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## I' WILL PAYYOUTO CONFINE YOUR RADIO PURCRASES "TO THE HOUSE DF COAST-TO-COASTY



When Will a Customer

It tis a fact that often It is a fact that often
in life the most ob. in life the most oh-
vious solutione to any vioua solutione to any
problem, (or those that could be quiekty solved by the application of simplo logie), are within immerliate reach, yet 100 many unhappily fail to rea lize thile . . the enviable SUCCESS enjoyed by "The House of Coant-To-Coast" is solely attributed to the strict adherence of every precept that comprise" The Golden comprise" The Golden Rule
wonder then that our custontery have shown their appreciation of OUP SQUARE DEAL
POLICIES by collec POLICIES by collec. tively outing "The House of Coast-ToCoast" to expand to such an oxtent that our very name is today a by-word to the Radio minded throughout the civilized world: Logirally. at ORDER if the mer. chandise received is as described. if the ship. ment arrives in rapid time, if the primes quoted are commen. fuoted are commenceived and in line with competition and if the Sales Polinien offer courpleter offer complete protec:
tion to the mistomer: tion to the mistomer: THE IIOUSE OF COAST - TO- COISI LIVES UP TO EVEIRY CLIIM MADE IN OUR CATALOGS
And that is the plat and simple rese piain OUR Preason for SUCCESNVIA1.E OUR CUS and WHY ORD CUSTOMERS REORDER FROM IS! We can rightfully and proudly boast that TIIRIFTY and WISE Radio Purchavers from Coant-To.Coast Flock COAST:"

The Bona Fide Report Below Is Self-Explanatory . . . It Should Impress You To Join the Rapidly Growing Ranks of FULLY SATISFIED "CDAST-TO-CDAST" Purchasers Located Throughout The World!


This Cutalog Is a Veritable
"Encyclopodia" of the Modern Racilo Industry We have ondeavored to compile this cata log in such a manner as to influence you to consider it as your official buying guide . . its listings are indeed varied a 100 Wati Public Address Amplifier! Every articlo is thoroughly and accurately deerribed, an weily a truthfully illustrated It cannot be sald © CO S'r" "COAST-TO COAST'" catalog that it is a stereotyped copy of any other ... thousands of success ful Radio Dealers and Servica men keenly apprectaio their ownership of our truly valuable cata logs, for the authen tir and technically correct information SHOWS THEM ALL THAT' IS NEW and MODEISN IN RADIO, thereby keeping them fully nosted on read ily saleablo equip. hent You can re fer to a "COAST-10 COAST" Radio Mail Order Catalog with that same feeling of mecurity as you do when you refer 10 your telephone book! You ran depend on every kiatement print ed herein-we will back up every word The Houso of "COAST - TO-COAST" is at all times nind. customer FULLIY SA'T ISFIED ISFIED . for we ज10UTII TO MOUTI HOUTI TO MOUTII COOD WIIL OF OUR CI-STOMERS IS OUR CISTOMER IS OUR STRONGEST and
MOST MOST
ASSET

## Our Sales Policies: First Quality Merchandise, Rapid Service, and Low Prices Have Satisfied Firms and Institutions of International Renown!

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# A Few Words of Introduction to Any of the Radic Profession Who Have Not As Yet Favored THE HOUSE OF COAST-TO-COAST With Their Good-will: 

Our message to you is herewith expressed in these few words: The House of Coast-To-Coast transacts a huge volume of business throughout the world. Our integrity and responsibility is firmly entrenched, and every customer of this organization constitutes the most effective advertising
medium we could obtain. in fact, the unprecedented growth of The House of COAST-TO-COAST has been accomplished solely through the pleased recommendations of its thousands of patrons.

May we have the pleasure of enjoy-
in return, we will give you quickest possible service, highest quality merchandise, lowest prices, every possible reasonable protective guarantee AND A SQUARE DEAL! BUY FROM THE HOUSE OF "COAST-TO-COAST" WITH UNRE SERVED CONFIDENCE!

Our Metropolitan Sales Rooms and Public Address Amplifier Demonstration Laboratories Are the Mecca of Thousands of "Local" Radio Purchasers Who Wisely Consider The HOUSE OF "COAST-TO-COAST" As Their OFFICIAL HEADQUARTERS.

A cordial welcome awaits the trade visiting our recently consideraty enlarged and modernized Sales Rooms located at this address, 121.123 .125 West 17 th Strect. We have made arrangements
TO PARK YOUR CAR ADJACENT TO OUR BUILDING FREE OF CHARGE pleasant drive to our premises. daily our sielestroms and laboratories are filled with custom
ers who drive in from many of New York's
neighboring states Engineers are eager to be of service to you-A friendly spirit prevails-we do not permit or tolerate "hish pressure" sales tactics. Thousands of Radio purchasers have learned to save bia money visiting our Sales Rooms and receive unbiased and valuable Technical Information. we have
ample stocks on band and sufficient sales personnel to serve you quickly and courteously-we do not waste your time. We will cheerfully demonstrate any of our public address amplifiers, receivers, speakers, microphones, etc. In short. we wish to be of service to you-we therefore
await the courtesy of your presence!


## OUR TERMS: HOW TO ORDER

## THE $2 \%$ CASH DISCOUNT ALLOWED WILL CONSIDERABLY REDUCE TRANSPORTATION COSTS:

We Accept U. S. Postage Stamps in Any Denomination And For Any Amount, As Full Payment of Goods Ordered Our only terms, to all individuals and business houses, are: Full Net Cash Remittance With Or. der, or increase our cost of doing business, that higher net prices, than those quoted hercin. weould of necessity have to be imposedl We save this
additional "book-keeping, expense, and accordingly pass it right on to youl Our method of doing L.usiness must be universally approved fnr some
of our best customers are very highly rated conof our
cerns.
Cerns. Senittances by Money Order-Personal. Corporation or Cashicr's Check-Cash (Recristered Mrail. please). Remittances from foreikn countries should be made payable on a New York bank. in U. S. funds. All net prices in this catalog are subject to change without notice-you are
given the benefit of all reductions that may given the benefit available are naturally lased upon market conditions. We reserve the rizht to return any remittance received, and consider the order cancelled. A $2 \%$ Cash Discount may be deducted from all our net prices (c.rcept on Weston
Meters. Readrite Metcrs, and all makes of Tubes)
Mest providing of full nict cash remittance is sent with providind ard This discount CANNOT BE DE. DUCTED on any C. O. D. orders duc to the increascd handlintg costs involucd/ If by ohance it
should be decreed by the U. S. Government that ny merchandise herein listed is subject to any

## tax, this sm your invoice.

C. O. D. ORDER INSTRUCTIONS

If a 20 per cent. dcposit remittance accompanies C. 0 . D. orders, we shall cheerfully fill them with prompt despatch! (Customers sending repeat orders may omit the formality of sending 20 per orders may omit the formality of sesit remittance, with C. O. D. orders.) You are not entitled to deduct 2 per cent. rash discount on C. O. D. orders! Foreign shipments discount on $C$. O. D. orders! Foreign shipments ment, sight draft anainst our Bills of Lading, ment, sight draft afainst our Bills of Ladizit, presented to your bankers in New A. ork receipt of a $40 \%$ deposit remittance (for guarantee of prepayment of transportation charges). balance C. O. D.

ALL GOODS SHIPPED F. O. B. OUR WAREHOUSES
If parcel post shipment is desired. please include an additional anount in your remittance to cover same-in the absence of such additional remittance, or instructions, shipment will go forward via express collect. If you desire a freight slip. ment be sure to mention freight depot, if different from your city and name of railroad serving your district. Parcel Post shipments are only insured if you request same and include suitable fee for same in your remittance. Non-insured shipments are made at customer's risk. If in
us to make a C. O. D. Parcel Post shibment
merely for the postage charges! Any excessive mercly for the postage charges
postage allowance will be prompty refuessive
anded, and an accounting of its disposition will be mailed immediatcly
An ACKNOWLEDGMENT CARD is mailed wpon receipt of your order-and is followed by a
SHIPPIN'G NOTICE and STATEMENT OF $A C C O U N T$.
This system, which we believe is exclusively employed by "Coast-To-Coast". entails a considerable expense to us, but, that is more than compensated for by the favorable reaction to it of our trade. You will appreciate and strongly value this friendly contact! OUR ORGANIZATION IS EQUIPPED TO MAKE PROMPT SHIPMENTS! Most of our orders are despatched from within 6 to 24 hours after receipt! Our huge stocks, thoroughly trained Personnel and smooth functioning systems make our unparalleled, speedy shipping service possible!

RETURNING OF MERCHANDISE If you are not pleased with any shipment of merchandise received from win, write us at oncewe will then issue you instructions relative to its return via insured parcel post, or prepaid express. Rest assured we will endeavor to pleasc you. and kecp you pleased. Any complaint. no matter how trivial in nature it may be, is not handled as routine matter by clerks: but is turned

We Guarantee That Ail Our Goods Are Illustrated and Described Accurately: Should You Be Displeased With Any of Dur Merchandise, Please Return Same Within 10 Days of Its Receipt For Prompt Adjustment!

# WHAT CONSTITUTES A PUBLIC ADDRESS AMPLIFIER INSTALLATION . . . HOW TO CHOOSE SUITABLE "COAST-TO-COAST" P.A. EQUIPMENT 

## Prepared by the Engineering Staff of COAST-TO-CDAST RADIE CORP.

(NOTE: The contents of this treatise are fully copyrighted by COAST-TO-COAST RADIO CORP. . . . all infringements of its copyright privilege will be strenuously prosecuted!)

Make Rig Money Renting or Selling "COAST-TO-CDAST" Public Address AmplifiersEstablish Yourself as an Official "COAST-TO-CQAST": P. A. Amplifier Sales Specialist!
Day by day, new uses are found for Public Ad. Coss Amplifiers-the demand for "COAST-TO. COAST" Pa A. Amplifiers is eniornously in-
creasing, partly due to the political campaigns now being fought. The demand for aniplifier equipment is undeniably bere, but, many pros-
pective purchasers are entirely in the dark as to a suitable source of supply to obtain perfect equipment at a nominal investment-there is BIG MONEY in this highly lucrative field be the first in your neighborhood to establish
yourself as an official COAST-TO-CO yourself as an official "COAST-TO-COAST" not readily be purchased in a Radio Store, and the prospective purchaser will usually prefer the
PRRSONAL CONTACT, YOU, A COAST. TO-COAST" PUBLICT, ADDRESS "COASTFIER INSTALLATION SALES SPECIAL.
IST, can alone offer him! An interested PROS. ${ }^{\text {IST, }}$ can alone offer him! An interested PROSISFIED PURNOt help bus materiaize into but ONE DEMONSTRATION! Our wholesale net prices quoted in this catalog will permit you to quote
re-sale prices that will give you a $50 \%$ to $100 \%$ rerofit and your customer will still SAVE BIG MONEY!

# "CDAST-TO-CDAST" P. A. Amplifiers Are in Use in Euery Conceivable Field of Endeavor Due to Their Universal Application 

Here are only a few instances where our P. A. Equipment can be found: On Sound Trucks; Altoniobiles (for Political Campaigns); Moving
ilicture Houses; Stadiums: Schools; Race Tracks; Hospitals; Dance Halls; Restaurants; Tracks; Hospitals; ${ }^{\text {Dance }}$ Halls; Restaurants;
Anusement Parks; Hotels; Churches; Funeral
 Inter-Office Call Systems; Anditoriums; etc.
etc. Canvass all the proprietors of the fields of etc. Canvass all the proprietors of the fields of
endeavor herein mentioned and offer to make a free trial installation
TO
RESULT: ${ }^{\text {A SALE }}$ SOAST-TO COAST" Power Amplifiers are designed to amplify and reproduce Phono-Record Music. Speech and Music through any type of Microphone, etc.
Radio Tuner Output, Sound-on-Film, Telephone Line Inputs, etc.

## How to Select the Amplifier Proper

Any amplifier has a greater sound coverage indoors than outdoors, for the logical reason that walls help retain sound within its confines. To
obtain maximum sound distribution from ANY amplifier, it is suggested that additional speakers be employed, placing them at vantage points. The sum total of sound emanating from all the speakers will be the maximum undistorted output
of the amplifer to which they are connected. For instance, if an amplifier is producing 16 For instance,
WAT TS, and only one speaker were to be used,
that one speaker would reproduce 16 WATTS that one speaker would reproduce 16 WATTS
volume, and if 4 speakers were used on the same volume, and if speakers were used on the same
amplifier, EACH SPEAKER WOULD REPRODUCE; WATTS, although the grand total in the ronm would be the same 16 watts. The
benefit obtained using the multi-speakers is of benefit obtained using the multi-speakers is of
great importance, where maximum sound distrihution is desired. Your selection of an amplifier first is determined by the area coverage desired, as indicated by the following belpful conserva-
tively estimated table, showing necessary undistively estimated table, showing necessary undistorted output watts to attain the coverage desired


Essentially a P. A: System is made up of INPUT APPARATUS-AMPLIFIER PROPER The INPUT apparatus usually consists of one or two phonograph pick-ups with associated mechanical wound or electric turn-tables, one or
more microphones and possibly a Radio Tuner, more microphones and possibly a Radio Tuner,
as well as suitable Phono. Pick-up and Microphone INPUT Inpedance Matching Transformers (or preferably a "COAST-TO.COAST" AOLERORPOSE The AMPLIFIER Proper can either be a modest volume output 3 tube affair up to a multi-tube amplifer delivering enormous vol-
ume REPRODUCER system can either Amplifiers Available For All Input Voltage Requirements and in Stationary Portable or Rack and Panel Models
All "COAST-TO-COAST" Amplifiers can be furnished to operate directly from 105 to 120 volt, 50.60 cycle A.C., 25 to 40 cycle A.C. Lines, as well as $220-240$ volts, $50-60$. cycles A.C.;
directly from 110 or 220 volts D.C.; from motor directly from 110 or 220 volts D.C.; from motor
Generators that operate from 6,12 , and 32 Volt Storage Batteries as well as 110 Volts D.C., and 220 Volts D.C.; from gasoline motor generator; from a motor car fan belt driven generator; from
:AUTO A-C POWER" units; or from conventional "A" and " $B$ " Batteries.

## How to Select the Proper Number and Type of Spealeers

Knowing the undistorted power output of the amplifier you are selecting, you should now de termine what type and number of speakers you will purchase. Although a speaker unit (such as the Kacon Horn Type) is conservatively rated at 6 to 8 watts continuous operating capacity, the manufacturer guarantees it to have a peak load capacity of 25 watts! Assuming you wish to employ speaker units in accordiance with their conservative continuous operating limits, you should install sufficient units to collectively handle the full output of the amplifier. For example, it is isecommended that you employ four 6
watt units in conjunction with a 20 to 25 watt Watt units in conjunction with a ${ }^{20}$ to ${ }^{2}$." Amplifier. This prudence on your part will accomplish a two-fold purpose, nasmuch as the use of nour such units (and associated bafle equipnent souill also give it is desired to have a pronounced directional sound distribution, horn type units are preferable. Another adrantage offered by horn type units is their sturdy, fool-proof and weather-proof construction. Thern again, it is possible to obtain by employing a dual or triple coupling connectors by employing a dual or triple coupling connectors
and associated dual or triple exponential and an associated dual or triple exponential
horn cluster. The cone type dynamic units are ideal for indoor coverage, and for more even sound distribution. Every cone type dynamic
unit should be mounted either in a baffle horn unit should be mounted either in a baffle horn or behind a baffle board consisting of either the baffle board employed, say beyond 30 in . $x$ 30 in.. the more pronounced will be bass note reproduction. In addition to the two types of speakers just mentioned, our amplifiers can actr
ate a huge number of magnetic speaker units-
for instance, our 25 watt amplifier can operate 250 such Speakers, each one producing .1 of a watt or 125 such speakers, each one producing

## All Horn and Cone Type Dynamic Speakers Must Have Their Fields ExcitedHow to Provide This

## All dynamic units, hoth horn and cone types

 have are connected to a matched impedance output transformer-the field coil must be connected to some form of energizing voltage source. For some form of energizing voltage source. For gested that D.C. fields designed for 6 volts be employed, obtaining this energizing current direct rom the car storage battery "thereby notimposing a drain on a generator or "AUTO A.C. Power." However, a 6 volt rating field coil EXCITER, operating from 110 volts a FIELD EXCITER, operating from 110 volts A.C. Dy-
namic horn units are also obtainable with field namic horn units are also obtainable with field
coils rated at 1000 and 2500 ohms, etc., which obtain their voltage energizing source either di rectly from a $D$.C. power line or from the power pack in the amplifier! Then there are dynamic speakers with individual exciters, operating di rect from a 110 volts $A . C$. power source, usually enıploying a rectifier tube. Our amplifiers can D.C. Type horn or cone type speaker fields -this is indeed an exclusive and valuable feature. In instances where the placement of multisieakers are very distant from the amplifier might be more advisable to employ A.C. Type operated DYNAMIC Speakers, with individual field excitation provision, saving that much cable connection. Permanent magnet dynamic or the ideal in installations magnetic unit speakers are no provision for field excitation.

## How and Why to Employ Output Transformers

Every amplifier must employ an output trans former to match the speaker voice coil imped located right on the cone speqaker chassis. If more than one dynamic speaker is employed, it to match the number of and outpul impansformer the dynamic speaker voice coils, dispensing with the dynamic speaker voice coils, dispensing with the complicated procedure of attempting to match up transformers furnished with stock speakers. It is often desirable to place one or several dynamic speakers nore than 50 feet away from the amplifer-in that case, it is nec essary to have an output transformer installed within the amplifier rather than on the speaker, to prevent losses of high frequencies and resulting poor quality. Size No. 16 or larger wire is then recomniended for the transntission line
from the secondary winding of the output transformer to the voice coil or voice coils. How ever, if the amplifier is provided with an output ing of 500 ohms (Output to 500 Ohm Line Transformer), the installation becomes automatically more flexible and desirable, it now being unnecessary to use such heavy conductors. shielded single conductor) are then brought fron this line transformer, to another output line transformer ( 500 ohm Line To Voice Coil Transformer), located even as far as several hundred feet away near one or more of the dynamic speakers. All losses and distortion are thereby eliminated. Each onc of the remotel situated speakers can further be supplied with an individual volume control potentiometer to make further volume adjustment and equaliza tion of loud sjeaker output possible. When $1 y$ referred to as "shielded-lead in wire") (common shield should be connected to the ground the cuit. and thusly forms one of the necessary conductors, representing a saving in cost, were you to purchase a Dual Conductor.

# "COAST-TO-COAST" PUBLIC ADDRESS AMPLIFIERS PROVIDE EXTREME SOUND COVERAGE AND PRODUCE AMAZINGLY FAITHFUL DISTORTION FREE REPRODUCTION: 

## Prepared by the Engineering Staff of COAST-TO-COAST RADIO CORP. (Continued)

## How to Select INPUT EQUIPMENT

It is assumed you will employ an electric phono motor and pick-up, with one of the "COAST. TO-COAST, Power Amplifiers; it matters lit le if you use either a high or low impedance pick-up, as long as you incorporate electrically a suitable PHONO PICK-UP IMPEDANCE pick up used and the input jack of the ampli pier up ised and the input jask of to use more than one phono pick up at a time, in that event employing a "COAST-TOA Lime, in that event employing a trol, which feature is obtainable in our Control Boxes. If you intend to use the latest type $331 / 3$ R.P.M. 30 Minute playing theatre rec ords, order a suitable pick-up and motor, designed to also play the conventional 78 R.P.M records, if desired. There are three practical types of microphones available, the single button carbon, double button carbon and condenser types. Double button microphones produce far better quality reproduction than single button types. As a rule, with "COAST-TOCOAST" 3 STAGE Amplifiers, microphone pre amplifier stages are not necessary. On the other hand, at least one pre-amplifier stage (or two) is required with a condenser microphone, when
employing one of our 3 or 4 Stage P. A. Amplifiers. The condenser microphone is quite an improvement due to its absolute freedom of hiss (employing no noisy carbon granules) and cannot go out of adjustment. Can be mounted in any position! Consumes no power whatsoever! Whether you use either a carbon or con denser microphone, it is strongly recommended that you employ a "COAST-TO.COAST" ALL PURPOSE CONTROL IBOARD, which component parts should NOT be an integral part of the amplifier proper, due to danger of feedback evils and hum pick-up! As a rule, amplifiers are placed out of sight and reach, therefore it is a big advantage to have the vital controls at your finger tips. Only two conductors (or one shielded conductor will do!) connect the control box to the INPUT JACK onnect the cont
The "COAST-TO-COAST" CONTROL BOX permits individual volume control of one or permits individual volume control of one or
several microphones and pick ups, besides acting several microphones and pick ups, besides acting
as a complete fader and mixer, blending pick-ups and microphones and Radio Input into each other. The Control Boxes also contain the proper phono. pick-up and microphone impedance matching transformers. If this Control Box, or if microphones. pick-ups, and their impedance natching transformers and controls are located more than 50 feet from the amplifier, you must employ an OUTPUT to 500 ohm

LINE TRANSFORMER and from there, run LINE TO GRID INPUT TRANSFORMER, the latter being adjacent to the amplifier. On request, we can build in these two different lime transformers both within the CONTROL BOX and the AMPLIFIER proper.

## Sound-on-Film Reproduction

Any of the "COAST-TO-COAST" P. A. Amplifiers can be used in Sound-On-Film Installations, if you specify we are to furnish provision for Exciter Lamp Current and a Photo-Cell "B" Supply and Pre-Amplifier.

Confer With Dur P. A. Amplifier Engineers on Any Problem
If the specific information you seek is not herein contained, flease do not hesitate to communicate with our E. GINEERING DEPT, who will be pleased to assist you solve any technical, mechanical or electrical problem that befronts you. There is no charge for this valuable service-any information ue give you will be totally unbiased?

## The House of "COAST-TO-COAST" Manufactures Their Own P. A. Amplifiers and Equipment Buying DIRECT From the Manufacturer, YOU PAY ONLY ONE PROFIT!

Our manuiacturing plant is geared up for mass
production necessitated by our $H U G E$ VOLGroduction, necessitated by our HUGE VOLthereby effected, we can actually "under-sell" our apparatus, quoting the lowest possible fipures. commensurate, of course, with the HIGHEST

QUALITY MERCHANDISE and LABOR employed. Our amplificers have been carefully designed. and after having heen proven technically perfect, then the individual component parts are separately designed TO MOST EF-

CIFIC CIRCUIT REQUIREMENTS other words, we do not assemble amplifiers from "odds and ends." which component parts logically function nnder difficulty. You can have implicit faith in any "COAST-TO-COAST" branded Radio Equipment !

A Member of Our Engineering Staff Will Be Pleased to Personally Discuss With You Your Amplifier Requirements-and Demonstrate Any Amplifier Listed in This Catalog!


#### Abstract

If at all possible for you to make a personal visit to our MODERN DEMONSTRATION SALES-ROOMS in New York, and inspect the "COAST-TO-COAST"' Engineering Laboratories and our P. A. Annplifier lactory, by all means do so! If you live out of town, and will travel by railroad or bus. communicate with us accord. ingly and we will arrange to have one of our


representatives meet you at the terminal, to personally escort you to our plant. If you will drive in, you may take advantage of the FREE
PARKING ARRANGEMENTS, adjoining our plant. Transportation traveling expenses will be compensated for by us in proportion to the amplifier sale consummated. On your arrival, one of our Staff of Engineers will devote his
undivided attention to you, escort you to lunch or dimmer as his grest. and impart to you the TOTALI.Y UNBIASED TECHNICAL IN. FORMATION you seek. We strongly resent the use of any SALES PRESSURE TACTMer of our products SPEAK FOR THEMSELVESI

## Sound Amplification Has Created a New and Highly Profitable Industry . . . . Now Is the Time to "Get in on The Ground Floorg"

Our survey of this new industry conclusively proves that the demand for rentals of Public Address Amplifier Installations has attained a volume far in excess of available equipment, in the hands of Radio Service Men. Dealers, Sound Truck Men, etc. There is undoubtedly a substantial money-making future assured for anyone who will heed this opportunity 1 Sound Amplification is in demand by practically every businees house, desirous to have their products or
special sale offers and announcements broadcast along the city streets. We know of countless instances where wide awake men are purchasing several second hand light delivery trucks Tor a song," equipping them with "COASI-TO-COAST" P. A. Equipment, and then hiring salesmen to canvass all the merchants to secure outdoor sound advertising time contracts. Each Sound Truck in your possession can be depended upon to pay you handsome and substantial
profits weekly. The suggestions we have made herein may sound biased, if. you are inclined to e skeptical, but you will soon see the day when sound trucks will be a common place thing
The right time to enter this new, coming industry is NOW I Of course, there is also Bl.G MONEY, to be made selling "COAST-TO. COAST" Public Address Amplifiers and Equip-ment-in fact. many such sales will result from rentals:

## Let Us Quote You on Special Public Address Amplifiers and Installations Not Listed in This Catalog

In the event your amplifier requirements are unusual. and, accordingly any of the amplifier in stallations described in this catalog might not suffice, please communicate with us in full detail. stating the area involved for sound coverage, height of ceiling (if indoors). nature of fioors and walls with respect to carpets, tapestry hang-
ings, open windows (if any), distance from amplifier to speakers, distance from microphones or phono. pick-12ps to amplifiers, distance from amplifier to input control hoxes, numher and nature of speakers desired, etc., etc. A sketch of the sound coverage areas. showing approximate distances in feet will assist us. ₹our letter
of inquiry will be turned over to one of our competent Laboratory Engineers, and his unbiased suggestions and our attractively priced quotations will follow in the return inail. You will be under NO OBLIIGATION to us for this
SERVICE-in fact. we will consider it a pleas. ure to be of assistance to you!

On the Following Pages, There Are Listed "COAST-TO-COAST" P. A. Amplifiers, One of Which Will Serve Your Installations, Sound Coverage Requirements

AND SAVE YOU RIG MONEY!

## SIX VOLT AUTO. STORAGE BATTERY."COAST-TO-COAST" "AUTO A.C. POWER" PRODUCING 110 VOLTS 60 CYCLES A.C., 65 WATTS <br> Do Not Confuse This Device With an Automobile "B" Eliminator

View of Interior Mechanism With Metal Case Cover Removed. Note the Generously Proportioned Motor and A.C Transformer, as Well as Scientific and Orderly Arrangement ink of Parts.


Furnishes Ample A. C. Current and Proper Voltage to Operate Any 110 Volt A. C. Power Amplifier, Midget A. C Receiver or Electric Appliances This device places within the willing purse of
all a means whereby 110 volts 60 cycles A.C. all a means whereby 110 volts 60 cycies A.C.
can be produced wherever public utility A.C.
 calities, or, where it is impossible for them to be, such as on board ship, in a motor boat, in an
automobile, or in the woods, providing of course a 6 volt storage battery is available. In automobiles, motor boats. Sound Trucks. etc., you can employ the very storage battery that is provided therewith. Primarily, this device is mar-
keted for use in Radio Applications, however, it keted for use in Radio Applications, however, it
can also be used to furnish suitable current to any electric appliance rated up to 65 watts, such as curling irons, drink mixers, juice extractors, camp lights, immersion heaters, small soldering irons, neon signs, small vacuutn cleaners, electric

Extreme Compactness Permits Convenient Mounting Anywhere in a Car. You Do Not Have to Be a Mechanic to Install It!
This device is furnished in two units, one, the converter mechanism itself, and two, the control unit and A.C. Voltage Outlet. The converter measuring $738 \times 65 \% \times 4$ in. tall. Mounting hole provisions are furnished. The control unit measures 3 in. diam. by $31 / 2$ in. long, and can be note the right on any aution plate firnished for this purpose. This unit is equipped with a
safety device fuse-you cannot stall a car or boat on account of a dead battery caused by using
this device! Heavily insulated this devicel freavily insulated powerful battery clips are fur-nished-they are 45 in. long. The control unit can be placed as far away as 40 in. from the converter $\rightarrow$ fr further, if longer leads are connected. The converter can be mounted in any position, and is generally fastened within the hood, on the cowl. Note that the control unit can be fastened to the dash WITHOUT DRILLING
A Timely Invention-Due to Approaching Political Campaigns! Fills a Long Felt Need!
With the coming election, there public address amplifiers $90 \%$ of the installations so purchased, will possibly be employed in regular automobiles., wherein one of these UNITS will be installed, furnishing the necessary A.C. current, io an appropriately, designed amp iner, ie., a Amplifier, not drawing over such an amplifier on another page in this catalog. It can truly be said that the successful political party will be that one equipped with
the nost and loudest amplifiers! Consumes No Current When Idle-Car Motor Does Not Have to Be Kept

Running While in Use!
This is all you have to do: Turn on the switch on the control unit, while the motor is running or not-that is all! While operating.
times and resort to the use of this device and a COAST-TO-COAST" Anplifier-no need to yell his lungs out, to receptive, but too distant ears. Instead, he will weat a lapel microphone . and command attention we know of many instances where some Stalled this "COAST-T.O-CAST" Auto in their car, and secured advertising contracts from various merchants, calling for making an nouncements of sales, special offers, etc., on the public streets. Investigate this new and highly lucrative money making field!

## Radio Dealers! Take Notice!

We suggest this novel sturt to help you sel "Midget" Receivers . . . pull un in front o the residence of your prospect. and demenstra the radio RIGHT OUT IN THE STREET will he will be duly impressed, and your sale will Permits the Use of a Standard A. C. Midget Radio Instead of a Battery Operated Model Auto Receiver You can install any A.C. operated Radio in your car, providing it does not draw over 65 watts, and enjoy its reception in the same manner as you would in your own home-a standard A.C. Radio is of course superior to a Battery Operated Radio, for the reason that an A.C. Radio employs more powerful tubes, necessitating higher plate voltages. Its use with a Midge Radio set will not impose any unusual drain, aly an average Midget Radio (s tube model) draws 40 watts! No Bevate-installation is system suppresso delighted with the many uses simple-yourtbe new invention. This device is fully guaranteed!
Cat. No. 6953 . Complete-
Ready For Immediate Use. the battery drain is an inter- View Suggesting Absolute mittent one, and for this reason PEAK load. The actual drain however, is about two-thirds of the ammeter reading. erating this Converter, if the charging rate of the battery is stepped up, it can be used while the Automobile Generator is running, if desired, without any real drain then at all on the beqtery.
Requires No Adjustments -Entirely Dust Proof and Moisture Proof! FoolProof Operation
The modern strect salesman will


## MALLORY-ELKON AUTOMOBILE "B"ELIMINATOR


supply the correct voltage and current for each radio set is made roltage milliampere table below. After the milliampere drain of the After the milhanpere drain of the adio set is ascertained this table indicates the voltage supplied through the use of the paricular Elkonode selected. The 6 volts D. C. current of the car storage battery is changed into 180 volts, or any other voltage required by motor-car radio sets. The readily removable Mallory-Elkonode is the heart of the Mallory-Elkon elimi nator. It is a device that change the storage battery current into what is essentially an alternating current. This
Provides " B " current of the quired by automobile radio small output power anplifiers. No two radio sets are exactly alike in performance or in the amount of current required to make them opcrate at their best. It is essential that an eliminator supply the exact amount of current which the radio set is dethe Mallory eliminator through the selection of the proper Elkonode. Some radio sets must have 180 volts at 35 milliamperes, others must not exceed 15 milliamperes and application of the proper Elkonode to
pulsating current is passed through a translinating current is passed through a trans The $A$. $\mathbf{C}$. current is then used and rectified using the same principles employed in all A . C radio set design. A very efficient rectifier tube has been developed which again changes th current into D. C. which is filtered through the filter and choke assembly. The complete chassis can be removed from its container without detaching any part. All of the terminal screws are easily accessible when the lid of the eliminator is removed. The tube filaments in either an auto radio receiver or auto power amplifier are of course lit direct from the car 6 volt storage battery-this however, imposes very little drain on the battery.

