble light hat conjuration with in 17 Cab No te2t lemp hllic:. So in. zock Cirp.

NICHROME WIRE


Engulirn Card fingmies so farther cutults For repairing a 11 elactitcal mppulane to the curd.

14e ea.
Cat. No. 3337 Cartor) of 10.81 .15

\section*{UNIVERSAL.}

Flatiron Element
For replacement in all \(6-\mathrm{ib}\). tooth,

\section*{Convine Nicbrome
Ribbon Element}


Cut. No. 3332
Dur Price 23c
82.10 Cartom of 10

\section*{GLOWCOIL}

Heating Elemenis


Cone
Straight
No. 3262
Na 32,5

\section*{20c each}

Bux of 10 \$1.80
Ifit ill krew injpe, sieaters. feet, peride of colled 'N2chrome"' wise waed. Iilj-120

\section*{"Sambelealth" Iamp} Liltra Vielet and Infra Red Kias
 sopuly vitamin Slow-l-sedit: Mhatum and Body Foisof Elimination \({ }^{\text {Eliminats on }}\) Ludy miteawh - Aclls genans and pite Fress itherisivis Frees the atolr fr on pi planples
sind resipurary bierishos-pro-buerwislies-pro-
divecs a steat naces suddy eamplexion. stimussor viso , and vitality sid refones nex vousness.
The SUN HEALIM famp is eouipped With a 11 iu luminam redector orotected vith a heary wite sconsa, mounsed on a spun arutathtim frajup: iwo in © 8 trm . cu rbans; heavy chtonue uickel sessitance colls buse and packlocion aro cast atumintin alloy, The lams. is rery iturdy and wits stand rough treaturent, It is tully gasmateed for gie rear. Sach leval) is inily equippod find boncles ginch carmons azo ris read in plue in on etthes A.C. of D.C. currcuts Drawls amp.

Complete With Gurtlea and Cirbons


\section*{CIGAR LIGHTER}

UNE ONLX
For replacian units that have berned out yhis is the unit withota the socket. Mounted on attractlve display card.

Cat. Na. 3336
(Dur Price 12e ea. \(\$ 1.20\) Catton of 10

\section*{ELECTRIC FUSES}

\(10,15,20,25\)
30 Awps.
Clear Vision Top

Car. Ne. 3307

\section*{Outi Proite \(\$ 1.10\)}

Assertment. of 50
Portalle Trouble Light

 sord. Feis e0re pistaver. Jmaparcieoss ris cosciline, oly ald westher. Will gasy, try gavaline,
we firliely.
Cat. No. Lerigili Kom Dozen


\section*{ALL-RUBBER}

Trouble Light


Wich Rubber trandle and Fubfiet ravele Cap. Parted wine th the catcolis.
\begin{tabular}{|c|c|c|}
\hline Cat. No. & Leristh & Price \\
\hline 3321 & 10 it. & E1.00 \\
\hline 3929 & 20 5 . & 8.98 \\
\hline 5\%9 & \(37)\) fi. & 1.20 \\
\hline
\end{tabular}

BENWOOD-LENZ B12 Rectifier

For New Tabs, Muter ond athes A elimisaiofs. stering byazaif spruters, etc.
Cas. No. 4355
\[
\$ 2.50
\]


\section*{Mandy Tools for the Mancy Tools Radio Bench}

\section*{GOODELL-PRATT TOOLS}

\section*{Ratchet Screwdriver Set}


These tools can be used as automatio sarswanvers for driving serewt, of the oraje can be looked for mie as platn scremdrivets for elther orintig or drawing creps. They are simple in construetton hat are stron finil duTabie and will no cet out of ordes
\[
\text { Cat. No. } 3078 \text { 95e }
\]

\section*{Steel Rule}

Cat. No. 5082 30c
A very handy rule provided weth a lubie in one tho for hauging up wions not in ute. If as zoase of temperec crucine steel hleely polished and mraduated on obo oflo in sith and 3and thehess platis, deeplyetched graduation and large, clear sigures.

INSULATED
Side Cutting Pliers
Cat. No. 6824

\section*{Uur Price \(42 c\) ea.}

Drop sormeb steel; templised: nelubled Head. Harc billes rubber ingalation to withstand s, uno volts. 8 jm lovg. Used by eltctricitas end Inecmeta

Long Nose Pliers

C44. No. 6825 39e ell.



Diagonal Cutting Pliers


Cas. No.
6826
Dur Price 39e ea.
Faty milakol platads for plose outtong:

\author{
Scriber
}

Thts seriber is ensde of A Ans, grabe ground ateal with seautitur tapered goant that is cayefully tempered, ground ond polisies F Th sooty is finely knuried and 5/32-inch in 6lameter.

21 c

\section*{BENCH VISE}

Thesse bench vices are different in design and een eral appearance from any other small tools of thit character. Ther are eonstryete to mett the tetistió for st minal vise of better viso of bettor construetion thas
thoto which hnve those which have made.


Cat. No. \(5080 \$ 2.05\)
Right Angle Ratchet Screwdriver
Cat. Ns. 6480


Price 65 c

There are tnnumerable places around automotive, electrical and radio equlp. ment where this little umique screw divver Vily periorm quickly and enstly where an orditary scrow diver earmot be used The raches mecharisom is entitezy enciosed fa the hond taru whloh rubs a sgnate socket to bold the bith the lat is \(1 / 4-1 \mathrm{~m}\). Wide, \(1 / 24 \mathrm{ta}\), long, and has a squate sbank With a spring retainer to bold it firmoly in the siuare rathet socket. Toot is 4
inches lone overall. Tho handle ate finished in red and black enamel and evj oxpored parts are nicety forisind Packed one in hex, 12 to s ditaplay intoter.
Screw-Holding Screw Driver


Cat, Ne. 4166 , 8 in......... 85 se eqch

\section*{General Electric Feed} Throl Switeh

Tozgle meehaniam housed fo pollthed bekelte cuning.
Cat. No. T8ma IBe
Our Prioe ......

Grip-Type Nut Wroemeh


How many times hava you 2ost time ant temper trilig to get at rutarin tught places of to pick up s nizs drop ped into as set? This mrembins tool will do boith for soit easion abs amiekp. Wus grasp, anv fast mut and hask is fast unall it is lonseren or tisue ber breze ing ibe button on top, the jaws of ton wrench \(\tan\) is teleased the jaws ciose.
Grers is - Lewath a \(01 / 5\) Polished blaty harady
Cat. No, \(\mathrm{F}+40\)
Our Spmerisl prle
25 c
A Necessary Adjunct io Every Serviceman's Toel Kit


This RMA Resistor Color Cude is ingeniously destenaed. yel extremely stimple fis un. It has three wheels ithographed In nine eolors corresponyding to a color on the resistort. Smply arrange the wheels to colrospond to the resistor arid Yoal have the ralue at ance. No charts io conssit. No carcalations. Na रe of cellopola ins futs hatio yous veas pocket. Worth itm ॠe ernt ix gcle.
Ca1. No. -683
Our Priee
\[
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rou can sectuxe this Coior oode FREE by or ed on prago 38 or three of tupre dozen Asolited Actatest Resistars.

Radio Shaft Clamp
The Ratio Sbatt Clamp is a devite designed prituariss to fiold the shaft Fhifh belas the bintisys on a stajp asiog a caby op of cirve. It exi. ables one to feple ve a dial cably, rety quickly. It is a 150 useful to iteeing
(F OFen coudenser Crozen condenser
and valume control and teliume control
mafts, for holding slafts, for holding
tunug
coodenser whije locating nolys in the set. It asso hoids aby eyandard shaft statjonary wiye repaltse of axert. thors aje poligy made cing the set, emeh as aljgntrag the condeaters or baluncing a ast, or deigg any preciston work.
The clemp is adaptable to practisesy every tet on the market. It is also a conveniant toot to tarn the volume or other costrops of the at that are too titht to terse.

Cat. No, 6677
Our Price 49e cas

\section*{SXGNNN}

\section*{Wireless Practice Set} Jurt the \(\mathrm{m}-\) otrunin ont for thase who whit
to Joarn the code. The code is printed \(\mathrm{CH}_{\mathrm{H}}\) a little brass plate tastened to base.

Equipped with Type R-60 H1Mh Frequency Buzrer.


R-68 "Signal" Wireless

Cat. No. 3554
List Price, \(\$ 3.40\)

\section*{Our Price \(\$ 1.98\)}
I. C. A. 50 Watt Trans-
 mitting Socket with Isolantite Base Cat. No. 3653
\(\$ 1.50\)
An excellent potser tube surket. Fits all standard 50 watt tube lases. Mastmum intulation is obrajaed by the sse of heary clazed isolantite base. A! metal parth are nelckel plated and the enaticts are so arrapged inht connections are made elither to the ferminal screws or cans be suldened on to the extended portion of the conisct sirings. All connections are plainly numped.
Ihameter of socket \(\mathrm{s}^{3}\). Two mountiag fioles.

\section*{Signal Twin Wireless Practiec Set}

lutruetife nad scientifie toy rhat ever! nocierv boy Wants - it's the
 Practico Set leadThy fos stores ererywhere are selleryw. Sets operate efricienuly up to ernciently op to
1000 feet on anv standard dry cell batseries. 7.1 feet of wite is inctud ed with ellch set.


Fach instrument is a complete sending and recpiring unst equipied with kev, buzzer sind code pate mounted on a metal base. Rubiner feet on the base protects iable tops. Full instructions for connecting and operathis are included with each \(R-i 0\). Color of the zets are maroon and gold. Box is unusually attractive.
Attractively boxed with sall instructions. Cat. No. 7302

8250
Our Price, Per set
\(82^{50}\)
4 order blanks have been included in the center of this catalog for your convenience. Use them.

\section*{Na-Ald Code Practice Set}


Finely molded base. Nickel plated hardware. High pitched buzzer. Works hardware. High pitched buzzer. Nelegraph code etched on base. A wonderful 98c code
seller.

\section*{ACRAPHONE, JR. \\ Wireless Key}


14 in. long, \(2 \% \mathrm{in}\). vide. Welght 8 oz.

Cas. No. 6819

\section*{Dur Price \(\$ 1.10\) ea.}

This is a really fine littio instrument or the amateur, ham or for practicing. steel lever arm and brass fittings. German Steel lever arm and brass nttings. German silver contacts. Phosphor bronze tension pring 4 adjustments. Composinon inge reut. Mahog
Iubber fect.

\section*{High Frequency Buzzer}


Signal Wireless Key
A long time favorite with all amateurs. niversally used by most operators Sturdilv made. Coin sllver contacts. All parts brass. Beautifully pollshed and lacquered. Brass base. Bakelite finger rests
\begin{tabular}{rrrrr} 
Cat. No. & & Contacts & \multicolumn{1}{c}{ Rrice } & Our \\
Price
\end{tabular}

Headband for Earphones
Indispensable to Short-Wave Fans Cat. No.
3623
15c each

The New Connecticut Duplex Telephone Set

\[
\text { Cat. No. } 6555
\]

\section*{Price \(\$ 5.63\) per set}

Connecticut Duplex Telephones are the result of 37 years expirience in telephone man ffacturing and are fully guarenteed for one year. Aflords the eailest, simplest and least expenaive means of communtcation betweer two neighboring points. Simple to install. Requires 2 ordinary dry cells at each end. Cazes are of heavy gauge steel, Inished light, green. Packed in attractive display carton with 100 tto of wire, staples and instruction book.
Uses for the Connecticut DUPLES Convenience Telephone

\section*{IN THE HOME}

Bedroom to kitchen-Bedroom to mald quarters-Upstairs and downstairs-House to garage-House to workshop-Nelghbor to neighbor.

\section*{ON TBE FARM}

One farmhouse to another-House to birr-Mouse to dairy-Fiome of one tadto
filn to that of another.

\section*{IN FACIORTES}

Manager 18 effice to factory-Ous factory depariment to another.

\section*{The Connecticut}

\section*{Duplex Telegraph Set}

\section*{Every buy rull} Wath thas real triegraph set to practee ons and learin the code, Contine nirel piste in larice, easily read flg-
 ure mounted besite key. Instruments may be used separately for practice. Just the set for Boy Scouts-can be carrled on hises and iet up in camp in a few minutes. Manufactured and insigned by enginesrs who have been buldin: telegrapli instrliments for 37 sears. Eiach instriment lias its own buzier. Wull operate ethetently up to 1000 feet. Malogany finieh with black enamel parts and gold trim. Paciced in attractive display bor with 50 feet of Wire and complete instruction booklet.

Werght complete, \(₫\) lbs
Cat. No. 6579 \$3.75
complete
Signal Junior Key
Black chantel \(k\) eg bas lanozany finsy lever. Coin silver contacts.
Cat. No. 3555
List Price, \(\$ 2.25\)

Dur Price \(\$ 1.35\)

MAIL ORDERS TO N会
See Terms on Page 3

\section*{Kou nced fdapicrs for yourlab.}

\section*{refratest}

Speaker and Headset Adapters


Thene edapters sru of the ssme inpparance s s tie sbovs and are used to connect one of more additional magnetis or dynamie or recording pick
up in any set unfug a ningle or ptashopill pentode output or 45 output simply reGove the power tube from the foclsek, insert the aidapter and replate the power tube or tubes, Can be vised in the ACRArover end niber mident sots.


\section*{Acratest Pentode}

\section*{Adapter}

Atlows the Use of she Pentode Tube In 215 Suekets simpiy remove the 215 kube, insert she Acratest Pento in e
Adanter into the torn if the adaptor. Insert new tuhe. the 5200 Cat.
Each

39 c

\section*{Multi Prong Conmector}

This comnectar is provint panular ior dynsmio speaker extenzion, nulcrophone enbles, bht-
tery cabies, analyzer cshle, etc. It is malle up of un easy grip handle cap and a removabie socket.
\(\begin{aligned} & \text { (a). Nb. } \\ & \text { tal. No. }\end{aligned}\)
\(23050=\)
\(\begin{aligned} & \text { Prong } \\ & \text { Prater }\end{aligned}\)
\(\begin{aligned} & \text { Prong } \\ & \text { Prons }\end{aligned}\)
Cat. No Tib62 - 6 Prong

Our Price
Each
30 e
Naald Pick-Up and Microphone Adapter


Fot UX ot LY Sockets
 grid tor UX tulbes or Exic and cathode of UY tubes.

Cat. No. 4111

\section*{18e eff.}

For Testing 82 Rectifier Tnle
This adapter is for tape Dheckers and affords the testing of itile tthe where 410 filament eripply is 5 volta The switel throws a resintor tnte the Slament eireuth to redstee the valtame to 2,7 for the 82 tabes.
Cat. Ne. 7a05
OLs Price


\section*{Na-Ald Analyzer Plugs and Test Adapters}

\author{
All Na-mid Abalyzer pluz
}
 are molded for easy grip and strexgth out of tove best Insur auttog biack bakelite. sis -ald know the dancers of tilmg chesp composition, The stemeter and hefeht aro cajeufated so that there whll ho no dimeulty in putting tho anasywer psue into sots equipped with emait base tubs enoleta and elose-dmenslonet shieldthe The piog has a Jatch retuated ty a spring. Thie letch athed of the adteriters, preventting the adapter fiom elipping off sunth the relense is pressed. Thls feature provents the adapters frem geteing atvek in innucessible places.
STANDARD FOR JEWES, WESTOS,
DAYEAD, SUPREME and MCOCK
Cal. No, 6887-5 Propg Atiaiyzer of 180
Call No. Finc:-6 Front Analyter \%210 Piug vith 2 sireen Cix Cupt
\(82^{10}\)
Adaplets for 5 Prolng Anaiyzer Plugs
Cat. No, Fiss 5 to 4 protes
Cat. No. F144 I to 0 prons Adapters for 6 Prong Annlyzer Plugs
\[
\begin{aligned}
& \text { Cat. No. 7ans } 6 \text { to Type propes } \\
& \text { Cit Na, } 7 \times 66 \text { है } 46,5 \text { proita } \\
& \text { Cat. Nn. 7:3\% 8' to } 7 \text { prong }
\end{aligned}
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Our Price
of Any Adayter Above.
72c

\section*{Naald Tube and Test Adapters}


Theso nd tremely compach, measurhif ony and
\(1, \frac{1}{n}\) in an an munter. They
 subatitations new type talies in old seis remodeilng tube checkers and for resting tha datest tubes in set \#nimizera. sog ind bateatien A locater ring ofs top stouldes bakelte. A Alloctiter rime ost top of tubes. The proper connections are of ce vilitn the edapter so ilat no errot ian be made by the user. Guod convections on the prongs, fiss ch camnot
Cal No. Deseription
KSNs Fio tngert a 4 -prong tube thio


7999 To a 5 -prong a sowitit. trepe freng a 6-proing socket.
Dur Price
Each

\section*{Frest Phanie Plitg For Speakers and Headsets}

\footnotetext{


A amnd reat plus with phosphar bronze for inftantaneous connection and discomncetion of phone tips, Brass hardwase wlth liard blnck abre hody.
Cat. Nn, 7371
Onr Price, Fach
IBe
}

\section*{NAALD ADAPTERS}


Adapter and Trouble Finder for Servicemen


\section*{Naald Special Adaprers for Testing New Type Tubes}

For 55 and 85 Duc Diodo Detectors
This adapier is int set naslyzeis and hape cheow ers and slluws the feysers and shluws the dind plates as well as the auclo plate of these twlecs. Tate switels of theows the meter meter frolin cise pitate to the traing


Cal No, -a:s.an
\({ }^{8} 1^{80}\)

\section*{I. C. A. Loud Speaker Adapters}

For ownaockige addr Hornat speakera to sets
 132A, \(272 \mathrm{~A}, 24,267\), 250 Fic, powit tubs. Fof single porrer tube order 1: for porsh-pull order? udapterz.


\section*{Test Adapter for 280 Tube}

ne may adaple one may make al desirode lests on 80 rectiner, miseluding plate current, d.c. output volase filameat, A.c. inf
 ment voltage across filamints. Leads are
altached to all prongs
for above lests. 90c for above leste

\section*{Neutralizing Adapter}

For use in balancing neutralizing condensers in superheterodyne or neutrodyne sets. One flament is dead, enabling the use of ari ordinary tube for balancing Supplied for 4 - of 5 -prong soctets.

Cat. No. 6961-4-pronis
Cat. No. 696:-5-prows

\section*{Dur Price 60c ea.}

\section*{Oscillation Control Adapters}

These acaplets preak erid canmection with tip jricic. The may be uved for controling ofciltation bo sttaching reastor: ith series with ernd circuit, and can also the niser ior conerat testing of erid cutwits


Cat. No 6i49-4-pront Cat. No. B9:i6-5-prong

\section*{Dur Price 7 รe en.}

\section*{Phomo-liadio Switch amd Adapoter}

The simplest fnethod of connecting a phonograply pick-up to the audio system of the railo. Adapter plugs into the detector socket, tube plugs into the adiapter and the switch, which may be mounted on radio panel, changes from radio to phonograph instantly. Supplied for A.C. or D.C. Beis.

\section*{Plug Im Adapters}

For Test Kits and Short Wave Sets
Also used to connect drnamic speaker to chassis. A very handy accestory its the shop.

Cat. No08e
Our Pric ..... 43

Speaker and Analyzer
 Plugs

\section*{These hand} 1ugs ure ex tremely useiu around eny serrice shop. Eesily attached to eny lour or five Firecable. Made of genuine bakelife.

Cat. No.


5868 4-prons short cap.........20c 5869 5-prong' short cap. . . . . . . .20c \(58 \%\) 4-prons long analyzer plug. .................
5871 5-prong long analyzer
rono shot cap
..........25c
699: 6-prong long analyzer cap . 25

Earphone, Sppeaker and Testing Adapter (4. Prong)


Cat. No. 5250 29c
dias maryy usen shich as sllawitg the wio of duesdpiones on any set. conde ofiray an extra kppaker Hove Stminy remove power tubs. inseft phone bips ol extra eppliance into ooriresiciec cer, A connector cer A connector Wilh phone tips on ench elid is
iurnished the rdapter clin bo each adapter :o that the gdapter clin ob shatied ont whein that in use incteld

Additional Adapters for all Testing Purposes on Page 86

\section*{Adilitional Adapters}


Adapters are listed for use in testing the many new tubes which have recently uppeered in the market. They are araikiole for testiog with seto costers, hond als, thbe testers. Where reference is Eiven to certain Readrite testers, the same fodapter nay be used with similar testers of other manufacture. This let is pery cosmplete for all det tubes available.
Gat. Mo. Our Price
74.25 Used io test \(\because\) vali solles twbes in earlies model tube towters, like the Nio. 4 (10 Readrite whinch did not have \(\because\) valt tan 8 the socket but has a \(\because \because / t\) athd \(\because 2-\) zocket. Consists of a four hole socke on a hive protig plug
7426 A special adapter used only on Readrite cable plus applying to set testers No. fill and 710 , for testine sik prong \(60{ }^{\circ}\) tube circuits
7427 A special adapier uscd only with Ruadrive Nos. 610 and il0 sei testers connected to the cable plus for tesithg seven prong tube circuits Consists of six hole socket, With one 60
5884 To test 's t type tubes in ' 111 sockens50 c6962 To test 57 type tubes in \(\because 4\) sockets.
6962 To test \(\because s\) tyje tubes in \(\because 1\) sockets.
39e
5200 To test ' 47 type tubes in ' 45 sockets.
50
5200 To test 's2 type tubes in ' 45 sockets.
754
7429 To test Wunderlich type fubes in "2 4 soaters.
\(50{ }^{\circ}\)
5883 To test 4 prong tubes in \(\div\) mrong sockets.
5884 To test is prong tubes in fi prong sockets6962 To test \(f\) prong tubes in 5 prong socirets.Modernize your old set by usine the bew troe tubes with these Adnpters,saving the expense of rewiring or changing parts.
6962 To use a \(\sigma 7\) type tube in place of \(1: 1\) tube in the de- ..... 59tector socket onlytype tubese) 5 e90

\section*{Multiple Antenna Coupler}

Non: 50 to \%oo Sets on One Antenna

loes aw ay
With the mang tangied and aloondoned aerfals on roofa which ate a fire hazmre. Many of the Jarger citjes have already. bamned roof ferials arid howe owners are lookiag for fus sucti an them as the Acratest Multiple Antenna Cottpuos.
This coupler is a newly developed nxeo band pass ctrcutt which antomatically sdjusts your set to eny ensteons condstion. If you are thsint tho lotis Ari All ionna, the Acratest coimper will preserve the plek-ip of such an uetin] but sharpen the selectivity of your receivea. It is very mimall and oin be installed on the besefinsil and cin be instanied on che baseinatructions included with each circuit.
If there are jarize apperpment hotses for
four locality yea can interiest ineir ownere in thet perjee. You can enillnet the appearance of his property smal tomive the fra hasard by removinit as the aertnis for one rood one with couplers for cach tenatht. The instañation oi Acratest Muitiple Aaterina Cosiplers *wil parte the way for you to service the ten"sts recelvers and thtis lncremse your revenue. In sout own fore rot can ute tho Airatest Mullale Antetnan eovpler to ereat advastape by opertatint all your demotistrators on of ningio berinl and ist tian serne tire exnle in the use of this divice to sour cultomiers
Cat. No. G615
平 \(]^{7 \pi}\)
our Frice, Eack \(\qquad\)
Heavy Duiv Lahoratory Type Teet Prend With Needle Point Tip6
Tips Can Aing Be Inserted Into Jauks The bocis of the necdle i) ios incu an when inseried into staradayd into stariayel feriteg. Emist? ped wimh It.
 ocavy with black
Wire with black and red fibre bandles 8 In. Inns ant la tis. dia. Itie nectie paino phoue tip is haste of the lifgeet grade hll rd Drentie.
\[
\text { Cor. No. } 6913 \text { willh Test Clipe }
\]

\section*{60c per pair}

Cat. No. 6914-With Spade Termimals 50c per paifr
16 Wire, 50 Foot Cable
For Remote Control and Public Address Work
Alsu suitable for gambiflatur systems,
Cat. No. 5537


Test Leads With Chuck for Phonograph Needle Tips


These vest prodis are b grent improveFient over the ordinary prodr, belng equipped with two chucks in which are maserted any standard phonograph Fieedles for tigs. The needie wili make contact ilagagh insulation and plich, and get into tight places which cannot he roashed With the ortinnry tent tips, Mtecte wish best grade ftbre tubreacible procts and lacquered ire
or apade tips.

Cat. Ne. 6532-Whth Phone trpe Cat. No. 6533-With Spade Tips

\section*{30c per pair}

Servicemem's Test Leads

Cit. No. 4331With Spade Tps Cat. No. 667, With Phone Tips 23c petir
The Teat Leads are a convenienct to the set ciwner andi a pocessity for the Radin Serylce Man ano Radio Deniler. They ate unsarplessed for tearinar set and tracing trouthle in sets where shorit, opers and other defecte cominims to radio seta nre etticountere if.
They enn quiskiy ife attoched to any meter for iesting btiteilem or any electif: css apparatus.
Thay ire suppiled with red and hack Fito for positive a हd megatmo juentilicttione.

\section*{I. C. A. Test Leads with Phone Plug}


\section*{Dur Price 90c}

The test leads have phonograpla ronede rrads and the ends are sttachers to a doulnie phane bulug wuich makes it hands for tentine in the inboratory eirt shei).

\section*{Utility Test Leads}


Conslsts of ane Ko, "026 test frodi, 24 inches of finest grade baonlarethal wire find inches No . \(\mathrm{Cos9}\) eromodis slip. A sesy binds a No. corg crocodwi sing A sed
accessory for the servife man.

Cat. Na. 5985 endie (Ell.
Multiple Conductor Cables

Cat. Malte Wires Lengik Price
Ni.
\begin{tabular}{|c|c|c|c|}
\hline & 4 & 2. 5 t. & \$0.1.0 \\
\hline Genveral Electilc & 6 & 6 ft . & . 20 \\
\hline & 8 & 6 ft . & 5 \\
\hline General Exectric & 8 & 5 if. & \(\cdots\) \\
\hline Belders & 10 & \(8 \pm 1\). & 410 \\
\hline Gefertl Fitetrio & 10 & \(8 \%\) & 93\% \\
\hline General Etectric & 12 & Bit. & .35 \\
\hline
\end{tabular}

\section*{EXTENSION}

\section*{Speaker Cords}

\begin{tabular}{ccr} 
Cat. No. & Length & Iach \\
4451 & 20 ft & \(\mathbf{8 0 . 1 6}\) \\
4452 & 80 ft & .24 \\
4453 & 50 ft. & .35
\end{tabular}

Headphome Cords (Double)
6 it. long, with loop eyes on one end and pin tips on owher.

\section*{Cas. No. 4454 10e eal. \(\$ 1.00\) dozen}

SPECLAL SPEAKER CORt): 8 FT LONG WTTH LivGS ON ON: END AND PINS ON OTHEAR
Cat. No. 4ess 10e ear. 81.00 dozetz

5 ETT. SPFAEEER COFD WITH LUGS AND TIL'S

\section*{Cat . No. 4456 10c eat.} \(\$ 1.00\) dozer

\section*{The Morris Improved Universal Coil Winding Nachine}


Pop Whiding Hoteycomb Epider Web Gcannoiss, ctc.. in digarint widthe ma dinmetre, and wh1 use wite of dlferent gatros. An jeens intoline fog tho experhphonter and migateur.
Fat. Nh. .\%
I.C.A. 5 in 1 Neutraliz-
ing Compensating Tools

This soot set is n comoination of a \(14^{\prime \prime}\) nut Wrench, be s/16" nut wrench, a neutzalizing screw driver with \(t^{2}\) blede and on full sien scieg driver, to collatructed that sil the purts triescope so that the entire nitat when closed in no larger than a foumtain pen poctset elip attachert.