Instructions for Installation Included The installation of the Mallory eliminator on each make and model radio rece data provided in simphifed through the accurate data proing each climinstor. These instructions specify the ter minal serew to which each color wire of the radio set is attached. No additional switch is required to operate the eliminator as an automatic switching relay is a part of the eliminato cable. The installation and instruction manual gives complete information on how to detect Standard 6 Volt D. C. Input Eliminators for Automobile Radio Sets
Any Mallory-Elkon "B" Eliminator can be con verted into another type by interchange of Elk onodes. For examole, a Type 6 Eliminator can be converted to a Trpe 3 Eliminator by removing the Type 6 Elkonode and inserting a Type Elkonode. Farm- 180 Fatts peres Volts Volts

|  |  | Watts |  | Volts | Vol |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. |  | Out- | In- | at |  | YOUR |
|  |  | put |  |  |  |  |
| 6947. *Type | 6 | 6.3 | 2.45 | 35 | 46 |  |
| 6948. Type | 5 | 5.4 | 2.1 | 30 | 40 |  |
| 6949 . Type | 4 | 4.5 | 1.8 | 25 | 33 | Complete |
| 6950. Trpe | 3 | 3.6 | 1.5 | 20 | 27 | Ready fo |
| 6951..Type | 2 | 2.7 | 1.2 | 15 | 20 | Immediate |
| 6952. Type | 1 | 2.2 | 1.1 | 12 | 16 | Use. |

* This model enjoys almost universal demand. Compact: Size $10 \times 7 \times 31 / 4$ in. Fits many places in any car. No rotary parts. No oiling. No attention. Nreme. Dry-no water to add.
"COAST-TO-COAST"UNIVERSALLY OPERATED (FROM STORAGE BATTERY OR 110 VOLT 60 CYCLE A.C.) SOUND TRUCK AUDITORIUM AND PUBLIC ADDRESS 15 WATT AMPLIFIER Consuming only 60 Watts A.C.! Tubes Required: 2-246, 4-42, 1-82


## Permits Use in Any Sound Truck or Automobile Equipped With a Storage Battery Operated "COAST-TO-COAST" AUTO A. C. POWER UNIT . . . or . . . from any A. C. Light Socket by Merely Throwing a Switch! THERE IS NO OTHER UNIVERSALLY OPERATED AMPLIFIER LIKE IT . . . The House of "COAST-TO-COAST" IS PROUD OF THIS ACHIEVEMENT!

This Amplifier Was Designed to Meet the Demand for an All-Purpose Public Address Amplifier
Heretofore. an armplifer purchased for a Sound
Truck or Autombile necessitated ar substantial
 belt driven motor generators. It is true that such amplifers can also operate from 110 volt A.C. Sockets as well. Their design, however,
does not provide for low wattage consumption, dies not movide tor low watage consumption,
and as a result, the automotive rotary converter must furrish an unusually large amount of cur. rent. thereby imposing a correspondingly larre
drain on the storaize battery actuating the convaiter ${ }^{\text {on }}$ The storape batery actuating the oon
TMIROVI $E D$ MODEL
TMPLI. FIER, on the other hand, is so designed, that emplosed in a car, its curtent rcquirements from the stiorage battery ther in are very small, and
thereby necessitating a considerably less eaten sive
 converter to furnish the required A.C. when used
direct from an A.C. light socket, this amplifier consuntes very much less wattage therefrom as
well. ALL TIIE ${ }^{\text {Al }}$ WAY AROUND

## How This Amplifier

Functions in a Sound Truck or Car
A complete Sound Truck or Car Amplifier essentially consists of


- "COAST-TO-COAST" AUTO A.C. Power

1-6 lut olt D.C. Jo. JEiSEN OR RCA DYNAMIC
1-"COASTT-TO-COAST" CONTROL BOX

1. Phono. Pick Up
1 -Microphone Subject to your choice

The "COAST-TO-COAST" Auto A.C. Power Unit is connected to your storage batery, pad the 110
Volt 60 Cycle A.C. Output of same is then fed Volt 60 Cycle A.C. Output of same is then fed
to the amplifier, by means of a cable and plug furnished. Another cable leading front the anipli. ficr is also attached to the storage battery termi-nalo-this provides the filament current for all the nubes in the amplifier, except the 82 Rectifier,
which is lit from the 110 Volt A.C. supply, furwhich by the AUTO A.C. Supply Unit. The 6 nished by the AUTO A.C. Supply Unit. The 6
volt D.C. Dynamic Speaker also obtaing fin field excitution from this same cable, by interris! connections providing such an outlet. It obviourly follows that operating the tube filaments and exciting the speaker field from the car ntorage hat-
try considerably lesseng the drain upon the Auto A.C. Power Unit, were same to furnish A.C. Filament supply and field excitation. Drawing this Glament and spenker field current from the
age battery, only consumes about 4 amps.
if you employ permanent magnet dynamic
speakers (requiring no field current) then there speakers (requiring no field current) then there
will only be consumed 3.6 amps. However com will only be consumed 3.6 amps. Hlowever, compare that trivial drain to what would conatitute an additional load and drain of 32 to 38 watt on the automobile motor generator, wero the tube filaments and speaker field to be operated through the A.C. source of supply. Bear in mind that the larger current drain that is imposed on a motor generator, results in a correspondingly larger current drain on the storage batiery. The
wisdom therefore of our system is self obvious!

Hov This Same Amplifier 1s Employed
From a 110 Volt A. C. Light Socket
Assuming that your daily requirements necessitate the alternote use of this Public Addrens
Amplifier in a Sound Car, and, also possibly from a light socket (either indoors or outdoors) from a light socket either indoors or outdoors)
all fon have to do is disconnoct tho plug lead all yon liave to do is disconnoct tho plug lead ingo a 110 tole A.C. $50-60$ cycle soeke in in info a 110 olt A.C. $50-60$ cycle soaket, at the
fame time throwing a sucitch (located on the Aame time throwing a suitch (located on the
amplifier chassis), which disconnects the fila amplifier chassis), which disconnerts the fila-
ments from the car battery and connects them inmead to a seporate secondary of the Amplifier's A.C. Pouer Tronsformer. Naturally, means can be provided to use the same 6 volt D.C. Dynamic
Speaker on an A.C. installation, without any Speaker on an A.C. installation, without any further changes!

A Superb Instrument for Phono. Pick-Up Radio Tuner or Microphore Amplification!


Extreme Portability and Compactness Permit Convenient Removal of Equip. ment From One Installation to Another
 PORTABLE AMPLIFIER and PORTABLE-SPEAK.
ER BAFLE
cASES
lated in this catalog, for housing therein the various apparatus constituting an complete $\mathbf{P}$. A. system. You can actually drive up to your destination and remoro the equipment from a car, not removing, of courso, the "COAST-TO-COAST", AUTO A.C. POWER UNIT, if you will employ A.C. The ${ }^{\prime}$ hole in. Additional Dynamic Speakers Can Be Employed
When nsing thit equipmen with a toraso batsery, any number of Dyamict Speakera of tho provided an suitabico output maypting means in
 uee, and we will furnith a suitable output couping uranstormer, with a detoiled instalatation dia-
 DYNAMIC SPEAKERS on 110 volt A.C. Socket Power installations-you will requiro a special Hex ${ }^{0}$ an 110 Voit A.C. sockot, ond provides the neressary ${ }^{6}$ Oot on D.C. Field currentic Your additional cons ${ }^{\text {for shit }}$ (Of course, yon will also require the special ontput coupling transformer just referred to.)
Exclusive and Valuable Features Bnill unon an heavg gauge aturative black shriveled Stecol Chasest of giteat risidity. Abot.
 All the vital fomponent parts, tuch at Power Transformer, Filler Chokes, Filler Condensers, and lniterstago Audio Tranfornuers Coupling
Choke, aro bolted to the metal chastis proper, and four separately remoroble steel Shields cover them. Note that the tope of the tubes are lower than tho Ahiedd, being protected theroby. The verall dirienetions.
 The Power Transformer is is full load, withoust digned to carry overheating. A Multiple Choks Fil. tering System Employed assures tion, eveen if operation and reproduce
 Filter Condengero are carefully tested
for leakage before thes are instaled,
 your surety and guarontee of hifeelor," This is


## $\Rightarrow$

10,000 cycles. A pleasingly effective Tone control and smoothly graduated Universol Volume Control serves a much needed purpose indeed. Threo separate Twin Jocks are provided: one for additional speakers (of the A.C. Dynamic or
Magnotic types); one for Phono-Picl Magnetic types); one for Phono-Pick-Up or
Microphone or "COAST-TO-COAST" ALL Pur. Microphone or "COAST-TO-COAST" ALL Pur. pose Control Box and the othor for Radio Tuner Inpat. Tuco Toggle Sucitches are also provided; one for the power line, one for Phono-
Rodio. Provision is made on the rear of the chassis for the installation of up to 6 or 7 UY Sockets, to serve as terminols for sisher 6 or 7 D.C. dynamic speakers, or for oxternal "A-B-C' voliages end for 4 or 5 additional speakers. block is self-contoined.
Perfection and Faithfulness of Reproduction Amazes All W'ith Its Life-Like Realism!

## These "Coastio-Coast" Onp auditione a tribute to

 mediately closes a sale, and re-orders are bound to be the rule and not the exception. The gigantic volume produced is sufficient to fill can be throtiled down, with no loss of quality for use in a smaller room, restourant, dance holl, fair, schoel, church or in the home, etce holl; Every user of one of these amplifiers can ast as an agent and vory easily affect many ales by mor,aly piving one demonsiation. Co after by extremely lucrotive field! There ore plenty of Kit Models Can Be Very Simply Wired by Any Novice-Detailed Instructions and Diagrams Included!For those who desire to wire this amplififer, that the amplifier will reach rou in assembled state, the reach you in a completaly assembled state, the actual task of wiring i really of litile consequence. All the component parts are bolted to the chassis, and Self-Explanotory diagrams ond instructions are included tohich are your ositurance of complefe success
All leads are suitably coded for ready itentification.

## Model A-14

Cat. No. 7080. Fully Assembled, but unwired. Less Speaker, Tubes, and Auto
A.C. Power Unit............. Cat. No. 7081. Factory Wired and Laboratory Teste! - Ready for Immediate $\quad$....................... $\$ \mathbf{4 9} 50$
Cat. No. ${ }^{7082 . ~ P r o v i s i o n ~ f o r ~ o p e r a t i n g ~ o n e ~} 6$
Volt ${ }^{6}$ D. ${ }^{\text {Dynamic }}$ Speaker (Horn or Cone Type) from Power Pack of amplifier. Only esgential when using amplifier from 110
Volt A.C. Socket..................... $\$ 7.50$
 Cat. No. 7084. 6 Volt Matched D.C. JENSEN "CONCERT" $111 / 2$ In. Diameter \$6.95


[^1]III

# "COAST-TO-COAST" 3 STAGE DUAL PUSH-PULL 250 PHONO-RADIO-MICROPHONE, SOUND TRUCK, AUDITORIUM AND PUBLIC ADDRESS 12.9 TO 16 WATT OUTPUT POWER AMPLIFIERS 

## Model A-L

Simplicity of Operation and Foolproof Performance!
Any layman or novice can install any one of these amplifiers-ansolutely no technical knowledge is
required. Thic installation instructions furnished

These Class "A" Circuit Amplifiers Rep* resent the Sum Total of troucost ower Amplifier Circuit Design, Theory and Application
Several of the "Coast-to-Coast" Laboratory engineers have been devoting over 18 months in costly experimental and research work with but one ob-
jective in mind-that of perfecting a Public Adjective in mind-that of perfccting a Public Ad-
dress Amplifying Unit of the Highest Electrical and Mechanical Qualities, capable of delivering an Undistorted Output of Approximatcly from 12.9 Watts (measured in accordance with conservative
Westarn Electric Standards) to 16 watts, to sell Westarn Electrie Standards) to 16 watts, to sel
at a popular price that would warrant the unanimons approval of the average Annerican purse. When this research was commenced, we were
nindful that there were available somewhat simliar amplifiers, therefore, our additional problem was to Bring Doown the Salc. Price to Within the Reach of All, without sacrificing quality or in any manner impairing its $100 \%$ Satisfactory Perform
ancel Naturally, during the course of this devel of,ment work, many new and valuable improve ments were incorporated, and as, a result. it will be noted that the "Coast-to-Coast" Public Address
Amplifiors described on this and on the following pages contain exclusive features which are not
found in some considerably higher priced amplifound
fiers.

## Exclusive and Valuable Features

Built upon a heavy gauge attractive black, Heat Dissipating. shriveled Stecl Chassis of great ri-
gidity. A bottom plate protects the wiring from gidity. A bottom plate protects the wiring from
mischicvous hands and ilso keens out dust and moisture. All the vital component parts, such as moisture. All the vital conponent parts, such as sers, and Inter siaue Audio Transformers Conphing and four separately removalile stecl Shields cover and tour separately Nemovale that the tops of tubes are Louer than the shields, being protected therely. The 9 oucrall dimensions of the chassis are 9 in. wide. $81 / 2$ in. high. The Pocer Transformer is air-cooled and is designed to carry 180 mils.
D . C . without overloading or overheating. $A$ D. C. without overloading or overheating. A
iriple Choke Filtering $S_{y s t e m}$ Employed assures Priple Choke Filtering System Employed assures
Hum-Free reproduction, even if a Radio. Tuner is used with this Superb Amplificr. The Filter Condenscrs are given a sitere ozir-load BREAK
DOWN TEST, and are thes carefully tested for lcokage beforc they are installed, on a 0 to 500,000,000 ohin "Hegger." This is your surety and guaranty of life-long service. The audio stages
are designed to give a flat frectuency response are designed to give a flat frequency response
curve from 30 cycles up to 10,000 cycles. A pleasingly effective Tonc Compcnsation Control and smoothly graduated Unirersal Volume Con-
trol serve a much needed purpose indeed. Threc trol serve a much needed purpose indeed. Threc
separate Twin Jacks are provided: one for additional speakcrs (of the A.C. Dynamic or Magnetic types) ; one for Phono-Pick-Up or Micro.
flione, and the other for Radio Tuner Input. Thrce Toggle Suertches are also provided; two for the power line (one being used to turn on when employing Mercury Rectifier Tabes), and one for Phono-Radio. Provision is made on the rear of the chassis for the installation of up to 6 or 7 UY Sockets, to serve as terminals for
cither 6 or 7 D.C. Dynamic speakers, or, for external speakers. To thoronghly protect these amplifiers, a fuse hlock is self contanned. To
absolutely prcvent an A.C. Hum background

## "Coast-to-Coast" Public Address Amplifiers

 (19ne Ufar Guarantex This Guarantee applies to ALL COAST - TO - COAST" Amplifiers listed in This Catalog!Inasmuch as all the Electrical and Me.
chanical characteriatics of all "Coast-to. chanical characteristics of anf "Coast-t ihe HIGHEST STANDARDS OF ELEC-
IRICAL AND MECHANICAL EXCELLENCY', WE GUARANTEE to replace any
defectivo part gratis, providing samo has defective part gratis, providing samo has
not beon tampered with or otherwise -ibused. $\qquad$
beo

all A.C. and push pull lcads are tieisted and ap propriatcly isolatcd, furthermore, all audio fre quency components arc shiclded and placca in
strategic points, and whereicr necessary, doublestrategic points, and whereacr neccssary, double shielded; and in addition, all

## Specifications

The approximate plectrical characteristics below apply in general to the various amplifiers de Maximum Undistorted Output: (Western Electric Standards) 12.9 Watts to 16 Watts. Input Signal Voltage to obtain Maximum Output: .05 to .06 Volt. Gain at 1,000 Cycles: 85 to Between 50 and 5,000 cycles, 2 D. B. Power Consumption: 120 Watts (87 Mercury Am plifers). 135 Watts (866 Mercury Rectifier Amplifiers). To 150 Watts (2-281 Amplifiers) To GRID of first tube notentiometer. (Use Phono-Microplione or Line to Grid Input Trans formers). Output Impedance: 4,000 ohms (Some Models are cquipped uith an All-Purpose Output Transfornicr. secondary of 15 ohms, tapped at 8 ohms, for multiple Dynamic Speaker Installations.) Power
Supply: 115 Volts, $50-60$ Cycles A.C. Supply: 115 Volts, $50-60$ Cycles A.C. $(25-40$ model, $\$ 7.25$ additional). Due to their unusually low wattage consumption, these amplifiers can also obtain their 115 olts A.C. irom SOUND Volt DC. Rotary Converters, or Gasoline Driven Motor Generators.

Incorporates Extremely Valuable MICROPHONE or PHONO. PRE-

## AMPLIFIER STAGE

The first tube on the left in all these amplifiers High Gain Pre-Amplifier, making unnecessary the necessity for an external microphone Pre-Amplifier, when employing Carbon Type Microphones. (In the case of Condenser Microphones, one or two stages of external battery operated Muicro ${ }_{F}$ ull Gain and PERFECT QUALITY are produced by the self-contained Pre-Amplificr stage, due to the ${ }^{\text {HSE }}$ of high Radio Tuners to these amplifiers, the PHONO Radio Turners to these amplifiers, the Output di RADIO Switch connects the Tungr Output di other hand, zehere unusually terrific Radio Tuner Amplification is desircd, simply cone une unc Ouput to the PhONO- Microphone JJack Thbut.
thercby takiny adyantage of the HJH GAIN Pre-Amplificr Tube and Staye in addition.
PERFECTION and Faithfulness of Reproduction Amazes All With Its LifeLike Realism and Huge Volume!
The "Coast-to-Coast" amplifiers are a tribute to its engineerliases a salc, and re-orders are bound mediately closcs a sigantic volume produced is sufficient OUTDOOR SOU 2500 seat auditorium or for OUTHOOR SOU ever, of quality for use in a smaller room, restaurant, dance hall, fair, school, church, or in the home, etc., etc. Every user of one of these amplificrs call act as an agent and ecry easity tions. Imestigate this extremely lucrative ficld Thicre are plenty of prospective purchasers all

These Amplifiers Can Be Furnished with Provision for All Types of MultiSpeaker Installations
Our Amplifiers can be used with HORN Type Dynamic Speakers (such as Racon, etc.), both
A.C. and D.C. Cone Type Dynanic Speakers, Permancnt Magnetic Dynamic Speakers (require no field excitatinn! $)$ or Magnetic Unit Type
Speakers. MULTI-SPEAKER INSTALLATIONS accomplish a two fold all important valuable purpose, that of providing diversificd sound distrivution ouncr large arcas, and, at the
same time, pretenting blasting and rattle with subsequent' possible spcaker damage, inasmuch as the full output of the amplifier, with its high
veattage peaks, will thusly not be confucd to one wattage praks, will thusly not oc confinc ho one cone type dynamic Speaker is desizned for 6 to speaker installations, cach speaker carries its equal share of the amplifier wattage output, and the total sound output of all the speakers used cquals wettage) of the amplificr. For instance, if four dynamic speakers (horn or cone types) are used with an amplifier producing a pcak output of WILT SALELY CARRY TTS SHARE OF 5 WATTS! Each model A and "A-3" Ampliner is provided with a self-contained Combination Output to 500 ohm Line and Output to Multi-Voice Coil Transformer permitting the use of $1,2,4,8,16$, etc horn or cone type or A.C. Types, or both.

All These Arnplifiers Can Be Equipped to Furnish Full D. C. Field Excitation to Either 1 to 5 D. C., 2500 Ohm Dynanic Speakers, or to One 1000 Ohms and One to Three 2500 Ohm D.C. Speakers
Models "A-1," "A-2" and "A.3" Ampliers are equipped to furnish field excitation for one 2500 ohm D.C. Dynamic Speaker-however, if you
wish to employ additional 1000 ohm or 2500 ohm D.C. Dynamic Spcakers, there zeill be an additional charge of $\$ 3.75$ per each additional speaker
used beyond one. Note that only one R.C.A. Photophone Dynamic Speaker may be used instead of the 2500 ohm speaker above mentioned. If you zish to wise one Photophone 1000 ohm type, include $\$ 4.65$ additional.
 netic Unit Type Speakers) in conjunction with the standard model amplifiers, (and not use any D.C. Speakers) there will be an additional charge of $\$ 3.50$ for this provision. The additional speakers may be placed at any page deroted to hints on ordering fublic address amplifiers.

Choice of Conventional 281 Rectification or 871 or 866 Mercury Vapor Rectification Offers Exclusive Features

The superiority of the new and improved 871 and 866 Mercury Rectifiers over the 281 type can be readily proven. Two 871 Mercury Vapor Rectifiers type can pass up to 600 mils., and two 866 type can casily handle up to 12 mils, whereas
two 281 Rectificrs can only handle up to 170 mils., two 281 Rectificrs can only handle up to 700 zoolts R.M.S. It is true, however, that at 700 rolts R.M.S. It is true,


Bottom View with Cover Plate Removed, shovoing All-Purpose Output Transformer and Automatir D. C. Field Suritching Arrangement, Pro-

# "COAST-TO-COAST" 3 STAGE DUAL PUSH-PULL 250 PHONO RADIO-MICROPHONE SOUND TRUCK, AUDITORIUM AND PUBLIC ADDRESS 12.9 TO 16 WATT OUTPUT POWER AMPLIFIERS Cont'd. 

(Continued From Opposite Page)


If desired, we can furnish
this amplifier for use with THO
866 1Hereury Rectifiers (instead of
$2-871^{\prime}$ 's) at no additional chargel


Wound Voltage Divider-Adjustment of Which Does Not Affect the Plate Voltages of the Anplifier Unit! The standard model furnishes 5 to $8-21 / 2$ A.C., 10 amperes, for operating from 5 to $8-21 / 2$ Volt Tubes for a tuner. The variable, voltage divider, permits you to make fine "B" voltage adjustments to suit your "rquire:
ments. If you desire, this feature of "A-B-C" z'cltage supply for a Radio Tuner, please include $\$ 4.90$ additional.
Provision Can Be Made for Furnishing Voltage to Condenser Microphones or Sound Picture Photo-Cells.
The voltage supply intended for this purpose is ansolutely constant and of pure D.C. A tariable voltage adjustnent is included and provides a
flexible voltage supply. This fcature can be furnished for $\$ 7.50$ additional.
"Talkie Movie" Exciter Lamp Provision Furnishes D.C. Current for one to two exciter lamps. Please specify type of lamp employed,
and include $\$ 17.50$ additional. and include $\$ 17.50$ additional.

## Model "A-1"

Undistorted Output 14.0 Watts
Furnished with Output to 500 Ohm Line and Multi-Voice Coil Impedance OUTPUT TRANS FORMER. Stondard Moaicl (as hcrewith quoted) Furnishes D.C. Field Excitation To Onc 2500 Olm Spiakcr. © Up To 5 Spcakers. May Be amplificr for $\$ 3.75$ additional per Speaker uscd, bcyond onc. Cat . No. 6995 . Kit Model, Fully assembled, but UNWIRED, less tubes \$39.50 Cat. No. 6996. FACTORY WIRED and LABORATORY TESTED. Ready For
Immediate Use! Less Tubes....... $\$ \mathbf{5 2 . 5 0}$ $\$ 15.91$ Tubes: 1-224A, 2-56, 2-250, 2-281 With 2-871 Mcrcury Rectifiers (instcad of 2-281's)
$\$ 13.21$
With 2.866 Mercury Rectifiers
$\$ 20.70$

## Model "A-2"

## Undistorted Output: 12.9

 WattsOutput Impedance: 4,000 ohms. Requircs Spcakers With Output Transformers. Standard Model (as hercraith quoted) Furnishes D.C. Ficld Ex citation To one 2500 Oltm Speaker...UU To 5 Spcakers May Be Uscd Obtaining D.C. Ficld Excitation from this amplifer for $\$ 3.75$ additional per Spcaker uscd, beyond one. Cat. No. 6998. Kit Model, fully as
sembled but U NWI RED, less tubes $\mathbf{3 1 . 0 0}$ Cat. No. 6999. FACTORY WIRED and LABORATORY TESTED. Ready for $\mathbf{\$ 4 2 . 5 0}$ Cat. No. 7000. Set of 7 R.C.A Tubes: 1-224A, 2-227, 2-250, 2-281 $\$ 15.76$ With 2.871 Mercury Rectifiers
(Instead of 2-281's) ............. $\$ 13.06$ With 2.806 Mercury Rectificrs


MODEL "A.3"
Three Stage "Coast-to-Coast" Push-Pull 46 Second Stage and Push-Pull 250 "High Quality-High Gain" Auditorium and Public Address Model "A-3" Amplifier
Use of $2-46$ (Class ". " ") Tubes $^{2}$ In Push-Pull In
Sccond Stagc Instead of $2-227$ 's or $2-560^{\circ} \mathrm{s}$ As Sccond Stagc Instead of 2-227's or 2-50's As
sures Inercased Distortion-Free Amplification.

## Delivers 15 to 16 Watts!

Like all "Coast-To-Coast" Amplifiers of this series, this model offers the same flexibility of applications. However, the main essential difference can be corssidered as vital, inasmuch as the use of 2-46 2nd A.F. stage tubes, feeding into the 2-250's helps to reduce distortion possibilitics
substantially enough to cause this Amplificr to Dcliver 15 to 16 Watts Undistorted Volume!

## Theory

2.227's, or 2.56's, have a maximkm allowable grid swing of 26 volts. 2.46 's have an allowable grid swing of 66 volts. This differcesec pizes less distorted amplification, particularly when the 250 's
arc loadcd up to their marimum apoct arc loaded up to thetr maximum capacity.
Fidelity of Reproduction and Gigantic Distortion-Free Auditorium Volume Will Thrill You
Here is an Amplifier that will reproduce equally well from 30 to 10,000 cycles-compare that I
An Excellent Amplifier to Employ for Multi-Speaker Installations
Furnished with a l'aluable Flexiblc All-Purpose OUTPLT TRA.NSFORMER.
There is buit in an output transformer combining Voicc Coil Transformer Linc and Output To Multicvery possible combination and number of dynamic speakers!

## Model "A-3" <br> Undistorted Output: 16 Watts

Furnishted With Output to 500 Ohm. Line and Multi-Voice Coll Impedanee OUTPUT TRANS
FURMER. Standard Model (as herewith quoted) Furnishes D.C. Field Excitation To One 2500 Ohns Spcalicr. $\dot{\text { D. }}$. Up to 5 Speakers May
Be Uscd Obtaining Be Uscd Obtaining D.C. Field Excitation from uscd, amplificr for $\$ 3.75$ additional per Speaker uscd, beyond onc.
Cat. No. 7005. Kit Model, Fully
Assembled, but Unwired, Less Tubes $\$ 47.50$
Cat. No. 7006. FACTORY WIRED and LABORATORY TESTED. Ready for
Immediate Use! Less tubes ...... $\$ 59.00$
Cat. No. 7007. Set of 7 R.C.A. Tubes 1-224A, 2-46, 2-50, 2-281
\$16.21
With 2.871 Mircury Rectifiers,
instead of $2.281^{\prime}$ s ................... \$13.51
W'ith 2.866 Mcreury Rectifiers,
$\$ 21.45$

NDTE: We strongly recommend the adaption of the "GOAST-TD-COAST'S Control Boxes with any Amplifier listed on this page, or separate phono. and mierophone input impedance matching transformers should be used.

## "COAST-TO-COAST" CLASS "B" 20-25 WATT OUTPUT FOUR STAGE MICROPHONE-PHONO-RADIO SOUND TRUCK, AUDITORIUM OR PUBLIC ADDRESS AMPLIFIERS

# Special Model Available Furnishes D. C. Field Excitation To From 1 to 4-1000 Ohm-or -From 1 to 8-2500 Ohm D. C. Dynamic Speakers (Racon Horn or All Cone Types) 

## TUEES REQUIRED- <br> Model A-4: 1-224A, 1-56, 3-46, 2-82. <br> Model A-5: 2-56, 3-46, 1-83.



Model A-5 Cat. No. 7041-7042

Newly Developed 56, 46 and 82 and 33 Tubes Have Madr Possible These Low Priced and Highly Efficient Class "B" Amplifiers
In the original form, Class " B " amplifiers re-
quired 210 or 841 "Tubes, nessitating the use quired 210 or " 841 "Tubes, necessitating the use
of large dry "C" batteries ( 60 volts or 16 volts of large dry "C" batteries ( 60 volts or 16 volts
respectively), consuming therefrom. approximately, 20 mils. These tubes also required an in-
dividual power pack, separate from the power dividual power pack, separate from the power
pack that actuated the balance of the fubes. Two 866 Mercury Rectifiers also had to be employed in the Class "13" Power Pack. It can
be readily seen that such an amplifier was not only considerably expensive considering the costly equipment required, but its performance of the new 46 Amplifier Tube, actuated by 82 or sensed with the necessity of a separate power pensed with the necessity of a separate power required!) and also dispensed with the objection able use of dry " "C" batteries for the simple
reason that No "C" Bias Is Necessary for the 46 Amplifier Tube when used as a Class " $B$ "
Amplifier! Not only are highly desirable and satisfactory results obtainable by using these remarkable new tubes, but a substantial saving TIIE ASSOCIATED APPARATUS.
Enormous Undistorted Volume Produced More Than Ample for Any Huge Indoor Auditorium or Indoor Gathering The conservative continuous rated wattage output of two 46 tubes in push-push is 20 watts; pected. You can readily visualize the gigantic volumes reproduced by this amplifier when you
take in consideration that a 12.9 watt amplifier will confortably cover a large size auditorium! Imagine then. the enormous degree of volume afforded by this amazing apparatus!