Cat. No. 6946
Our Price 30e Set
Extra Neutralizing Attechments for above Set
For Majestic Sete-
Cat. No. 6947 lae eal
For Crosley Sets-
Cut. No. 6048 15e ea.
I. C. A. Neutralizing Tools With Metal Nibs

 ossier, quicker and more accurate io muri
rith. ite constructed of the fursis cuall: intulatinis materinis und ape finlshed wifl hehly mickel plited EYASs nibs. Coripact17 constructed, the cisw itive I fits isio the dupler wrench makint it a fonr-inane se1. The nther and of the screw driver is sotciel megnefic hiect ior Dicking up and plecine of screwes, bolis, nuts, washers, etc. The I.CA. Nevirivina Thols aris on all thinndard make radig reculvers

Cat. No. 6457
Our Price 88e
Neutralizing Wrench and Screw Driver


A Very Fiandy Tool for the Service Man
The wrench and screwdrtiter is made of case hardened steel. The handle to made of bakelit-prevents body capactty. Esnecially sutted for Radiola eets.

Cat. No. 4207
Dur Price 45 c en.

\section*{The Famous M16 Elkon} Replacement Rectifier NEW KYPE "XB1G"

Mins be used on the folloriag " \(A\) " elimsnalora: Majestic, Mayalian, Elknn, Philco, Welister, Knapp, Gen Trist. Metro, Fade, Bernarti, Sentine1, Mil ben, and Briggs and
 Stmhtor. Also spechal- Cat. No. 4152 18 sdapted for use List Price \(\$ 7.00\) with on any standerd dinamio speatezs.
\(\$ 3.75\)

\section*{The 414 Utility Chest} With Automatic Cantilever Tray

SH2 14x6\% 56 in Movable tres partitlons Marched hard*are. Prmenens embossed rule on cover.
 Cat. No. +11 Oer Prive, Each
The 411 Unility Clent, truly the chest of a thatand uees, orimitally developed by UNION, retined and furtizer improved with automatic tray as shown in the 414 has proved s marchandieng sensation.
Uisble as a mechenle's tool chest, fishing tackie bos, for hourehold tools, bathint suits, lunch and outing bors. Valuable pupers and oiner uses too numerous to meriton, hundrack of thougands of these boxes have beesu soid. untl! there are now noro then a alillats in tise

\section*{UHility Chest and Cash} Box with Lock and Key
Iray Has Movable Partitions and Squire Baso at Each End Permitting It to Be Used Out of the Box


Specifications
SIZE--Length \(131 / 2 "\), depth 4 ", width , \({ }^{3}\)
FINISH-Especially hard baked enamel. cololl Atiractire afle green.
MARDWARE-Brits plated throughout.
CONSTRICTION - Hears gever cold polled sted wisit electric welded flush teams. Eculjpod with sturdy handle and LOCK WIIH KEY. Paneled top and Lock with kery. P WEIGHIT-loer chest) sirenath. \(21 / 2\) Ios.
PACKED-12 chests per shipping carton. SZUPlPING WEIGHT - \(\$ 5\) pounds Ner cartom.

Cat. No. 7317
Our Price, Each
60
Doren \$6. 50

\section*{INSULATED MANDLE Pocket Screw Drivers}

nandrexp handy and useful iftle tool for - \(v\) rybody. Put dis. play 5 Ed 0112 on your counter in w wateh them tell. Tlires slizes.
Cat. No. 3263

\section*{Dur Price 75e per card of 12}

\section*{DETECTO-LITE \\ Tells All at a Glance! \\ }

Indispensable to Any Service Man
1. Will test any current from \(\mathbf{1 1 0}\) volts to 550 volts and will indicete voltage.
2. Will tell instantly whether A.O. or DO. current.
3. Will shot how many cycles.
4. Will detect the live and ground wires. 5. Will act es pllot on any electrical apparatus.

Cat. No. \(325 s\)
Dur Price 88e

\section*{I.C.A. "Short-O.Tester"}

Every Serviceman Should have nne


With 21/5. Tnum Cat. No. 6996 \(\$ 1.50\)
The I O. A. "Bhort-O-Tester" it an ingenious new clrcult fester containing a \(2 z^{2}\) volt 1 mmp and a small tubular nashilght battery so connceted that when the fiexible wire lead with its spade tip Is attached to one turn of the electricni circuit terted and contact made throusch the pin teriminal on one end of the tester, if Fill IndicI te whether enid eircuit is opers or clofed. It 13 an excellent continuity tester for radio and electrical work and should prove a very useful tool to the serviceman. It can also be used as a flashlight in an emergency by touching the spude up to the metal test prod, thus shorting the circuit. It is also furnished with a neon lamp so thet circuits hating any voltage or freauency mey bo tested for conlinuity and apororimate in. dication of the reli the strmeth of saire. and whether it if A.C or D.C.

\title{
WESTON RADIO INSTRUMENTS
}

81/4 Inch Panel Instruments


Model


Designed for the servicuman who desires to build a multi-range instrument to ant his porticular testing requirements. It is for use with external shunts and external resistances for measurine, D.C. voltages and currents and A.O. voltages.

The frictrument is of the permanent magnet moving call type with a self-contained copper coxde rectifier for the A.C. measurements. It is self-contalned for 5 volts and 1 malianapese A.C. and 50 millivolts and I milliampere D.C. It has a doublo scaleone ior A.C. and the other for D.C., each calibrated \(0-5\) volts.

A connection diagram giving suggested ranges is shown below, however the instrument, shunts and resistances may be purchased separately and the meter bullt up for any range desired.

This high grade matched line of meters oìz고 an exceptionally wide range selecinon in D.C., A.C. and Thermo-Couple yps in trumenis. Because of their inimitwile Weston desisn and workmanshlp they are extensirely used throughout the entire rorld on radio pancla ord in the allied electrical industries. Ordinkrily they are suppliod in flush type but can also be furnished \(1: 2\) surfice tispe 13 desired. The meters may be spicified With Bakeiste cases at no ddditional charge.
D.C. INSTRUMENTS-MODEL 301.Pcrmanent nestiet moving coll type. Accurate within 2 ch . They are supplied as Voltmeters Volt-Ohmmeters, Ammeters, M1lliaflmeters and Microa
Weint approximateig 8 ounces.
A.C. INSTRUNENTS-MODEL 301 RECTIETER TEPE.-EXtremely high sensitivity A. C. instruments are obtamed by using a tull- 『if roper oxter rectiner in conduncthon with stanelard Model 301 D,C. movernent. Ther havo the excellent damp-over-ioad capacities of the D.C. instru-over-10
Temperature errors at ordinary room
Model 301 D.C. Voltmeters Rangts \(3,5,10,15,25\), so and Prteo



\section*{Model 301 Volt-Ohmmeter}

Volts Ohrn Scale Ohms per volt Price
\begin{tabular}{cccc}
4.5 & \(0-100,000\) & 10000 & 88.82 \\
15 & \(0-500,000\) & 1000 & 8.82
\end{tabular}

\section*{Model 301 D.C. Ammeters} Ranges Net Price 1, \(13 \mathrm{z}, 3,5,10,20,30,50 \mathrm{Am}-\)
peres (have a drop of + - 85.
Model 301 D.C. Voltmeters Resistance 1000 Ohms per Volt
temperatures and frequency errors over the power frequency range of 25 to 133 cycles are negligible. Frequency errors on higher frequencies up to 35,000 cycles may be coriected for as the instrument indications decrease approximately \(1 / 2\) of \(1 \%\) for each thousand cycles per second.
MODEL 425 A.C. AND D.C. INSTRUMENTS. - These instruments are of the thermozouple type. The ammeters are for use on D.C. and on A.C. of any irequency. meter are for use on A.C. only. They may meter are for use on A.C. only. They may also be used on any frequency without imare accurate with \(2 \%\). Approximate welght 6 ounces.
MODEL 476 A.C. INSTRUMENTS. Movable iron trpe for A.C. only. Supplied as Voltmeters, Ammeters and Milifmmeters. They are accurate "ithin \(2, \%\).
MODEL aif CONDENSER METERS. capacity of condensers direct in microcapacity of concensers direct in micro-
farads. They are of the movable iron larads. They sre of are accurate withovable when type and are accurste within the voltage for which they are adjusted.
Model 301 D.C. Milliammeters Range Net Price E, 1

\section*{Rectifier Type-}

Model 301 Voltmeters 1000 Ohms per Volt



\section*{2000 Ohms per Volt}
\begin{tabular}{l}
\(1,11 / 2,3, B, 15, \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~\) \\
\hline 11.03 \\
80 \\
100 \\
\end{tabular}

\section*{Rectifier Type} 301 Milliammeters

1, Range

Net Price

\section*{Model 425 Ammeters}

Range
उ, 10,20 Net Price
(Continued on next column)

Instrument Littlefuses
(Low Voltage)
This line is designed especially for the protection of such delicate equipment \(s\) galvanometers, microammeters and milliammeters, radio
 Showincersis ta s testers, Pats. issued and pending. rado circults, small radio and rectifier tubes, etc. See also "Where to useA Iittelfuse."

Cat. Rating
No. Amps. N275 \(1 / 100\)

Description Max. Aver. and Load 5 Mil Uur Application M.A. Load Price Use for galvanometers, microHammeters 0-5 thermo-couples. hermo-couples. 5138 12
7276 1/32 \(0-1\) to 0-5 mil. liammeters. 0-5 to 0-15 m. a. thermo-couples. \(1565 \quad .12\)
\(727 \%\) 有 \(0-10\) to \(0-50\) milliammeters. \(0-50\) to 0-100 m. a. thermo"gouples. Radio auto end battery sets Underwiters approved ...... 100
\(22 \% 810-500\) to \(0-750\) milliammeters. \(0-600\) to 1 amp. thermo-couples. Smallrectifiers. 1000 . 36 . 06

\section*{Single Pole Mounting for Littlefuses}

\section*{For Instrument} Littelfuses. Black noulded bakelite base 1 lid \(x \times 3 / 16^{\prime \prime}\) Tinned, shakeproot terminals and extra quality phosphor bronze nicke No. 8 or No 10 Flips. Mounting hole takes No. 8 or No. 10 Flat Head Screw. Overall length, \(1^{7} \mathbf{n}^{\prime \prime}\). Helight, \(8_{s} s^{\prime \prime}\). Standard package, 20. Wetght, \(1 / 2 \mathrm{jb}\) Cat. No. 7279
Our Price
de
(Continued from preceding column) Model 425 Milliammeters Range
120,250,
Net Price
N00.................................... \(\$ 11.03\)
Model 476 A.C. Voltmeters Range Net Price


Hodel 476 A.C. Amimeterg Range \(\quad 5,10,20\) Net Price


\section*{Model 476 Milliammeters}

15, \(25,50,100,250,500 \ldots \ldots . . . . \begin{gathered}\text { Sange } \\ \text { Ran }\end{gathered}\) Nrje
Net

\section*{THE FAMOUS JEWELL}

\author{
Trio Panel Mounting Instrumentas
}


The Jewell Trio of radio fastruments is popplar for bulleing mental iehoratory apporatus, and in amateur transmitulis. Pat-
 In Jush type bakelite cases that duplicate the old Pattorns 54 , 64 and 74 in metn! cates.
Patterns 88 m
Patterns 88,68 and 73 are furntahed for mounting in cavas of
moided baketite. Fiange diameter, \(31 / 2\) tn. case diametor, 324 to moided baketite. Flange diameter, \(31 / 2 \mathrm{in}\). case diameter, 324 in .
Approximate shipping wegiht 3 lbs . Approximate shipping wegith a lbs.
54. Whan ordering Jewelf meters, pletre trots thit typos Not, 74 have metal cascs. Ei. Sf and 78 have metal cases. Specify which type you desire. In tho rere position which may vary sliphitly owing to or noedio can be oxactly placed

\section*{Patterm \\ 88 (Bakelite) \\ D.C.} Instruments
High rumes matruments aro supplied Wi:h external restetors, having malied bakelite heads which are naiply largo to take care oi varinas regulrements, These instruments are ant revommended for teaxises ithe voltage of \(\mathbf{B}_{3}\) powar suppiy, Cat

it \(0-8,10,35,30,50\) volts . . \(\$ 7.50\) \$ 5.5 .51




 \(453-3,8,10,15,25,50,1012\) \(150,200,250\). J00, \(\$ 00\) milinmperes 13:0 0-1 millataperes

 161 0.1, \(4,5,2,3,5,10\) and is
 Nich metal caves, 32 cas in sjoc be furnithed oish metal cases, \(32 y\) in filage, 3 in. ense of same prices. Specify rive l4 tor meial,

\section*{JEWELI}

Pattern 88 Rectifier
Type A.C. Instrument
Towil patern as carsits of o, omatitre Jewoll DiArsonval direct current instru. thent ased in conjunotion with o belicontained futi rave eopper oxide rectifler


\section*{JEWELL} Pattern 78 A.C.

\section*{Instruments}


Cat.
No.
\(468 \quad 0-13,5,10,15,20\) and 30 te9 vopts ..the, 00 , and 30 \(4690-150\) volss \(\quad 0 .+37,30\) \$5.51


 4 \%3 \(001,2,3,5,10\), is am :
\(2.50 \quad 5.51\) \(\begin{array}{llll}0-1,2, & 3, & 5, & 16,15 \\ \text { peren } \\ \text { pem }\end{array}\)
\(7.50 \quad 5.51\)

 esse, as same prices, Specify rype 64
instead of 68 and 74 tnsiead of \%it for juetal.

\section*{JEWELL}

\section*{Pattern 89 OhmmeterPattern 89 Voltmeter}
 Yor tho ratio eser. tcemen who relies
ilpan reststance, contipan reststance, con-
tifuity, and indetimuty, and frder pondent toltare terts the Pattern 85 Ohm-
meter nmt the Patmeter mind the Pat-
tern bo Voltmeter tera Es Voltmater
provide a combinatlon that If till
equaled for conveniequaled for convenience, aceuracy nud Bped in teging by
any othar eguipment of comparahie parice. These inntrumentr nra moinnted fan ennen
of molded bavicolito of malded baiselite whth sultable termiA 11 z -volt oell. motunted inatde the case of the Pattern 59 Ohmmeter trikes it infependent of autsife totiroes of enctar A maspetfe nhumt provides convonion A magnetic nlome providea comvorion in cell voltage, since this adjugtment In ceis voltago, bince thas ady botment very aceirnate dipsect resistance ftadinim: are assured.