## Modern Circuit Design

In Input Jack is connected on one side directly to the Chassis, which is grounded, and the cality functions as a MICROPHONE or PIICNO. PREAMPLIFIER. This permits any input control apparatus (such as the "Coast-tor phono. pick-up, natching transformer, or microphone transformer to be desired, such input transormers can be self-contained within the chassis The output of this tube is resistance coupled to rupled to a Class "A" " 46 driver third A. F.
stage. The 46 class " $A$ " amplifier tube in this third The 46 class " $A$ " amplifier tube in this third
stage is designed to supply the necessary prid swings of the two 46 Class "B" Push-Push down transformer. The tremendous A. F, volt zge pealk therein produced are fed through a output transformer, having an output impedance of 4,000 olsms. In addition to this output transstandard output transformer with a 4,000 ohm standard output transformer with apped seconrimary equipped with special tapped secon-
?aries, only when more than one dynamic speak-

Both Models A-4 and A-5 Can Be Used With Same Number of Speakers-Howver, Model A-5 Alone Can Furnish D.C
Field Excitation to Such Speakers
Model A.4 Class 'יB". Amplifers is fumished with
Model $A-4$ Clase "B". Amplifers is furnished with
two 82 Type wercury Vapor Rectifier Tubes ind this nodel aninlifier is not desimned to fumisl
D.C. Held excitation to any dinumic Siealiers. D.C. field excitation to any denimic sieakers. ated Dynamic Speakers or those obtaining their
field excitation from an external source. (Per meid excitation from an external source. (Per
manent Jlagnet Spealers can also be employed
in this connection. On On the other hand, Modet
A. 5 Clas "B" Amplifier is equipped with a A-5 Class "B"" Amplifier is equipped, with a
Type 83 Mercury Vapor Rectifier and equipped with a considerably heavier duty


Both Model A-4 and A-5 Class "B" Amplifiers Can Be Furnished W'ith ALLPURPOSE OUTPUT TRANSFORMERS (4,000 Ohm Primaries) for ALL TYPES OF Multi-Speaker Installations


Provision Can Be Made for Furnishing Voltage to Condenser Microphones or Sound Picture Photo-Cells
The roltaze supply intenderl for this purpose is absolutely cons nit and of pure D.C. A Variable roltage adjustment is included and pridides a
supply. fiexible
This feature can be furnished for $\$ 12.45$
additionai
"Talkie Movie" Exciter Lamp Provision Firmixhes D.C. Current for one or tro exctiter lamps.
inlease specify
(1)ne 1 lirar (6uarantep

Inasmuch as all the Electrical and Mechanical characteristics of all "COAST-TO-COAST" amplifiers are in conformity and with the HIGHEST STANDARDS OF ELECTRICAL AND MECHANICAL EXCELLENCY, WE GUARANTEE these Amplifiers vill perform according to their description and to replace any defective parts gratis, providing same has not been tampered with or otherwise abused.
Employs a Valuable Self-Contained Phono.-Microphone Pre-Amplifier Stage A special input Jack and Switch arrangement couples
the output of any tuner to the grid circult of the the outpur of any tuner to the grid circuit of the seconer output into the lst A.F. tube, for the resultant audience-the first A.F. tube is solely employed for the pre-amplification of microphone and phono pick up impulses. It is sincerely suggested that you om ploy any "Coast-to-Coast" T.R. F. or Super. Hetero
dyne Tuner (listed elsewhere in this Catalog) if you
are installing a Public Address System. It is als aro installing a Public Address System. It is also ALL PURPDSE Public Address Control Unit, repro senting IDEAL input impedance matching equipment for the use of Phono-Microphone and Radlo Tuner The tirst tube on the left in all these amplifiers const tutes a PIIONO-MICROIIIONE High Gain Pre-Ampli her, making unnecessary the necessity for an externa
microphone Pre-Ampliffer, when employing Carbon Type microphone Pre-Ampliffer, When employing Carbon Type one or two stages of externial battery operated Micro one or tro stages of external battery operated Micro Gain and PERFECT QUALITY are produced by the self-contained Pre-Amplifier siage, due to the use of
high voltage, thoroughly fittered RESISTANCE CDUP. LING.
General Features of Both Models A-4 and A-5 Class "B" Amplifiers

|  |
| :---: |
| alline finished steel chassis. measuring 17 |
| ig, 9 in . wide, $83 / 2 \mathrm{in}$. high. Compon |
| h as |
| ensers. |
| the motal chassis |
|  |
|  |
| ak in the model A.4 Amplifier, and 800 m |
|  |
| er heating. A Multiple Choke Flltering |
| mplosed and the use of a IIum |
| ure HUM-FREE operation |
| Iter Condensers are |
| AK-DOWN TEST and are carefully |
| efore they |
| ve Tone Control and smoothly gradua |
| olume Control serre a m |
| separate Twin Jacks are provided |
| eakers (of the A.C. Dynamic or Mammet |
| P Phono-Pickup |
| Radio Tuner Imput. |
| ded, one for |
| n: one for Power Line and |
| ube Rectifier |
| ground be |
| tability, all A.C. and push-pull leads |
| and appropriately isolated, furthermore. |
| equency components are thi |
| agetic |
| in addit |
|  |
| All vital components, such as Power |
| cr Chokes, Output and Input |
|  |
| ation Requirements! Vout cannot hulli a |
|  |

Provision Can Be Made to Furnish Any Radio Tuner With All "A-B-C" Volt ages-Ideal for Conversion of Old

## Design Sets Into Modern 1932 A.C

## Receivers

Fmploye an Independent Variable Tapped Wire-Wound Voltage Divider-Adjustnient of Which Does Not Arect
the Plate Voltages of the Amplifer Cnit! The stand the Plate Voltares of the Amplifler Cnit! The stand ard model fumishes $21 / \frac{1}{4}$ volts, A.C.. 10 amperes, fo operating from 5 to $8-21 / 2$ Volt Tubes for a tuner.
The, variable voltage divider, permite yeu to make fine
" $B$ " voltane adiutments "B" voltane adjustments to sult your requirements. or a Radio Tuner, p!case inohurde $\$ 4.90$ voltage supply

## Continued on Next Following Page

# "COAST-TO-COAST" CLASS "B" 20-25 WATT OUTPUT FOUR STAGE MICROPHONE-PHONO-RADIO SOUND TRUCK, AUDITORIUM OR PUBLIC ADDRESS AMPLIFIERS (Continued) 

## SPECIFICATIONS

Maximum Undistorted Output: $20-25$ Watts. Input Signal Voltage to obiain Maximum Output: . 01 Volts. Gain at 1,000 Cycles: 85 D. B. Frequency Character-
istic $V$ ariation between 50 and 5,000 cycies: 9.75 D. $B$. Power Consumption (at full load): 110 Watis for Alodel A-t. 130 Watts for Model A-5. (Nore that it Is the inherent characteristic of Class ' 'JB' Power aignal is impressed upon the ampllfer, saving approximately 40 WATTS thusly.) Input: To Grid of fist lube potentiometer. (Use
?hono-Microphone or Line to Grid Input Iransformers). ?hono-Microphone or Line to Grid Input Transformers).
Power Supply: 115 Volts, $50-60$ Cycles A.C. (20-40 Power Supply: 115 Volts, $50-60$ Cycles A.C. (25-40
escle model, $\$ 5.00$ additional. 220 or $2 \pm 0$ yolt model eycle model $\$ \$ 0.00$ additional). Due to their unusually low wattage consuinption, these amplifiers can also ob-
tain their 115 Volts A.C. from SOUND TRUCK or MOTOR CAR Generators, 6-12-32 Volt D.C. Rotary Converters. or Gasoline Driven Motor Generators. Special All-1'urpose Output Transformers are available with a 4000 ohn primary and with the followinc secondaries: 500 ohm Line. and 15 ohm winding tapped at 8 ohms. for multiple Dynamle Speaker Installations. Output Impedance: 4,000 ohms.
(Continued From Opposite Page)
Full Ware 2-82 or 1-83 Mercury Rectifiers are Capable of Delivering 800 Mils. Peak Currents

A Class "B" Ampllfor can only function properly if its nower supply has perfect voltage regulation, and can safely withstand the enormous and instantaneous peak curof this absolute necessity. we equip these ampliflers with a $100 \%$ Efficient High $\begin{array}{llll}\text { andety } & \text { Over-Load }\end{array} \quad \begin{array}{lll}\text { Factor } & \text { Efficient }\end{array} \begin{gathered}\text { High } \\ \text { Pawer }\end{gathered}$ Safety Over-Load ractor Power Pack. between the component parts employed in a Class "A" and class "B" Amjliner Power Packs, special transformers and chokes had to be designed, to make the chokes had, to be designed, to make the


Mass Production and Huge Volume Sales Alone Make Possible These Amazing Low Prices:

Model A.4 Model A-5
Cat. No. 7038. Fully as- \$59.50 sembled, but Unwired. .......
Cat. No. 7039. Fuictory wired, and Laboratory Tested. Ready for $\$ 74.50$ Immediate Use
Cat. No. 7040. Set of 7 R.C.A. $\$ 5.87$
Tubes: $1-224 \mathrm{~A}, 1-56,3-46,2-82$

Cat. No. 7041. Fully $\mathbf{\$ 6 9 . 5 0}$ Cat. No. 7042. Factory Wired and Laboratory Tested. Ready for $\mathbf{\$ 8 8 . 5 0}$ Iminediate Use Cat. No. 7043. Set of 6 R.C.A. $\mathbf{\$ 5} 24$
Tubes: 2-56, $3.46,1.83 . . . .2$

Cat. No. 7044. Special All-Purpose 25 Watt Output Transformer. (For use with both Models A-4 and A-5 Amplifiers.) 4,000 olm Primary, with 500 ohm LINE secondary, and, 15 olim secondary, tapped at 8 olims. Diagram shows connections of 1 to 16
$\$ 9.75$ Dynamic Speaker Voice Coils

Here are the Ideal Matched Speakers to Employ in Multi-Speaker Installations:

Cat. No. ${ }^{7445}$. MATCHED JENSEN CONCERT D. C. DYNAMIC SPEAKER. (Choice
of 1,000 or
(2) 2,500 Ohms.)
$\$ 7.95$
Cat. No. 7446 . WRIGHT DE-COSTER D. C. DYNAMIC SPEAKER. (Choice
of 1,000 or 2,500 Ohms.) ............ $\$ \mathbf{1 4 0}$ Cat. No. $6958 . \quad 30$ WATT PEAK LOAD JEN-
SEN 1933 MODEL AUDITORIUM 3000 Ohm. D. C. DYNAMIC
$\$ 27.00$ SPEAKER Cat. No. 6959. Same as Cat. No. 6958, but 110 Volt, $50-60$ cycles A. C. operated-requiring
an 82 Mercury Rectifier
Tube. ................................. $\$ 40.50$

Cat. No. ${ }^{7447 \text {. MATCHED RACON TYPE }}$ DYNAMIC SPEAAER with $31 / 2 \mathbf{\$ 4 7 . 0 3}$ Foot Exponential Trumpet
Cat. No. 7448. 6 Fame
747. but Exponential Trumpet

## Four

Stage
Push-Push Microphone - Phono - Radio Auditorium and Sound Truck Amplifier

operating same from any remote point! In the other two smaller compartments (on its sides), you can store microphones, a micro-phone-preamplifier, dry-cells, or " $B$ " batteries for the microohone and pre-amplifier, This
case is fitted with neatly plated hardware case is fitted with neatly plated hardware
trimmings and a substantial lock, as well as trimmings and a
a durable handle.
Employing This Case as a Dynamic Speaker Baffle Chamber
As a rule, four to eight Jensen or Wright De Coster D. C. (or A. C. operated models) Amplifiers and each such speaker can be procured MOUNTED WITHIN SEPA-
RATELY AVAILABLE CASES EXACTLY IDENTICAL TO THE ONE ILLUSTRATED, with the exception that it will not contain the compartments shown, THICK CELOTEX BAFFLE BOARD, behind which the speaker is mounted. The chamber thus formed constitutes an ACOUSTICALLY PERFECT DYNAMIC SPEAKER BAFFLE, causing the bass notes to be as equally well reproduced as the higher notes. There is ample room within its interior to store any length of speaker coupling cable. These speaker cases can be placed any distance from the amplifier, in accordance with the description relative to this subject, as shown elsewhere in this catalog. It is weil to arpreciate that these namic Speaker Baffle Chambers, and not "makeshift" affairs!

Portability and Low Wattage Consumption Permits Use in Either Sound Trucks and For All Indoor or Outdoor Installations.

[^2]making possibilities offered by this super-powerful amplifier, allowing him to rent out a con?AMPLIFICATION PURPOSE, easily transporting the entire equipment in an automobile, and setting it up is but a matter of a few minutes! Just a few rentals and the equipment is entirely paid for! Be the first in your vicinity COAST" PUBLIC ADDRESS AMPLIFIER COAST PUBLIC ADERESS AIGPMONEY IN THIS HIGHLY LUCRATIVE FIELD.

Cat. No. 7076. Complete Portable P. A. Class "B" Amplifier, including Cat. No. 7042, Model A-5 Class "B" Amplifer. FACTORY WIRED and LABORATORY TESTED. Ready for Immediate Use! Less Tubes, Speaker $\$ 112.50$ and Public Address Control Box.
Cat. No. 7077. Portable Speaker Case, with MATCHED JENSEN D. C. DYNAMIC SPEAKER. (Chassis Cat. No. \$31.45 7445)

Cat. No. 7078. Portable Speaker Case, with MATCHED WRIGHT-DE COSTER D. C. DYNAMIC SPEAKER. (Chassis $\$ \mathbf{\$ 8 . 0 0}$
Cat. No. 7446).

Cat. No. 7079. PORTABLE CASE, as Illustrated and Described. Less Amplifier, Controi Box and Speaker: Equipped with choice of Equipped with choice of FRONT or compartments as shown, same
able..... \$24.51
\$24.50

# "COAST-TO-COAST" PORTABLE 14.0 WATT 3 STAGE DUAL PUSH-PULL 250 SOUND TRUCK, AUDITORIUM AND PUBLIC ADDRESS MICROPHONE-PHONO-RADIO TUNER AMPLIFIER WITH SELF CONTAINED JENSEN DYNAMIC SPEAKER 



## Offers Valuable Convenience of Removaible Dynamic Spealeer Bafile Section <br> Incorporates a "Coast-to-Coast" Cat. No. 6995 or 6996 Model A-1 Public Address Amplifier

## For a complete description of the anuplifier included, you are referred

 to the pages devoted to same. Due to its minimum wattage consumption, this nortable amplifier is ideally suited for installation in sound trucks, the entire outfit can be carried from an automobile into a store, audi torium, stadium, etc., or wherever 110 rolts, $50-60$ cycles A. C. is avail able from a light socket, or motor generator, and used therewith!User-Agents! Make Big Money Renting Out These Superb Amplifiers to Fairs, Dances, Church Meetings, Schools, Restaurants, etc!
Will pay for itself, in a surprisingly short timealso ideal for permanent installation. Its tre mendous, and distortionless volume justifies its use for very large indoor and outdoor audiences. Can be set up for actual operation anywhere in less than 5 minutes! if purchased in semi2ssembled form, any novice can easily wire it. wind readily understood instructions included. The Standard Model furnishes D.C fieid excitation to one 2500
ohm Dynamic Spcaker; however, for $\$ 7.50$ additional,
adapt this amplifier to furnish field excitation to two more 2500 ohm Dynamic Speakers, making 3 in all. (For $\$ 15.00$ additioual, up to 5 such . C. Speakers can Closed Fiew UNIVERSAL OUTPUT TRANSFORMER feature nakes this amplifier extremely versatic in application

containing two separately removable speaker PUBBI I C ADDRESS INSTALLATIONS. When closed together, the overall dimeasions of the entire case me
wide, 22 in. tall.


Use of "Coast-to-Coast" All-Purpose Control Box Suggested
A control box, with microphone and phono. A control box, with microphicne and phono. pick-up mixing, fading and input transformer, can be placed ANY DISTA. plifier, offering great advantages.
use, it can be set next to the speaker, and ac. cordingly tranported.

## Model A-36

Cat. No. 7031. Fully Assembled but Unwired. Includes Cat. No. 6995 Model A-1 Amplifier, Two Section Portable Case as Illu- \$61.50 trated, less Sp Cat. No. 7032. Same as Cat. No. 7031, but Factory Wired, and Laboratory $\$ 75.00$ Cat. No. 7033. Portable Two Section Trunk Case Only. Ideal for mounting two Dynamic Speakers-furnished with two
"Port-Holes" and Covers......... \$22.50 "Port-Holes" and Covers............ ers and price of tubes, please refer to the pages on which Cat. No. 6995 and 6996 Model A-1 Amplifiers are described.
"COAST-TO-COAST" PORTABLE THREE STAGE 12.9 WATT 250 DUAL PUSETPULL RADIO-PHONO-MICROPHONE PUBLIC ADDRESS AMPLIFIER


The P. A. Amplifier employed in this outfit is the identical one described under out Cat. Nos. you are referred. It is housed in a highly you are referred. It is housed in a highly ang 19 in long, 912 in , deep, and 14 in. tall, This ing 19 in long, $9,2 \mathrm{in}$, deep, and , case has been made purposely taller than actually
necessary, with the view in mind of employing necessary, with the view in mind of employing same as a Dynanic Speaker BAFFL.E, most speakers measuring approximately
by 6 to 8 inches deep. In fact, these cases re separately available with a CELOTEX BAFFLE, with a circular hole cut out to accommodate any speaker. These cases are
equipped with a substantial carrying handle and equipped with a
fitted with locks.
hitted with locks. (120 watts), this powerful P. A. Amplifier can be operated from a 12 volt D . C. Input Rotary Converter rated at 150 to 160 watts output. Then, it can be carried indoors and attached to any appropriate $A$. C. Light Socket, comprising an extrenely flexible operated unit.

Can Furnish D.C. Field Excitation for From One to Five 2500 Ohm Dynamic Speakers-Each One of Which Can Be Housed in Individual Portable Cases.
Adaptable for Use in Sound Trucks or Indoors
The standard model furnishes D. C. field exci-Speaker-(cone or horn type unit) for a charge of $\$ 3.75$ additional per speaker. we can adapt ot to as many as FOUR ADDITIONAL 2500 ohm Dynamic Speakers.

Portable Case herewith illustrated can be purchased separately.
Should you care to install any other a mplifier in this portable case than Model A-Z separately order Cat. No. 7036 Portable Case, 1 (or more)
Cat.
No.
7037
Celotex Bafled and whichever other "COAST.TO.COAST"; Power Amplifier best serves your requirements.
Produces Volume Enough to Provide Sufficient Sound Coverage for All Average Indoor or Outdoor Installation. For directional sound distribution, we surgest the $u$ ofe of a Racon Type Horn Unit with $31 / 2$
Ft. or 6 Ft. lonk Trumpets. If wide area sound distribution is desired, additional Speakers of either horn or cone unit types) are
suggested. Requires input iransformers, such suggested. Requires input iransformers, such as phono. pick-up and microphone types
preferably, we suggest a "COAST-TO-COAST" ALI-PURPOSE CONTROI BOX, to which descriptions you are referred.

Model A-37
Cat. No. 7034. Semi-Assembled, But Unwired. Includes Cat. No. 6998 Model A-2 Amplifier and this Portable Case. as Illus- \$46.50 Cat. No. 7035. Same as above, but FACTORY WIRED AND IABORATORY TESTED. (See our Cat. No. 6999, Model A-2 Amplifier.) Ready for Immediate Use!
Cat. No. 7036. PORT. scribed, less amplifier or ${ }_{\text {oreaker }} . . \$ 15.50$ Cat. No. 7.037. $\begin{gathered}\text { Port- }\end{gathered}$ able Case with Celotex
Baffle Board, with cutcut for any Speakcr-部 NOTE: For choice of matched dynamic speakers, and price of tubes, please refer to page 9

## Model SRA-46

Combination 7 Tub, "Coast-to-Coast" A.C. Operated Super-Heterodyne Tuner (Cat. No. 7089) and "Coast-to-Coast" All-Purpose Input Control Panel (Cat. No. 7062)
All controls on front panel, which is made of ELECTRALLOY metal. Housed in above illustrated Portable Case (Cat. No. 7036) Ready for immediate use.
Cat. No. 7469.
\$85.00


Front View, With Removable Cover Not Shoun in Illustration. Note SelfContained Control Panel.

All Amplifiers Listed Below Are Furnished Completely Assembled, FACTORY WIRED and LABORATORY TESTED. They Include a Portable Case, Control Board, JENSEN MATCHED DYNAMIC SPEAKER and BAFFLE BOARD.

## Model A-9 Single Pentode Output Model

Output: 3 Watts
Cat. No. 7051. Requires 1-224A (or 57 ), 1-247,
1-82 (or 280). WATTAGE
CONSUMPTION, 40 WATTS.... $\mathbf{\$ 3 7 . 5 0}$
Cat. No. 7052 S. Set of 3
R.C.A. Tubes......................... $\mathbf{\$ 2 . 7 3}$

## Model A-10 Single TripleTwin Output Model <br> Output: 5 Watts


 wats
$\begin{array}{ll}\text { Cat. No. } \\ \text { Set of } \\ 3 & \text { Tubes }\end{array}$
$\$ 3.84$
Model A-11 Push-Pull Pentode Output Model

Output: 7 Watts
Cat. No. 7055. Requires 1-224A (or 57), 2-247,
 Cat. No. 7056.
\$3.60
Set of 4 R.C.A. Tubes.
Portable Battery Operated "Coast-to-Coast" Amplifiers
Any A. C. operated Amplifier described on this page can be furnished for exclusive battery opD. C. Jensen Dynamic Speaker. The Tubes are lit from, a car storage battery. External " $B$ " and "C" batteries are also required. Due to carcful design, and low wattage consumption
characteristic, there is a minimunt drain imposed characteristic, there is a minimum drain imposed on the batter
a long time.

Watts "A" "B"
 "C" YOUR A-9B $1-236,1-42 \quad 3 \quad 6 \mathrm{~V} .250 \mathrm{~V}$. $161 / 2 \mathrm{~V} . \$ 33.50$ $\begin{array}{lllllll}\mathrm{A}-9 \mathrm{~B} & 1-236, & 1-295 & 5 & 6 \mathrm{~V} . & 250 \mathrm{~V} . & 161 / 2 \mathrm{~V} . \\ \mathrm{A}-10 \mathrm{~B} & 1-236,50 \\ \mathrm{~A}-11 \mathrm{~B} & 1-236,2-42 & 7 & 6 \mathrm{~V} . & 250 \mathrm{~V} . & 161 / 2 \mathrm{~V} . & 44.50\end{array}$ $\begin{array}{lllllll}\mathrm{A}-11 \mathrm{~B} & 1-236, & 2-42 & 7 & 6 \mathrm{~V} . & 250 \mathrm{~V} . & 161 / 2 \mathrm{~V} . \\ \mathrm{A}-12 \mathrm{~B} & 2-237,3.46 & 10 & 6 \mathrm{~V} . & 270 \mathrm{~V} . & 33 & \mathrm{~V} . \\ 52.50\end{array}$ $\begin{array}{lllllll}\text { A-13B } & 2-237,3-46 & 13 & 6 \mathrm{~V} . & 315 \mathrm{~V} . & 33 & \mathrm{~V} . \\ 58.50\end{array}$

## Portable Case

Availabie without Amplifier Speaker or Control Board Equipment. Size $181 / 2 \times 10 \times 11 \mathrm{in}$. tall. Note complete view in upper right hand corner
this page. Cat. No. 7450
\$5.50

These highly satisfactory portable amplifiers are installed within attractive and durably constructed leatherette finished portable cases measuring self-contained MATCHED JENSEN DYNAMIC SPEAKERS and ture self-contained MATCHED JENSEN DYNAMIC SPEAKERS and
a complete "COAST-TO-COAST" All Purpose Control Panel Board. There is provided ample space for housing of microphones, batteries, and all other necessary cquipment. Every one of these amplifiers can be supplied to furnish D.C. field excitation to not only the dynamic Speaker FURNISHED AS REGULAR EQUIPMENT WITH EACH
AMPLIFIER, but, it can also furnish D.C. Field Excitation to ONE AMPLIFIER, but it can also furnish D.C. Field Excitation to ONE
to TWO ADDITIONAL 2500 ohm D.C. DYNAMIC SPEAKERS, each one of which can be installed within similar portable cases as illustrated, or, installed behind any baffle board arrangement. For incorporating this addlitional provision, there is an additional charge of
$\$ 3.50$ per each additional speaker! The dominant thought behind tbe engineering design of these amplifiers was LOWEST POSSIBLE WATTAGE CONSUMPTION, so as to enable the optional use of the "COAST-TO-COAST" AUTO A.C. POWER UNIT, operating from an automobile storage battery-naturally, these annpliners can also be operated from any 110 volt,
$50-60$ cycle A.C. sochet, therefore, they are fully flexible in a.C. socket, therefore, they are fully trol Board provides perfect impedance matching of the microphone (either single or double button) to be used, as well as phono. pick-upi BE OF MICROPHONE AND PHONO. PLCKPH you will use. A switch is provided for VHONO-RADIO selection. Universal Input Volume Control, Tone Control. Microphone But-
ton Current Control and Switch. Permits vour ton Curtent Control and Switch. Permits vour
voice to be blended into and upon a musical background if so desired. A phone plug jack is provided for insertion of a 0 to 25 Millianımoter, for Microphone current readines. Full accessiility to the interior is provided by means of hinging covers. The Jensen Speaker is mounted behind a BAFFLE which covers the entire
length and width of the case. of the case.

## Exclusive and Valuable Features!

 Contain the following innovations: A. C. Line Switch, Binding Post Terminals for Radio Input, Phono. Pick-up or Microphone. The use of a 224A or 57 as the 1 st A. F. tube (always the dream of radio experimenters and set builders) in its now improved form permits tremendous input Gain far in excess of that feebly accomplished by less sensitive input tubes. Construcfed upon a sturdy, nicely plated nietal chassis. Provided with line cord and plug. All vital and sensitive components heavily shielded-all cirstable and hum-free reproduction. Fore-thought in construction design has made possible extreme light-weight. in truth, a Portable! (The various models average 30 lbs . each). Any novice can operate this amplifier five minutes after you receive it!
## USER AGENTS:

There Is Big Money To Be Made Renting These Amplifiers! A Few Rentals Will Quickly Pay Back Your Total Investment! Be the First In Your Neigh. borhood To Establish Yourself As An Official "COAST.TO.COAST"' Sales Specialist!



Kear Viem-N ote Lavge
Baffle Chamber Area-Asoures Perfact Reproduction

All Amplifiers Listed Below Are Furnished Completely Assenbled, FACTORY WIRED and LABORATORY TESTED. They Include a Portable Case, Control Board, JENSEN MATCHED DYNAMIC SPEAKER and BAFFLE BOARD

## Model A-12 Four Stage Push- <br> Push Class "B" Power Amplifier

Output: 10 Watts
Cat. No. ${ }^{7057 .}$ Requires R.C.A. Tubes. WATTAGE
CONSUMPTION: 50 WATTS
$\$ 59.50$
Cat. No. 7058.
$\$ 5.03$

## Model A-13 Four Stage PushPuish Class "B" Power Amplifier

Output: 13 Watts
Cat. No. 7059. Requires 2-56, 3-46, 1-82 R.C.A.
Tubes. WATTAGE CON-
SUMPTION: 54 WATTS..
$\$ 69.50$
Cat. No. 7060.
Tubes.
$\$ 5.03$

## Additional Portable Jensen Dynamic Speakers

Cat. No. 7061. Housed in same case as above described and illustrated. 2500 ohm D.C. model. Can be placed any distance fromam- $\$ 12.50$
plifier. Requires 5 Conductor Cable. $\$ 10$.

## Portable Class "B" Amplifiers

Models A-12 and A-13 are designed to be used in conjunction with any dynamic speaker, obtaining its field excitation from a source external from its poner pack, such as 6 volt D. C. dynamic speakers, which can be excited by the car storage battery. The reason for this is to reduce the wattage consumption so as to enable the use of a Coast-to-Coast Auto A. C. Power. Unless specified, iee will include a 6 volt Jensen D. C. Dynamic Speaker. (If you desire a 110 volt A. C. operated Jensen Dynamic Speaker installed instead, add $\$ 5.75$ to your remittance.)

## "COAST-TO-COAST" 5 TUBE TWO STAGE DUAL PUSH-PULL PENTODE 247 PUBLIC ADDRESS AMPLIFIERS

Produce Amazing Volume With No Distortion Due to Use of Tuo Push-Pull Stages, and Give Remarkable Fidelity of Reproduction! An Excellent Radio Tuner, Phono Pick-Up, and Microphone Amplifier.

## "Coast-to-Coast" Table Cabinet Model Electric Phonograph and Amplifier



The amplifier in combination is Model A-35 illus trated and fully described to the net istself is in.
deed beautilul enough in design, finish and conit worthy of the most discriminat ing purchaser, with an apprecifurniture
nade of the finest woods. The hinged top is so con-
structed that it allows ample room for the phono. accordingly be closed while in operation, 1 a baffled and will reproduce with thrilling realism aree from raspy sounds or distortion. A Tone provided and
Combines a Microphone and Radio Tuner 71⁄2 Watt Amplifier, G. E. Electric Phono. Motor and a Phono. Pick-Up. Cat. No. 6944. Complete scribed and illustrated-state tubes desired-Ready $\$ 56.90$
for Immediate Use.
Cat. No. 6945 , Same as above. NAt equipped with a COMBI Phono. Pick-up and
Phono. Motor. . . .


Due to the unique circuit employed and tube arrangement, this ampliter is in
usually well suited for
HICROPHONE use. For the average requirements Public Address Amplifier. this model knows no superior. Suitable for sound trucks, cars, auditoriums, churches,
schools, dance halls. etc. POWER CON

Models Available Requiring Latest Type Tubes
Our standard noole1 employs 2-224A, furnish these amplifiers to use 227's 56 's or 5 ;'s instead of the $224 \mathrm{~A}^{\prime} \mathrm{s}$; ; $24-42$ (Heater Type Pentodes) instead of 247 's. the 280 .


Constructed upon a rigid and durable steel chassis handsome black crystalline finish 1) $131 / 2$ in. long,
$97 / 8$ in. wide, $83 / 4$ in. high. The vital components. such as over-size power transformer, heavy duty filter condensers, audio transformers, filter chokes etc., etc. are housed within readily removable steel cases. These amplifiers have been skilliully engineered throughout. The "Semi-Assembled" models wired, and the explicit diagrams furnished assure your successfu expmotiograms its simple wiring Contain the foll completion its itures: Tone trol, Volume Control, Phono-Radio and MicrophonSwitch. A.C. Line Switch. The Standard Stock Model furnishes field excitation to a 1000 ohm Dynamic Speaker. Has 3 Twin Jacks, one for Radio Input. Phono. Pick-up or Microrhone, and Additional Dynamic Speaker (A. C. type). Can be furnished to supply field excitation to up to additional 2500 ohm type D.C. Dynamic Speakers. Connections to all the speakers are made by virtue of 5 prong speaker sockets and plugs located in the rear. Up to 5 A.C. type Dynamic Speakers may be used as well as the D.C. type Dynamics reierred to. or. 100 Magnetic Speakers can be thusly used. A protective fuse block is self-contained. In you desire to use this Amplifier with an
add $\$ 3.50$ to your remittance; if you wish to em ploy more than one D.C. Type Dynamic Speaker o adapt the ampliner accordingly, include $\$ 2.65$ additional for each additional speaker you will use beyond the one D.C. Type. If you desire the amplifier to furnish "A-B-C" A.C. and D.C. voltage to ANY Radio Tuner, add $\$ 4.75$ to your re mittance, and state the "A-B-C" voltage require ments of the Tuner in question. For $110-120$ volts 50-0́0 cycle A.C.; models available for all other voltage requirements. Requires a phono. input and microphone input transiormer or preferably a COAST-TO-COAST TNPUT CONTROL board. Model A-35

## Cat. No. 633 g . <br> $\$ 21.50$ <br> Cat.Nssembled. FACTORY WIRED <br> Ready for Immediate Use <br> $\$ 27.50$ ${ }^{2}$   SPEAKER <br> MATCHED Cat. No. 6943.1000 or 2500 ohm MATCHED WRIGHT DE COSTER $12 \mathrm{in}. \mathrm{diam}. \mathrm{\$ 14}$. DYNAMIC SPEAKER ...........

## "Coast-To-Coast" Class "B" All Battery Operated Four Stage 10 to 25 Watt Output Phono-Microphone and Radio Tuner Sound Truck, Automobile or

 Auditorium Public Address Amplifier RCA Tubes Employed: 2-56, 3-46.