\section*{Approsimate shipplng Weight, 3 loz, \\ \begin{tabular}{|c|c|c|c|}
\hline at. & & 1.ist & ut \\
\hline Nit. & Type & Fife & Pries \\
\hline
\end{tabular}

5018 Pat, 98 Ohmmeter, with
either \(0-1000\), \(0-3000\),
\(0-26\).0.96 or 0 -3in, on ohm
Fangan, includin! hettery
Fangar, ime
nind ters
\(\$ 16.50 \quad \$ 12.13\)


PAT. No. 89 vor.TMETER

Fange), 1000 ohms per
voit, with tist jends.... 25.00

Jewell Pattern 444 Analyzer


Coraplete with aceessories; dafa book and pad of tube charts

Cat. No. 315

\section*{Dur Proice \(\$ 82.32\)}

Jewclly Newest Bet Tester and Analyaer, tests all types of tubes inctutime triodes, pentodes ind tetrados, ind beth niatt of it 270 yectifer fatbe whthout the pila of alapter.
Thiy new Jewrell Annlyeer is the monl complete radto service instrument ever bullt, eampnat, pasmed comirtuetion maten It eany to cerry and enables it to atand tip urider ther, herdanfis of service waric and its protenionnt nepripanee tiven preatlac to 1 the sadio service mall. This how Jawnif Eet Aaalyuer eng Tules elmociser Markin ing sep forward in Inodia Yoetins Equapnout. with is prietiently every tent flovir before, filuined. It incorphrates ftatires mos foumd on any othor type of fallores mos foum
ration tenter. The Pattern No. 444 ferss every erreull In any repplyer. reguralient of five tron of tuber aned. Fifl wave roctiffer, virfinhlemu. outpil pentade, hnd meatodes havine mu drect canncoted fifth elempont. maving bo mond a- direct conncered ffth element, may bo
मecuritely teated undur actual operating condimeng tasted tuder actusi operating A.C. and D.C. circtit teits are cotnEranieg by soperate rolary belector switehes maiting it neoplaty to ant only one mwach to ohtain eny deatred teat,
The followina monamine ranmen
vided \(\mathrm{A} . \mathrm{C}:\) : monasing ranges in ine pro-
 mitimmpres; \(0-1-1-160-0.10\) volit D. C. U-12-01\%-120 milli smperesi \(0-5-12-30-60-120-\)
\(100-f 00\) volts antann: Lov-500 volta: \(9-1000-100,000\) olamaf and
low-medtam-hatgh butput ranens.

Pattern 209 Checker Tests \(\begin{gathered}\text { Sereen-Grie } \\ \text { Tubes }\end{gathered}\) Tubea For radio dealers Who Fequire tit ace
chtate nni eifec: chtace and effec
tive tothe eheater Itre tube ehecker at, in inoder it te. price, Operates en a \(50-60\) cvele, 110 .
120 valt A \(? ~ N o a d t ~\) no batterios, Haz 1 D. C . tavter with oly tuhe opehets it
 Entzelits. The sociretn provido floment volpages of \(1.5,2,5,3.3\). 5 and 7.5 ta 4 .
 moket. Terminals are provided for tibes Sith ecrmbals at the too,
Makes all tents. Correet velaes of rendinga ane eiven in int entrased chart in the foen enf the thathe thenorts
Cat. No. \(314 \quad \$ 22.05\)

\section*{Dials, Shunts and Multipliers for Meters \\ To be used with Weston Type 301} (Cat. No. 521) or Jewell Part 88
(Cat. No. 460) Milliammeters By the use of these shunts and multhpliers, many combinations of current and voltage values for both A.O. and D.C. can be measured and all on the No. \({ }^{4}\) Dial. 'Che use of three poie.
hwitches in connection with the A.C.switches in connection with the A. ©.D.C. clrcult shown gives you the that you lection of any of the values that you.
have incorporated in your meter box. have incorporated in your moter
This
circuit specifles
the mopt popular This eircuit specires the mat them with others-to suit your need. Both series shunts and series multipiera may bo used in the circult.
Witn each circuit blueprint wo furnish special ingert leaves to give you \({ }^{2}\) wide combliation, such as series shunts, multipliers, low range d.c. ohms, capaelty, etc. The accessorlos listed below are very small in aize and cost, yet very accurate and made of the best materials.

Meter Dials


Type D-1

For the I mil D.C. with 27 ohm internal resistance ( 27 milli-volt). Has three scale readings and an ohm scale 0 to 100,000 using a \(\$ 1 / 2\) volt battery.
Type D-2 \(\left\{\begin{array}{c}\text { For Weston } \\ \text { Cat. No. } 6800\end{array}\right.\)
\(45 e\)
 same at Dl except for the lower scales.

For the 1 mil. A.C. Rectified (not the universall. This dial has two scales for A.C. volts from which many can be made by adding imaginary zeros. 5,000 to 1 meg. A.C. ohms, capacity range . 0004 to meg. A.C. ohms, Uapacsty current supply from 115 V. 60 cy , line. Hookup Iurfrom
 Cat. No. 333 e Each A special arrangement to allow vitage reading of many ranges of A.C. Foltage and current and D.C. voltage and current from only one set of numerical ugures, the scale in the center being for A.C. The main A.C. scale dirisions connect to the D.C. divisions of the same value. At the lop is a 0 to \(100,000 \mathrm{DC}\). scale using \& \(4 \frac{1}{2}\) V. battery. By using a 10 mil. shunt across the meter and readjusting the circuit resistay
100,000 ohm scale will renut.

\title{
A. C. - Shunts - D. C. \\  \\ Series \\ \\ Multiple
} \\ \\ Multiple
}

\section*{}

\section*{A.C.}

A.C.
"VAN" Shunts are rery 5 mall and compuct. They are made of the best noncorrosive alloy wire. Its temperature co-efficient being practically nil at \(900^{\circ}\) F. D. C. shunts are of two types and two voltages. Single or parallel and several connected in serfes. Each type having their advantages and dlsadvantages, preferencs being given to parallel connections using multipolar switches. Voltages ere 27 millivalt (for the mil D. C. mod. 301 with internal resistance of approx. 27 ohmsi and 50 millivolt fos the D. O-A. O. Universal pith an internal resistance of 50 ohms.
In the A. C. Shunt it is necessary to create \& five volt aroz, which is the lowest voltage range of the A. C.-D. C. Unlrersal meter, thereiore it is not advisabte to use inem in clrcuits of less than 100 volts. Shunts running into Amperes should not be connected externally to the binding post terminals.

Accuract of shunts for - \(2 \%\).
single thunts cannot be used in series. When wanys series shunts always conneci the end of the 10 rgest chant direct to the meter. The series whunt using a single pole. siritch is \(\$ 120\) simplest, but an extra brading por and switch conthat will be necesaayy if the i mil. scale 15 dosired ajso.
Cat.
Tio Orpt Ont 6803 27-DO for 1 Mil, D. C. Meter, 27 M . \(\mathbf{V}\). Furno, 100 sid 500 , \({ }^{55}\), 50,100 8
liamperes. For Universal Weston Model 301 Meter, 50 M. V. Mrnise in 5, \(10,25,100\) and 500 millumper
6805 27-8 10-100 511, SEI Combinalion. For 1 D. C. metpr, 27 M . V. 1.50

6800 B0-8 5-25-100 M1 Serles Combin. D. C. for Universal Model 301, 50 N . V.
6807 EV-AO \(100,500 \mathrm{Mils}\), and \(21 / 2\) amps.

\section*{Blue Print}
A. C.-D. C. Universal Hookup, with set of insert leaves.
Cat.
Our
No.
6808
25c Comptete

\section*{Radio Set Awalyzers}

AND HOW TO ESE THEs Fith Full Instructions and Descriptions of Set Analyzers, Tube Chectscirs, Oscillators, Etc.
By L. VAN DER MEI, Thts book explains thororteghly the opertube checkert, oscollators and other tesiling equipment. F'or evecy radio man this book is extremelr helpful. Is corers svery ninde of tesing and gitips you ralubble short cuts.

Copper Oxide Rectifier
For D. C. Meter Conversion Size, \(1 / 2\) in. \(x^{3 / 2}\) in.


Make a Rectifer Trpe Meter from sour preseat 0-1 D.C. milliameter by usIng this rectifier. This will make an A. C. voltmeter up to 1,000 volts by the use of multipliers, Which can be obtniued srom us. Recllfer is small enough to install in meter. diagram furnished.

Cat. No. 6675

\section*{Our Price \(\$ 2.95\)}

\section*{Multipliers}


These multipliers are of the pigtall type, very lightweight hive no metal end caps, well insulased and may be mounted very close together. Resistance change is less then \(1 / 2\) of \(1 \%\) plus or minus under ordinary temperature. Rated 1 watt. Accuracy \(2<\) plus or minus. Slze \(1 / 2 \prime \times 112^{\prime \prime}\) exclusire of plgtails.
\begin{tabular}{|c|c|c|}
\hline Cat. No. & Obms & Our Price \\
\hline 6ift & 4.950 & 8. 60 \\
\hline 67\% & 5.000 & . 60 \\
\hline 6789 & 10,000 & . 60 \\
\hline 6787 & 40.000 & . 7 \\
\hline 6788 & 45.000 & . 7 \\
\hline 6789 & 50,000 & . 78 \\
\hline 67:90 & 95,000 & .99 \\
\hline 6791 & 100,000 & . 90 \\
\hline 6:92 & 200,000 & 1.20 \\
\hline 6798 & 245,000 & 1.30 \\
\hline 6209 & 250.000 & 1.20 \\
\hline (13)5 & 500,000 & 1.810 \\
\hline 6749 & 600.000 & 1.80 \\
\hline 6897 & 750.030 & 9.30 \\
\hline 8:98 & 1,000,000 & 2.10 \\
\hline
\end{tabular}

\section*{Bakselite Meter Mounting Panel and Brackets}

By mears of these brackets sad panel, any Jewell or Wesmeter may b है mounted on instrument panel or over test hench for quick reference. Brackels are made so that meter can be demounted in sifiy for a portable teri.
 age sind injury of delicite instruments.
Set of hardware, constitite of 2 sets of brackets and 2 metal binding posto,
Cat. No. 7310
Per Sel of 4
Per sel of "olack bakelite panel with \(21 / 2\) " hole.

Cat. No. \(7: 111\)
10
Out Prief. Tach \(\qquad\)
Cat. No, 56Ts
\(10 c\)
Our Price Per Palt

\footnotetext{
Our Price 50c
}


\section*{Dur Price \(\$ 11.76\)}

\section*{Tests sereen ©rid Tabes}
twas tester as especialty thesizned for The new nety with 224 and 245 tubes. It is equipped with tirce double reading Intruments it mittmuetes oivo-100. in D.C. colt-micier \(0.60-300\), and repuasion type A.O.-D.C. yoltiteter 6-10-140. This litter instrument thould not be contised with the rane twe with its testricted application. A grad buls switon is prorifed.

Extra cords and tho jnck comaectlons nermit the ase it enoh theler individunlly Aro ehecks ! ine voltante Vers compact
and eomnlete, and complet.
The extra cords ine carried in the metal eover, which than a trailoor handla.


\section*{Readrite Output} A.C. Voltmeter

\section*{Copper-oxide Rectifier Type} A reliabie inctruoutment voltase of a radio set. Usea for intig wis ff f ind if. stages by determining ra a \(x 1 \mathrm{~m} u \mathrm{~m}\) faild. Aiso compar-
 hum, and fadine \(A\) practical low prices co. fer of the fall waye type. Mocel No, 855
 as Used on No. 850 venience thio por: table instrument


PANEL TYPE Cat. No. 487 List Price \(\$ 6.50\) \(\$ 3.82\) been designed. Tent leads are furnalahed with Mrodel No. \$i5. Gase is baked ensmel over seamiess steel 4 Ja dia. The inssembly incluces voltmeter, rectifer, jacks end facics to dymamic speniter volce coil and jacics to dynamic spealter volce coll, and


CASE TYPE
Cat. No. 486
List Price \(\$ 7.50\)
\(\$ 4.41\)


Readrite Customer Tube Tester No. 430


The No. 430 Display Cnse is destgned for the in contection with No. 406 or No doy Colater Tube Testers. The metn Display Caso contalins a nolor chart preand baiteter for direct reading of tubes and batterich, An A. C. Voltrateter with
rheoatat controts the inio voltage. An ON Theastat controls the ing voltage, An on
and OFP togle switch, in ficks and and off tosele switch, ip facko, sung of the No. 490 Dirplay Gate.
The No. \(40 \%\) Tube and Shori Tester is plugged into the receptacle and the tip fackin. The eter on this ienter is then fired for 8 oig tenting of mil tubes turdes operating cof Itfons. The reiter can be Iirted out of ihe Display Case ind bsed for portahive testing as a separate lastru-
mint The risping case contains ment. The Display Case containi a conThiment meter which the cunfomer can observe and readily understaisd, it is besuLifutiy fulskied in baked criatriet. It is \(10^{\circ}\) high, and the baie is \(15 \times 11^{\prime \prime}\).
This Costomer Dirplay Teater will not. ondy therease your tube sales, but will deater trives to oastain and taliols every peater etrives to outain and hold, At the without this compler can afford to be tube tester, whish witl sdA Uge to hts tube teoting equipment as the mofe elabosate teaters equipment as the eost,
oll the No. 407 is designed to talte care of all the tubes, theluding the new six proag type, testing them withoilt ine use of martet which taske rewtifer tubes by the minte current chailge mothod.

Household Utility Tester


Llsi Price \$29.50
No. 800 Complete

\section*{Net \$13.23}

For servicing electrically operated retrigerators Ironing machines, water punaps, of burnars, ntolecrs, wenthatstis nystems, rangos and general household applianices
Contains frput and output ampores, A. C. Arameter reading up to 20 smps., A. C. Volmeter resding up to s00 volts, and a complote direct reading Ohmmeter

\section*{READRITE}

\section*{Continuity and Capacity}

Tester No. 1000
For Set Analyzing, Testing Resistance and Capaclity


The Modern Bof Abatyzer. Contains Ohmmetor \(0-0,000,000\) olimi, and Capheity Meter,, 008 to 10 mfds., both direct readmimploved, mique and exclustve elroult is omployed, providing a new method of set analyals, No servicoman will fall to reco ornite its superiority and otitatanding adrantages. Evety serviceman needs this nitrument to ptreperty teat modern recenving seta,
The No. 2000 Teater comblnes the very latess wethod Irto one Instroment for testing renistamces, continulty and capacify of radio recelving nets. The 8 y - D of prectston meter has full scalo deflection of one z. a. The lower acale is divided Into killohms, 003 to 3 . This licale arto rankement makes ensy reading, and resistance tents are guickly made with extrema nceuracy. provision is mide for increastine each scalo readine bv a muttiple of two and niso for dividing the Iower bcale by 10 , thereby giving good scale difisions of tesistance measurements from 0 to 6 milition ohms. The \(A\) C. meter is ealibrated for reading dreetIy in mierofirads, The lower senle reede ing is . 000 to 25 . The lupper senle readmif is i to 10 midfa. 2ho instrument is callbrated for use on co cyole at 110 zatts The rheostat regulates the correct volts a e to be eppiled.

> Cat. No. 1000
> List Price \(\$ 55.00\)
\$32.34 NET TO

\section*{Something New for \\ Testing Condensers \\ Electrolytic-Paper Types}


No. 850 Capaclty Tester contatns one D.C. and one A.C. meter. Reads directly theter capacity of condensers, The A.C difurts to 100 to A.O. ittepply line and eonduts to 100 volts. Tests paper type voltmater 008 to 10 mflds . The D.O voimater connects to rectialor tube and rides for to volit. Bielector satitch provides for measurlag voltage, alvo forming and tering millampere cipaelty of electolytio condensers. The maximum read2 m .3 . ner gocd electrolytio condenser in with or withont in n seamiess metal case, and conventens cover, A very practical

Cat. No. 850
\(\$ 8.82\)
Sems as sbove for teating paper typo cortdensiors only. In a seamleas motal case, \(41 / \mathrm{in}\), dla, baked enamel finluh.

Cat. No. \(800 \quad \$ 5.49\)

\section*{PENTOIDE}

Set Testing Reduced to Simplicity Equipped with 6 Prong Tuke Adapter


1,ist Price \$25.00
Cat. No. 710

\section*{Our Price \(\$ 14.70\)}

Thene three meter analszers are equipped with a praction! selecior switch for thecking aid paris of the tube circuits lay oonneating to the set sockets. Selectind for testing voltage of plate, grid, cathota and sidreen-arid in done quicker and accurateiy. piave current,
volts, alion ling and powet -uphy polts volts, alno line and nowec usiply fest for Hre measured. Tut mid oving button for tubes is reed. Just iner for other tubes. Mreos-grising testing oì antier iype tubes simple and tiorough. A ay-volt grid battery is pad thorough. A dia-volt grid batiery the
firntaned. frid ient aid aloo continuiry testing of grid tramstance cinsis are firnished sorimg yese of instruments zor iesting condenstrs aiso sineasuring reatstances up 10 100,000 phms. The eight keall readings of the meters may be whed supmetels with the joek totminats nervic \(C\) volis \(0-10-140-\) Tot A. C. valts sind \(0-20-200\) znilusmperes. Eul A. C. Vars A . ind \(D\), O. inment voltages mold Arcuraieis Iiensureci on tho one meter. Hercurec in airong cise with leatherette Hocase in a airong compact. Complete. covering. Attractuv, the oxpert servicepalts evety aeed for tho arpert senalyz5 mg . Site \(10 \% \mathrm{ka} 1 / 2 \times 3\).

The No. Ran contzins the same equipmont is No. 700. The carlying case 18 thercest witi lenheretie covering and equipped with lock. Rooms is provided for carrying tubes, fools and supplies. The ient ecoumbent and panel is in a reworatie tray tu the 100 of the case. The tray equisment mey be used separatciy as a comiplete test penel for shop parpores. Size: \(14 \% 2 \times 7 \times \%\).

Cut. No. 610
List Price \(\$ 30.00\)
Dup Pivace \(\$ 17.64\)

\section*{Electric Extension Lamip Cord}


Per dozen
.81.50

\section*{Caninter Tube Testers}

No. 405 - No. 406 - No. 407
Dealers and


\section*{READRITE}

Portable Type Volimeters
Headrata noxtablo meters are otsered til varinlly ratiges or particutar A.C.V01tmideters are of tive repulsion tyin and call ho vised Nut. racs for elther A.C. or D.C. misting. This type should not be courased with the ardinary appliIype intisimanit vilit its restricted appuasflonh. Randirite A.C. Volme verv untiorm dirisions throughout the seale lengths. The bigher reening foltmiters contain over 350 ahms per volt lwistatice. The D.C. Voltmeters ate of the polarized vene yype. Atandard pactage portable meters 25. Averace reight 20 lbs.

\section*{D.C. VOLTMETERS}

\section*{Deseription}

With 3 in. Case

\section*{Cat. No}

List Our Price Price
5881 Type 346 for testirig "B"
\(\begin{array}{ll}100 & \$ 3.40\end{array}\)
5月st Trpe \(34 \%\) for testirg "B"
\(5.00 \quad 3.00\)
Extralisator -0-500 V...
With 21: in. 霉9se
K88\% Truse 342 - \(0-300\) Volts .. \(3.00 \quad \mathbf{1 . 8 0}\)
2is6 Type 246P-0-60-300 Volus,
\(500 \quad 3.00\)
A.C.-D.C. VQLTMETERS
\begin{tabular}{ll} 
Cat. & \begin{tabular}{l} 
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A.
\end{tabular} \\
Price Price
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Tsiss Pur iesting A.C. Cur rent sumply Line-0-150 Volt. -Typt 318 ............ \(\$ 4.00\) \$8.t0
Gis6: Type 285 F - 0 -10-140 Volts \(4.00 \quad 2.10\)
thesf 0 -600 Voits A.C.-D.C. .... \(6.00 \quad 3.60\)
585\% \(0-150-750\) volts A.C.-D.C. \(8.00 \quad 4.80\)
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\(5890 \quad 0-60-300\) Volts 1300 Ohins 4.50 ?.7.
5591 Type \(240-0-760\) V. A.C., 7004.20
539? \(0-300\) D.C. Millia mmeter 1.8 Ohril, Pa ael Mount, - Typ 3a9 ............

5393 0-50 V. UX Socket Iest ini 0 G old voltmpler 115,400 O Lins) - lype \(3.00 \quad 1.80\)

 1.30
 oursed incise cells, which with tesist
 sertes with pecter vises for testinu re. series whil rectet. fecervins teta, and citcielts veneraily. Fane for continity teasis.

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\section*{New Heights of perfection}

\section*{reached with the Acratone AUTO-RADIO}
fter months of experimenting, Acantest A engincers have perfecied a feally marvelous automobile radio, utilizing the new iype avio screen grid tuites throughom, giveng uniSonmaly good reception in all locations and the most simple af sets to intial.
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\section*{Complete-Nothing Eise to Buy}

Here is what you gel for \(\$ 24.50\) !
1-Acratune 1953 Auto Xadio.
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The maceiver is realily, attachod, by means of the brackets furnished, to the steertig colomis of the car, thus awoldiag the neces stiy of malring or defacing the car. There are no curnber otne or fussy flexible cables are no curnbername or fussy fiex bla cables
- the set la tuned in directly thike any other
racelyer. recelver. An illumisated dial extiances the set.
A Ward Royal Auto Antenna, which is attaehed moderneath the rutning boare, is also furnisken, as is atseel hiettery Lox, is Syi. varia tulies and 3 larige 45 voit \(B\) batierles, which farnizh all the necessary is and E curteat for the sel. The car storase battery Is utllized to furnish the current to llight the
flaments of the tubea.

Dircet eseatrot-steerises columa or dawn

Five Tuber-2 RCP Petetoge Ampliters No. 25 I Tetrode Detectar No . 35 3 Triode A.F. Ampilier No, si 3 Pentede Oixtlrut Siage No. 41
S Tived ciruits-lite oons-hioh gals-itrik Shletden, sansitirits-power-ture quality. The tuew 41 power tikes-indinect heater phen
 Dower or osidy 335 rollif ( 3 laturlas of है
Battery). Thaw tattery
How battery consumption, only \(20 \mathrm{M} / \mathrm{A}\).
Full runge Super Drzaraic Speaker, properky equappod connectea. shiedued cable and plag-ha-
Bhledied battery cables made ap in pugg for
quick installations Smooth vernler dial with restfal greers scele slluminated for quice siation finding.
Mounting brinkets provided for elther sterisg
colump mounting of tor dasha and foot in.
statiotion.
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duty Alocks of \(B\) Hattery.
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\section*{New Scientific Reffinemaents Hring -GREATER YOLUME! \\ -CLEARER TONE: \\ -WIDER RANGE!}

A hyphyy pertrece stribe chassu, fesigrma Ry ifors. incorminatme mocealiaing in Anto phas many exciasive fonut teswest ofvamces the matrotitedtry ars fonutres raking this Clarlty and full tone Radio of ell true! tue of an furs nized, full motererough the Speakeri fud sized, full powered Dyanmic


Substamilin watat battery bot for "E3" batteries is misa furmished.


\section*{The Recelver}

The ACPATONF Automoblide kadio is a suror-sonvitive a sulbe mproved radlo frequenay receiver employlaig new type suto raflo, fubes of low exrrint consumptiot:
The compact chasals is madmitum plated shat is luontsedt is a metal adare unly 2 andewir fici, loosen 350 cribes io remene the chatestil.


\section*{Compact}

The ACRATLNF: Aurg Radlo is the most coropact can the marke? 2t meabures only fily in. Wide, TH. in. long and b1/ in. Hish, Atud Neigłas / soas. ThéMagharox Impinnice Speaker is \(7 \% / \mathrm{in}\). 2n ditumeter fint hosped in a metal
case. why case, whty mavisting wrachets and bas a eenter bolt bo forst it
may ten may be easity mosnted on the cowl, on the cefling, is back of the driver's seat or on the dash.


11-Pleoe mappresFors of fnent grallty are furntshed with the set.

Wherever you are . . - in the city or in the rannury. . . whether you are driving or are parlicd. . this marvelous Auto Radio will provide the Pick of the Air for your
entertatiment?

\section*{Replacement Power Transformers for All Standard Sets}

These Power Transformers in most cases are the or－ iginals and where they are not，they are the piysical and electrical duplicates of the originits．Inls list is constantly being enlarged with inansformers which have passed the appyoval of our engingers．
Where the original transionner has been duplicated， it is a rellable product．In mans of the receivers 3 isted
here the original manutactwers＂transformers were un－ suitable for continuous service，and wo have made changes in the safety isctor to bring it high enough above normal operating conditions so is to cvon compherever for sharts and bress－cowns ith the receweri then fanish the transformer is contained in a can ooth the orjminal．
and physical charactersties are sdentical to the orls
Set Model E No Price

A．C．DAYTON \(\{0\}\) ，Navigator ALL AMERICAN（LYRIC）（D）， \(00,03,94,95\) ALL－AMERICAN（LYKTC）（D），Model D． AMrRAD（ 0 ），Bel Canto Scries 81 APEX（D），35， 37 APEX（D）， 10 Series supers APEX（D）， 20 Series Supers．．．．．．．．．． 62513 ATWATER KENT， 66 Plate Transformer．．．． 7221 ATWATER KENT， 66 Fitament Trans．．．．．．． 5220 ATWATER KENT（D）， 87 38．．．．．．．．．．．．．．．．． 2642



 ATWATER KENT（D），84（Early and Late） 7011
ATWATER KENT（D），84F（Early and Late） 7012 ATWATER KCENT（D） 8 ，80F，83F．．．．．．．．．．．．．．． 7013
 ATWATER KENT（D），87，89，89P． 8


EARL（0），21，22－25 eycle．．．．．．．．．．．．．．．．．． \(2658 \quad 2.95\)

\section*{Priee \(\$ 2.95\) 3.75 3.05 3.40 4.50 3．75 1.95 5.95 3.75 1.105 4.25 4.75 3.50 3.50 4.50 3.50
4.50 1.50 3.50
4.50 4.00 4.95}
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\hline EARL（0） & 3.00 \\
\hline & 3.75 \\
\hline EARL， & 3.93 \\
\hline EDISON（0），R4 & 3.8 .5 \\
\hline EDISON（D），R6 & 9.45 \\
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\hline EVEREADY（0）， 30 & 2.85 \\
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\begin{tabular}{|c|c|c|}
\hline & ） & 3.95 \\
\hline FADA， 35 & 722. & 3.93 \\
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\hline 69 Cycle & 3738 & 4.25 \\
\hline FREEIJ－EISEMANN 10\()\) ，Model NRE0， & 9410 & 3.85 \\
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FREED－EISEMANN（O），Motel NR57， 60
Cycle …．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 24212 4.54

FREED－EISEMANN（O），Model 16， 60 Cscle，
REED－EISEMANN（0），W上F73．．．．．．．．．．．．．．．．．．．． 2662
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KESHMAN，O Dic INMe Tr．．．．．．．．．．r24\％
TRESHMAN IDJ，ERAC ．．．．．．．．．．．．．．．．．．．．．．．． 6842
FRESHMAN（0），Model（ \(1-\mathrm{co}-5,60\) Oycle
（Plate）．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 80 Cyele （Pilament