Remarkable Battery Drain Economy

## Until the advent of the recently released 46 Tube

 it was not feasible or economical to operate anylarge output Public Address Amplifier. However, this tube and its associate Class "B" circuit has made this much needed battery operated amplifier possible, for the following reasons: While no signal is impressed on the amplifier, the total "R" battery drain of all the 5 tubes employed herein is only 38 mils! While in opera. tion, producing 25 watts, less than 160 mils. are required, whereas only, 120 mils are required, that matter, the amplifier can be made to produce only 10 watts, and then it will only. consume 102 mils! The total "A", filament drain from a car storage battery, if used far Sound Truck Purposes, is only $31 / 2 \mathrm{a}$ Amperes! Yout will also require a 33 Volt "C" batiery, which should last

## CIRCUIT THEORY

An Input Jack is connected directly to the grounded Chassis, and to the grid of the 1st
 MICROPHONE or PHONO. PREAMPLI-
matching transformer, or microphone can be directly connected to this input jack. A radio tuner is connected automatically to the 2nd 56 tube, by means of a switch, If desired, such input transformers can be self-contained resistance chassis. The output of this tube is which in turn is coupled to a Class " $A$, f. stage, 46 , third A.F, stage. The 46 Class "A" amplifier tube in his third A.F. stage is designed to supply the Push-Push ${ }^{\text {necessar }}$ Output Tubes, the two 46 Class "B" signed step-down transformer. The tremendous A.F. voltage peaks therein produced are fed through a specially designed, self-contained highly nsulated specially transformer having an output mpedance of 4,000 ohms. In addition to this mpedance transformer just mentioned, there is reoutput transformer just mentioned, sfore is re-2000-2000 ohm primary. It should be equipped with special tapped secondaries, only when more whan one dynamic speaker is to be used.

Can Be Furnished with All-Purpose Output Transformer (2000-2000 Ohm
Primaries) for All Types of MultiSpeaker Installations
This Amplifier can be used with a choice of rage bat tery) D.C. Cone Type Dynamic Speakers, Permanent Magnetic Dynamic Speakers (require no field excitation!) MULTI-SPEAKER INportant versified sound distribution over large areas, and, at the same time, preventing blasting and rattle with subsequent possible speaker damage, inasmuch as the full outputs of the amplifier with its high wattage peaks, will thusly not be confined to one Speaker unit. As a rule. the average horn or cone type dynamic Speaker is designed General Features

[^3]
## FULLY ASSEMBLED (UNWIRED) OR FACTORY WIRED

"Coast-To-Coast" 7 Tube Automatic Volume Control-Push-Pull DetectionVisual Tuning-10 K.C. Super-Heterodyne Tuners
Incorporates Latest Innovations and Improvements of Both Electrical and Mechanical Nature . . . Represents Highest Possible Standards of Radio Tuner Design Perfection!

## Available With or Without Self Contained A.C. Power Packs <br> 

## Employs R.C.A.'s Recently Released Tubes: 4-58, 1-56, 1-55, 1-280.

Modern Chassis Construction and Carefully Engineered Layout Assures Maximum Performance and Absolute Simplicity
The simple plans and diaarams included will enable any novice to successfully wire this remarkable receiver-and its pertormance will equal
that of any factory built chassis! Here are that of any factory built chassis! liere are
some of its valuable features! Visual Meter some of its raluable features!
Tuning: lis watching the deflection of the indicator, you are automatically apprised when Perfect Resonaftce has been established-in valuable for elinination of distortion! Automatic Volume Control: Maintains equation of volume, not exceeding a certain degree, to suit your tastes-
prevents undue blasting areatly increasing your enjovment of Radio! Push.Pull Linear Power Detection: Completely rectifies both carrier bands, fermitting arcater detection action, greater sensi-


## "Coast-To-Coast" Two Stage Dual Push-Pull Triple Twin Phono-Radio Microphone 13 Watt Auditorium and Public Address Power Amplifier

Three Models Available Pernit Universal Sound Truck, Automobile and Indoor Application
Model A-6 is entirely A. C. operated and is designed for use either on any 110 Volt, 50-60 Cycle A. C. source of supply, or, due to its re-
markably low wattage consumption of only 85 watts, this model can also be employed with most any rotary converter, fed from either a 6 or 12 volt storage battery. Model A-7 amplifier
is mainly designed for use in sound trucks and cars, where it is desired to employ the "COAST-TO-COAST" 65 WATT OUTPUT AUTO A. C. POWER SUPPLY; in that event, the are heated DIRECT from the car storage battery, and the dynamic speaker employed should then be either of the 6 volt D. C. field type (connecting also to the storage battery) or, it should be the permanent magnet type. By lighting the tube filaments and employing the Speaker as just prescribed, 40 Watts less are necessary to be furnished by an automotive A. C. Power Supply! Model A-8 Amplifier is entirely battery operated, consuming 5 amps. at 6 volts, "and, 120 mils. at 260 volts (requiring $6-45$ volt "B" batteries) the battery operated model ALSO PRODUCES a 6 volt D. Cor permanent magnet) dynamic speaker is included, with respect to storage battery wattage consumption!

## Mechanical and Electrical Features

Built upon a heavy gauge attractive black shriveled Steel Chassis of great rigidity. A bottom plate is furnished. All the vital component parts, Condensers, and Interstage Audio Transformers are bolted to the metal chassis proper. and three separately removable steel Shields cover them. senarately removable stee sill dimensions of the chassis are $131 / 2$ $\times 97 / 8 \times 83 / 4 \mathrm{in}$. tall. The Power Transformer is air-cooled. A Trinle Choke Filtering System employed assures Hum-Free operation and reproduction, even if a Radio Tuner is used with this Superb Amplifier. The Interstage audio transformers are designed to give a flat frequency
response curve from 30 cycles up to 10,000 cycles.

A pleasingly effective Tone Control and snoothly graduated Universal Volume Control serve a much needed purpose. Three separate Twin Jacks are provided: one for additional speakers (of the A. C. Dynamic or Magnetic Types) ; one for Phono-Pickup or Microphone (or COAST TO-COAST CONTROL BOXES), and the other for Radio Tuner Input. Two Switches are provided: one for the power line, one for Phono Radio. Provision is made on the rear of the chassis for the installation of up to 3 or 4 UY Sockets, to serve as terminals for either additional D. C. dynamic speakers

Provides D. C. Field Excitation to from 1 to 4 Dynamic Speakers
The standard model A- 6 with wattage consumption figures above stated, furnishes field excita tion to one 1,000 ohm D. C. Dynamic Speaker. On the other hand, it can be designed to furnish D. C. Field Excitation to as many as 1 to 42500 ohm Dynamic Speakers, of any type, at an additional charge of $\$ 4.50$ per each addi tional speaker employed, beyond one. If you do not care to use a D. C. Type Dynamic Speaker on the Model $A-6$, and wish to use an A. C Dynamic Speaker insteaf, or a 6 volt $D$. C. Dynamic or Permanent Magnet Dynamic Speak ers, there is an aditional charge of ${ }^{\$+.75}$ for CUT DOWN THE WATTAGE CONSUMP-正, from 85 WATS

Models $A-7$ and $A-8$, deriving their field excitation from an external source, can be used with any number of speakers.

## SpeciEications

[^4]

All Amplifiers Below Listed are FACTORY WIRED and LABORATORY TESTED Ready for Immediate Use. Model A-6
Cat. No. 7071. For 110 Volts, $\$ 42.50$
 RCA Tubes, 2-295 Triple Twin Tubes, 1-82 RCA Mercury Vapor Rectifier
\$6.84
Model A-7
Cat. No. 7073. Requires 45 Watts of 110 volts $50-60$ cycles A. C. and 5 amps. Batter and on
$\$ 39.50$ Cattery No. $\operatorname{HO} \mathrm{O}_{4}$.'. TUBES REQUIRED: 2-236 RCA Tubes, 2-295 Triple Twin Tubes. 1-82 RCA Mercury Vapor
$\$ 8.18$

## Model A-8

## Fully Battery Operated

Cat. No. 7075. Requires 260 Volts "B" Battery at 120 Mils. ; and 6 Volts D. C. at $5 \$ 32.50$ Cat. No. 7449 TU TES REQU IRED:
2-236, $2-295$ Triple Twin Tubes ...... $\$ 70$

# "COAST-TO-COAST" 50 WATT CLASS "A" DUAL PUSH-PULL 3 STAGE SUPER-POWER PUBLIC ADDRESS AMPLIFIER 

Tubes Required in Voltage Amplifier Unit: 1-56, 2-46, 1-83 (or 82) Tubes Required in Power Output Amplifier Unit: 2-845 (or 545), 2-866.


Embodies Latest Perfection in P. A. Amplifier Circuits
Consists essentially of two amplifiers, each having its own independent power supply, and each employing its own MERCURY RECTIFIER TUBES!
The standard model has a universal input impedance of 150,000 ohms; however. if desired, we can furnish this amplifier with an input impedance of either 50,200 or 590 ohms. By matching the output of any Radio Tuner, Carbon, Condenser, I)ynamic or Crystal Microphones, any Phono. Pick-up., Sound on-Film or Sound-on-Record "Talkies", etc., this superb amplifier can be used therewith. The input is fed through a graduated Volume Control into a ist A.F. stage 56 tube, the output of which is fed into a Class. A', Push-Pull stage employing two 46 tubes. which in turn are
coupled to the two 845 FIFTY WATT TUBES, loy means of a specially desigued push-pull interstage transformer. recondary winding and a 15 has winding, at 4 and 8 ohnis, making possible the use of at 4 and 8 ohins, making possible the use of

1. $2,4,6,8$. 16 , etc. 8 or 15 ohin D.C. and 1. 2, 4, 6, 8. 16 , etc., 8 or 15 ohin D.C. and

Other Valuable Features
Provided with TONE COMPENSATOR; Dual Action Power Supply
Mercury Rectifiers)
Inditches (essential for 866
Rheostats and Mercury Rectifiers); Individual Rheostats and
Switches for each 845 Tuhe, for control of "C", Switches for each 845 Tube, for control of "C"
Bias and simultaneous control of plate current of the 845 tulies. A WESTON 0 to 100 Milliammeter is your accurate guidance for ob-
taining this necessary flexible control; all the vital units, such as power transformer, filter condensers, filter chokes, audio transformers, etc. are housed in separately removable steel shield cases; handsome black crystalline finish; rigid chassis con struction, measuring 18 in. long, 18 in. wide, $81 / 2$ in. tall (exclusive of 50 Watt tubes). Each filter condenser lead in the 845 amplifier unit is wired in series with a protective fuse, and each amplifier Total wattage consumption: 425 Watts. For 110 Total wattage consumption
Volts, $50-60$ Cycles A.C.

Voltage Amplifier Unit Can Furnish D.C. Field Excitation to 1 to 61000 Ohm or 2500 Ohm RACON-RCA-Wright De Coster or Jensen Dynamic Speakers
The standard model is furnished without provision for D.C. field excitation, but, at a cost of $\$ 4.75$ per speaker we will include provision for D.C. Field Excitation. This includes an unique field excitation switching arrangement that permits your selection of as many speakers playing at one tinte, as desired, from 1 to 6 such speakers 1

Produces Gigantic Volume With Thrilling Realism of Reproduction
Ideal for coverage of all huge outdoor gatherings, such as political meetings, stadiums, race tracks, sound trucks and for large auditoriuns and convention halls seating up to 20,000 people! Exceptionally ideal for multi-speaker installations, for extrenue diversification of sound, such as by means of 6 to 8 Racon or Jensen type units, each one producing its maximum continuous audio output
power.
By employing suitable Racon Units and Directional Exponential Horns, amazing sound coverage is effected, ranging from $3 / 2$ to 3 miles, depending on locations!

## Model A-41

Cat. No. 6896. Semi-Assembled,
Cat. No. $\because 89 \%$. ${ }^{\text {Unuired }}$ Asesmbled
\$125.00
Wired No. Fuly Asesmbled and Factory Use. ............................... \$153.00
Cat. No. 6898. Set of 8 RCA Tubes $\$ 67.69$ (2-845, 2-866, 1-56, 2-46, 1-82 (or 83) $4<1$
(NOTE: You will require either 6 to 8 Racon, Jensen or Wright De Coster Dynamic Speakers, or, 2 Jensen 30 Watt Dynamic Speakers with This Amplifier installation.)

Convert Your Present Amplifier Into a
50 Watt Output Public Address Amplifier


TUBES REQUIRED:
$2-845$ (545) 50 Watt Tubes, and Two 866 Mercury Rectifiers

This unit is the identical one illustrated and described to the left-you will recognize it in the foreground of the illustration referred to. This pull AT puald (rom single) power ampliner, by bringing two pras from the plates of the ounput tubes thy 50 Wresen ampIT Yery simple instruction are fur nished $100 \%$ satistaction is instured ! Your ar-nisifed-will thus conprise in assur a substitute ior the VOLTAGE AMPLIFIER CNIT described to the left. This 50 WATT UXIT can be astached to any amplifier (even a Radio Receiver 1), em. ploying one or two power output tubes, such as 17 liA, $245,247,250,210$, etc. When employing this 50 WATT UNIT. external provision has to be made for D. C. Feld excitation, for horn or cone type units. For a thorough and detailed description of this amplifier, you are referred to the description to the left

## Model A-40

Cat. No. 6936. Semi-assembled, Un- $\$ 99.50$
Cat. No. 6937 . ${ }^{\circ} \mathrm{U} L \mathcal{L} Y$ ASSEMBLED and FACTORY WIRED. Ready for \$119.50 Cat. No. 6938. Set of 4 RCA Tubes 864.30
(2-845, 2-866) .....................

NOTE: We Can Furnish These Single or Double Channel 50 Watt Class "A" Amplifiers in Rack and Panel Form, as Listed Elsewhere in This Catalog

## "COAST-TO -COAST" 20-25 WATT CLASS "B" AUDITORIUM AND PUBLIC ADDRESS AMPLIFIER SUPER-POWER BOOSTER

Intended for Couping TO ANY EXISTING RADIO RECEIVER OR POWER AMPLIFIER, Thereby Converting Same Into a 20-25 Watt Class "B', Amplifying System!


Essentially consists of the two lassentiages of either Model A-4 or A. 5 (Cat. Nos. 7039 or 7042) as described on page any novice to couple this Class "B" Push -Pull Amplifier to ANY Punh-Pull Amplifier to Alifier Receiver or Power Amis attach the input adapters furnished withe input adapters furpower output tube for tubes, in the case of push-pull outpute) In some cases, you actually connect these input adapters to the A.F. Stage tube preceding the power output stage. The only other thing to do is disconnect your present speaker, by onening the voice coil thereof, in accordance with the utterly simple instructions furnished ! What ever has been reconmended as suitable speaker equipment with Models A-4 and A-5 Class "B" Amplifiers, applies exactly to these Models A-15 and A-16, as well as their corresponding Battery Operated brothers, Models A-15B and A-16B. We therefore refer you to the pages in this catalog on which are listed suitable speakers for this remarkable amplifier.

All Amplifiers Listed Below are FACTORY WIRED and Ready for Immediate Use!

## Model A-15

Cat. No. 7129. (This unit corresponds to Model A-4. Cat. No. 7039.) Requires 3-46, 2-82 RCA Tubes. WATTAGE CONSUMPTION: \$59.50
 BATTERY OPERATED. (RCA TUBES REQUIRED': 3-45)

## Model A-16

Cat. No. 7131. (This unit corresponds to Model A-5. Cat. No. 7042.) re
 NOTE: The Battery Operated Model Requires 250 Volts "B" to supply 13 म'ATTS Output, or, 400 Volis "B" to furnish 20 to 25 F.ATTS OUTPLTI (Draws only 35 mils. TOTAL with no Signal impressed on zhis uniti) In either case, $31 / 2$ amps. at 6 volts " $A$ " (or $11 / 2$ amps., at 12 volts) is also required.

# "COAST-TO-COAST" SINGLE AND DOUBLE CHANNEL RACK AND PANEL SERIES CLASS "A" AND CLASS "B" MICROPHONE, PHONO. AND RADIO AUDITORIUM PUBLIC ADDRESS AMPLIFIERS 

## Available in Single or Double Channel lass "A", 12.9, 14, 16, 25.8, 28, 32 and 50 WATTS UNDISTORTED OUTPUTS -And In Class "‘B"' 20-25, 40-50 <br> Outputs <br> Sturdy and Modern-



Front View-Showing Coplete installation of Equipment. Control Panel Super-Heterodyne Tuner Super-heterodyne Channel Class "B" Amplifier.

Single Channel (Em loying One Ampli fier) Rack and Panel Systems are preferred eason that it consti tutes a ONE UNIT Arrangement complete P. A. Equipment in the smallest possible space. offer. ng the advantage o localized control. Dual Channel Rack and Panel Amplifier In TWO ${ }^{\text {stallations }}$ DISTINCT Anplifiers, which fea ture provides for ISTORTED OUT PUT OF ONE AMPLIFIER, or, provides for holding ore ampliner in reserve upted programs upted a programs henly brabe sud denly break in in the amplifier in serv throwing one switc

## A Rack and Panel Installation

 Can Be Purchased in UnitsEssentially, the rack and panel itself is composed of a heavy gauge angle iron super-structure irame firmly strengthened by means of cross pieces of angle iron at the top and bottom, the whole affair being unusually solidly assembled by the generous use of over-size bolts, nuts and lock-washers. For floor mounting purposes, there are provided two in in thick angle stock brackets -if desired. however, the rack and panel does not have to be necessarily bolted to the floor, as the mounting platform extends 20 in on the floor from front to back. The over-ali heights, available are: 45 in . (Ideal for Sound Trucks or Cars), 63 in. and 77 in. They are 19 in . wide (employing standard panels) and 10 in . deep (behind the instrument panels). Duralumin Panels are employed-this metal is an alloy of
unusual strength, yet possesses low weight and has the appearance of being cadmium plated steel -very easy to drill through It is obtainable in any height, in standard widths of 19 in. Shelves are also obtainable as listed below. The rack
and panel frame is separately
obtainable, and $i$ desired, we can furnish in single units, or a com plete installation comprising a "COAST-TO. PANEL a "COAST-TO-COAST" Super-Het. erodyne Tuner Panel, and your choice of any COAST-TO-COAST" CLASS "A" or Class "B" Puhlic address Amplifier, as listed in this catalog. The Input Control Panel is identical in all electrical characteristics to our Cat. No. 7062 Control Box, as listed on page 20 . The Super Heterodyne Tuned Panel is the IDENTICAL one as listed under Cat. No. 7089, on page 15 ${ }_{45}$ If you only intend to employ one amplifier in the 45 in. tall rack, we can provide a special shelf that permits mounting of an electric phonograph motor mechanism and pick-up within the vacant space. In the case of the 63 in, and 77 in. tall nodels,
there is ample space for this provision, even there is ample space for this provision, even when employing two amplifiers!

## How Two Amplifiers Can Be

 EmployedAssuming you are instalnng a dual channel amplifier rack, the following will interest you. A switch on the INPUT CONTROL panel permits the optional use of EITHER or BOTH AM from a common Input source, such as a phono. pick-up, microphone or Radio Tuner. If two amplifiers are playing at one time, the resultant volume is exactly doubled, and inasnuch as each amplifier will be equipped with its own required amount of Speakers ior saie sound output dissipa tion. NO LESS AUD ind ${ }^{\text {and }}$ OUTPUT, when both and lifers are Autio the Pe time. If two ${ }_{20}$ ampliniers are operating at the one time. $20-25$ att Class B Models A-4 or A-S are tem ployed, and both are operating at the one time and assuming you have installed say four Wright De-Coster dynamic Speakers on EACH such am plifier, the dual channel use of these amplifiers will enable the use of ECGHT SPEMKERS EACH ONE REPRODUCING APPROXI MATELY SIX WATTS, thereby providing enormous area sound coverage. Naturally, by feed ing each Spaker only ${ }^{3}$ WATTS. then 16
SPEAKERS CAN BE FUNCTIONING, Etc.
ized Rack and Panel Construction

## The stdes of these frames  Thany part of the interior. sheet metal is perforated, provide maximum ventilation.

45 In. Tall Model Is Splendidly Suited For Sound Truck or Auto. Installation
The condinarit thought in the design of this rack and panel was to make it as compact as
possible for installation wherpossible for installation wher-
ever space is at a premlum. as in sound trucks. There especially dors the exclusive
advantage of complately loadvantage of complately loBear in mind that you can Bear th mind that you can
affect a rental of these re-
markably and l'anel Sinule or A. Systems by installing a Rack and and siruck ine or Double Channel Amplitier in your Sound ruck, and drive up to the rental destination, cables can be strung from the Sound Truck to within cables can be strung From the Sound Truck to within a building if that is where the rental has been contracted for. For further convenience portable dynamic speakers instrlled within suitable portable Celotex employed.

## Any Novice Can Install and Operate a "COAST.TO-COAST" RACK and PANEL AMPLIFIER

The utter simplicity of the installation and operathon of any of these P.A. Systems makes this epulpment highy desirable. Breas-downs are an exception will assure you of complete satisfactory and uninter rupted performance. making these amplifers especially valuable to Theatres. Restaurants. Dance-Halls, Churches. Funeral Parlors, Stadiums, Conventions, Fair Grounds. Political Gatherings. Ali Sound Truck amplications. etc.

For Explicit Details and Information Relative to Each of the Separate Units Herein Employed, Please Refer to Their Individual Descriptions Throughout This Catalog:

Rack and Panels
(Available Separately Less Any Apparatus)
Cat. No. 7112. $\frac{\text { Appall Rack and }}{45 \mathrm{in} \text {. Tall Rel }} \mathbf{\$ 2 6 . 5 0}$
Panel Frame, less Panels and Shelves
Cat. No. 7113. 63 In Tall
Model
$\$ 39.50$
Cat. No. 7114. 77 In. Tall
Model
$\$ 48.50$
Cat. No. 7115. Standard
$\$ 4.50$
 Cat. No. 7116 Standard Panels available any
height, 19 in. wide only. Cut To Order, 2C PER SQUARE INCH
Cat. No. 7117. PHONO-MOTOR $\mathbf{\$ 7 . 5 0}$ BRACKET

## "Coast-to-Coast" Rack and Panel Control Panel

Cat. No. 7117. ALL-PURPOSE CONTROI PANEL (See Descriotion of Cat. No. 7062 on
 wide.
"COAST-TO-COAST" Rack and Panel Super-Heterodyne Tuner Panel
Cat. No. 7119. SUPER-HETERODYNE 7 Tube A.C. Operated Tuner (See Description of Cat. No. 7089 on page 15.) 10 in. $\$ 37.50$
Tall, 19 in . wide ............... $\$ 37$

## Complete Rack and Panel Public Address Installations

We below list complete combinations (less tubes) that enjoy the widest sale among our Trade-you can, of course, order from us, your own version of an installation to better suit your requirements, by ordering separate units.

## Model RPA 17 Rack and Panel Installation

Furnished Completely Installed-Ready For Immediate Use. Includes the Following:
Cat. No. 7118. INPUT Control Panel
Cat. No. 7112. Rack and Panel FRAMEWORK. at. No. 7119. SUPER HETERODYNE A.C OPERATED TUNER PANEL. with mounting shelf.
Cat. No. 7120
$\$ 98.50$

## Model RPA-18 14 Watt

 Single Channel Class " $A$ " Rack and Panel Public Address SystemCat. No. 7121. Consisting of one Model A-1 Cat. No. 6996 Amplifier and one Cat. No. 7120 Model R. P. A. 17 above listed. $\$ \mathbf{1 . 0 0}$

Model RPA-19 28 Watt
Double Channel Class "A" Rack and Panel Public Address System
Cat. No. 7122. Consists of TWO Model A-1

listed.
\$203.50

## Model RPA-20 20-25 Watt <br> Single Channel Class "B" Public Address System

Cat. No. 7123. Consisting of ONE Cat. No.
7042 Model A-5 Class "B" Amplifier and Cat. 7042 Model A-5 Class "B" Amplifier. and Cat
No. 7120 R. P. A. 17 above listed.
\$187.00

## Model RPA-21 40-50 Watt <br> Double Channel Class "B" Public Address System

Cat. No. 7124 Consisting of TWO Cat. No ${ }_{7042}$ Model A-5 Class "B" Amplifiers. and Ca No. 7120 Model R. P. A. 17 above $\$ 275.50$ listed.

## Model RPA-22 50 Watt <br> Single Channel Class "A" Public Address System

Cat. No. 7125. Consisting of One Cat. No. 897 Model No. A-41 Class "A" Amplifier and Cat. No. 71200 Model. R. P. A. 17.
above listed.
$\mathbf{2 4}$
$\mathbf{8 . 5 0}$
above listed.

## "COAST-TO-COAST" COMPLETE AUDITORIUM AND PUBLIC ADDRESS AMPEIFIER INSTALLATIONS

A* Publir Address Amplifier Installation Special ists, The House of "COAST.TO-COAST"" is in the best position to offer suggestions relative to suit able P. A. installation equipment. The Public
Address Systems belosc listed represent Address Systems belouc listcd represent three
complete installations for which there has been complete installations for which there has been the greatest demand. You will note that they range in undistorted wattage outputs in a veide enough variety to make one of the complate P. A. Installations best suited to serve your sound coverage requirements. For the sake of avoiding needless repetition, the separate com-
ponents embraced within each installation, such as Power Amplifiers, Control Boxes, Mirrophones, Eic. are not described below, but mention is made to the catalog number of earh apparatus inrluded, so as fo enable you to refer to each ndividual description in this catalog. Each outfit has been attractively priced, and accordingly represents a substantial saving. Complete detailed instaltation instructions and diagrams ara furnished, actually enabling any novice to install he equipment in very litile time and with every surcess! fll these amplifiers are F.1CTORY

FIRED and Laboratory Tested-Ready for Immediate l'sed For olvious reasons, mee do not include in any of the P. A. Systems below listed he follorcing incidental accessories, as they repesent an unknoun quantity to us: Microphone Cable, Speaker Extension Cable, Etc. If you deire to substitute any of the equipment for other apparatus listed in our catalog, you are at lib. erty to do so-merely deduct the coss price of he item you do not desire, and acld on the cost of the preferred item of equipment you have selected in its place.

NOTE: we will permit minor changes as to your preferential equipment requirements at no additional cost.

## "COAST-TO-COAST" 20-25 WATT CLASS "B" AUDITORIUM PHONO-MICROPHONE-RADIO TUNER P. A. AMPLIFIER INSTALLATION

## $\$ 26000$



Each One of the Four Wright de COSTER DYNAMIC SPEAKERS Provides 5 to 6 W'atts Undistorted Output-Can Be Situated ANY DISTANCE from The Amplifier and Individually Controlled.
Model PA 1-23 Public Address Installation The COMPLETE 20-25 WATT CLASS "B" P. A. INSTALLATION HEREWITH ILLUSTRATED CONSISTS OF THE FOLLOWING EQUIPMENT:
1 Cat. No. 7041. Model A-5 "COAST-TO-COAST"' Class "B"' Amplifier.
Additional for Providing D. C. Field Excitation
1 Cat. No. 7043. Set of 6 R.C.A. Tubes. ${ }_{1}^{2.56 .}$. ${ }^{3-46 .}$. ${ }^{1-83}$.



1. Cat. No. 5760. "COAST-TO-COAST" BROADCAST STUDIO DOUBLE

BUTTON MICROPHONE
${ }_{4}^{1}$ Cat. No. 6346. ${ }^{72}$ Inch Tall Telescope Microphone Stand.
 MATCHED OUTPUT-VOICE COIL IMPEDANCE TRANS 58.00 FORMER ............................................................ FORMER ...
SPECIAL OFFER

## "COAST-TO-COAST" 14 WATT CLASS "A" AUDITORIUM PHONO-

 RADIO TUNER AND MICROPHONE P. A. AMPLIFIER INSTALLATIONEach One of the Two WRIGHT-DE COSTER DYNAMIC SPEAKERS Provides 7 W' ATTS Undistorted Output-Two or More Additional Speakers May Be Employed MODEL PA 1-24 Public Address Installation
THE COMPLETE 14 WATT CLASS "A" P. A. INSTALLATION HEREWITH ILLUSTRATED CONSISTS OF THE FOLLOWING EQUIPMENT:
Cat. No. 6996. Model A-1 "COAST-TO-COAST", Classs "A" Amplifer $\$ 52.50$
Cat. No. 6997. Set of R. C.A. Tubes:

Cat. No. ${ }^{5422-A}$. Combination 78 R.P.M. and $331 / 2$ Elec. Phono. Motor
Cat. No. 5431 . Combination $331 / 3$ and 78 R.P.M. Phono Pick
Cat. No. 6829. Double Button Carbon Microphone Phono. Pick-up. .
Cat. No. 634.6. 72 In. Tall Telescope Microphone Stand

Total
Cat. No. 7144. SPECIAL OFFER
$\$ 175.00$

"COAST-TO-COAST" 7 1/2 WATT CLASS "A" SMALL AUDITORIUM PHONO-RADIO TUNER-MICROPHONE P. A. AMPLIFIER
$\$ 8500$


MODEL PA 1-25 PUBLIC ADDRESS INSTALLATION THE COMPLETE $71 / 2$ WATT CLASS "A" P. A. INSTALLATIOV HEREWITH LLLUSTRATED CONSISTS OF THE FOLLOWING EQUIPMENT:
1 Cat. No. 6940 "COAST-TO-COAST" Class "A" Dual Push-Pull Pentode Amplifier 1 Cat. No. 6941 Set of R.C.A. Tubes: 2-57, 2-247, 1-82

Cat. No. 2957 GENERAI, ELECTRIC PHONO. MOTOR. Cat. No. 5431 Phono. Pick-Up.
Cat. No. 5505 Model "X"Unive
1 Cat. No. 5505 Model "X"' Universal Double Button Microphone.
Cat. No. 182372 In. Tall Trlescope Microrhone Stand. No. 6942 JENSEN
Transformer


## INSTATLATION

Cat. No. 7145. SPECIAL OFFER
(NOTE: If you desire a Combination $331 / 3$ and 78 R.P.M. Phoro. Motor and Pick-Up, include $\$ 2.00$ additional)

## Janette Filter Equipped "Auto-B-Power" Units

Has a dynamically
balanced armature thus it runs with a minimum of viinaudible placed under the hood. floor hoards or seats. Requires measures only 12 $\times 6 \times 5 \frac{1}{2}$ in. Due to an effective Filter, radio reception with this "Auto-B-Power" rivals that obtanable with dry batteries. A dynamically
balanced armature with ball bearings and fully balanced armature with ball bearings and fully
enclosed construction assure quiet operation. The
dynanvotor, or current-transforming unit is built dynamotor, or current-transforming unit, is built with a stee irame and laminated steel pole pieces.
Requires practically no attention lieyond lubrication once a year. The dynamotor itself is fully enclosed, and the complete unit is enclosed in a splash-proof steel box. Double-wound dynamotor delivers pure D. C. in a continnous flow, similar to battery current. Equipped with a vari. able voltage divider and taps. Maintains a constant ratio between the " $B$ " voltage and the tap voltage; thus preventing distorted reception due to unbalanced voltage.

|  | $\begin{aligned} & \text { In- } \\ & \text { put } \end{aligned}$ | Output | Bat | ry Drain in Amps. | Complete with <br> a Variable Voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. | Volt- | Volt- | At 25 | At 40 At 50 | Divider and |
| No. | age | age | M.A. | M.A. M.A | extra Taps |
| 5682 | 6 | 135 | 2.3 | 2.83 .0 |  |
| 5683 | 6 | 180 | 2.5 | $3.0 \quad 3.5$ |  |
| 5684 | 12 | 135 | 1.15 | 1.41 .5 |  |
| 5685 | 12 | 180 | 1.25 | 1.51 .75 |  |

Sterling "R-81" 180 Volt "B" Eliminator


Operates 3 to 8 tube sets (including power tubes). Tises 13 H type rectilying tube. Has four switch. All voltages are variable with verfect power regula-
tion. Operates from $110-120$
 volt, S0-60 cycle A. C. current. cellence of its products and its cellence of its products and its one is admittedly one of the hest procurable Size: $71 / 2 \times 41 / 2 \times 51 / 2$ in
Cat. No. 5729
\$6.75

## Auto "B" Power Unit

Delivers 180 Volts D. C., 40 M. A.