95
FRESHMAN（0），EAC ．．．．．．．．．．．．．．．．．．．．．．．．． 2553
FRESHMAN（O），Flament Liansiomer．．．． 2634
FRESHMAN（O），Q， 60 cycle．．．．．．．．．．．．．．．．． 2626
FRESHMAN O），QD 95 cycla．．．．．．．．．．．．．．．．． 2629
FRESHMMAN（0）．N．S0 cyclos．．．．．．．．．．．．．．．．． 2644

Code：\((O)=\) Original Manufacturer＇s Model；\((D)=\) Duplicate；\((R)=\) Replacement．
MAIL ORDERS TO ATs
See Terms on Page 3 rederated Purchaser Ine．

POWER TRANSFORMERS

\begin{tabular}{|c|c|c|}
\hline Set Madell & \[
\begin{aligned}
& \text { Cat, } \\
& \text { No. }
\end{aligned}
\] & Price \\
\hline SLEEPER MONOTROL, Type 0 & 242 & 3.50 \\
\hline SONORA (0), A31, B31 & 203 & 3.40 \\
\hline SPARTON (D), 69, 79A, 89A & 5951 & 2.8 \\
\hline SPARTON (0), 301, 664, 570 . 950, Pal No B25is & & 3,8 \\
\hline SPARTON (D), 689 & 7002 & 4.75 \\
\hline SPARTON (1), 991 & 7003 & 4.15 \\
\hline STEIVITE (0), 46A, 40S, & 3805 & 3.40 \\
\hline STEINITE, TO 80 & 5364 & 3.95 \\
\hline STEWART WARNER (D), 100A-B & 6921 & 3.75 \\
\hline STEW ART WARNER (D), 801, 801A, & 7021 & 3.25 \\
\hline STROMEERG-CARLSON (D), 638 & 6768 & 6.50 \\
\hline 654 & 2663 & 4.50 \\
\hline STRONISEBG-CARLSON (D), 635, 636 & 3722 & 4.2 \\
\hline STROMBEERG-CARLLSON (D), 10, 10A, & 5850 & 5.25 \\
\hline STROMBERG-CARLSON (D), 816 & 5601 & 4.50 \\
\hline STROMEERG, 12,14 & 7243 & 3.9 \\
\hline STROMBERG-CARLSON, 19, 20 & 7244 & 3.95 \\
\hline STROMBERKG-CARLSON, 29 & 7245 & 3.2 \\
\hline Stromberf Carlson (D), 40, 41 & 2663 & 4.50 \\
\hline TEMTLE \((0)\), 8-60, 8-80, 8-90, 8-61, 8-81, 8-91 & 5583 & 3.75 \\
\hline U. S. TELEVISION \& Radio (0), Giorlatone & & \\
\hline U. S. RADIO \& TELE. (0), 561. & 2501 & 1.50 \\
\hline U. S. RADIO \& TELE. 10),540 & 2509 & 1.50 \\
\hline U. S. RAIIIO \& TELE. (0), 581 & 2510 & 1.50 \\
\hline U. S. RADEO \& TEEE. (0), 680 & 2514 & 1.50 \\
\hline \%. S. PADIO \& TrLE. (0), 681 & 2516 & 1.50 \\
\hline U. S. RADIO \& TutLe. (0), 682 & 2507 & 1.50 \\
\hline U. S. Ridilo \& tele. (0), 1945 & \(251 \%\) & 3.50 \\
\hline , \({ }^{\text {V }}\) & & \\
\hline VLCTOR (0), R-32, R45. 25. & ถ830 & 2.90 \\
\hline Yictor (0), R-32, 25 Cjcles & 2554 & 3.75 \\
\hline VICTOR ( 0 ), 14, 15, 17 & 2531 & 1.50 \\
\hline YICTOE (0), 34, 35, 39, 57. Part No. 61730 & 5458 & 1.80 \\
\hline VICCOR (0), RET3, 3att No. 6173 & 2676 & 1.80 \\
\hline VIC'IOR (0), RE14, 15. 220 F. A C., PMi No (2928 & & \\
\hline & & \\
\hline WESTIV (HTOUSE (0), WR4 & 2531 & 1.80 \\
\hline WESTGNGHOUSE (O), WRJ, WRG, WR7 & 2627 & 2.35 \\
\hline PVNTE (D), 2 & & \\
\hline ZENITH (D), SEE9 & 6841 & 3.2 \\
\hline ZENITH ( 0 ), Super 27, Nu. 4 Pack & 2568 & 1.85 \\
\hline ZFNITH (0), 10, 11, 12, 60 cecle & 2527 & 2.75 \\
\hline ZENTTH (O), 53, \(54,55,52,57,62,60,61,64\), 67. 522, 602, 613, \(622,642,672,71,72,73,77\), \(712,722,732,777\) & & \\
\hline ZENITH. 9 ...... & - 6842 & 4.25
8.25 \\
\hline ZENITH (0), ZE7 Plate and Rectinier inla- & & \\
\hline ment transiormes & 5703 & 2.25 \\
\hline
\end{tabular}

\section*{AUDIO TVANSFOEMER GULDE}
\begin{tabular}{|c|c|c|c|}
\hline Recrivers & Models & Cat. No. & Price \\
\hline Atwater Kent & 40, 42, 46, 1 st audio & 7057 & . 50 \\
\hline Atwater Finent & 46 Input & 7058 & . 50 \\
\hline Atwater Kent & PP. Ontput & 7168 & . 50 \\
\hline Atwater Kent & 20, 80, 35, 37 & 2606 & \\
\hline Atwater Kent & 41, 1st \%ndio & 6896 & \\
\hline Atwater Keat & 41, 2nd tudio & 6897 & \\
\hline Blunsinick & 32, 42 Input & 7204 & 1.35 \\
\hline Columbia & 902, 920 & 5534 & 3.85 \\
\hline Crosler & 126 D.C., 126-1 D.C. Double PP Input & 7212 & 1.25 \\
\hline Earl & 41 & 3720 & 1.50 \\
\hline Earl & All & 2515 & . 85 \\
\hline Freed & 95 & 3720 & 1.50 \\
\hline General Tivotors & A Input Trams & 7264 & 1.65 \\
\hline Kolster & K20, K21 & 5587 & 1.95 \\
\hline Philco & See Complete Ph Page 19. & 1 co L & on \\
\hline RCA & 1 r 18, 33, 51 & 2512 & 1.40 \\
\hline R C A-Viutor & 4147,6 & 5625 & . 60 \\
\hline It \({ }^{\text {c }}\) & All, Pish-pull & 2568 & . 49 \\
\hline Sonora & Input Transiormer & 7266 & .95 \\
\hline Stromberg Carlson & 846 A udio do Input & ¢517 & 0.75 \\
\hline Victor & All & 2581 & 89 \\
\hline Victor & All parlv models & & \\
\hline Zenith & Push-pull pack 50. 60, 70 seties & 5744 & . 59 \\
\hline & Interstage & 5585 & 2.75 \\
\hline
\end{tabular}

\section*{Filiter Comelenser Blocks for Standaril Sets}

The condensers used are all of the blghest qually, and in every case having higher safety factor than the origima. The physicas spect.
There are no obsolete or cheap parts used in the mating up of these blocks and all of them are guaranteed to perform as well as the originals.


\section*{By-Pass Condensers for Stamalard Sets}


\title{
Volume Control Guide \\ The resisiance taper, value, size of shatt, sibe of case
}

This list of replacement volume control is not a hapiazard collection of make-shift substitutes, but the result of four years of experience in merchandising replacement parts.
The majority of these volume controls are the exact replicas of the manufacturets' originals and the others replicas replacements obiainable. The physical dimensions and electilical specifications theach case are exact duplo eates of the original controls.

These controls are the products of Frost, Centraiab, Electrad, Clarostat and Yaxley.
and switch specifications have been cholely pahered to and in no case is a contral specified without our havin studied the requirements of the particular recelver:
Any controls not listed here can be possibly furnished by us from stock and we invite your inquiries for kyecial controls.
Any controls not listed here can be possibly furnished by us from stock and we invite your inquirles fer special contruls.


\title{
Volume Control Guide
}
\begin{tabular}{|c|c|c|}
\hline Receiver Mode il & Cax. No. & Price \\
\hline Fada, 51 & To98 & 60 \\
\hline Fada, 358 & 7069 & 1.40 \\
\hline Fada, 265UA, 262, 265CA, RP-65UA, R10 \(65 \mathrm{CA}, 262 \mathrm{UA}, 262 \mathrm{CA}, \mathrm{R}^{2}-62 \mathrm{UA}, 262 \mathrm{CA}\), RP-62UA, RP-620A & 5853 & . 65 \\
\hline Fada, 7AG, 475UA, 472CA, sFis/75UA, CA4 172 & 5841 & . 65 \\
\hline Fada, 20, 11, 30, 21, 10Z, 112, 30Z, 31Z, s0, & 5842 & 65 \\
\hline Fada, 16, 27. 32, 162, 322, 18 & 5842 & 45 \\
\hline Fada, 20, 2172, 25, 25Z, 15M, 15M: & 5493 & 85 \\
\hline Federal, \(\mathrm{D}, \mathrm{E}_{1} \mathrm{~F}\)........................... & 6126 & .60 \\
\hline Federal, \(\mathrm{O}_{4} \mathrm{~B}, \mathrm{~K}\) & 6126 & . 66 \\
\hline Freed, 65, 78, 79, & 7188 & 40 \\
\hline Frced, 78s, 79S, 95S....................... & 7190 & 10 \\
\hline Freed-Elsemahn, NR78, 79AC, NR90S, NR95 AD & 6286 & 55) \\
\hline Freed-Elsemann, MRSODC, NR8OAC, Nois. & 3819 & . 50 \\
\hline Freed-Elsemann, NRESDC, NR56DO, NR78DC, NR79DC & 8189 & 50 \\
\hline Freed-Eisemann. NR: 5 , NR56 & 3820 & . 35 \\
\hline Frestman, L, LS, G60S, 7, K. & 25Ea & . ¢0 \\
\hline Freshman & 7193 & 46 \\
\hline Freshman, K60S, G, 2N, M, N & \(37 \% 2\) & 1.35 \\
\hline Freshman, Q15, Q16, 3Q15, 3Q16, QDi6S. & 3767 & 35 \\
\hline French, Jesse Jr., G...................... & 7139 & 1.75 \\
\hline French, Jesse, 8, \(5-0.03 \mathrm{G}\) & 6119 & 1.25 \\
\hline Garod, E. A. & 6190 & . 50 \\
\hline General Electric, & 6141 & . 50 \\
\hline Gieneral Motors, & 5535 & 125 \\
\hline General Moters, 120 & 7120 & 1.50 \\
\hline General Motors, \(83 \mathrm{~A}, \mathrm{~B} 3 \mathrm{~B}, \mathrm{8} 28,252-3-4-5-6\), 28 & 721 & 9 \\
\hline General Motors, SiA, SIB, \(216,217,215,250\) & 7128 & . 6 \\
\hline General Motors, 510A, 220 & 7413 & 1.05 \\
\hline Gencral Motors, & 7319 & 1.05 \\
\hline Graybar, 700, 570, & 6141 & 5h \\
\hline Grayhar, 600 & 2956 & . 4. \\
\hline Graybar, 311 & 4185 & A5 \\
\hline zeebe, AHI & 30.11 & 85 \\
\hline - ehe, SK4 & 8508 & . 50 \\
\hline Grehe, AO 7 & 3039 & . \(0_{0}\) \\
\hline Grele, De Luxe. ACt & 3140 & 60 \\
\hline Grehe, HS-4, Mocled 5 & 7050 & 1.07 \\
\hline Grebe, HS-4, Model 5 Tone 0 & 706 & 1.50 \\
\hline Grebe, H8-4, 1, 2, 3, 4. & 7061 & 1.96 \\
\hline Grebe, HS-4, 1, 2, 3, 4 Tone & 7962 & . 65 \\
\hline Grebe, HS-4 & 7063 & . 90 \\
\hline Guibransen, & 6142 & . 50 \\
\hline Howara, Gyeen Diamond, ES.G.A., E. & & 1.25 \\
\hline Howard, 185, 395, 445, 495,.. & 6: 41 & 15 \\
\hline Htward, D4 & 7054 & st \\
\hline Jaiksoti-Bell, 22 \(^{2}\) &  & 9 \\
\hline Kellogr. 593, 598 , 524, 525, 527, 528 & 6142 & 5\% \\
\hline Kennedy. 10, 20, Roy al 34, 26, \(226 \mathrm{~B}, 36\), 38 . \(40 \quad 29\) 95 \(23 \quad 30\) & & \\
\hline Kernedy, Ro. 80 & \[
\begin{aligned}
& 3203 \\
& 6190
\end{aligned}
\] & 50 \\
\hline Kennedy, 56 & +391 & 1.20 \\
\hline  & 7392 & . 80 \\
\hline Kennedy, 56, itone controi) & 7393 & . 68 \\
\hline Kensedy, fie & 7994 & . 68 \\
\hline Kennedy, 52, 52A & \% \({ }^{\text {a }}\) 5 & . 86 \\
\hline King. J, H. & 0141 & 50 \\
\hline King. E8D, 81, FOH, 97, 98 & E142 & .55 \\
\hline Kolster (Brandes), K20, K21, K23, K24, K23, K22, K25, 2227, K42, K45, B10, B15, B16. & 5\% \({ }^{5} 5\) & \\
\hline Kolsier (Brandes), K \(43,4 \%\), \(45 .\). & 5 & 1.15 \\
\hline Lang. BAGAC. BDII & 6182 & 59 \\
\hline Lang, F9DO. Jïdc. Mr & 6141 & . 50 \\
\hline Leutz, Unlverss), Exans-ocenile, Seven Seas & & \\
\hline Console . . . . . . . . . . . . . . . . . . . . . . . . . & 6.190 & . 58 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline Iteseiver Models & Cat. Nin & Price \\
\hline Lineoln, 31 Superhet & 6185 & 5 \\
\hline Mijestic, 20 Serles .......... & 5157 & (90) \\
\hline Majestic, 130A, 230A & 8139 & . 50 \\
\hline Majestic, \(90,91,92\), & 6187 & . 50 \\
\hline Majestic, 70, 60, 70.3, 71, 72, & 8184 & . 50 \\
\hline Majesth, 180, 181 & 57.38 & . 35 \\
\hline Majestie, 908, 100 R & 56.96 & . 55 \\
\hline Majestie Equalizer, \(00,901,91,32,100,1000\) & 5638 & 1.25 \\
\hline Majestic, 60,160 & 7065 & . 60 \\
\hline Majestle, 15, \(358,150,155\) & 5465 & 1.06 \\
\hline Majestie, 15, 158, 150, 155 Toie Control & 70\%7 & . 65 \\
\hline Majestie, 25 & 7058 & 1.00 \\
\hline Majestic, 25, Tone Control & 7106 & . 6.5 \\
\hline Majestle, 100 & 5844 & . 35 \\
\hline Majestic, 130. & 4818 & . 68 \\
\hline Majestic, 30. & 420 & 1.20 \\
\hline Majestic, 50 & 3422 & 1.20 \\
\hline Majestic, 50 Series & 5897 & .75 \\
\hline McMillan, 8AC, Serles 90 & 6142 & . 68 \\
\hline Melorad, Cathedraitone .. & 6175 & .65 \\
\hline Norden-Ha eck, Super DZ-5A & 6.185 & 59 \\
\hline Peerless, 65 . ................. & 3763 & 35 \\
\hline Peerless, K 71, & 6603 & .5.. \\
\hline Pepriess, KKio & 3043 & . 64 \\
\hline Philcon, \(511,512,513,521\), & 6142 & . 51 \\
\hline Philen, 65 & 6285 & . 50 \\
\hline Fhiken 95, 96, 96A, 290, 29BA, 211, 213 111, 111A, 80 & 6190 & . 50 \\
\hline Philco, \(77,77 \mathrm{~A}, 20,20 \mathrm{~A}, 41 \mathrm{D}, \mathrm{C} .42 \mathrm{D}\)-.. 22 C , & & \\
\hline Philech, 112, 112A, \(312 \mathrm{~F} .212,212 \mathrm{~A}, 212 \mathrm{E} .\). 220AA, \(70,70 \mathrm{~A}, 270,270 \mathrm{~A}\). & 7893
6218 & 60
1.25
1.25 \\
\hline  & 7404 & 1.20 \\
\hline Puiten 90, 90A & 7405 & 1.20 \\
\hline Pilot, A3-elea Atr Scout scios wioh & ¢189 & . 56 \\
\hline Pildot. Midget, Pr6SG, E123, 123. 124, 1286. 128 & 6386 & 501 \\
\hline Pilot. Anto 180 . .............................. & fil88 & . 50 \\
\hline Trild. Platone. K108, K117 & fil 142 & . 50 \\
\hline Realicla, 39, 33 the & 3762 & 60 \\
\hline Radiola, Ail mominations & 375i. & 45 \\
\hline Radiola, 17. 42, 41D0 & E\%41 & . 59 \\
\hline Rantiola, 48, 49 & 8159 & 1.45 \\
\hline Rajiola, 60, 62, 66 & F.138 & 50 \\
\hline Raritola, 64. 64 & 3798 & . 50 \\
\hline Ratiola, 80, 82, efis & R,191 & 50 \\
\hline Redtola, 44, 46, 47 & 3 \% \({ }^{\text {a }}\) & . 45 \\
\hline Rudisla, 21, 22, 460 D & 6386 & . 50 \\
\hline Rafinla, 18, 50, 51, 18no & 4) e 5 & . 45 \\
\hline Ramita, R10, P11. FiAROG, RAEtia & 7076 & 75 \\
\hline Raciola, R7A. Tho, sive, smparette & ไimt & .60 \\
\hline Rantala, P5, 185X & 5.65 & \%3 \\
\hline Radiette. F14 & क14月 & \% \\
\hline Ractiola. 16. & 7403 & \% 5 \\
\hline RCA Vietor, RAPS3, 79, P5SG B5, RE26 & 7399 & . 68 \\
\hline Sentinel. 13, 12, 15, 16, \(104,103,440,444\), \(666,666 \mathrm{C}\) & & \\
\hline Sentinel, 108A. 109, 110, 111.................. & 7079 & 89 \\
\hline Spritimel, 118. 193 & \(70 \% 4\) & 1.03 \\
\hline \$ilver, \(710,720,724,740,35 \mathrm{~A}, 34 \mathrm{~A}, 38 \mathrm{~A}\) & 3039 & 50 \\
\hline Silver, 820.770 & 2968 & \(\ldots\) \\
\hline Silver, 712, 714. \(723,30,303,60 \mathrm{~B}, 75 \mathrm{~B}, 20 \mathrm{~B}\). & 6942 & 5in \\
\hline Sopmra, 2PP25, \&R, 4R, 5R, A30, A32, B31. & & \\
\hline  & 5898 & 51 \\
\hline Sparton, 211). 931, 101, 103, 109. S011, 591, 589. 930 & 655] & ¢ \\
\hline Sparton, 600, 610, ๕20, 737, 740, 750, 574, 876. & & \\
\hline & \(65 \% 0\) & 93 \\
\hline parton, 111, 564, 570. (Dontlnued on Fage 108) & 7077 & 88 \\
\hline
\end{tabular}