"Pines-Winterfront" Automobile "B" Power Eliminator

(a)It consists of a rery efficient motor in combination with a rotary transformer. It refrom the regular car 6 Volt "A" battery. Delivers a smooth $D$. C. voltage to the transformer shait is journaled in highest quality oil-packed ball bearings, and the entire unit is encased in a dust and moisture proof housing, Water. slush or extremes of temperature do not in any way affect its operation any efficien-y. The installation is very simple as the space required is only $5 \frac{3}{6}$ in. $\times 8$ in., and is $61 / 4$
in. deep. No cutting of floor boards or alterations are necessary. It bequires or other alterations are neoessary. It requires approxi-
mately one-third of the space required for ordimary "B" batteries.
Cat. No. 5680. Output 135 Volts, $\mathbf{\$ 1 9 . 9 5}$

"Coast-To-Coast" Combination Automobile or Sound Truck GENERATOR Producing Optional Choice of 6 Volts D. C. and 110 Volts 60 Cycles A. C. 200 to 450 Watts
Driven by Fan Belt-Draws NO CURRENT from Auto Storage Battery! Governed Clutches Maintain Even and Constant Voltage Irrespective of Speed of Car Motor!

## Excellent for SOUND TRUCKS and AUTOMOBILES



This extremely valuable device replaces the present car generator, which caly fumishes D. C. current for clarging the car storage bat-
tery. Occupies very iittie more space, approximately 15 , in, long plus 2 in. for the $3 / 4 \mathrm{in}$. diameter shaft. Ovcrall diameter approx. $71 / 8 \mathrm{in}$. Unique and Effective Voltage Regulation Arrangement These machines are furnished with a special friction clutch which holds the speed of the generator at 1800 RIM when the source of power driving it increases in specd. The machine should be geared or belted, using such a gear ratio or pulley sizes that it will operate at at last 1800 RPM when the driving engine is operating at the lowest speed at which it will operate when the equipment is being
used. As the engine speed inereases, the clutch will hold the used. As the engine specd increases, the clutch will hold the Requires No Trouble to Install in Any Truck or Car A convenient way of mounting one of these machines on the automobile is to support it from the engine by means of some sort of the fan belt. A "V" belt may then be used for driving the generator, the same belt being used as for the fan, the single belt passing over the three pulleys.
The machine is furnished totally enclosed, and ribs are cast in the clutch housing for cooling. The machine should be mounted where it will receive some external ventilation, such as from the fan of the engine. A direct current winding is supplied for furnishing its field excitation, and this drect current windins may also be used to charge the car storage battery. The total ontput of FOOL-PROOF IN OPERATION AND FULLY GUARANTEED!

Cat. No. Total Watt
Current
Your Cost
$\$ 117.50$ $\$ 120.50$
\$144.50
NOTE: If the 6 Volt D.C. Winding is not necessitated, the available A.C. Wattage is increased proportionately.

[^5] <br> \section*{Cat. No. 6357 <br> \section*{Cat. No. 6357 <br> Cat. $^{\text {No }}$. $6357 \ldots$ OFFER:...if you purchase at one time, both the motor and pick-up above described, the combination price is <br> $\$ 21.50$}

Webster Phonograph Pick-Up Possesses these truly valuable features: Lowutilizing an all-metal utilizing an all-metal pivoting action, eliminates blky construction. Positively no rubber on bearings. Perfect balance is assured . . . Small and compact, perfectly balanced, light in weight Weight of head on record only 5 ozs. No counter-balancing or springs necessary est Hide Cobalt magnet of great est grade Cobalt magnet of greatest possible density is used . Shock absorbing arm bearing arm is arranged so entire pick-up head can be elevated to proper height for inserting can be

Volume control incorporated in base-compact and easy to install... Construction lends tself easily to use of varied construction lends ither standard or ofalting picture record for Cover of pick-up head and arm finished bronze; back of head and base finished in black enamel.
$\$ 7.95$
Truetone Extra Loud Electrically Recorded Ten Record Playing Needle


Brass Plated. Will actually conservatively play 10
Records without Records without
showing signs of Preferred by professional

Cat. No. 6359. Per Packet of 50 Needies 9C Per Display Carton of 50 Packets $\$ 3.95$

Cat. No. 6360. Regular Steel Needle. Plays records once. Per 1,000
$90 c$
Gencral Electric-Victor 300 Record Playing
Tungs-Tone $331 / 3$ and 78 R.P.M. Semi-Permanent Phono. Needles
 Especially designed for playing the electrically
recorded $331 / 3$ and 78 R.P.M. records. Extreme sensitivity produces tremendous volume, yet the needle surface noise is reduced to a bare minimum! Designed to play 300 Records-and all qually well. Fits all phono. pick-up needle chucks.
Cat. No. 6361
95 C

Coast-to-Coast" Combination $331 / 3$ and 78 R.P.M. UltraSensitive Phono. Pick-Up!

In Use by<br>Many Broad-<br>cast Studios,<br>Theatres<br><br>Exceptionally<br>Ideal for Home Use or With Any P. A. Amplifier

The unique leverage principle employed provides for compensation of rising and falling electric phono. motor turn-tables, warped records, ctc. By a cleverly balanced leverage system, just enough needle point contact is permitted, thus considerably reducing needle scratch possibilities. its remarkable sensitivity and all frequency response stamps this pick-up as highly desirablecovers the entire musical register, from 32 cycles clear up!. The self-enclosed volume control serves considerable advantage and useful ness! We hardly believe a better dual speed pick-up is available! Handsomely finished $331 / 3$ R.P.M. and 78 R.P.M. Electro-Chromatic Pick-Up


The proven and
un in
ne rsal al nowledgrment ackAUDAK'S of premacy in the
phono. pick-up
Cat. No. 5426 market needs no

## further elaboration here. Furnished with an ex-

enal volume control.
Cat. No. 5426.
$\$ 9.25$
Phono. Pick-Up "Scratch" Filters Variable Model
Contains a Resonant Tuning Arrangement with a Variable Inductance to Capacity Ratio!

Minimizes the always objectionable scratch, caused by friction Cat. No. control "cuts off" any desired, objectionable cratch frequency, without affecting the actual notes to be reproduced. Used in many talkingr moving picture sound installations. Can be atand input of amplifier are plise of both pick-up, and input of ampliner are plugged into convenent tip-jacks. Enclosed in an attractively finished, steel case, with mounting flanges. (May lso be mounted behind a panel, with control knob facing the operator.)
Cat. No. 2546. Complete with Variable $\$ 5.95$ Scratch Frequency Cut-off Control.


Cat. No. 2545. Less Control Knob quency cut-off is pre-determined, and
\$3.95
Genuine Sapphire Blue Sapphire Life-Service Phono. "Needles" For Professional and Amateur Use! These blue sapphires possess nine.tenths the hardness of diamonds! Are absolutely zenuine
Recording on Al, Grooving and $\$ \mathbf{\$ 1 5 5}$ Cat. No. 5702. For Recrrding and Reproducing on Victor Type blank black com-
rosition Home
Theron Plavback) Cat. No. 5703. For Renroducing as Plavback)
Only, for commercial records such as $\$ 4.75$ $\frac{\text { Columbia, Brunswick, Victor, etc., etc. } \$ 4 \cdot 75}{\text { R.C.A.-Victor } 200 \text { Ohms Low- }}$ Imped. Pick-Up Head Contains a Cobalt steel permanent magnet housed within a bronze finished brass case. Makes ${ }^{\text {an }}$ ideal replacement on R . $\bar{W}$ Vestinghouse, etc. Prunswick binations.
binations.
Cat. No
6362.
$\$ 2.50$

Utah Stadium 110 Volt D. C. Dynamic Speaker

## 1000 or 2500 Ohm

 Field Coil ModelsOverall diameter, 1258 in., $51 / 2$ in. deep, 11 in. dianncter baffle hole required. Capable of producing treinendous, distortionless and rattle-free reproduction. UTAH qual. ity is too well known for further discussion herewith. Furnished with VOICE AIATCHED OUTPUC SINGI.E or PUSH-PULL TRANSFORMER, for ANY type output power Cat. No. $5428 . . . . . . . . . . . . . . . . . . . . . . .$.

## Wall Installation "BBL" Magnetic Speakers

famous the world , made of moisture proof Bur 6327 Uses ultra-powerful B. B. L. unit. Can be placed behind any suitable baffle board, or mount in any console. Now costs less than former price of unit alone!
Cat. No. 1305.
is the idea
Magnetic Speaker Chassis to use for general replacement purposes or in Multi-Speaker public address installations! This Magnetic
 Speaker Chassis is
Cat. No.
83.25

## Wall Type Speaker

Especially designed for installation in Hotels, Hospitals, Schools, and wherever reception is distributed from a centralized anplifier. Furnished complete ready for installation in wall. Cat. No. 6325 Speaker, less Volume $\$ 7.55$
Control and Selector Switch......... $\$ 7$.

Cat. No. 6326 Speaker, with Volume $\$ 8.50$
Control ............................... 80
 Switch
\$9.45

## Pressed Wood Highly Decorative Speaker Grille

Handsome piece of carving. Na tural finish, can be stained any fine located or mounting holes poses.
$193 / 4 \mathrm{in}$. long, $111 / 4 \mathrm{in}$. wide
Cat. No. 6328
35c
$\$ 3.75$ Per Dos.

R.C.A. No. 106 and 62 Dynamic Speaker Rectifier Stacks R.C.A. Part No. 6898


Ideal for use wherever it is desired to convert a 110 volt A. C. Speaker into model A. Cers 110 volts D . C., 100 mils., D. C., output with load. 5 in. overall length, $17 / 8$ in. diameter.
\$2.50

## Cat. No. 6329

Radiola 1200 Ohm 104 Loud Speaker Coils
RCA Part No. 5338
\$1.45


Victor Field Coil
Here is the genuine replacement dynamic sleake RE 52 and RF75 Receivers.
$\$ 1.95$

Utah A.C. Operated 110 Volt Dynamic Speaker Chasses


A new speaker ar-
ranged for $A$. C. field excitation and in corporating modern dynamic design practice. The result is a reproducer capable of handling enormous volume with absolute tone fidelity. Adaptable for use in the house, theatre, large hall and for outdoo service.
Can be supplied for all standard output tube ar. rangements. The rectifier used is the No. 280 rangements. The rectifer used is the No. 280 Tube operated at 60 cycles alternating current. Voice coil yolts 60 cycles alternating current.
impedance is 6 ohms at 400 cycles.

SR. MODEL
Frequency Response 50 to 6000 Cycles Dimensions: Overall diameter of head, $10^{\circ}$. Dimensions: Overall opening diameter max. 91/8". DepthBafile topening $51 / 2^{\prime \prime}$
Cat. No. 6331.
Les. No. 280 Tube
$\$ 8.90$
NOTE: Please state type of output tubes em ployed-ure uill furnish a suitable MATCHED IMPEDANCE OLTPUT TRANSFORMER.

## Celotex Baffle Board

Non-resonant-ideal for use in home, theatre, or in conjunction with P.A. Anıplifier Installations: If a hole is desired, add 50 c to
prices quoted below, and state prices quoted below, and state exact diameter desired. It is no effort to

|  |  | Your |
| :--- | :--- | ---: |
| Cat. |  | No. |
| 6332 | Size | Cost |
| 6333 | $12 \times 12 \mathrm{in}$. | 30 c |
| 6334 | $18 \times 18 \mathrm{in}$. | 80 c |
| 6335 | $36 \times 24 \mathrm{in}$. | 2.60 |
| 6336 | $48 \times 46 \mathrm{in}$. | 4.40 |
| 6337 | $36 \times 72 \mathrm{in}$. | 5.30 |
| 6338 | $48 \times 72 \mathrm{in}$. | 7.05 |



Cabinet Model 110 Volt A.C. Dynamic Speaker


Equipped with 280 Tube Rectifier
Sensitive enough to operate very satisfactorily on sets using as low as 90 volts " $B$ " plate voltage-and sturdy enough to withstand the terrific output of the most powerful 250 public address amplifiers, without any distortion or rattle? The faithfulness of its reproductive ability is positively amazing and uncanny in its realism! Contains a push-pull output transformer, making it adaptable to all sets and power packs. The 280 rectifier tube, used in place of the somewhat troublesome inetalic rectifiers, assures a constant and powerful magnetic field! Housed in a most tastefully designed and most pleasingly finished mantle cabinet of most exquisite ingly fins.
Wention if you are using 1 or 2 power tubes, and their type, such as 171-245-247-250. We will then furnish a suitable output transformer o match
Cat. No. 1849.
With 280 tube
$\$ 12.95$

## Peerless Cabinet Model Magnetic Speaker

Employs a Stromberg-Carlaon Unitl The Peerless cabinet (above ilustrated) of taste ful and pleasing decorative mode, is a fitting companion to the STROMBERG-CARLSON unit housed within, producing a speaker therefore, both attractive to the eye and ear, of the most discriminating Radio Purchaser. \$5.95
Kellogg Adjustable Magnetic Speaker Unit
Equipped with a standard $3 / 4 \mathrm{in}$. threaded brass nipple, firmly embedded in a bakelite screw on cover. Adjustiment made on rear metal cover plate. Rolarity indicated terminals. Over-all diam= eter $23 / 8 \mathrm{in}$. 2 in . deep.


85c

Victor R-32, RE-45, RE-52, RE-75 2,500 Ohm D. C. Dynamic Speaker
 the factory, and you should consider yourself fortunate that we can furnish them at all! This speaker is noted for its unusual rigidity and ability to withstand enormous volume, without any trace of blastintr. A Burtex Cloth diaphragm, over-size field coil, heavy cast-iron frame work are sonce of its exclusive features. 7 in , diameter cone-averall diameter: 9 in depth 8 in. Field coil dimerter $31 / 4$ in., $31 / 2$ in. long!
Cat. No. 3376.
\$4.75
1800 Ohm-( 300 Ohm Tapped) 90 to 140 Volt D. C. Dynamic Speaker
The 300 ohm tap provided serves as bias for a single Pentode tube-also serves as "hum-bucker." No filter choke in power back is rechoke in power back is re-
quired-diagram furnished. Quired-diagram furnished. Overall dianmeter $8+8$ in.g. 5 in. deep; including readily removabie output trans-


Ultra-Compact Rola 110 Volt A.C. Dynamic Speaker Chassis Equipped with 280

Tube Rectifier Can Fit Any Magnetic Speaker Mantel Cabinet!
Total Overall Width:
Total Overall Height:
Total ${ }^{61 / 2}$ Overall Des
Baffle Hole Required:
Baffle Hole Required
5 to $53 / 4$ Inches


Capable of Huge Volumo-
The Rola name... speaks for itself! The comnpactness of this speaker has not catised any sactifice of quality. To insure hum-free performance, an 8 mfd . Electrolytic Condenser is incorporated. The quality of reproduction in the lower register, as well as in the higher, is remarkably lifelike.
Available With Single or Push-Pull Output Transformers for matching impedence of any type A.F. Output Tubes, State which Cat. No. 5417-A. Attractive Compact
Walnut Mantel Cabinet
\$1.95
Cat. No. 5417
\$6.95


Highly Improved Extremely Sensitive BRANDES 2000 OHM PHONES
Known the world over, and rightly so. Pay a lew cents more for the extreme satisfaction you will derive from these
amazingly sensitive head amazingly
phones!
Cat. No. 190-A
\$2.75
Short Wave and Ship or Shore Use Head Phone

Preferred by many profes. sionals due to extrence lightners. Represents latest modern perfection, both electri-
 Cat. No. ${ }^{191}$

## Genuine Nathaniel Baldwin Type "C" Phones

$\$ 3.95$

Fully Assembled (Unvired), or Factory Wired
"Coast-to-Coast" 7 Tube Screen Grid Pentode, 10 to 200 Meter Short Wave SuperHeterodyne A. C. or Battery Operated AllSignal Receivers with 8 INCH MATCHED D. C. DYNAMIC SPEAKER


Do Not Confuse This Apparatus Hith an S. W'. Converter -It Is a Self-Contained Receiver
Requires No Cumbersome Plug-in
Coils: One Master Automatic Suvitch Coils! One Master Automatic Switrh Offers Instantaneaus Selection of 10 to 20 Meter, 20 to 40 . Feter, 40 1080 Meter and 80 to 200 Metar Short F'ave Bands!
Self-Contained A. C. Operated Model
Requires $2.58,1-57,1.56,1.17,1$.

## Use of Wunderlich 2nd Detector Assures Double Volume!

Due to the dual grids, full wave rectification is made possible, rectifying both halves of the carrier wave, thercby supplying double the output than
 Conceded to Be One of the Most Effective Short Wrave Receivers on the Market Permits World-Wide Reception!
 discussed bespeaks the many months of research work undergone in orein Laboratories perfecting a Short-Wave Receiver that would on one hand deliver perfectly satisfactory performance and results, and on the other hand, be sold at a popular prioe!
Valuable Features
Co make possible the reception of $C$. W. signals, a regeneration control is incorporated; however, this control may be left in neutral position, where ordinary Short Ware Reception is desired. Due to the enormous sensitivity and amplification resulting from the circuit and associated tubes insed, all vital components, leads and tubes have been thoughtfully shielded. Iraveling spot-light vernier difl. Hammarlund Two Gang variable and Antenna Trimmer condenser, Volunte control, A. C. Switch, Wave Length Selection Switch, comprise its fully flexible and effective controls. The parts are mounted on a sturdy steel chassis of ample proportions ( 1178 in . Fong, 978 in. wide, $3 \mathrm{I} / 4$ in. ligh), and in turn, it is mounted within A makes a very attractive appearance, being handsomely finished in blach shrivel! All wiring is done beneath the chassis, in true professional Smperiority of Self-Contained I. F. Stages Conparable to Use of Separate S. W. Converter Coupled to Any Broadcast Receiver
In this model the $S$. W. Detector action has been enormonsly improved by having its output Tuned Exactly to the frequency of Three self-coutained, accurately peaked 550 K . C. High Gain Transformers ! ! ! No wonder then that this remarkably sensitive short-wave receiver is
capable $A$ bsolute World Wide Reception, with full and clear Dynamic Speaker Volume!

## PROVISION FOR HEAD-PHONE RECEPTION

A simple, no-loss switch on the instrument panel permits the use of head Battery and A. C. Operated Models Are Essentially Alike In the case of the self-contained Power Pack A. C. operated model, the pack itself is guaranteed unreservedly by "Coast-to-Coast." Great dili ence no dissatisfaction therewith. Every vital improvennent is an inherent part of such power pack equipment, such as 16 Ifds. Filectrolytic Condenser, Heavy Duty A. C. Power Transformer, Hum Bucking arrangement, etc., etc. The $\underset{D}{D} . \underset{C}{C}$. Dynamic Speaker receives its field excitation Itron' the POWERR PACK.
Model R-42, Less Self-Contained Power Pack Cat. No. 5598. Kit-Fully Assembled, but UN-WIRED. (Can be used
 Cat. No. 5599. Same as Cat. No. 5598, but Factory Wired. $\$ 32.50$

## Self-Contained A.C. Power Pack Operated Model R-43 <br> > Includes a Dynainic Speaker! <br> <br> Includes a Dynamic Speaker!

 <br> <br> Includes a Dynamic Speaker!}Cat. No. 5605 . Complete with selfContained A. C. Power Pack (for 110 sembled, but Unwired.
Dynamic Speaker included. $\$ \mathbf{3 3 . 5 0}$ Cat No. 5606 . Same as Cat. No. Tested! Partory nse
Cat. No. 5607. Set $\$ 39.50$

Cunningham Tuhes
\$5.24
A. C. Model Power Packs Can B Furnished for 25 Cycles. 110 Volt $A$ for $\$ 4.75$ additional. A. C. 50-60 Cycle
NOTE: If plug-in type coils are de. sired instend of those described above,


Interior View

Semi-Assembled (Unvired), or Factory Wired
4 Tube 10 to 200 Meter "Coast-to-Coast" Short Wave Super-Heterodyne Converter
 Tubes Required: 1-58, 1-57, 1-56, 1-280

## Offer Convenience of Automatic WaveBand Selection Switch, No Plug-In Coils Required!

Connected To Any 200-550 Meter Broadcast Set (T. R. F. or "SUPER") You "Convert" Same Into a Super-Heterodyne Short-Wave Receiver! 10 to 550 Meters Without Changing a Coil or a Single Connection!
Disconnect the antenna terminal of your receiver-attach it instead to the terminals of this converter, and then attach two simple wires from the converter to the antenna and Ground Posts on your receiver: A few monents, work, and that is all there is to it! The five position, quadruple unit waveband selector switch and associated Super-heterodyne coils listed elsewhere in this catalog are an integral and vital part of this ap paratus. It permits short-Wave reception on for waye bands, namely By then ""hrow, 20 , 20 meters feature with "Coast-to-Coast l"), without the necessity of (an exclusive other changes or adjustments, youl can "tune in" from 200 of making any in the usual fashion. The Dream of Radio Fans at last realized meters

## Enclosed in a Fully Shielded Metal Case

To produce maximuin results, and to guard against any losses the en tire converter is built upon a sturdy stcel chassis, and then inserted into a handsome black shriveled metal case, with removable cover. The con (Two Gang Hammarlund, . 00014 Mfd. to 500 meter Reception Switch and 10 to 200 ineter Wave-Be Switch, 200 to 500 meter Reception Switch and 10 to 200 ineter Wave-Band Selection Switch in one unit! Note the traveling Spot Light Vernier Dial and handsome bronze embossed escutcheon full vision plate. Generously profortioned! 12 in. long, 10 in, deep, 8 in. high. The four coils are
placed far from any interfering metal, such as the chassis, and metal case.
Short-Wave Broadoasts Offer Many Exciting Moments! You Live in a New World of Thrills!
The "short-waves", are vibrant with police alarms-ships to shore and private communication-Traus-Oceanic Telephony-Television, etc., etc.
fou literally explore the World!
Within the realm of your home, you are transported to the most distant countries! You become once again

## Some of the Valuable Features of This Super-Heterodyne Circuit

In the average type of short-wave converter, the antenna is fed directly into the Short Wave dezector-however, in the "Coast-to-Coast" zonverters, an additional R. F. stage with a 57 tube are employed, thereby preventing the antenna capacity and inductance from detaning the super heterodyne (detector and oscillator circuits. It is a known fact that Power
Detection (employed in most every converter, and in ours) is of little value, if the incoming signals are weak because and in ours) is of little amplified by an R. F. booster stage. These Converters Have This Vitally Valuable Self-Contained R. F. Booster Stage! The final design and construction of this apparatus represents the sum total of considerable research -we can truthfilly say that in our opinion there is no better Conveiter

## Provision for Oscillation Control If Desired

 flexible oscillation control, for $\$ 3.75$ additional incorporate a special, fullyMODEL C-44 WITHOUT SELF-CONTAINED POWER SUPPLY
Ideal for Use With All Types of 2, $21 / 2,3$ and 6 Volt Tubes, A. C. or Battery Operated Types! In the event you wish to use A. C. tubes in this model, the following
$A$. C. and D. C. Voltages will be required: $2 \%$ Volts $A$. C. 3.0 amps.

Cat. No. 299. Factory wired and Laboratory Tested........ $\mathbf{\$ 2 3 . 5 0}$

## Model C-45 with SelfContained A.C. Power Supply

## The power pack furnished is guaranteed

 to be humifree and is so generously de signed tluroughout that "Coast-to-Coast'" cheerfully Guarantees this apparatus io one year. \$21.50

 A. C. Model Power Packs Can Be Furnished
$220-240$ Vor 25 Cycle. 110 Volt A. C. $\mathbf{C} .{ }_{50-60}$ Cycle, for $\$+.75$ astditional.


Laboratory tests have clearly shown these transformers to have a constant amplincation factor The silicon steel core ful audio range. The silicon steen core and the primary winding are so designed as to produce a very high impedance, thereby permiting maxion 1 amplinication, without dict shielded I The attractively crystailine hnished metal cases, housing these instru ments. measure $21 / 2$ in. long, $21 / 4$ in. deep, $31 / 2$ in. high. Available in various models, to permit any mechanical placement of leads-either above or below the chassis.


These superior transformers are contained in hemetically sealed metal cases, and are further enclosed within 100 \% MOISTURE-PROOF compound. This double protection assures life-iong uninterrupted service, as these units are free of any deterioration. caused by moisture seepagc. Due to the heavy gause of the metal employed in the cans, the contents are FULLY and EFFFECTIVELY SHIELDED from surrounding disturbing magnetic stray fields. You will derive considerable these instruments, and we heartily endorse them !

Choice of any style terminal arrangement permitted-please mention
type desired by referring to the type letter on each illustration

## AUDIO SERIES



## PUSI-PTUL INPUT SERISS

Cat. No. 6153. INPUT PUSH-PULL TRANSCat. No. 6153. INPUT Pron one plate to two \$4.85 grids. grids. .......................................... 6153 above, but
Cat. No. 6127. Same as
equipped with Split Secondaries, for separately Cat. No. with Split Secondaries, for separately
equipped grid circuits and for 295 Triple $\$ 5.95$ Twin Type Tubes $\qquad$ .............

## Interstage Push-Pull Series

Cat. No. 6154. Interstage Dual Push-Pull Cat. No. 6154. Interstage Dual Push-PuI
Transformer. Combines a push -pull output transTransformer. Combines a push prmandormer. Six former in all. a push-pull between output \$4.90 of two tabes and two grids.
Cat. No. 6128. Interstage Push-Pull Coupling Choke and 1 to 1 Auto. Transformer. $\$ 4.65$
600 Henries at 3 volts A.C., 60 cycles.

## Push-Pull Output Transformers

The secondaries of these transformers are available to match any voice coil impedance, ranging from 2 to 20 ohms -please specify impedance value desired.
Cat. No. 6155
For 2-171, 245, 250 or 295 Tubes.
$\$ 4.90$
Cat. No. 6156.
\$3.90

## Single Tube Output Transformers

The secondaries of these transformers are available to match any voice coil impedance, ranging front 2 to 20 ohms -please specify impedance value desired.
Cat. No. 6129.
For 1-171. 1-250, 1-245, 1-295.
\$3.25
Cat. No. 6130.
, 233, 1-238 ..........
$\$ 2.91$

## Impedance Coupling A. F. Choke

Cat. No. 6165. 300 hefirys, 10,000 ohms
Cat. No. 6166.0600 henrys, center
tapped. 20,000 ohms total...........

## Phono. Input Series <br> Feeds Into Grid of Tube

 $\$ 3.25$$\$ 3.98$

[^6]
## Special Output Push-Pull and Line Transformers

Cat. No. 6131: From 2-250 (or 2-295, 2171, 2-245) into a 500 ohm line. Equipped winding can be used with two Jensen $\$ 6.911$
8 ohm voice coils in series, if desired.) Cat. No. 6132. From 1 or 2- 250 (or 1 or $2-$ 295,1 or $2-247,23.3,238,231$, 1 or $2-171$, 1 or $2-245$ ) into 500 ohm and 2000 ohms
lines. Equipped with taps for 1 ohm, $31 / 2$ ohms, lines. Equapped with taps for
and 9 ohm, voice coil secondary windings.
7.86

Cat. No. 6133. From 1 or 2-250 (295, 171, 245 ) into a 500 ohn line, and equipped with following voice coil secondary windings: 7,2 , $71 / 2,71 / 2,71 / 2,15,15$ ohan windings. This unique and valuable arrangement makes it possible to use this transformer with either ONF TO FOUR 7.8 ohm Voice Coils and TWO 15 ohm Voice Coils, OR, with FOUR 15 ohm Voice Coils, OR, you can actually use up to EIGHT 7.8 ohm Voice Coils (Jensen). The combinations possible are too varied to list them all $\$ 8.64$ here.
FOTE: You can use this trangformer without the 500 ohm line winding, if desired.

## Output Line Transformers

Cat. No. 6134. From 500 ohm line into following Voice Coil Secondary Impedances: $71 / 2$, $71 / 2,71 / 2,71 / 2,15$ and 15 ohms. Excellent for UNITS, or, with from ONE to \$8.71 EIGHT Jensen Dynamic Speakers... Cat. No. 6135. From 500 ohm line into 20002000 (total 4,000 ) ohm secondary winding, to feed into any standard $250,245,295, \mathbf{8} \mathbf{6 . 7 7}$
171 Push.Pull Transformer. ........
171 Push-Pull Transformer.

$$
4
$$

## Output Choke Series

Cat. No. 6157. ..... $\$ 2.35$
Cat. No. 6158. ..... $\$ 3.25$
Cat. No. 6159 .
For Single 247 Tube ..... $\$ 2.15$
Cat. No. 6160. 247 Tubes. ..... $\$ 2.75$
Microphone Input Series
Feeds Into Grid of Tube
Cat. No. 6163.$\$ 3.95$
Cat. No. 6164. ..... \$3.95
For Double Button "Mikes"
Designed for 100 and 200 ohm
CLASS "B" FILTER CIOIESS
Cat. No. 6145. 15 Henries, 25 ..... \$4.74
Cat. No. 15 , ..... $\$ 6.85$

## Pre-Amplifier Output Tube to $\mathbf{5 0 0}$ Ohm Line

Cat. No. 6136. \$6.82

## 500 Ohm Line to Grid of Tube

Cat. No. 6137. Input Impedance
Resistance, 150,000 ohmis
\$6.87

## Phono. Pick-Up or Microphone to 500 Ohm Line Transformers

Cat. No. 6148. 3,000 ohms to 500 ohm $\$ 4$ Cat. No. 6149. 200-200 (or 100-100) olims to 500 ohn line for double button
MICROPHONE use. ...............

## Power Pack and Audio Filter Chokes

Cat. No. 6167.
30 Henries, 65 Mils., 500 Ohms...... $\$ \mathbf{2 . 9 0}$
Cat. No. 6168 .
30 Henries, 85 Mils., 200 Ohms...... $\mathbf{\$ 3 . 4 1}$
Cat. No. 6169 .
30 Henries, 150 Mils., 200 Ohms..... $\$ \mathbf{3 . 9 7}$
Cat. No. 6138 .
60 Henries, 60 Mils., 900 Ohms...... $\mathbf{\$ 3 . 6 5}$
60 Henries, 60 Mils., 900 Ohms...... $\$ \mathbf{\$ 3 .}$
Cat. No. 6139.
15 Henries, 120 Mils., 200 Ohms.... $\$ 3.18$
Cat. No. 6140 .
15 Henries, 300 Mils., 100 Ohms.
$\$ 4.96$

## CLASS "B" TRANSFORMERS

Intended for use with one '46 Driver Tube into two '46 PUSH-PUSH Tubes.

## CLASS "B" INPUT PUSHPUSH STEP- DOWN TRANFORMER

Cat. No. 6141.
For 6 Watt Output Operation.....
\$3.90
Cat. No. 6142.
For 20-25 Watt Output Operation.
$\$ 5.40$

## CLASS "B" PUSH-PUSH OUTPUT TRANSFORMER

Equipped With 4,000 Ohm Secondary To Feed into Standard Push-Pull 245 or 250 Transformers Supplied with Standard Dynamic Speakers

## Cat. No. 6143:

For 6 Watt Output Operation...... $\$ 3.98$
Cat. No. 6144.
For 20-25 Watt Output Operation.... $\$ \mathbf{5} .89$

## T. C. A. highest quality shielded PUSH-PULL INPUT AUDIO TRANSFORMER



## generally offered, ranking far below the ratings possessed

 by this unit. It was never made to be sold for the sensationally low price herewith quoted-we made a fortunate purchase, due to the present business conditions. It is generously proportioned, measuring fully $31 / 8$ LN. LONG, ualize its hirh quality note that ualize its high quality, note, that this remarkable transformer WEIGHS 21/~LBS. LOLD COMPARE THIS! Enclosed in a TOTALLYcontainer. The protruding tinned solder lug terminals can be inserted through is in. diam. holes in a sub-panel, or by employing nounting bushings these lugs can be wired above the mounting surface, thereby OFFERING UNI VERSAL MOUNTING PROVISION. VACUUM TREATED, IMPREGNATFD AGAINST MOISTURE SEEPAGE-IDEAL, FOR USE IN ANY CLIMATE. highest grade SILICON STEEL I.AMINATIONS, as suring FREEDOM FROM CORE SATURATION, making possible STRAIGHT LINE AMPLIFICATION' CHARACIERISTIC, FROM 40 TO 10,000 CYCLES. If you seek the ultimate in transformer value, HERE OBTAINING THESE TRANSFORMERS:
Cat. No. 7009. $31 / 2$ to 1 Audin. For All Stage Use.
\$1.45
Cat. No. 7010. Push-Pull Input Transformer
$\$ 1.95$
as described and illustrated.
Transformer, for choice of $2-171,2-247,2-245,2-250$,
\$1.95

##  CLASS "B" 25 WATT PUSH-PUSH INPUT AND PUSH-PUSH OUTPUT TRANSFORMERS

Class "B" Driver Stage Push- Class "B" Push-Push 25 Watt Output Transformer

## Puṣh Input Step-down

## Transformer



MEASURES: $21 / 4 \times$ secondaries) $70-70$ ohms. of a complete Class " B " Amplifier and color code of fextict terminals swpilice

Operates, from one 46 two 46 class "I3" type
 steel and pericectly dek Sished coils straight line amplification characteristics. The coils
 Nist prenik RE Sticind it in imist ancrs. (Ennouss two
 Cat. No. 7011 \$3.95
 give straight line anplificaion characteristics, even at small outputs. The windings are highly insulated and are well im prepriated and varnished. TOTAL PRIMARY RESISTANCE : only 380 ohms! SECONDARY RESISTANCE: only 370 ohms! Measures $33 / 8$
$\times 236 \times 27 / 8$ in. Blue Print of coinplete Class $\times 236 \times 27 / 8$ in. Blue Print of complete Class plied.
$\$ 4.45$


Double 71/2 Volt Filament Transformer

Furnishes Filament Current for 2-250 and $2-281$
$\mathrm{An}_{\mathrm{n}}$ ideal all purpose trans-former-for all power pack and tube testing equipment No $r$ plair shop should be without several of these really indispensable filament transformers. An added fea ture is provided by connccting the two separate $71 / 2$ volt windings and thereby obtain a heavy duty 15 volt center tapped winding. which is ideal for use in trickle chargers, A.C. Dynamic Speakers, etc. Note unique threaded brass mounting pillars. The thick silicon steel core cial the coil winding itself is coated with a spe50.60 crele A.C. 278 inches long, $21 / 2$ inches high. 2 inches wide. high. 2 inches
\$1.15


General All-Purpose Universal Push-Pull Output Transformer
 Ideal for Coupling to One or Several Horn and Cone Type Voice Coils and to a 500 Ohm Line
Carries a D. C. . primary

 cellent for $250,845,2+5$,
295 tubes, etc.-Can also 295 tubes, etc.-Can also "T3", 46 Tubes provided a PUSH-PUSH Class
"B" transformer with a 4000 ohm secondary is used ahead of it. The windings are carefully insulated, well impregnated, varnished and sealed in a moisture proof compound-A solid metallic case of imposing appearance insures perfect shielding. Primary impedance: 2000-2000 ohms. Secondary imperlance: 500 ohms. Secondary impedance: 1.5 ohms, tapped at 8 ohms. A dia gram is furnished showing how to connect 1,2 , $4,8,16$ etc. -8 or 15 ohms, or $2,4,6,8$. ete. 4 ohms, or $4,6.8$ etc. 2 nhms voice coil
well earns its title of being TNIVERSAL Tdeal for use with all makes of dynamic spea deal for use with all makes of dynamic speak-
crs. employed in multi-speaker $P$. A. Installa
 $\times 5$ in. tall.
$\$ 7.95$
Cat. No. 7014.
1.5

Cat. No. 7444 . FOR CLASS "B" AMDLI-
FIERS. Contains a Class "B" PUSH-PUSH OUTPUT TRANSFORMER, in addition to Cat. No. 7014, just de $\quad \mathbf{\$ 1 3 . 7 5}$
"Coast-to-Coast" Combination Condenser Microphone and One or Two Stage Pre-Amplifier

lintended to be hung
from a ceiling, "birdcage" type stand, or from the roof of a
sound truck. It can be mounted in any conceivable position, due to the fact it is type. Incidentally, it type. Incidentaly, it
will never "hiss" or
"scratch" -therefore, its reproductive qualfaithful while its sensitivity and volume output makes this apparatus worthy of installation in the most elaborate P. A. Systems. Ennploys a scientifically housed duraluminum diaphragm. Inasmuch as a two stage amplifier is an integral part of this coniplete unit, maxinum efficiency is assured, due to the extremely short leads between the microphone and the ampli-
fer. Iou will be considerably impressed by the fer. Iou will be considerably impressed by the absolute stable and noiseless nature of this fully effective resistance coupled amplifier-it requires 2 to 4 mils., at 180 volts "B", (furnished by dry "B" batteries) a $41 / 2$ volt "C", battery; and 60 mils. at $41 / 2$ volts ( 3 dry cells). The battcries are externally mounted anywhere to suit your convenience-a 5 wire battery cable extends from the unit. There is also furnished a pair of SHIEI.DED OUTPUT IEADS. If away from the $P$. located more than 50 feet Transformer must be used at the $P$. A. Aniplifer. TUBES REQUIRED: One or Two Type SHIELDED AnClosed in a COMPLFTFLY CASF, measuring 6 in. long, $41 / 2$ in. diameter. 10 8000 creles. Cat Na 7445. CONDENSER MICROPHONE HEAD ONLY-less pre-ampli-
\$27.50 $\stackrel{H}{f}$ Cat No. 7015 Condenser Microphone and one Stage Pre-Amplifier. Requires
$1-230$
Tube......................... S4.
50 Cat No. Noitic. Condenser Microphone and


Kenyon "Laboratory Standard" Audio Amplifier Components


For the discriminating service man, or professional set builder, desiring apparatus that will yerform in a manner second to none, this series will directly appeal. Costs more, yes, but then these units are worth the small difference. Note the fully shielded metal cases, soldering lug terminal board, and convenient mounting feet.
Cat. No.
Caty.
Input transformer from 1 plate
to 1 grid. $3: 1$ ratio..........
\$2.65
5492. Input transiormer trom 1 plate to 2 grids in push pull. 2:1
2.94
5493. lnput transtormer from univer-
sal line to 1 grid..............
3.2 A
5495. Mixing transformer from a uni3.24
7243. Output transformer from a deector plate to a universal line 3.24
5496. Output transformer from push pull 245's to a 500 ohm and 15
5497. Output transformer from 247 to a 15 ohm voice coil.
3.24
a 15 ohm voice coil..........
5498. Output transformer from pusin pull 247's to a 500 ohm line and 15 ohm voice coil.
3.24
5499. Fiter choke 30 Henries, Max.
D. C. 90 M. A., 350 Ohms D.C.
2.06
5500. Filter choke 15 Henries, Max.
D. C. 150 M. A., 210 ohms D.
2.35
5501. Audio choke for parallel feed, etc., 250 Henries. Max. D. C. 15 M. A., 300 ohms D. C.
5502. Input transformer for a class 2.65
3.53
5503. Output transformer for a class

Thordarson Series Audio-PushPull Input, and Push-Pull

Polymet-R.M.A. Color Coded- Audio Transformer Series
High Quality . . . Built Down to a Popular Price!

Output Transformers


Enclosed in handsome blask apanned steel cases, of at ractive formation. Contents are hermetically sealed, rendering them impervious to ruinous atmospheric disturbances. Sub-panel mount conveniences. Output Transormers are furnished with Standard Dynamic Speaker voice coil impedance inatching secondaries.
Audio Transformer
$\$ 1.65$
Cat. No. 6071. Input Push-Pull
$\$ 1.80$
Cat. No. 6072. Inter-Stage Push-Pull
Transtormer $\mathbf{\$ 2 . 6 5}$ Cat. No. 6073. Output Push-Pull Trans- $\$ 1.45$
former for 1 or $2-171,245,250$ Tubes $\$ 1.65$ Cat. No. 6074. Output Push-Pull Trans- $\mathbf{\$ 1 . 6 5}$
former. tor 1. or 2-247 Pentode Tubes. former, for 1 or 2-247 Pentode Tubes

Jefferson Audio-Microphone and Phono. Input Transformer Series

Sealed in handsome metal cases,
eliminating any tendency for the windings to break down, due to atmospheric conditions. Famed for high quality reproduction over en tire audible frequency range. mounting.
Cat. No. 6075.
Audio Transformer .... \$2.40
 Input Transformer ..............
Cat. No. 6077. High Impềdance Phono. Input Transiormer.


Cat. No. 6078. Microphone Input Transformer,
(Choice of 100 or 200 ohms per button)
$\$ 2.95$
Cat. No. 6147.
Victor First Stage Audio Transformer with Phono-Pick Up Tap
 For Replacement in All Victor Sets and, of course, can be used in any other make set. Terminals are numbered: 1-Phono 3-Ground Pick-up 4-Plate Magnetically shielded. Has winding for phonograph pick-up. Ratio $31 / 2$ to 1 . Can be used as a conve'tPhono. Input Transformer. 75c
Cat. No. 371
Grebe Input Push-Pull Transformer Fully shielded. Ideal for sub-panel mount.
D. C. Resistance, primary 700 ohrms-secondary. 16,000 ohms.
Size: $31 / 2$ in. $27 / 8$ in. $x 34 / 4$ in. Size: $31 / 2$ in. $\times 27 / 8$ in. $x=33 / 4$ in.
Excellent for $P$ A. amplifiers or Excellent for P. A. amplifier general replacement purnoses.
Cat. No. $5504 \ldots . . . .$.
$\$ 1.25$


Jefferson Combined Duo-Ratio Audio and Phono. Input Transformer
Offers Choice of 5 to 1 or 21/2 to 1 Ratio!
Due to the split primary, one section can be used for a hight resistance phono-pickup. An excentionally hish quality amplifying unit-giant-like in proportions: 258 in. long, $21 / 4$ in. wide $31 / 4 \mathrm{in}$. tall.


All Transformers Listed Below are Furnished With Flexible Leads, at the Prices quoted-If you desire a transformer equipped with the Bakelite Terminal Board and Solder Lugs, as shown in the illustration to the right, please add the sum of 50c to the prices quoted below for each transformer so desired.


These transformers and chokes are all designed on a $3 / 4 \mathrm{in}$. square core of high Silicon steel. The core is securely held in an Aluminum finished strap. Designed in accordance with the latest technique; they can be depended upon to give very satisfactory results! The 6 inch leads are made of heavily insulated wirc and bear the R. M. A. standard color coding. The coils are scientifically treated to be impervious to all at mospherics-a very valuable and necessary feature. The overall measurements of all the units
below are $3 \mathrm{r} / 4 \mathrm{in}$. long, $11 / 2 \mathrm{in}$. wide, 2 in . tall.

## Audio Transformers

Cat. No. 4163. 3 to 1 All Stage A. F. 98 C Transiormer
Cat. No. 4158. Input Push-Pull
Tiansformer $\ldots$.....................
$\mathbf{\$ 1 . 2 2}$
Cat. No. 4165. Interstage Push-Pull Transformer, from single plate to two grids. For use between push-puli stages-for all types \$1.45 of tubes.
$\$ 1.45$
Cat. No. 4161. Output Transformer, from
245,295 , or 250 to $8-15$ ohm dynamic $\$ 1.75$ Cat. No. 4162. Output Transformer, from 1Cat. No. 4162 . Output Transformer, fron
247,233 , or 238 to $8-15$ ohm dynamic $\$ 1.65$ spaaker voice coil.
Cat. No. 4159. Output Push-Pull Transformer, from push-pull 245,250 or 295 to $\$ 1.95$ Cat. No. 4160. Output Push-Pull Transformer. from push-pull 247,233 or 238 tubes to $\$ 1.75$

## Phono. Pick-Up and Microphone Input Transformer

Cat. No. 6119. 500 Ohm Phono. Pick- \$1. 25
up Input, for low impedance pick-ups. Cat. No. 4164 . 3000 ohm Phono. Pick- \$1.95 up Input, for high inpedance pick-ups. \$1
Cat. No. 4166 . Single Button Microphone TransCat. No. 4166. Single Button Microphone Transformer. (State if for 100 or 200 ohm $\$ 1.45$
Buttons!) "Mike" to "Grid" type ... $\$ \mathbf{\$ 5}$ Cat. No. 4167. Double Button Microphone (State if for 100 or 200 ohm Buttons!)
Transformer. "Mike" to "Grid" type. \$1.45

## Audio Chokes

Cat. No. 6120. Output Choke.
For single 245, 250 or $295 . \ldots . . . . .$. . $\$ 2.45$
Cat. No. 6121. Output Choke
Fer single 247, 233, or 238.......
Cat No. 6122. Output Push-Pull
Choke. For two 245, 250 or 295 tubes \$2.45
Cat. No. 6123. Output Push-Pull
Chose. For two $247.233,233$ tubes. $\$ 1.75$

## Filter Chokes

Cat. No. 4146. 25 Henries at 25 M. A., 59 C
800 ohms
Cat. No. 4147 . 25 Henries at 60 M . A., 59 C
Cat. No. 6124. 30 Henries at 125 90C
Cat., No. 6125 . Dual Choke. Contains two 30 Henry, 100 mil. chokes, resistance of $\$ 1.65$ each, 400 ohms.

## Special Inducement



Lots of 3 (ass't'd., if you desire) Deduct 5\% Discount! Lots of 6 (ass't'd., if you desire) Deduct $10 \%$ Discount? Lots of 12 (ass't'd. if you desire) Deduct $15 \%$ Discount!


Polymet Inter-Stage Coupling High Impedance Audio Choke Ideal For Use In High Quality Reproduction Public Address Amplifiers
For interstage audio use as auto transformer; inductance is 600 Henries at ${ }^{3}$ no D. C. in the winding the total maximum D. C. resistance is 20,000 olhms. This choke is center-tapped. Leads measures $27 / 8 \mathrm{in}$. long, 1 are in. wide, $21 / 8$ in high
Cat. No. 4144..
\$2.95
"Loudherm" Permalloy Core Audio Replacement Transf. A favorite with servicemen and set builders. Its compactness ( $21 / 2$ in. $x \quad 11 / 2$ in. $x 2$ in.) does not detract from its pleasing perfo:mance Equipped with flexi-
ble leads and convenient ble leads and convenient
mounting brackets. Demounting brackets. De-
signed for all stage ratio applications.
Cat. No. $6126 . . . . .95 C$


Edison Permalloy Core PushPull Input or Split Secondary Audio Transformer
Ideal For Use With Push-Pi:ll 295 Triple Twin Grid Cirruits or Standard Push-Pull Circuits!

The resistance value of the Primary is 1200 olims, and the Second ary resistance is 10.000 ohms, i.c., 5,000 ohms each section Note by joining the two sepa. by joining the two sepa. together, a marvelously efficient Push-Pull Input Transformer results The split secondary audio circuit system is rats The split secondary audio circuit system is rap-
idly gaining impetus. $35 / 8$ in. long, 2 in. wide, 2 in tall

95c
Dongan Input Push-Pull and Straight Audio Transf. A big favorite with all professional set and power amplifier specialists. Excellent for all replacement ap

Cat. No. 7478 Straight A. F. Cat. No. 7479 . Input Push-Pull

72 C
$\$ 1.11$
 2 in

S

Heavy Duty 250 Filter Choke

Conservative Rating: 140
Conservative Rating: 140
mils., 20 henries, 200 ohms.
Cat. No. 7481.
75c


Conservative Rating
mils., 20 henries, 200 40


Kolster All-Stage Ratio Giant Audio Transformer


Never made to sell at this price-honest mer-
chandise! Kolster never skimped-with them, the dominant thought and consideration was Quality! A really fortunate buy-for both you and ourselves. $2 \frac{1}{2}$ in. long, 2 in. wide, $31 / 8$ in tall. of lamination it possesses, as well as the massive ity of reproduction and distortion free volune, adapt this transformer, and the INPUT PUSHsame general characteristics.
Cat. No. 4267.
95c
Cat. No. 6062. InPut PuSh-Plll $\$ 1.45$
Philco Input Push-Pull Audio Transformer

Excellent as Standard replacement units $\overrightarrow{\text { in }}$ ideal for sub-panel mounting-note pro-
truding solder lug tertruding solder lug ter-
minals. Fully shielded minals. Fully shielded. $23 / 8$ in. high, ${ }^{2}{ }^{2}$ long, 2 in. wide.

Cat. No. 5611.
75c


## Jefferson Input and Output

 Push-Pull Transformers
## OUTPUT MODEL

 It is indeed a credit to th
designing engineers of thi
product. in tiew of the product, in tiew of the re sign offered; yet, mind you. with no sacrifice in quality. 3 in . lonk $2 \frac{3}{2} \mathrm{in}$. wide, 238 in. tall. Resistance value of ohms. Cat. No. 4273 ..

95c
INPUT PUSH-PULL MODEL.
Cat. No. 6065.
\$1.45
Replacement Audio Transformers for Atwater Kent, Etc., Sets
Can Also Be Used as a Universal A. F. Transformer for All Other Makes of Sets!
Cat. No. $320 \ldots$
6 for $\$ 4.5010$ 85C
SPECIAL 2ND
STAGE MODEL.
STAGE MODEL
sTage
$\$ 1.65$


## Uncased Models

##  <br> Completely closed magnetic core. Maximum distortion: hree aniplifcation is an inmost compact transformer. Ideal for use in receivers where space is at a premium, such as in Midget and Port able Sets. 1 tt in. high. $11 / 2$ in. diameter. <br> Cat. No. 1759 <br> $45 c$ <br> (For Replacement A. F. Transf., without case.) For Second Audio Stage. Cat. No. $1760 . . . . . . . . . . . . . . . . . . . . .$. $85 C$ Cat. No. 1760.. <br> All-Purpose Replacement A.F. Transformer

Hundreds of thousands of these popular and efficient little audio transformers are in use. All. stage ratio characteristics. Flexible lead terminals.
Cat. No. 6066 .


Sangamo Latest Model Input and Output Push-Pull Transformers
 The reputation of known that any furknown that any furis not necessary. Can be used with any tubes, and in coll junction with any Generously proportioned. Overall dimensions: $31 / 2$ in. long $\times 23$ in. tall $\times 134 \mathrm{in}$, wide. Cat. No. 2164. $\qquad$ \$1.35

OUTPUT PUSH-PULL SERIES
Secondaries match any standard dynamic speaker
For Single or Push-Pull 171A-245-295. 250 Tubes
\$1.35
Cat. No. 2165.
....

For Single or Push-Pull Pentodes 23.3, 238, 247
\$1.35
Cat. No. 2879..
Innut
Pacent Fully Shielded Input Push-Pull Transformer
So well hermetically sealed within an attractive black japanned steel service is assured 1 , Ideal for universal mounting applications. Equipped with well insulated flexible leads. $33 / 4$ in. tall,
$\$ 1.85$

iong, $23 / 3$ in. wide
Cat. No. 6083...
Pacent Push-Pull Input Audio Transformer


Generously proportioned; not dc signed for use in sets wher space is at a premium. The inin that you are assured excellent reproductive qualities, due to the greater current carrying capacity. $33 / 4$ in. tall, $21 / 2$ in. long, $21 / 8$
in. wide. Universal Mounting. Equipped with solder minals. $\qquad$
Pacent Output Push-Pull Series Transformers
Equipped with 15 Ohm
Impedance SecondaryWhich Matches Voice Coil Impedance of R.C.A. Photophone Dynamic Speakers, Racon Units, Etc., Etc. Also Excellent for Use with Tioo Jensen Dynamic Speaker Voice Coils in Series!
Similar in all mechanical respects to Cat. No. 6084 INPUT transformer above described.
 For 1 or 2-247, 233, 238 Pentode
\$1.55 Tubes. Cat. No. 6086
le or Push OUTPUT CHOKE, for either Single or Push with secondary. . Resistance. 220 ohms -60 henries at 60 cycles.
$\$ 1.65$
Cat. No. 6087.


Dual Audio Transformer for
R. C. A. Sets Can Be Used in the Radiola 33, 18 and 17, and All Makes of
Consists of a frst and second stage Audio Trans. former shielded in a comalso be used with any mon metal orntainer. C an Sets where two grood audio stages of autio amplification are desired. Well designed. Its com-


Transformer Corp. of America Input and Output Push-Pull Series A.F. Transformers


Equipped With
PERM1ALLOY
PERMALLOY
STEEL
LAMINATIONS!
Freferred by profes. sional set builders and manufacturers of Amertial receivers, and super-power Public Address Amplifiers. Here is your opportunity to purchase the best for just a few cents more than what you might pay for a far less inferior product Equipped with convenient mounting, feet atid $33 / 8$ in. long. 136 in wide AUDIO TRANSFORMER. For all 75c INPUT PUSH-PULL.
Cat. No. 3 UTPUT
Secondary impedance matches the voice coil im pedance of any standard dynamic speaker. Cinn same with magnetic speakers by comary, it the conventional manner.
For Single or Push-Pull 171-245-295250 Tubes
$\$ 1.45$
Cat. No. 318.
or Push-Pull 233-238-247
For Single or Push-Pull 233-238-247
For Single or Push-Pull 233-238-247
Pentode Tubes
$\$ 1.75$
 ing Facilities 1

85 c
Cat. No. 5620.
Silver Marshall 255-P Phono. Pick-up Impedance Matching Transformer

Onc tip of pick-up connects to one terminal on this instru* ment, and the other tip to the terminals on this transformer are connected to the grid circunt of the 1 st $A$. F. Tube. In palaces the 1 st A. F. Audio places the lst A. F. Audio Transiormar of the usual type, 80 far as phono. pick-up am* plification is concerned. Tathes impedance of any pick up to ist A. F. 134 in. $x 21 / 4$ in. $x 2$ in. Cat. No. 1539. $\qquad$
S-M 251 Output Transformer or Impedance
A.combination variable ratio output transformer, choke and condenser tone filter, and tapped impedance, Recommended as a tone fitter and is provided 210 or 171 and 250 type power tubes. 112 and 210 or 171 and 250 type power tulues. Boosts low-note reproduction. when an external 1 mfd. 600 volt condenser is added.

## General Audio Transf. Coil

Remove the laminations from your present burnt out audio transformer, and insert same into core hole in this coil. $11 / 4$ in. long, $11 / 4$ in. dianieter. $11 / 4 \mathrm{in}$. long. 10 in . Dong flexible terminals. Handles tremendous volunie, with no distortion 1
Cat. No. 2150.5 to 1.
Cat. No. 2151. 3 to 1.
25c
Asstd. Kit of Input and Output Push-Pull, Choke, Audio, Power Transf., Ete. Replacement Coils "Worth Their" Weight In Goldi"" Just the thing for an emergency repair job-this assortment may include many possible sizes, shapes and types of such coils. All coils are in
perfect condition. Kits of 12 Assorted

# "COAST-TO-COAST" PERMALLOY CORE DE-LUXE PUBLIC ADDRESS AMPLIFIER AUDIO TRANSFORMERS, Etc. 

There Is Listed on This Page a Transformer for Every Conceivable Purpose:


Available in Any Style Metal Shield Case Above Pictured-A Transformer To Suit All Mounting Requirements! Be Sure To Mention Type Desired When Ordering!

These generously proportioned units are preferred by the discriminating Radio Engmeer who well realizes the necessity of investing a few cents more to obtain a quasity piece of apparatus. The time old axiom ... - You Pay For What You Receive", . . can well be stressed here-we are of the honest opinion that you cannot purchase

## Audio Series

Cat. No. 6728 .
Cat. No. 6729. 3 to ratio
Cat. No. 6730. 2 to 1 ratio
$\$ 3.75$

## Push-Pull Input Series

Cat. No. 6731. INPUT PUSH-PULL TRANS grids.
\$6.45 grids.
better quality, design and construction apparatus as listed below. The high permeability permalloy cores permit lower resistance coils, which condition is highly desirable. The coils are thoroughly impregnated and will perform excellently in any climate. The fully shielded and highly attrac tively finished cadmium plated metal cases meas-

## Phono. Input Series

## Feeds Into Grid of Tube

Cat. No. 6745 . 50 OR 200 OHMS $\$ 5.95$ Cat. No. 6743 . 500-1,000 OHMS.
FOR LOW IMPEDANCE PICK-UPS $\$ 5.25$ Cat. No. 6744. 2,000-3,000, 4,000 OHMS. $\$ 5.25$
FOR HIGH IMPEDANCE PICKUPS $\$ 5$.

## Special Output Push-Pull and Line Transformers

Cat. No. 6746. FROM 2-250 (2-295, 2-171, 2245) INTO A 500 OHM LINE. EQUIPPED ALSO WITH A 15 OHM SECONDARY WINDING, TAPPED AT 8 OHMS. YOU CAN USE $1,2,4$ OR 8 EIGHT OR $\mathbf{\$ 8 . 9 5}$
15 OHM VOICE COIL SPEAKERS. $\$ 9$ 15 OHM VOICE COIL SPEAKERS.
Cat. No. 6747. From 1 or $2-250$ (or 1 or $2-295$, 1 or $2-247,233,238,231,1$ or $2-171,1$ or $2-245$ ) into 500 ohm and 2000 ohm lines. Equipped with taps for $1 \mathrm{ohm}, 3 \mathrm{~K} / 2$ ohms, and $9 \mathrm{ohm} \$ 10.90$ voice coil secondary windings.
ure as follows: TYPE "A"': 5 in. long, $23 / 4$ in wide, $33 / 8$ in. tall. TYPE "B" ${ }^{3}$. $35 / 8$ in, long $23 / 4$ in., wide, $33 / 8$ in. tall, TYPES "C," "D and $E$ are $35 / 8 \mathrm{in}$. long, $25 / 8 \mathrm{in}$. wide, 4 in . tall THIS APPARATUSIS USED IN THE MORE EXPENSIVE MODELS OF "COAST-TO-

## Pre-Amplifier Output Tube to $\mathbf{5 0 0}$ Ohm Line <br> Cat. No. 6757 <br> $\$ 9.45$

Pre-Amplifier Output Tube to Line Transformer
Cat. No. 6758. Specify if pre-amplifier tubes you employ are $01 \mathrm{~A}, 27, ' 12,205$, '30, or 31 . Also specify ohmage of line into which the tube is to operate-such as, $50,125,200$ or $\$ 9.75$

## 500 Ohm Line to Grid of Tube

 Castance, 150,000 ohms.$\$ 9.70$
Phono. Pick-Up or Microphone to Line Transformers Specify 50, 200 or 500 ohm line
Cat. No. 6760 . For Phono. Pick-up to line (Specify pick-up resistance, if possible of simply state: For High or Low
$\$ 9.82$
Impedance!
ohms to
line for double button MICRO-\$10.36 PHONE use.
Power Pack and Audio Chokes Cat. No. 6762.300 Henries, 65 Mils., $\$ \mathbf{3 . 8 7}$
Cat. No. ${ }^{5763}$. 30 Henries, 85 Mils., $\$ 4.92$
Cat. No. 6764 . 30 Henries, 150 Mils., $\$ 5.25$

Cat. No. 6766 . 15 Henries, 120 Mils., $\$ 4.85$
Cat. No. 6767. Ohms............. 150 Mils., $\$ 6.22$ 100 Ohms.

## CLASS "BB" TRANSFORMERS Class "B" Input Push-Push Step-Down Transformer

Cat. No. 6768. For 6 Watt Output
Operation.
Cat. No. 6769.
$\$ 7.22$

## Class "B" Push-Push Output Transformer

Equipped With 4.000 Ohm Secondary To Feed into Standard Push-Pull 245 or $250^{\circ}$ Transformers supplied with Standard Dynamic
 Operation $\$ 7.94$
put Operation

## Class "B" Filter Chokes

Cat. No. 6772.15 Henries. 250 Mils., $\$ 6.27$
100 Ohms.
Cat. No. 6773. is Henries. 200 Mils., $\$ 9.80$
Cat. No. 6773. 15 Henries. 200 Mils., $\$ \mathbf{\$ 9 . 8 0}$
30 Ohms. .........................