\section*{VOLTAGE DIVIDERE For All Standard Receivers}

The voltage Dividers listed herein are duplicates of tho origmal foliage dividers used in the rarious sets. All values and phoysical dimensions confurm to the orficiagls And in many eases the fafety factor has been brought up sbove nommal load.


Freed-Eisemann, Model NR80, 1,7502,000 ohm ........................ 350 ohm:

3842
\(364 \%\)
Freed-Eifsemabin, Model NR85, 1,00035i) -2.000 ohms
\(384 \frac{4}{4}\)
Freed-Eisemann, NR7O, 85
Freed-I isemanth, NR80
5765
5766
Freed-Eisemann, 411 B Eliminator.
\(576 \%\)
Freshman, All N Models- 18,000 ohms 3963
Freshatian, G- 10,950 ohms ..........
Freshtman, G10- 6,560 ohms tapped
reshtwan, \(\mathrm{G} 10-6,560\) ohms
Lit \(1,160,1,500,1,460,1,500,1,000 .\).
Freshthan, G60S-113,000 ohms .....
Eiertady-8.925 ohms
3918

G
Geher El Electric, P41 \(\quad\)...................
General Motors, \(16005-9.372\) ohms
\(\begin{array}{cll}\text { Gencral Notors, } 16005-9.372 \text { ohms } & \\ \text { tapped at } 800,59,1,863,2,000,4,500 & 14547 & 3169\end{array}\)
Getheral Motors, \(5057-5,185\) ohms...
Gencral Motors, 5524, 5525-6,300 olms
Getieral Motors, 5050 - 18,530 ohms...
Graybar, 678
Grebe, sK4 \(4-\) D.C. Filament Resistor.
Grebe, AC6-7.090 ohms
............
K
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Kolster, 6-H, K-5} \\
\hline Kolster, 6J, 6K, 6L, 6F, 6R-7,120 ohms & 2441 & 4014 & . 39 \\
\hline \(\mathbb{K}\) alster, \(\mathrm{F} 42-3.580\) ohms & 5071 & . 5916 & 40 \\
\hline Kolister. K \(38-4,430\) olims & & 5515 & 0 \\
\hline Kolster, K24, K23-7.835 ohms & 3983 & 390., & . 40 \\
\hline \multicolumn{4}{|l|}{Kolster, 6J-6,560 ohms ..........} \\
\hline Kolster, 6K, K20, K29, K23, K277.120 ohnis & & 4014 & . 39 \\
\hline Foister, K23-25,000 ohms & & 4024 & . 30 \\
\hline Tholster, 6H. 6 K -Fixed Resis & 4713 & 4025 & . 25 \\
\hline & & 86 & \\
\hline
\end{tabular}

Kolster, K43-2,980 ohms
L
Lyrie (Rudolph Wurlitzer), 6,200 tap-
Fed at \(2,000,1,000,3,000,300 \ldots\) Y-439-R6 3482
.80

Ma, estie, 9P6-3.600 ohm Resistor.
\(399 \quad 5466\)
6875
Majestle, 30-10.471 ohms
P
Phileo, 76, 77, 71A-4,900 B Resistor
tapped at 1,400. 1,500
Phile \(0,511,521,531,551,571,541\),
5 51, \(581-23,965\) ohms .............. 3088W 5568
Philet, 20, 20A, 220, 220A-5,102 ohms \(4230 \quad 3880\)
Philco, 65
5771
Philco. 87
3063
Pelydshe-Usiny 250 Tube 3963
Polydyne-Usine 171 Tube
\(1 R\)
RCA, 33 D.C -584 ohm tapped at 80 .
\(2571 \quad 3871\)
RCA, \(18,33,51-3.940\) ohms
\(2242 \quad 3872\)
RCA, 1 -rnltaqe divider, 8,195 ohms.
RCA, \(44,46,47-8.250\) ohms, tapped
at, \(2750,900,3500,1100\)..............
ped at 16 ..............................
RCA 105 Spenker- 3,825 olums, tap-
ped at \(1050,1475 \ldots \ldots \ldots \ldots \ldots\)
RCA, \&1, Reveptor Pack- 25,300 ohms
ROA, 64-7,780 ohms.
\(2543 \quad 6396 \quad 1.05\)

RCA, \(30 \mathrm{~A}-6.700\) ohms
CA Electrolt, AP952, 997, 860-400
RCA, \(44,46,47-2.580\) ohms
............
FOA, \(67-1,030\) ohms
\(\mathbb{R O A}, 67-7.335\) ohms
RCA, 42, 48
.................
Sitver-Narshall, 655- 11,350 ohms....
3164
\(\begin{aligned} \text { Sifrer-Marsthilll, } & 659-10,300 \text { ohms.... } \\ & \text { (Continued on hext pige) }\end{aligned}\)
.60
.60
.80
.80



\section*{A New Weston Kastrument for Align-} ing I.F. Stages - Aligning of Gang Condensers - Determining Sensitivity oI Receivers - Checkins R.E. Transformets and Condetsers - Making Selectivity Tests and Checking the Oscillator Stage of Radio Receivers
The new Weitun Mfadel 59i Oacillator 13 a very cozapieta and practical nignal ecriexator. is has an interrnediate irequency raxie of approximasely 110 to \(200 \mathrm{k} 10-\) egeles and a broadcass ranye of \(550-1500\) Klucyems. Frequencles brow nisy be obtalued Dy inesns of harmonics.
The ofelilator is equspped with an instrument whith is mounted on the pasel and which servea es a Grid Dip Mutamwoeter, Filameat Voltmeter and Plaie Voltmeter. this intirument remains in the gitid clrcuit at ail times muless compected across the Plate or Fularent clicults by mesns of push bution switahes.
Two type '30 tubes are used in the osellator, one for the R.Y, and the other th. poodutate the R.F. to produce an audthe pote of ceno rycles with 30 ch modula. tion. The gutput of the osellator is cuntrolied by an espectally devigned attenuator.
The batteries for operatuag the osclhator are coltialined in thelelded com partaent in one end of the case. They consits of an ordizally 22 , roll "B" bat thry and four \(1 / 3\) volt und cells comman. if ased in flamhlights. whtel are connected untomatically when inseriod in their connpartment and which whit ath
bours oi continnows operation.
An output meter is \({ }^{8}\) necesvary accessory for this instrument and a compart ment has becu provided in the case ior the weston Mfodel 571 when can ve purphaned with tise oucllator on shown ebore for 222.50 adtilioria.
Dimensiuns \({ }^{163 / 46675 \times 9 \%}\) inches - approximate wrieht, 15 potads.
The Orld Din Millammeter is particuzarly tmportanit it assures the bervice ana thai the bectlator is deflitiey operbung and that when no citout is obiained Trom tine radlo jecelifer it wis the jatter Which is et fault. It also makes it posable to test each atage of the R.F. amplifer trdividualy.
The Fuament Voltmetes ean be used to heen the fllameat voliage constent at, two voils which is necetsary io mamiain accurato callibratiod of ths oscillator and obtata maximuta battery and tube uife.
The attengator is adjuitabla from prictheally zero up to its mueximum range of anrooth, gradual changes avd not by steps. This makes it possible to obtali eny cogree of audibility besifed.
Beceuse it produces sigmals above 1500 \(\mathrm{K} . \mathrm{C}\) it chn be used in testung short wave didapters ond recelvers.
Mociel 590 Oscillator without Output Meier with tubes less batteries.

\section*{Cat. No. 590}

Dur Net Price \(\$ 79.38\)

NEW! Readrite Oscillator


A nebessery serviceing obelliazor for adustiag z. \& andi 1. 2. circuits.
Used to ailgn ri. Bang condensers, \(10-\) case defective \(x, \mathcal{L}\). iransformers, adjust if. transformers, check oscillator stage and Aletermine sensitfity of a recelrer. A sublumicd inverriment which eovers the aroadrasi band \(550-75,00\) k.e. asid the orotermediate circult made Fith timmer colldemer throush panel.
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Bustit to a kifh standurd, All parts ate turdy and strongly buit so reminlt per. manemtly Reeurate. A modern instrement lar all old and sew seill.