Push-Pull Input Transformer for
Majestic 70-71-72-90-91-92-100

## A. C. Receivers

Enclosed in a fully shielded sub-panel style mounting
metal case. Equipped with metal case. Equipped with one suitably coded. Ideal for general replacement parpose. 6237 95c Cat. No. 6265. (shielded)


Kolster Dual Audio Assembly
Combines Two 33/4
to 1 Ratio High
Quality Audio, Trans-
formers in One Fully
Shielded Case!
Kolster Part No. A99003-
Used in Models K20 and K21


Ideal for either sub-panel or above panel mounting. Note convenient crinpping lugs. Equipped with spaghetti covered and individually tagged terminal leads. A separate ground lead is at. tached to both silicon steel cores. Each transformer is mounted at right angles to each other. Over-all dimensions: $33_{4}$ in. long, 2 in, wide $31 / 8 \mathrm{in}$. tall. Nicely green japanned.
$\$ 1.95$
Victor Combined Input and Output Push-Pull Audio

## Transformers



Electrostatically shielded amplification on all frequencies, as it is impregnated against lamination vimatches voice coil of all standard dynamic speakers, can be used With 250 tubes. Both Input a n d Output transformers mounted in one case! For subpanel, or above patel, mounting- $5 / 4 / 2 \mathrm{in}$. long, 3 in . wide, $3^{\frac{7}{6}} \mathrm{in}$. high. Cat. No. 2550
$\$ 1.95$
RCA Model 80 Receiver Tapped Filter Choke

Part No. 61159
Contains one choke of 150 mils., tapped at 15 ohms; the other section is 385 ohms. This Choke is an 18 henry choke. The reason for this Choke being tapped off the center is that it was specifically made to reduce the hum. A small condenser placed across the $15-\mathrm{ohm}$ section will reduce the hunl to a minimum. There are only two manu-
facturers that use this particular clroke because of its patented features, i.e., the Stromberg-Carlson RCA.
Cat. No. 6211


Combination Tapped Choke and Output Plate Choke
RCA Part No. 61766 Used in Radiola 48 Contains the above tapped chok and valuable ece of apparatus $\qquad$ rsatile Cat. Nn. 6212 appararus 89c
R. C. A. Double Filter Chokes RCA Replacement Part No. 83.36 for the Radiola 33, 18 and 51, Victor 7-11. 7-26 Contains Tivo 30 Henry 100 Mil. Chokes
 When connected in parallel these double Filter Chokes have a capacity of 30 Henries at 200 Ails.. and when connecte
series, 60 Henries at 100 Fach Choke has a 1.000 Volt insulation test and the D. C. re. sictance is 400 ohms. Fully
shielded in metal case with special insulating compound. Crimping lugs can be bent a ing
ang
Cat angles if so desired.
Cat. No. 381 Special

Step-Up or Step-Down A. C. Voltage Regulator

## Transformer Principle



Consists of a special A. Iransformer, housed in an at female clectric socket is positioned, for comnection to any Radio receiver or amplifier consuming up to 200 Watts. The line cord and plug illustrated is attached to any $50-60$ cycle A. C. light socket from 95 to 130 Volts. The three binding posts are marked: $0-8-15$ volts and this transtormer is provided with a switch which entables this apparatus to he used either as a step-down or step-up trinsformer! The fiexible cable with attached prod is inserted into any one of the three binding posts; depending on what, voltage you wish to step-up to, or, "step-down" to. The three binding posts iust mentioned will do the following, in conjunction with the switch, viz: The first post makes the output voltage equal to the input voltagethe second post either lowers or raises the output voltage by approximately 8 volts- the third by approximatelly 15 volts! $\$ 4.95$

Westinghouse Combined Push-
Pull Input and Output Transformer with Filter Capacitor
Represents a Complete
Audio System-Having its
Own Audio Filtering System Self-Contained!
Contains one 3 mid., and two 2 infd. section condensers, ${ }^{\text {a }}$ in addition to the push-pull input and push-rull output transform-
 finished metal shielded case, measuring tall, $33 / 4$ in. lorgs, $21 / 4$ in. wide. Mounts to in wechanical and electrical requitements. Cat. No. 6239
Formerly Used in Radiola $3 \dot{3}$ D. C.
Phono. Input to Dual Grid Impedance Matching Transformer Ideal for Use With Tivo Push-Pull Tubes Constituting the Input Amplifier Stage.
Mounted within an attractive cadmium plated metal casewith protruditus R-MLA. colored flexible leads and crimping flanges. Primary Resistance: 400 ohms ; Secondary Resistance, 8,000 ohms, center tapped. 34.4 in. tall, 258 in. long, 2 in. wide.

$$
\text { cat. No. } 6244
$$

$\$ 1.95$
Erla Shielded A. F. Transformer


Absolutely moisture-proof-im. pervious to any ravages of time, assuring life long, uninterrupted and uniform service.
An old favorite-and rightly 85 C PER DOZEN, \$8.90


Peerless Audio Transformer All-Stage Ratio


The transformer itself is housed within a moistureproof compound. The iron core meacures $1 \frac{9}{16}$ in. wide,
$33 / 2$ in. high, $21 / 2$ in. long,
$23 \%$ in. deed
Cat. No. 1536 .
60 c

Polymet Audio Coupling Choke and Auto Transformer


Ideal for Use as Inter-Stage Impedance Coupling Device in Public Address Amplifiers for Obtaining Much More $\begin{gathered}\text { Desirable } \\ \text { Tonal Reproduction }\end{gathered}$ Tonal Reproduction
by Using Other Meihods!
For interstage audio use as auto trinsiormer; inductance. is 600 Henries at 3 volts A. C., 60 cycles, with: no $D$. C. in the winding; the total maxinnum D. C. resistance is 10,000 ohms. This choke is center-tapped. Leads (R. M. A. color conled), are 6 in. long. Choke nleasures $27 / 8$ in, long, 1 . in . wide, 88 in . high. Note that the use of this impedance coupling choke is reconimended where:110 step-up ratio amplification between two tubes is desired. Its use in any fashion prevents hum pick-up possibilities!
$\$ 2.95$
Earl-Freed Dual Filter Choke Hum-Bucking Effect Produced .by Both Chokes Due to Use of Common Lamination Stack.


Contains two chokes, each one measuring 30 henries, 450 ohnms, 120 mils. Universal mounting bracket. When connected properly in parallel, they are rated as follows: 240 mils, 225 ohms, 5 henties, $41 / 4 \mathrm{inl}$. long, $17 / 6$ in. wide, $23 / 4$ in. tall.

Grebe Heavy Duty Filter Choke 180 Mills., 15 Henries, 140 Ohms


Massive proportions: $37 \%$ in. long, $\begin{aligned} & 23 \text { in. wide, } 31 / 2 \text { in } \\ & \text { tall. } \\ & \text { With of of silicon steel }\end{aligned}$
 Excellently adapted for an Sturdily bracketed. Equipped with 12 in. long, heavily spaghetti coated fexible leads.

95c
Brunswick 150 ohm - 125 Mil. 50 Henry Filter Choke
Tapped at 20 Ohms-Ideal for Hum-Buching Circuit Installation!
$23 / 4 \mathrm{in}$. long, $11 / 2 \mathrm{in}$. wide, $33 / 4 \mathrm{in}$. tall. Equipped with three cambric covered flexible leads.

95c
Thordarson "Giant Size" Double Choke Unit
Rating of Each Choke:
 400 Ohms, 30 Henries, 150 Mills. Each. Rating of Both Chokes in Parallel: 200 Ohms, 15 Henries, $\mathbf{3 0 0}$ Mills!
Massively proportioned- 394 in. tall, $31 / 2$ in long, 25 in. wide. Eluipped with four, heavily rubber insulated flexible leads, 9 inches long. Enciosed in a neatly black japanned, composiCat. No. 6243
41.15

Brunswick 1 to 1 Output Transformer

1. ${ }^{6}$ In. Thick Laminations Fully steeped in a moisture proof componsid. Will protect any speaker from high D. C. voltages speaker irom high $\underset{\text { us }}{ }$. C. roltages in. long. $25 / 8$ in. vide. $31 / 2$ in. tall. Cat. No. 4274. 39C

# "Coast-To-Coast" All Purpose and General Replacement Heavy Duty A.C. Power Transformers 

## These Are Brand New Transformers-Incorporate Latest Mode in Electrical and Mechanical Improvements!

## ELECTROSTATICALLY SHIELDED! COMPACTNESS PERMITS UNIVERSAL REPLACEMENT ADAPTATION!

Manufactured by Transformer Companies of National Repute Having inade a thorough survey of the replacement transiormer market requirements, and gleaning thereby a valuable fund of information, olir ENGINEERING negotiations with some of the largest, nost into negotiations with some of the largest, nost responsible and efficient transformer manufactarers in the country, to produce for us these 1BASIC TRANSFORMERS, in accordance with our rigid and conservative specifications. All these transformers are new, and not "surplus" rejects! All ratings below stated are yery conservatively stated-your complete satisfaction is assured!

## 171 Type Transformer



Equipped With
Two $11 / 2$ Volt A.C. Windings
For 6-226, 1-227, 1 or 2-171A, 1-280 If your circuit requirethe necessity of two $11 / 2$ the neit windings, you leave voit windings, you disconnected
$300-300$ isconnected. 300-300 volt, 70 M. A
115 volt A. C. primary ligh voltage secondary. 5.25 amperes, center tapped for tayped. 1.5 volt, $\begin{array}{llll}1.05 & \text { amp., center tapped, for } 1-226 . & 2.5 & 1.5 \\ \text { volt, } & 2.0\end{array}$ anp., center tapped, for $1-227$. 5 volt, .5 amp center tapped, for 1 or or $2-171$ A's. 5 volt 2.0 amp., center tapped, for $1-280$. Mounting holes, $2 \mathrm{I}_{6}$ in. $x 31 / 8 \mathrm{in}$. $31 / 8 \mathrm{in}$. high. Rated: 75 watts.

Cat. No. 5516.
\$1.95 For $2 \mathbf{5}$ Cycle- $\$ 2.95$

Over-Size 245-247 Type Transf. Featuring Three 21/2 Volt A.C. Secondaries,
850-volt High A.C., and $21 / 2$ in. Thick

## Laminations!

For 8 - $21 / 2$ Volt ( 1.75 Amp.) or 15-1.0 Amp. Tubes, 2-245 or 247,


$$
1-280
$$

115 volt A. C. Primary. $425-425$ volt. 120 M . A., ligh voltage secondary, center tapped. 2.5 volt, 12.25 amps., center tapped, for to 2.5 volt, 3.0 amps., center tapped, for tubes. 2.5 volt, 3.0 amps., center tapped, for $\begin{array}{llll}1 & \text { or } 2-245 ' s & \text { or } 247 ' s . & 2.5 \\ \text { volt, } 2.0 & \text { amps., center } \\ \text { tapped, for } 1 \text { to } 2 & 21 / 2 & \text { volt tubes } & 5.0 \text { volt, } 2.0\end{array}$ tapped, for 1 to $221 / 2$ volt tubes 5.0 volt, 2.0 amps, center tapped. for $1-280$. Mounting holes:
 Cat. No. 5519.. For 25 C"ycle- $\$ 6.95^{\prime \prime}$

250 A.C. Power Transformer Rating: 175 Watts 180 Mils! Operates 8 Volt Tubes (1.75 Amp. Type-or 14 - 1.0 Amp. Typel) 2-250, 2-281 Tubes
Primary: 115 Volts A. C. Electro Statically Shielded Iligh Voltage: 1260 Center Tapped. Eil. Secondary No. $1: \quad 71 / 2$. Volis, $21 / 2$ amps.,
Center Tapped. for $2-281$. Fil. Secondaty No. 2 : $71 / 2$ Volts, $21 / 2$ amps., Center Tapped, fur 22250 . Fil Secondary No. $3: 21 / 2$ Volts, 14 amps., Cen. ter Tapped for
60 Cycle A.
C.
Overall
$21 / 2$
dimensions are 60 Cycle A. C. Overall dimensions a long, $35 / 4$ in. wide, $51 / 2$ in. tall.
Cat. No. 7169
\$4.95

Dealers and Servicemen Will
Save Money by Purchasing Replacement Transformers from This Page!
Assuming your customer's power transformer is enclosed in a metal can and is brought into your shop for replacement, simply MELT OUT THE ing the terminal brackets or other associated apparatus-then-insert therein the proper BASIC type transformer listed below, connecting the leads to the original terminal arrangement ! Why go to the expense of purchasing a netal cased replacement transformer? Why pay for a cased replacement transformer? Why pay for a of these transformers into such a can-we will urnish absolutely FREE sufficient PITCH vided you request it in your order for this series of transformers.

## Dual Mount - Terminal Board Feature <br> 



Any of the "COAST-TO-COAST" basic power transformers listed on this page can be furnished with ihe unique duclpurpose mounting bracket assembly as
herewith illustrated-you will note that herewith illustrated-you will note that
provision is made for mounting the transformers in an upright position, permitting terminal connections, to be made ABOVE the mounting surface . . however, the
same transformer can be inverselymounted same transformer can be inverselymeunted
through an appropriate "cutout" in the through an appropriate "cut-out in the chassis surface, this permitting all connec
tions to be made $B E N E A T I I$ the chassis! (By turning this catalog upside down, this dual purpose mount will bs immediately apparent! If you desire this feature incorporated on any transformer listed on
this page, please remit $45 c$ additional above the net cost price quoted, and above "Dho net cost price quated, after the catalog number.

If you further desire convenient bakelite mounting strips with solder lug terminals firmly riveted thereon, as illusirated herexith, please remit $75 c$ additional this
including the Dual Afount Bracket featurel ncluding the Dual Afount Bracket feature)
and urite "DAB-L" after the catalog number.

## 171 Type Power Transformer

 For 7-21/2 Volt ( 1.75 Amp.) or $12-$ 1.0 Amp. T 171A, 1-280 ${ }_{300-300}^{115}$ volt A. Cit, C $_{70}$ Primary. $300-300$ volt,
high voltage
secondary, center tapped. 2.5 volt, 12.25 amp., center tapped
 center tapped
171 A . s . 5 volt, 2.0 arp., center tapped, for $1-280$. Mounting holes
in. $\times 31 / 8$ in. $31 / 8$ in. high. Rated: 75 watt Cat. No. 5517.

NOTE: The new $21 / 2$ volt $56-57-58$, etc., Type Tubes only draw 1.0 amp., as compared to 1.75 amps., the current consumption of the 224, 227, 235, etc., types. You can, therefore, light more tubes of the new types on any given $\mathbf{2} 1 / 2$ volt filament secondary.

## Electrically Subjected to "Overload" Tests Before Shipment!

EVERY TRANSFORMER IS FURNISHED WITH DURABLE MOUNTING BRACKETS. They are also available with UNIVERSAL MOUNT BRACKETS, and with generouslength flexible leads or solder lug terminal board. All leads or terminal lugs are appropriately identified on a cleart; no costly guesswork on your part is therefore required I DOUBLE VOLTposed, to reveal any weak points in the insuposed,

## 245-247 Type Power Transformer

 Furnished with Two $21 / 2$ Volt Windings! For 7 - $21 / 2$ Volt ( 1.75 Amp. ) or 12. 1.0 Amp. tubes, 2 245 or 247, 1-280 115 volt A. C. Primary. 375-375 volt, 110 M. A., $375-375$ volt, 10 M. A., center tapped. 2.5 volt. 12.25 amps., center tapped. for 7 to $1221 / 2$ volt tubes. 2.5 volt, 3.0 amps., center tapped, for 1 or 2.245 's or 247 's. 5.0volt, 2.0 annps., center tapped, for 1.280 . Mount. volt, 2.0 anys., center tapped, for 1,280 . Mount.


$$
\text { For } 25 \text { Cycle- } \$ 3.35
$$

Polymet Heavy Duty 100 Watt 245-247 Power Transformer
Equipped with Two $21 / 2$ Volt Windings For 7 - 2 $1 / 2$ Volt ( 1.75 Amp .) or 12 1.0 Amp. Tubes, 2 -

245 or 2-247,

## 1-280



Primary: 120 volts A. C., tapped at 105 volts. Equipped with Electrostatic Shield. $375 \cdot 375$ volt, 110 M. A., high voltage secondary, center tapped. 5.0 volts, 2.0 amps., for $1-280.2 .5$ volts, 3.0 amps., for 2.245 's or 247 's. 2.5 volts, 12.25 amps., center tapped, for 7 to $1221 / 2$ volt tubes.
Mounting holes: $3 y / 8$ in. $\times 3 y$ in. Height above Mounting holes $31 / 8$ in. $\times 31 / 4 \mathrm{in}$. Height above sub-panel, $25 \%$ in. Rating: 100 watts. Connec-
tions are made to two terminal plates. $\$ 365\}$ Cat. No. 5522.
$\$ 3.65$

## 250 Type Power. Transformer



Equipped with Three 21/2 Volt A.C. Windings!

For 8 to $14 \cdot 21 / 2$ Volt Tubes, 1 or 2 . 250, 2-281

PRODUCES 1400 Volts A.C. Rating 150 Watts-180 Mils. D.C.
120 volt A. C. Primary, tapped at 110 volts. 700.700 volts at .180 amps. Fil. No. $1-7.5$ volt, 2.5 amps. for 2.281. Fil. No. $2-7.5$ volt, 2.5 amps. for 1 or $2-210,721 / 2$ vil. No. 3 - 2.5
volt, 7.0 amps. for 4 to 7 (ubes. Fil. volt, 7.0 amps. for 4 to $721 / 2$ volt tubes.
No. $4-2.5$ volt, 5.0 amps., for 3 to $521 / 2$ volt tubes. Fil. No. $5 \frac{2}{2} 2.5$ volt, 2.0 amps., for 1 to 2 $21 / 2$ volt tubes. Mounting dimensions: $31 / 4 \mathrm{in}$.
 $\times 3$ in. $x 378$ in. tall.
Cat. No. $6224 . . .$. .
"Coast to Coast" Heavy Duty A. C. Power Transformers . . . Cont'd.

Flat Mount "Bell Top" Power

## Transformer Series

For Midget and Regulation Size Chassis Application For Use With All Types of Volt Tubes and 280 Rec. tifier.

A compact power transformer ad a most every kind of set. Usually mounted by cut ming hole in chassis base sumiciently large to perof chassis. Lugs then come out at bottom for convenient connection. Cadmium plated steel half shell. Detailed diagram included.
For 4-6 Tube Super-Heterolyne Short Wave rimary: 115 Volts, 50.60 cycles dary: $275-275$ volts, 25 M . A A. C. Seconrilament winding: 5 volts, 2 amp., for $1-280$ : Filament winding: 2.5 volts, 5.5 amp., center tapped for 3 to $5-21 / 2$ volt tubes. Overall size: $\begin{array}{ll}31 / 4 & \text { in. } \\ 31 / 8 & \text { in. }\end{array}$
$\$ 1.45$
For 5 to 9 Tube A.C. Receivers
Primary: 115 volts, 60 cycles; Secondary: 650 olts, center tapped, at 45 M . A.; Filament No. $1: 5$ volts, 2 amp. for $1-280 ;$
2.5 volts; 6.75 amps. Overall $21 \frac{1}{8}$ in. Mounting dimensions :
$x 21 / 4$ in. Cat. No. 5522..


For 5 to 8 Tube A.C. Receivers
Primary : 115 Volts, 60 cycles; Secondaries: $350-350$ Volts, center tapped, at . 050 amps.; 2.5 Volts, ccnter tapped, 7 amps., for 4 to 7 tubes;
5 volts, 2 amps., for $1-280$. Mounting holes: $2 \mathrm{~g}_{8}$ in. $x 31 / 8$ in. Cat. No. 6225

For 6 to 9 Tube A.C. Receivers
Primary: 115 vclts, 60 cycles. Secondary: 650 volts, center tapped, at 55 M.A. Filament No 1 : 5 volts, 2 amps. for $1-280$ : Filament No. 2 ;
2.5 volts, 8.5 amps . Overall size $31 / 8 \mathrm{in} . \mathrm{x} 374$ in. Mounting dimensions
\$1.85
For 6 to 9 Tube A.C. Receivers
Primary: 115 Volts, 60 cycles. Secondaries: 350350 Volts, center tapped; 670 Amps. ; 2.5 Volts, 8.25 Amps., center tapped, for 5 to 8 tubes; 5
 Cat No. 6226 .

13 Tube A.C. Receivers
For 8 to 13 Tube A.C. Receivers


 Cat No. 5354.
\$2.85
For 8 to 15 Tube A.C. Receivers
700 Volts, $30 \mathrm{M} . \mathrm{A}$.
Primary: 115 Y Onts, . 60 cycles. Secondaries: ${ }_{350.350}$ volts. .090 amps; 2.5 velts, $1^{14}$ amps,
 Catt No. 6227.
\$3.90
to NOTICE: Any of the A.C. Transformers above listed can be furnished with a 2.5 volt, 3.0 amp. center-tapped woinding in addition to the present 5.0 volt, 2.0 amp. 280 , windinf) for the new 82 type MERCURY RECTIFIER for 90: alditional!
Class "B" Public Address Amplifier Brute Filter Choke 10 Henries, 200 Mils , 30 Ohms.
 it is necessary to employ a choke having the above spec-sfications-the secret of sucpowerful Class B Amplifiers
 ${ }^{3 \times 3}$ in. in.

Cat. No. 6230

Class "B"
Public Address Amplifier A.C. Power Transformer and Filter Chokes


Specially Designed For Latest Trpe PUSH. PUSH 46 Class "B" Tubes In Suitable Amplifier Circuits Producing Up to 25 WATTS AUDIO OUTPUT.
Operates Either 2-1.75 Amp. 21/2 Volt Tubes, or, 3-1.0 Amp. $21 / 2$ Volt Tubes; 1 or 2 "Driver" Stage 46 " $A$ " Tubes; 2-PUSH-PUSH "B" 46 Tubes; 1 or $2-82$ Rectifiers, $O R, 1$ or $2-83$ Ideal For Sound Truck Installations, Due to Amazing Low Power Consumption Drain of ONLY 120 W ATTS!
Class "B" amplifers requiro the highest order of elec-
trical $q u a t y$ trical quality apparatus cinpablo of penfect voltage rea ulation, and the ve:y heart of such an amplitier circuit is the A.C. Fower Transformer itself. You can be completely assured that this transformer merits the farorable consideration and adoption of 13. A. System Engineers ${ }^{\text {E }}$ - in fact, $^{\text {We }}$ use this very A.C. trans AMPLIFIER INSTALLATIONS! WAOUR thoughtful prudence in selecting suitable component parts should not end here
Brute Filter Choke than those listed below
PRLMARY: 113 rolts, $50-60$ cycles A.C. WATTAGE RATLNG: 125. (Can actually supply 180 watts. with standard temperature rise.) HIGH VOLTAGE: 415415, total D.C. mils 200, drawing 125 watts. (Total Fil. Secondary: 2.5 Volts, 3.5 Amps
Fil. Secondary: 2.5 Volts, 3.5 Amps, center tapped FiL Secondary: 2.5 Volts. 3.5 Amps .
Fil. Secondary 2.5 Volts, 3.5 Amps., center-tapped For maximum efficiency, the center tap on this winding is brought out in the form of the same size whie as the actual rinding Itself. DIMENSIONS: D.stance between mounting holes: $3 \% / 8$ in. $I 4 \%$ in. overall dimensions:
Lamination Stack measures $2 \%$ in. wide by 4 in by 43 in.
Cat. No. 6228

Class "B" Power Transformer for A. C. Receivers

Furniches all necessary Voltages for 7 Old Type $21 / 2$ Volt Tubes or 12 New Type 1.0 Amp. Tubes! For "Driver" Stage and For "PUSH-PUSH"

## Stages.



Makes Possible 36 Watt Reproduction Employing Only 300 Volts on tho Plates of Both Claes "fB" PUSE-PUSE 46 TUBES !

SPCCIFICATIONS
Primary: 113 velts, $50-60$ cycles A. C. Wattage rating: 100 watts. High voltage: $320-320$, total D.C. Mils. 150. Fil. Secondary: 2.5 volts, 14.0 amps., center tapped. Fil. Setondary: 2.5 volts, Fil. Secondary: 2.5 volts, 3.0 amps., for 1.82 mercury rectifier. Dimensions: Mounting holes: $31 / 8$ in. $\times 31 / 4$ in. $47 / 8$ in. high.
Cat. No. $6229 . . . . . . . . . . . . . . . . . . . . ~ \$ 5.95 ~$ Cat. No. 6229
(NOTE: We can also supply this transformer
with a 5 vo's. 3.0 amp. uinding for an 83 type
Class "B" A.C. Receiver and P. A. Amplifier Brute Filter Choke
15 Henrips, 175 Mils, 100 Ohms
With due modifections, all
 ${ }^{\text {Cindol}}$ able filter choke. $31 / 4$ in. long,
$33 / 8$ in. wide, $43 / 8$ in. tall

$\mathbf{\$ 2 . 9 0}$

250 A. C. Power Transformer


## Rating: 175 Watts

Built to Deliver 180 Mills. D. C. 1260 Volts A. C. Excellent for use in Public Address Amplifiers

Operates 8-21/2 Volt Tubes (1.75 Amp. Type-or 14-1.0 Amp. Type!) 2-250, 2-281 Tubes
Primary: 115 Volts A. C. Electro Statically Shielded High Vcltage: 1260 Center Capped. Fil. Secondiry No. $1: 77 / 2$ Volts, $21 / 2$ ampps.; Center Tapped, for $z$-281. Fil. Secondary No. 2 : $71 / 2$ Volts, $21 / 2$ amps., Center Tapped, for $2-250$.
Fil. Sccondary No. $3: 21 / 2$ Volts, 14 amps., Cen${ }_{\text {tcr }}$ Tappled for 8 to $1421 / 2$ Volt Tubes. For 50 ${ }_{60}^{\text {ter Cycle A. }}$ C. These transformers employ the very thnest quality of silicon iron laminations, and a large number of turns per volt-an assurance of maximum efficiency: By turning this page upside down, you will better visualize the convenience oftered in being able to make con-
ncctions to the soldering lug bakelite ncctions to the soldering lug bakelite plate, either above or below the chassis. The lamination stack micasures: $13 / \mathrm{im}$., and the core dimensions are
494 in. by $41 / 2 \mathrm{in}$., and the overall dimensions are 434 in. by $41 / 2$ in., and the overall dimensions are
$43 / 4 \mathrm{in}$. long, $31 / 4$ in. wide, $51 / 2$ in. tall Cat. No. 4263 .
$\$ 5.88$
Cat. No. 4263 -A. Same as Cat. No. 4263 above, but equipped with an additional $21 / 2 \$ \mathbf{S 6 0}$
Volt, 3.5 Amp. Winding............ Colt, 3.5 Amp. Winding.
Cat. No. 4264 . VENTIL
Cetal shield cese metal shield case, $47 / 8$ in. long, $31 / 2$ in. 80c
wide, $\bar{\delta}$ in. tall..........................

Mercury Rectifier Operated
250 Public Address Amplifier Power Transformers Rating: 165 Watts


The 14 Amp., 2 $2 / 2$ Volt. A.C. Supply Furnishe Will Operate Up to 8 - $21 / 2$ Volt, 1.75 Amp. Tubes, OR. $14-21 / 2$ Volt, 1.0 Amp. Tubes. Types 866-871-83 or 588 Mercury Rec tifierTubes May Be Employed
Due to the uninue placement of the solder lug termmounting luys. connections may be made thereto either above or below the chassis. The lamination stack measures: $17 \%$ in , and the core dimensions $a r e ~ 4 \%$ in
by $4 \%$ in. and the overall dimensions are $4 \%$ in. Long by $4 \%$ in. and the overall dimensions are $4 \%$ in. Long
$3 / 4$ in. wide, $51 / 2$ in. tall. The windings are as fol33 in. wide, 5 $4 / 2$ in. tall, The windings are as fol-
lows: Primary: 115 Volts A.C. Eleotro-statically lows: Primary 115 Volts A.C. Electro-statically Filament Secondary No. 1.2 .5 Volt. 6.0 Amps. for
2.871 Mercury Rectifiers. Filament Secondars No. 2. Filament Vecondary No. Center Tapped, For $21 / 2$ volts, 14 amp. 250 . A.C. For 8 to $1421 / 2$ Volt Tubes.
$\$ 5.95$
 Same as Cat. No. 5526, but equipped with
a 5 volt, 3.0 Amp. Ilectifier Winding ...... $\$ 0.40$

## Dual 866 Mercury Rectifier Type Transformer

## exactiy similar to Cat. No. 5526 but is equipped with

 1260 Volt Mercury Rectifier operated A.C. power iransformer.

[^7]Philco Power Transformers
 Enclosed in handsonle black en-
ameled steel cases, for sub-panel nounting. Overall sizes: 37

Philco Pari No. 4234

Cat No 5454 For Hodels

 Philco Part No. 3516 Cat. No. Philco Part No. 5117
$\$ 2.85$
-24, Philco Part No. 5117
Cat. No. 5456 . For Models 70,270,
470 . For $4 \cdot 24,1 \cdot 27,{ }_{2}+15,1-80, \ldots$ Philco Part No. 3868 Cat. No. 5457. For Models 7
For 3.'24, ${ }^{1 \cdot \cdot 27}$ Philco Part No. 3271

For 4-'26, Philco Part No. 8400
Cat. No. 5459. For Model 87. For
$42.26,1-27,2-45$,
Philco Part No. 3752
Cat. No. 5460. For Models 92, 95, 296. \$2.85

Cat. No. 5461. For Mlodels 111, 211, $\$ \mathbf{2 . 8 5}$
112, 212. Philco Part No. 49.38
Cat. No. S462. For Model 90. For $\$ \mathbf{2 . 8 5}$
Philco Part No. 3073


## Earl "A-B-C" 171 Power Transformer

 High-voltage secondary, filament winding
tapped. May be used in hinations:
Cat. No. 5448
Sparton-Thordarson A.C. Power Transformers
Cat. No. ${ }^{6216 .}$
For Models $69, \$ 3.75$
79, i9.1. $89 \ldots .$.
Cat. No. 6217.
For Models 99
Ensemble, 109. $\$ 8.60$
Ensemble. 109. ${ }^{\text {Cat. No. } 6218 .} \$ 6.75$
Cat. No. 6219. \$3.75
Cat. No. 6219.
For Model $930 . \$ 3.75$

## General Electric Step-Down Auto Transformer

Steps Down 220 Volts A. C. to 275 Watt Output
Will deliver sufficient current for any large set, including ralio-phonograph combinations. Also sultable for washing machines and other electrical appliances drawing heavy curTcint.
\$2.75


Jefferson 14 Volt A. C. StepDown Transformer


Primary, 110-120 Volts, 50-60 Cycies A. C. curtent.

212 Ampores.
Ideal for A Eliminators, Dynamic Speakers, Trickle Chargers, Bell


90c
Cat. No. ${ }^{394} \ldots \ldots$ Oni............. 14 Volts A.C., at 10 Amps.
$51 / 2$ in. long, $31 / 2$ in. wide, $27 / 8$ in. deep' $\$ 1.65$
Cat. No. 6214
\$1.65
A. C. Replacement Transformer for Zenith 50-60-70 Series, ZE50, ZE-60, ZE-70 Power Units
 Equipped with tapped primary and tuo 2 $1 / 2$ volt A. C. Windings Ideal for All Pentode Pover Packs Supplies filanent and plate

$\$ 4.95$
Replacement A.C. Power Transformer for Kolster K-20, K-21, K-22, K-23, K-25, K-27, K-28 A. C. Sets Ohe of the most popular
transformers in our whole liansformers in our whole
line. Will handle up to ${ }_{5.226 .} 1$ or $2 \cdot 227$. 171A. 1.280. Very com. pactly built.
Cat. No. $1350 .$. .
 $1.250), 2.281$.


Edison 245 A. C. Transf. (For R-4, R-5, C-4 Equipped with


Equipped with
Three $21 / 2$ Volt Fil. Secondaries
Designed for sets using
Six 227
two
$2+5$
or
tubes
2L tubes tive
tube. Furnishes 300 voits tilate current at 100 M.A. One filament winding lights $4-2277$ (or 224 ); one ilishts a 227 ( Detector);
 and one furnishes the hiifh voltaze (center 120 Voit 60 Cycle A. C. 5 in. $\$ 5.75$
6 Volt A. C. Bell-Ringing Transformer
With Optional Secondary for 3,30 Volts

## A.C.

Formerly designed for use speakers. to which it furnished $330{ }^{\circ} \mathrm{V}$. on terminals Nos. 4 and 5 . If not re. Guired, just ignore and use
 Nos. 3 and 4 for 6 V. A.C. $\quad$ rimary in. $\times 21 / 4$ in. $x 2^{1 / 4}$ in. Very useful around every shop, and in any home, as a bell ringer, Cat. No. 1460.