Ia leatherette case, \(6 \times 12 \times 15\) in.
Weight, 8 thes.
Complete Less Oufpui Meter
List Price. \(\$ 20.00\)
Cat, No, 550

\section*{Dur Price \$17.64}

Complete With Output Meter
Lsst Price, \(\$ 35.00\)
Cal. No. 551
Dur Price \(\$ 20.58\)

\section*{READRITE Direct Reading Ohmmeters Models 500-502}


602 hise a second sesis for tembing jow tesistances up to 40 ahms, in abaltion to the higher Feststance of \(10,0,20\) ohms. Volee colls of arzamia spantiers and thorted tutns of 1. 1. tramafumiers are tested beat on the low range 0 - 40 onmil. Whocastat knob adjurts the meedse to funscale. Wire leails 850 furablied sor cont
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 but orse potand. Itrdigpensable for serviee work.
\begin{tabular}{clrr} 
Cat. No. Fange & List Net & Not \\
5380 & \(0-10,000\) & \(\$ 6.00\) & \(\$ 8.53\) \\
6560 & \(0-10,000\) & \(\$-4 y\) & 7.00 \\
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SERVACE MANVAL
A couptete Service Marnali comns with arery wodel \(506-\) Type 3 . \(2 t\) tells the probable cassen of poor reception. how 0 dotate thera and what to do to fox hern. It is more that? an inatruction ooot. It is a practical service man's anabonk. This fervics yamand is made in tounc-loat forms mat additionel 1eformotion in forvarded froms time to thase to keep at ap-to-date.

\section*{Cat. No. 318 \\ (bur Net Price \(\$ 84.53\)}

SERVICING SCORE OF WESTON MODEL 566-TYYP:
EISTS VITH TESTER PLUG
All Finment Voitages \(\cdot\) Alt Henter Vol-ases, Two Cathode Volrages Three Eins Voltages Two Pinte Voltiges Sorecz Ciurrinits Bets Blas Voltage Chlaments on space Charge Orld Voits Con 250 vait fange) Charge arld Current of Boith plateis of Recilter Tutes ings of bota Plat Ober Rent Ranges.
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Plate Ourrent at "B" Gupply TaplThief Panges on D.C. Mirter
\({ }^{\prime} B^{\prime \prime}\) 3xpply it Power Pack-Tharee Ranges an DC. Valtmeter.
A ' \(\mathrm{B}^{\mathrm{B}}\) ' and "C" Battery VoltagenShe Ranges on D.C. Voltmpter.
Continuily Tests-Using pplt-contained \(4{ }^{4} 2\) Volt pattery and the D.C. Voltcheter with in reststance of either 1,600 or 100 ohms per rolt as deslred.
Reylntaqce DJeasuruments-The 1) ©. Vortneter also sorves fis a Dircot remalng ohmmeter Frith Ranges of 0-10,000 or \(0-100600\) Ohms.
Covilaser Moaswraments con be made [rom 001 (Ey Thass) to 2 Stlcrofarads - from 110 Volts A.C. line without reflatos of mdaptery
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\section*{GEM LINE \\ Interference Eliminator}
 A grant many bolses interfering With your receptwis are eaused ay ploctors, such as plectria refrig
erators, racuum erators, Tacuum clesmers and elevafors, and mutherous electrical aptlances, The Ciem Iine Inter forence eliminator
will halb prevent any A.O. or D.C. Imp intorference from nuering into your redto.
Due to the feet thit, tho Gem Itme Intorferanca miminator is plupged inte your wail rocleet, the power coming to pour radio is fltered through, and the rasults obtained will pleaso every set ownur, Installation instructions ere Fery sfmple, and ean be pssily followed by Cat. No. 5121
81.65

\section*{I.C.A. Wonder Aerial} Cat. No 6955 Lises 1.00 Net 59e
A maf Folous device which eliminates the outdod ierlal and yet is equal to it: It
fo scientifieally deslaned and will woric on E1 typea of tets

\section*{F. \& H CAPACITY}

Aerial Eliminator


Astractively ColDisplay Furalshed Fith 6 Capacitatary

\section*{Cat. No. 4284}

75 e
The \(F_{+}\)ds H , Capacity Aerlal Eilminator has the eapacity of the average \(7 \mathrm{~S}-\mathrm{foot}\) and complete sith directly to radio set and complete with an strached wire for \(t^{a}\) Troung connegtion.
Thie Fiva di Aertal Eniminator has many advaptages, Inorpaten belectivity,
Banter and cheaper to invital elimination of lishtaing hazards, unsithtity poles, elimen airei, mutitation of woodwork for lendin Wirch, lightning arresters. and cettate typen of man-mede etatte, B-lng portibtid and easy 60 inatall, it also enables you to move radto aet from room to room,

\section*{Super "No Aerial"}


\section*{Aerial Eliminator and Static Reducer}

Impreves reception. Equals V \(7 \%\) foot outcioor anternan. Very compact. \(\psi^{4}\) dlametpr.
Cat. No. Ta90
Oure Prike, Each
69e
Panel Switch and 2 Keys

swith \({ }^{\text {g }}\) for 180 nitton, auto radlas and other uses. dor in, eylinplated Enckion ped with 5visis.
CaL. No, T30s
Out Price, Complete
15

\section*{Filtervolt, Jn.}

\section*{Light Duty Line Noise Eliminator}
piltervolt, Jr, is the popuar ilize line nolse ellminator, suitable for notses caused by vacutm eleaners, sFltchlng on and off lighta, electria heating pads, electria toasters and all electrical apparatus with make and break
contacts or small mators.
Like the Filtervols Brin the Plitervalt Jr.t a funtalled either at
 radlo eet or at the source of interference. It in quickly and ensily attached without the use of toch and is an extremenly small and compac unat. Tho housing is made of black chamel metal with nickel plated end rings.
Cat. No. 3408
\(\$ 1.70\)

\section*{Storm King Lightning Arrester}
 With the PRER
Sico fire insur \$100 fire insur-
ance polley. ance policy.
G en tr In e Toided bakejute. ig ait gap. Na-
tiomalip Bivertionaiz adrer


Cat. No. 6581
Special 35e ea.

\section*{Line Voltage Regulator}

Difetential Resistance automatieaky adapes itself to ary set.

Aif cooled by draf: Foles.
Btandard outhet will takg any nat.


Pits nay standard sooket or outlet.
Bmati, nest, compaet; finished in niokel.
Cat. No. 3277
35 ea
An str cooled, dopendable voltage regaIator. Will deliver correct yoltnge of ang set, Less than the cost of en ordinary tube, Fita any standard eet socket or optlet, Protegts set from ourrent surges, saves tubes.

\section*{KODEL DRY DISC}

\section*{Rectifier With Brackets}

For replacs. ment in Kodel Knprox yowfor units and Dy nsmie speak. ers, eto,
Sinele Slngle Unit, Cat. Ne. 6158


Our Price \(\$ 1.10\)

\section*{Line Voltage Ballasts}

Used in Majestic and other new sets. The Real Line Voltage Regulator
Eleetrically and mechanleaily, es weif es merchandis4ifint und servictig, ntandpeints, the fitie Betilast renjresents the ultimate Fotuthon of the lige roltage problem. Ths device, when properly matohed to a fiven power tranaformer and ioad, is desimed to maintain a practical constant poltage, er within tle 5 p phtit or mitius Epecifted by tube manufacturers, on the primary, even though the fine
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Cas. No. Sromer Tully 4098 Mafestic 70 CaL. Na, Brunswiels Cirebe
\(\mathrm{HI}-\mathrm{O} 30\) \(\begin{array}{lll}\text { Hrobe } & 4099 & \text { Majestio } 72 \\ \text { Hi-Q } 30 & 4699 & \text { Majosile } 80 \\ \text { HI-Q } 81\end{array}\)
 \(\begin{array}{lll}\text { Kyleqtrom } 4030 & \text { Peeriess } \\ 4033 & \text { Sonora }\end{array}\) 4010
4094
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408
\(40 \%\) \(\$ 1.47\) ea.

\section*{SWAN-HAVERSTICK \\ Light Socket Aerial} C.tt. No.

6580
43 e


The modern seta and sapeclally the supers requin a short aerial, end this dovice is doces for this purpert, Eilmingtas Ril unsightly wifes, Does not tuie current, Printed Instraction sheet, with each cion, packed in atirnctive. display box.

\section*{STICKTAPE AERIAL}


Cat. No. 4256

\section*{59e ea.}
\(\$ 6.40\) doz.
\begin{tabular}{|c|}
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Sticktape Is made of a new metalic droy of great capselty, the back of whid a comted with all achobive rubber in: will stick to sny aurface. It can be easily concealet behind picture moulding, of on gapeboard or under rug on floor or be hind drapes, ofe. It is the mott sminting nerial of modern times and will Incriase the recelving fange of any radio secelter,

\section*{GOLD TEST AERIAL}

Cat. No. 4268

\section*{\(\$ 1.60\)}


The Wellston Gold Test Aerial fo the Worlda zmallent indoor zatents and yot it in all effilont ss 5 . \(75-f t\), outdoot metial Ceta distance and reduces atatio. In proves rocept on. Works exceptionally woll with superbeterodyne recelvers. Cai be Installed inside radio eabinet or on basebroard

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\section*{Now win Tubes NEW TYPE Mcratone MODEL 17 \\ Six Tube The Model 17 rsee owe of the new tyनe is, कhe tMye 01. ant iype 56 dud one dxpe 5 Si supe posegr tubes, whieh
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\begin{gathered}
\text { for } 220 \mathrm{~V} . \mathrm{V}_{1} . \mathrm{C}, \\
\$ 20.50
\end{gathered}
\]} afi 1000 miles with the same sonlendid quality and good - ous Enéatar volame.

\section*{Automatic \\ Volume Control}
(retofore this feature has tozn incorporated in omly men ariced receivers. Automatic volume control was a Faige of quality to receivers or qietriminating poople. And now ACRATONE leads again with this marvelous Superheterodyne recolver with real AUTOMATIC VOUUMF CONTROL:

\section*{What Is Antomatic Volume Control?}

AUTOMATIG VOI, UME CONTROL in radio is the sam-e as the SUPFR CHARGER is in aviation. It maintains uniform volume over the entire wave band. Whan the signal strength of at station drops below good robme level, al'TOMATIC VGLUME CONTROI, brosts it hil to normal.

\section*{New Type Tubes}

Thic but type 5.5 tube, which is a duo-dione detector-atutomathe mhme control tube, and ath audio amplifter, is a derelopment of the Kadio Corporation of America, and combines the avellent performance of each of these operations In ane efluciently operating radio tube. This tube not only ficurativis thenes the place of three tuhes, hut actually dives.
Altomalic rolume control is not at mere sales feature, but is an fecual necessity in outlring districts where boactcastinc statons late of tendency to fade

\section*{Superheterodyne Circuit}

The 1932 ACRATONE SUPERHETERODYNE embracrs the most advanced design and is built for utmost selectivity, with the usual ACRATONE quality. The circuit is composed of one stage of band pass pre-selector, a Triode oscillator: two stages of intermediate frequency amplificatim, one of whin is the second detector; automatic volume centras: fone stage of mentode audio amplification and a full wave rectiffer. One cannat visualize a more modern ecether:

\section*{Automatic and Manual Tone Regulator}

Thice of automatic tone control or regulated blend of tone 8 incorporated in this recoiver, Bllowing a wide range of one ealon whthout blast or blare. Full true tone is attainen \(y\) matchine each of the component parts of the receiver self, While the accentuated bass or treble tones are rought out by the tone regulator.

\section*{Tubes Used}
\(1-55,1-56,1-57,1-58,1-247\) and \(1-280\) Set of Universal Tubes, \(\$ 3.50\) Set of Arcturus Tubes, \(\$ 4.50\)

\section*{Selectivity}

The infeselector -xate of this receirne allows but \(10 \mathrm{~K} . \mathrm{C}\). to jass while itfe intermediates are turnerl in loami pass fashion, insuring extrently fine tmming. Althonsh this mekes the circuit hichly selecotive, it lues nost cut side bands, which tend to distort or rain good reception. Isery staEt is carefully tamed and palaticed at the factory, set
 passes thapectior.

\section*{Super Sensitivity}

The owner of this recelver nead no listen with marvol to his neighbor s boast of wurli-wid radio reception. He too cat enjor the thrill with lle powerinl ACRATOAN SUPERHPTERODYNF. Distant stations corne in without facing and fiatortion, ant sol:n like bcals.

\section*{Cabinet}

This splendid reciver is housed in a derefully firished walnut cabinet of really enctanting efsirn. The handsolte Flour athis grill has grace ind bmauty of lines as well tos lending toward simplicity, rather than elaborateness ir in. hioh, 15 in . F j 捡, \(31 / 2 \mathrm{in}\). deep.

\section*{Spot Tusing} A full vision dial behind Whics travels a foointer and light to give ellsy identification of the dial setting. The diel is reared to move slowly so that no stations wre passed in tuning and sreator sinsitivity ts the rfsult. Etacircling this dial is a beautifully aesisnea es--utchen which lencs character te the recoiver.

\section*{Large Dynamic \\ Speaker}

A full-aized reqlly powarful Ifstanic Fneaker is housed behixd a wall uf sound insulating banle. This spetaker is ofesifried so that it will atlivientls handle cren the tremencross eutput of the sowerfui racivar without bta-itne or ilfstortion.

\section*{THE}


MIDGE


With Tramsformer.
For Rock-Up Coil Ninding

 Has splece, wial wingly nitic of high
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 2i) Tan be used wilh 245 Transformer Paek Outplef Ararches Morinis Coil on नll Dynomin Speakers Cal. No. 5 T4 Our Price, Per Piach

fenntine Nerthonelul-

\section*{Trandio} Mid. Inverted condensers

 \(\frac{10}{20} 8\) (1) rype \{amons snalics us to ofer the tion The sh of rype arsers enaliles the regulay used in
dens. The
 Nifd. Incerests on in inshitach gromileal with lock

 (8) \(4^{\prime \prime}\) " lomb Reemat Cat. No. \(736^{9}\) Epecial Pach 83.00 per Dozen



\section*{Universal Replacement \\ Power Tr Replacement 4 or 5 Tubstormer for. \\ \\ For seto wesne \\ \\ For seto wesne \\ \({ }^{2}{ }^{2} 27.224,23 \mathrm{ng}, 4 \mathrm{p}\)}


Sue: 3.20.
 Three stage plishos
\(245 \quad 1 \mathrm{mplic}\)
2.280 1) aine \(2.566^{\circ} \mathrm{A}\)
 Our Price.

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 Our Price, Each```


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    Our Prlee

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[^3]:    Dur Price 25c Ea.