45 c


Circuit Breaker Can be adjusted to "open"
any circuit, at any pre any circuit, at any pre in the event of a "short." Passes up to 300 Watts.
Mounts in any convenient Mounts in any convenient red button "sets" the relay. Any short or orer
load, automatically dis. load, automatically disSaves thousands of dollars in fuses, tubes, power transformers, etc. Comnected in series with power line. Gasiny made into a portable unit.
\$2.65
Freed-Eiseman Heavy Duty 171 A. C. Power Transformer Equipped teith Convenient Mounting Frame and Terntinal Lugs Heavily bracketed, unusually well designed and constructed. For 4
 ${ }^{1}$ Cat. No. 6215
\$3.70
ings-above nodel only has one
 uind.
$\$ 4.95)$

Jefferson 171 Power Transformer and Choke Compact
Note the conveniently
placed solder lug terminals. Enclosed in a heavy gauge steel case,
6 in. long, 3 in. wide, 6 in. loigg, 3 in. wide, tapped at 110 volts and, 120 volts A.C. Tle center tapped high volt-
age secondary produces age secondary produces 500 volts; has a $1 / 2$ volt winding for 5.226 $31 / 2$ volt winrling for 1 tubes; a center tapped 5 volt winding for 1 or $2-171$, a a 5 volt winding for 1-280 Rectifier.
 duty 500 ohm, 80 mil. Also contains a heavy Cat. No. 6220 $\$ 2.95$

Thordarson No. T-3231 171A "A-B-C" Power Compact Contains A. C. Filament and Plate Transformer Combined with Two 30 Henry, 8.5 Mil. Filter Chokes
Operates 4 or 5-226, 1 or $2-227,1$ or $2-171$ A, This power pack is used in many standard re ceivers-you can very easily recognize this power pack containell in such A. C. receivers. Requires only a 280 tube and socket plus a 13,000 ohm, tapped resistor hank, to completely electrity any battery receiver. 'l'he solder lug terminal. (19 of them) are riveted to a bakelite strip at tached to the bottom of this compact. Four mounting holes are proviled, 1搝 in. apart and 658 in. away from each other. Contained in a handsome black japanned metal case (with roumted corners), 7 in in. long $33 / 8 \mathrm{in}$. wide, $41 / 2$ in. high. (tctual weight, 10 lbs.!) Each choke measures 300 ohms! 600 volts at 60 M . A. is produced! Both 5 -volt windings, the high volt age winding. and the $21 / 2$-volt windings and two chokes are CENTER-TAPPED.

# Cat. No. 2975-T3231 

## "Universal" A. C. 171 Power Pack

Furnishes A. C. Filament Voltages to 4-226, 1 or 2-227, 1 or 2-171 $A_{\text {, and }}$ 1-280 Tubes, also " $B$ " Voltages ( +45 r .
$+90 \mathrm{v} .,+180 \mathrm{r}$.$) with Self-Contained$ "C" Bias Provisions.
Handsone Hack japannerd netal Case, $15 \%$ in long, 278 in. wide, 636 in. high. Equipped with a HightLow A. C. line voltage toggle switch, and bakelite terminal strip nnderncath readil
movabie cover. For 110 volis, $50-60$ Cycles
Cat. No. 5707.
$\$ 7.50$
Kolster "A-B-C" 171 Mammoth A.C. Power Pack


Delivers $11 / 2$ volts for 4 or $5-326$. $21 / 2$ volts for 1-227, 5 volts for 1 or 2-171 and 5 volts for 280 Rectifier. Also delivers plus 45, plus 90 , plus 180 volts "13." as well as minus 6 volts and minus 45 volts "C" bias. Contains a valuable Speaker Output Choke with terminals. "Hi-Jo" Switch for various primary voltages. Conveniently accessihle hakelite terminal board, 12 -foot line cord, and provision for external fexible line switch. 1038 in . long, $4 / 4 \mathrm{in}$. wide, cat. No. 425. For use with Dyamic
or Magnetic Speaker Oprated Recivers

Brand New A. C. Power Transformer for Victor 245 RE-32, R-42, RE-45, RE-75 A. C. Sets

For 6.226, 1.227,
 $2-245$ (or 2-247 Pentodes!) 1-280 Tubes.
Equipped with Two $11 / 2$ volt, and Tivo $21 / 2$ Volt A.C. Secondaries and an 800 Volt. A.C. H. V. Secondary

These are not salvaged transformers, that have been removed from R.C.A. Victor Power Amplitiers-they are exactly what we say, viz., BRAND NEW! By brand new. We mean just this: The thansformer windlng itself is BlRAND NEW! The heat resisting and
moisture-proot sealing compound is BRAND NEW! moisture-proof sealing compound is BRAND Ne rivits Tne terminal lugs are all BIENVD NEW! These transiormers are made today by one of America's largest transformer manufacturer. who formerly made thousands of similar transformers for these 245 series receirers for The Canadian Westinghouse Co. GUARANTEED ONE YEAR
\$4.45
Majestic Replacements A. C. Filament and A.C. Plate Transf. for Majestic 7B6, 60, 70, 80, 7BP6, etc., Receivers Part No. 61
Fil. Transformer Contains: Primary wind-
 (used in 1 st A. F. stage) find other is for 3 or $4-226$ R.F. titbes. $1-21 / 2$ volt $A$. C. secondary for $1-227$; vocondary for 1 or or tapped tubes.
 ${ }^{5}$ int. $x 31 / 8$ in. $\times 41 / 8 \mathrm{in}$.

## Plate Transformer Part No. 67

Contains: Primary winding; center tapped high voltage secondary and center tapped C. secondary for 280.
tis in. Cat. No. 1313 .

95c
Majestic 90-91-92-93-100 Plate and Filament Power Transformer in One


Majestic Part No. $9 P 6$ and 436
For 5-z27, 2-245, 1280. $63 / 4$ in, long, 5

Cat. No. \$1.75
Majestic 90B, 100B, 130A, and $230 A$ Plate and Filament Power Transformers
Excellent for Replacement in All Other Makes of 245 or 247 Tube Equipped Receivers

For 5-227 (or 224), 2.245, 1.280.
\$5.95
Three Section By-Pass Condenser Block for
Atwater Kent Models 37, 38, 40, 42, 44, and 46. Consists of $\mathrm{C}, .25, .2$ $\begin{array}{r}\text { and } 25 \text { mid. sections. } \\ 75 \mathrm{C} \\ \hline\end{array}$

Replacement "A-B.C" Pover-Pack Unit

## Atwater Kent A. C. Sets Models 40-42-43-44-45-46-47. 52-53

## Contains both a Pover Transformer

 and Filter Condenser and Choke Unit For 4 or 5-226, 1 or $2-227,1$ or 2 171A (or 112A), and 1-280 To reyluce a defectivo power-Dack in any of the$A-K$ sets recuires
No
spo sets reluires
Kinowledge. Tools
Tpor ored leads needt simply to bue Skill; the it:Mhe wai-colored leads neent simply to n accordance with explicit directions furnished. heavy gauge stecl case is fumished, not a cheap case made of tin! This superior quality mack actually costs Less than much inferior units offered elsewhere! Ideal for Fully Efficient Conversion of Battery Sets into Modera A. C. Receivers
It follows quite logically that as the very heart of an $A-k$ set is in the power pack itself, you may wisely choose this pack for such conversion purposes. Also Ideal for Cse as a Power lark in Any Make $\Delta$-c Heceiver, using similar combinations of tubes. For Models 40.42-44-45.52
$\$ 5.95$
Cat. No. 1364.
55.5
 54. $\$ \mathbf{8 . 5 0}$

Replacement Condenser - Choke Block for Atwater Kent 37-38 Sets

## Contains Two High

Voltage Filter
Chokes, One
Speaker Choke and Four Condensers.
There are several replacement blocks for $A K$ sets being sold that only contain two ducing much less effic-
 ducing muc
This block contains three chokes and four condensers! It is a simple matter to replace this block into any AK 37-38-it exactly fits the space previously occupied by the block you are replacing-same colored leads furthcr assure im $41 / 8$ in. high. Comained in a heavy gauge metal case-not a tin can.
$\$ 1.95$

Filter Condenser Assembly Section for Atwater Kent Sets

## For 37-38 Sets



Consists of four highest grade filter condensers, steeped in pitch, making one compact unit. Can be very easily placed into the AK $37-38$ filter block, and ewired to the three chokes can also be used in most any power prack! Contains: 4-1 Mfd. sections (2-300 volt, 1
\$1.45

$$
\text { Cat. No. } 1375
$$

[^8]Speaker Filter By-Pass Condenser Block for

## Atwater Kent

Models 37, 38, 40, $42,44,46$.

60 C

Power Transformers for Radiola-R. C. A. Sets


For Radiclas 17, 18, 33 and 50, 51; Brunswick 2 KRO -
 KRO-5
$7-25$,
$7-26, \quad 17-8 ;$ 311.
R.C.A. Part No. 8335

> Furnishes Filament Pland and

Plate Current for +-226 ,
227,1 or 2 -171A, $1-280$ tube
600 volt center tapped high voltage secondary .... \$2.95
Cat No. 390 $\qquad$
For Radiolas 44, 46, 47
For RCA Part No. 8472
Furnishes P'late and Filament Cur rent for 3-224. $1-2+5,1-280$. (Actually designed to operate 5 $2 \underline{2}+2.227,2-245,1-280$. ) 660 volt center-taplued high voltage secondary.
Cat. No. 391.
$\$ 3.25$
Radiola 42 and 48 (see below)
For Radiolas 60-62
Brunswick 3NC8, 5NC8 Graybar 60
For RCA Part No. 8344
Furnishes Filament and Plate Current for 6 or $7.227,1$ or $2-171$ A.. $1-280$. 600 volt center
tapped high voltage secondary. Cat. No. 389.

## For Radiola 66

RCA Auditorium Phono.
Graybar 600
For RCA Part No. 8483
Furnishes Filament and Plate Volaze for 6 or
 Cat. No. 325.

For Radiolas 80-82-86
Victor 35-39-57 General Electric 31-51-71 Westinghouse WR-5-6-

7, Graybar 700-770-900
For RCA Part No. 8566 Furnishes Filament and Plate Voltage fo Cat. No. 2247.
$\$ 2.65$
Replacement Condenser Blocks for R. C. A. Radiola Sets

Also ideal for use in all other Standard makes of A. C. Receiver Re- Replacemen

|  | placement | for West- | For use in | Our |
| :---: | :---: | :---: | :---: | :---: |
| No. | fort No. | Part No. | Set No. | Price |
| 2251 | 8289 | WG 4 | 17.50 | \$2.70 |
| 2252 | 8333 | W G12 | 18, 33, 51 | . 75 |
| 2253 | 8476 | WG60 | 44. +6, +7 | 2.70 |
| $225+$ | $83+6$ | WG10 | 60.62 | 2.70 |
| 2255 | 8487 | 11.637 | 66 | 3.90 |

Genuine Radiola 42-48; Graybar, General Electric T-41; Vic tor 14-15-17; Westinghouse

WR-4; A. C. Power Trans-

## former

Part. No. 61950-RCA Part No. 8609 Protruding lugs slip through shits punclied out on above named chasses-they may be inrilled through then for other or cunting arrangenents

Delivers 1,000 Volts

## A. C.!

very unnsual transformer
 er circuits! Contains a tapped frimary, and the following secondaries 1,000 volt, center tapped ( 400 D. C.); 5 volts A. C. for $1-280 ; 21 / 2$ volts A. C.; 12 amps., for up to $6-21 / 2$ volt tubes ( $224-235-245$ or 227 's). Handsomely cadmium plated and shaped end cases. 458 in. high, 334 in . long, 334 inn , wide. For $110-120$ volts, $50-60$ cycles A. C. \$2.65 Cat. No. 3158
Cat. No. 5380.25 Cycle Model. Lamination
Stack, fully $23 / 4 \mathrm{in}$ thick!
$\mathbf{\$ 4 . 9 5}$ Total lenpth, 5 inches!

Zenith 50, 60, 70 Series

## REPLACEMENT POWER TRANSFORMERSCONDENSER BLOCKS

## For Every Make and Model Standard Receiver

We have grouped these transformers in respect to the POWER TUBES employed in standard Radio Receivers. and in accordance with the total number of tubes used, for the sole purpose of setting a common cost group price. When ordering. please mention the make and model number of the set for which you desire a You will find this an accurate and simple way to order Replacement Transformers . . and our prices defy competition !


[^9]All Transformers, etc., Listed Below, are Designed for 110 Volt, 50-60 Cycle A.C. Operation - Special Models Available for 25 Cycle for - $\mathbf{5 0} \%$ Additional


These Replacement Power Transformers Can Be Installed in a Few Minutes by Any Novice A clearly understandable
diagram
is diapram
nished. is
is
furneally is not necessary. ${ }^{\text {rear not }}$ for issentical for wiring identical
connections
wiring were made on your old defective transformer are made to these RE. PLACEMENT TRANSFORMERS.

Replacement Power Transformer For All Sets Employing ONE or TWO 171-A's As Power Output Tubes For Models using up to Seven For Models using over Seven $\begin{aligned} & \text { Tubes in all. } \\ & \text { Cat. No. } 6467-3.45 \\ & \text { Tubes in all. } \\ & \text { Cat. No. } 6468-\end{aligned}+431$

Replacement Pover Transformer For All Sets Employing ONE or TWO 245's

For Models using un to Seven For Models using over Seven Tubes in all.
Cat. No. $6469-3.35$ $\begin{aligned} & \text { Tubes in all. using over Seven } \\ & \text { Cat. No. 6470- }\end{aligned}$

Replacement Poner Transformer For All Sets Employing ONE Or TWO 210's or 250's For Models using up to Seven For Models using over Seven Tubes in all.
Cat. No. $6473-6.95$

Tubes in all.
Cat. No. 6474- 93.95

For Models using up to Seven
Tor Models using over Seven
Tubes in all.
Cat. No. $6471-3,5$
Cat. No. 6471- +3.5 Cat. No. 6472- -4



Apex 36, 37



|  |  |  | Dimensions |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\dot{\square}$ |  |  | $=$ |  | 三 |  |
| $\pm$ | 등흠 | 0 | － | ¢ |  |  |
| 0 | 号〉 | $\bar{\omega}$ | －${ }^{\text {－}}$ | I |  |  |
| 6962 | 2.5 | 10 | 23／4 | 41／8 |  | \＄5．94 |
| 5963 | 5 | 20 | $31 / 2$ | 45／8 | 55／8 | \＄10．00 |
| 6964 | 10 | 7 | 31／2 | 45／8 | 55／8 | \＄10．00 |
| Vote： | Seco | $\begin{aligned} & \text { ndar } \\ & 0,0 \end{aligned}$ | $\begin{aligned} & \text { ies a } \\ & 0 \text { vo } \end{aligned}$ | $\begin{array}{lc} e & \text { een } \\ \text { le text } \end{array}$ |  | pped； |

$\underset{\substack{\text { Transmitting } \\ \text { Plate Supply } \\ \text { Transformers }}}{\text { M }}$



| 2 |  | Bi< | Dimenslons |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | ＝ | ＋ |  |
|  |  |  | \％ | ＊＊ | 듞 | 돟 |  |
| ジ |  |  | 边 | 5\％ | \％ |  | \％ |
| cyos | 1311 | 150 | 3.10 | 2000 | $23 / 4$ | $141 / 6$ | 1\＄4．41 |
| 6968 | 30 | 210 | 250 | 3000 | 41 | 14\％／5\％ | 185.95 |
| 6970 | 30 | 250 | 150 | 3000 | 41／2 | 14\％15\％ | 187.06 |

Universal Set Tester
Filament Transformer With the use of suitable ou can obtain the fol you can obtain the fol－
lowing voltages： $11 / 2$ ． owing voltages： $11 / 2$ ． $21 / 2,4,5,61 / 2, ~$
10 volts $A .2$ and
The $21 / 2$ volt winding is center tapped，and the $71 / 2$ volt
winding is tapped at $11 / 2$
 vinding is tapped at $1 / 2$ A．C． $4 \mathrm{t} / 4$ in．tall， $21 / 2$ in．wide， 3 in． deep．

Cat．No． 6971
\＄1．95
Grebe AH－1 800 Volt
A．C．Transformer
Equipped with Individual 245 （or 247）Push－Pull Filament Windings
 Unusually heavy duty dimensions： $63 / 4$ in． deep．Un．long， 3 in． ture construction Primary，tapped at 110 and 120 volts； high voltage： 400
400 center tapped $\begin{array}{lll}21 / 2 & \text { volts，} 12.25 \\ \text { amps．；} & 21 / 2 & \text { volts，} 11 / 2\end{array}$ EL，ECTRO SHIELDED Cat．No． 6972
\＄3．95

## 

If this Transformer is purchased with a GREBE 30 Henry 150 Mil ．CHOKE
and a GREBE INPUT PUSH－PULL and a GREBE INPUT PUSH－PULL
TRANSFORMER at one time，the TRANSFORMER．at one
total net cost FOR THE
THREE UNITS WIT，I，RF

# $\begin{array}{cc}50 \text { Watt } 845 & \begin{array}{c}\text { Eveready Air Cell＂A＂} \\ \text { Class＂A＂}\end{array} \\ \text { Battery for 2－Volt } 230\end{array}$ Series Tubes 


 teries for filament power．Curves show that a 2 －volt an Eveready Air Cell＂A＂Battery for less than half what it would cost to run the same set from the most eco－ Numerous tests conducted with 7 － tube， 2 －volt reccivers show that one Eveready Air Cell＂A＂Battery will run such a set for well over 1,000 hours，or，on the basis of ${ }^{21 / 2}$ gours daily use，A WHOLE YEAR Capacity： 600 Ampere Hours

## Bronze Banquet

 StandHandsome deep maroon sta－ tuary bronze finish．So constructed，it cannot be
easily tipped over．Felt easily tipped over．Extends from 20 in． 1027 in．Furnished with microphone springs．
Cat．No． $6974 . \ldots$ ．$\$ 9.60$
Single and Dual Bronze
Microphone Broadcast Studio Stands
Q 0 Handsome，deep maroon statuary bronze finish．
Sturdy design prevent this stand fromign being easily tipped over．J3ase diameter
10 in．Stand tinded from a heigh be ex 10 in．to 6 ft ． 5 in． 3 f The single stand actuall weiths． 20 Ibs！Furnishe 6975.

Cat．1vo． 6975
Single Stand．
$\$ 12.00$
Cat．No． $6976{ }^{6} .{ }^{\prime}$ DÜAL STAND （Illustrated）．Each ring can be rr． tated around and locked at will．
ring is 24 in．apart． Springs furnished．．

## ＂Notorch＂Solderless Wire Splicer

Very ingenious．Insert
both ends of bared wires to be spliced into clamp ing jaws，made of rust－ proof，phosphor bronze．Then tighten up both if in．diameter，slot head and the connection is made to to Only 1 im ．long． 10 C Cat．No．${ }^{2066 .}$ Each，$\ldots$ In Lots of 50, \＄3．50

Bare Wire＂Splicer－ Connector＂
Excellent for＂splicing＂
 any two bare wires to
gether，such as leadi－in，etc．Place both ends into the tubular
sleeves sleces and crimp to
gether with a common plier．
Cat．No． 5372.
In Lots of 12，48c
Lock Washer Solder Lug Extreinely useful．
Tinned surface assur． rapid soldering．Ideal for auto radios，et
Cat．No．6977．Per Gross
75 C

\＄5．95

## －

Statuary Bronze Micro－
phone Desk Stand The 658．in．diameter ring，with its four
point suspension，will accommotate any mi－ crophone．Felt feet on base prevents marring
oif furniture on which it rests．Overall heiph 10
10 in．Base diamete
54 sirings included．
Cr Cat．No．$\$ 6.00$
6978 ．．．．．．
Microphone Desk Mount and Covers
 Ki／a in．diameter． Any microphone，in－ cluding largest sizes， can be mounted with－ the eight appropriate
springs provided．If microphone is jarred walls of the case $\$ 9.60$ Cat．No． 6980 diameter \＄5．40

Microphone Suspension Mount and Covers


Jr．Hand and Table
Mount Microphones


Excellent for＂home broadcasting，＇ Both models are equipped with cut． out switches，and genlerous length rubberized conductor．Measure $6 / 2$ in． NNY， 3 in diancter．Can be used weceiver（or conventional phono or nicrophone amplifier．）
Cat．No． 6827
Hand Microphone
$\$ 1.50$
Cat．No．6828．Table Model Micro－ phone，with Pedestal \＄2．00
＂A＂，＂B＂and＂C＂Radio Dry Batteries

Fulty guaranteed fresh batteries．Long ifie assured．Guaranteed full voltage． Cat Voltage 6982 and Type Size Cost 13\＆C
Horizontal
698345 Volt $41 / 2^{\prime \prime} \times 258^{\prime \prime} \times 51 / 4^{\prime \prime} 1.65$ Portable

698445 Volt $8^{\prime \prime} \times 31 / /^{\prime \prime} \times 7$ 1／＂ 1.45 Large
 Vertical
6985 45－Volt $81 / 4$＂$\times 41 / 2^{\prime \prime} \times 738^{\prime \prime} 3.25$ Vertical
 Battery
6988 1 $1 / 2$ Volt
$23 / 2^{\prime \prime} \times 6^{\prime \prime} \quad 35 \mathrm{c}$
Dry Cell
6 Volt Exide Storage Batteries
Cat．No． 6989
100 Amp．Hour
150 Amp．Hour
\＄11．25
＂Coast－to－Coast＂Carbon Button Hand Microphone Incorporates a genuine
carbon granule button，in－ geniously supported to a
supplementary
stretched
 attractively finished wooden handle and casc－fully 8 in． ped with a 6 ft ．long Equip－ －Protective screen prevents in－ jury to microphone inte－ announcing applications． Adapter furnished for ready connec－ tion to amplifier tube prongs． Cat．No． 6991
Complete
$\$ 1.75$

＂Frontal＂Tube Socket For rack and pancl installa－
tion．ldeal for use with tubes that mist be
upright mount－ ed，such as
$866,250,211$ 866,250, Made
 cast aluminum－ handsomely black crystal－ line finished．Equipped with positive contacts．Lend dignity to any installation． Cat．No．6993．UX Base， \＄7．35 Cat．No．6994． 50 Watt \＄8．82

Hubbell Porcelain

## Flush Current Outlets

 Rated 10 Amps．， 250 178 in．by 15 depth．Distance be mounting lug holes，
$13 / 4$ in．Terminal
screw connection．
Cat．No． 4054.

Thordarson Giant Size 200 Mil. 1400 Volt 250 Type A.C. Power Transformer

Dimensions: 6 in. Tall, $43 / 8 \mathrm{in}$. long, $43 / 4 \mathrm{in}$. vide-sh'p'g weight 18 lbs.!
For 8 to $14-2.5$ Volt Tubes, 2-250, 2-281 Tubes.

## Specifications

Primary: 120 volts, tapped at 100 volts and 110 volis.
liatage ratins: 375 watts. Wattage rating: 375 watts. Secondaries: High voltare, $700-700$ (at nio No. 1: 7.5 volts, 2.5 amps., center tapped. Fil No. 2: 7.5 volts, 2.5 amps., center tapped. Fii No. $4: 1.5$ volts, 2.0 amps, center tapper. but is available if ever necessary.)
$\$ 6.95$
Triple Twin 295 Mercury Rectifier Operated A. C. Power

Transformer
Capable of Delivering 150
Mils.! Furnished Fith a 2.5 Volt, 10 Amp. Winding for 1 or 2-295 Triple Twin Tubes! Can Furnish D.C. Field Excitation Cur-
 rent to a Dynamic Speaker!
Specifications:

> Specifications:

Primary: 115 volts, A.C. $50-60$ crcles. Wattage : mils. D.C., center tapped. Fil. No $\mathbf{~ 1 5 0 - 3 5 0 , 1 5 0}$ 10 amps., for 1 or $2-295$, center tapped. Fil. center tapped. Fil. No. 3:5.0 volts, 3.0 ampes, center tapped. Fil. No. $3: 5.0$ volts, 3.0 amps.,
center tapped, for either a 5 volt, 83 type Mercury Rectifier, or by using one-half of the winding, you can employ an 82 type Mercury Recti-
fier. Dimensions: M't'g. holes: $3 \pm / 8$ in

Thordarson Shielded Heavy Duty 200 Watt 150 Mil. 250 Power Transformer

Operates 5 to 8, 21/2 Volt Tubes, 2-250 (or 210) and 2-281.

## Specifications:

Primary: 130 volts, A. C. 60 cycles, tapped at 105, and
115 volts. Wattage Rating: 115 volts. Wattage Rating: voltage: $550-550$, at 150 mils., center tapped. Fil. No. $1: 7.5$ volts, 2.5 amps., center tapped.
Fil. No. 2: 7.5 volts, 2.5 amps., center tapped. Fil. No. 3: 2.5 volts, 8.75 amps., center tapped. Dimensions: 4 in. $x 41 / 4$ in. $\mathrm{x} 5 \mathrm{t} / 4 \mathrm{in}$. Sh'pg,
Weight, 15 ibs. Tester at 2500 volts. Note the valuable and convenient sub-panel mounting feature, with protruding solder lug
$\$ 4.90$
Combination 125 Mil. 20 Henry Tuned Choke and Hum-Bucking Voice Coil Winding
The voice coil hum bucking Finding system is employed on some of the finest made commercial receivers, and gen-
erally a separate piece of aperally a separate piece of ap-
paratus might be used for the purpose, entailing additional expense, hence the excellent value herein offered
is immediately apparent. The voice coil hum bucking wind
 ing is inserted in series with the dynamic speaker voice coil, and output transformer, and you replace your present filter choke with this one. There will be no drop in volume as the hum
bucking winding has no resistance-can be adapted to any dynamic speaker. The choke coil resistance is 400 ohms. Note convenient mounting brackets. A suitable hum frequency resonance condenser is self-contained and is shunted ane-and yet compactly constructed: $21 / 2$ inches long, $21 / 8$ inches wide, 4 inches high
\$1.75

Kolster 30 Henry 100 Mils. Filter Choke

Kolster Dual Choke Assembly One choke measures 800 ohms, 30 henries, 100 nils.and the other measures 1400 ohms, 30 henries, 60 mils. If connected in parallel, you will obtain 500 ohms, 160 nils! Contains unusually wide stacked laminationmeasuring fully 1 in. thick! Oyerall dimensions: $53 / 4 \mathrm{in}$. tall, 3 in. long, $13 / 4 \mathrm{in}$. wide. Mounting holes provided along all four sides of the
 sturdy bracket assembly.
\$1.95
RCA-Victor Filter Choke Rating: 200 Ohms. 30 Henries, 125 Mils.
Formerly used in
52,
RE-45,
75
 mount crimping Luss--panes can be bent out at 90 degrees to form conventional mounting feet, requiring only a suitable size hole to be drilled through same. Overall size $31 / 2^{\prime \prime} \times 31 / 4$ " $\times 21 / 2$

$$
\text { Cat. No. } 6236 .
$$

## Grebe Choke

 Rating: 700 Ohms, 150 Mils., 30 Henries Ideal for either sub- iranelor "bread board" fashion or "bread board" fashion
mounting. Unusually large
coit-full

 $z_{2,}$ in. wide, 3 in. tall. Choice of solder lug or
flexible lead terminals.


2,500 Ohm Filter Choke Insert this choke in place of 2500 ohm D. C. field, enabling use of any A. C. dynamic speaker.
Most present day A. C. receivers use a D. C. dynanuc speaker field coil, as one of the filter chokes. If you wish to use an A. C. dynamic
speaker, having one on hand. simply insert this choke into the circuit where the fielid coil of the D. C. dynamic was connected, thereby equip the the power pack with the necessary two fing chokes! 378 in. high. henry. $33 / 8 \mathrm{in}$. long, 2 in . wide,
20 Cat. No. 1499
\$1.25

## Kolster K-42 Hum-Bucking Filter Choke



R C A 104 Dynamic Speaker 210-250 A.C. Transformer


Ideal for Full Wave Rectification Delivers 1,100 Volts!

 ily used by substituting a 30
ohm ( 75 watt) resistor, should you desire to use this exceilent transformer in the construction of a public address the laminations alone are $31 /$ inches thick in sizemeasuring $61 / 2$ inches loag, The base measures 6
inches long, 4 inches wide, $4 \%$ inches high. Contains: inclies long, 4 inches wide. $4 \%$ inches high. Contains:
a $21 / 2$ ampere. 7.5 volt A.C. center tapped secondary
 secondary; a 1.25 ampere, $7^{1 / 5}$ rolt A.C. sccondary for
1 or $2-210$ or 250 . The high voltage winding is 250 ohms, and will deliver approximatels 200 mils. 1.C. For 110 volt, $50-60$ cycle $A . C$.

Cat.
Cat.
No.
No.
31565 \$2.95
Cat. No. 3157 .
30 ohm ( 75 watt) Resistance
60c

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

"Coast-to-Coast" Super
Laboratory High Voltage Condensers


Guaranteed One Year Free Replacement!
Combines both presentable appearance and all-around excelence, both clectrically and mechanically! Impervious to noisture and atmospheric conditions. Multi-tissue, metal-frec di-electric insures against possibility of breakdown under sudden excessive voltage surges and absolute freedom from pessible leakage. Costs slight ly more-but undeniably worth the types of public address systems, power amplifiers; A. C. set power packs, etc.

600 VOLT
 $\begin{array}{lcccccccccc}1650 & 1 & 39 \mathrm{c} & \mathbf{1 6 5 2} & 4 & \$ 1.25\end{array}$

The 2 Mfd . unit measures $23 / 4 \mathrm{in}$. long, $1 \mathrm{t} / 2$ in. wide, $5^{51 / 4}$ in. high. $\begin{array}{llll}\text { Cat. } & \text { Our } & \text { Cat. } \\ \text { No. } & \text { Our } \\ \text { Orice } & \text { No. Mfd. Price }\end{array}$ $\begin{array}{llllll}\text { No. } & \text { Mfd. Price } & \text { No, } & \text { Mfd. } & \begin{array}{l}\text { Price } \\ 1653\end{array} & 1\end{array}$

## Polymet "Hang-Up" Filter Condenser Cartridges



Far superior to the many "cheap market-and injured servicemen's market-and injured servions. Made exactly to R. M. reputations. Made exactindards. The A. and N. E. M. A. standards. Bot insulation is plainly stated. Bot the foil and condenser tissue are of the highest quality obtainable. The voltare vacuum impregnated. The volages given voltages. Real freedom from trouble is your just expectation if you exclusively use POLIMET CONDENSER SECTIONS. 400 VOLTS D. C. Cat. Cap. Mfd.

Your No. Cap. Mfd. Size ${ }^{\text {St }}$ Price 5356
5357


Ideal for replacement in all Tobe "A" and all other ". A" eliminators use three of these unitsonly two. Max. C. Polarity plainly marked. 45 Cat No, 554 in. high.
2000 Mfd..
\$1.45
3 for $\$ 3.95$

Elkon 3000 Mfd. Dry
Electrolytic Condenser
1deal for All "A" Elininators and A. C. Dynamic

Speakers - As
Hum Eliminators!
$6 \%$ in. tall,
 95c

R.C.A. and StrombergCarlson 20 Mfd. Filter Cond. Block



Sparton 3.25 Mfd. 600 Volt Condenser
Equipped with
One 3 Mfd., and
One $1 /$ Mifd.
Sections
The . 25 mid. section
has its own common,
whereas the metal case
is the common termi.
nal of the 3 mid. sec.
tion. An over-size condenser $151 / 2$ in. tall, $31 / 2$ in. long, 158 in. wide. Sub panel mounting screw
Cat. No. 6056
49 C
Polymet 4 $1 / 2$ Mfd. Condenser Block


Primarily intended for subpanel mount, these two blocks can be mounted to suit your requirements. Measures 5 in. long, $21 / 2$ in. wide, $41 / 2$ in. tall. All terminals are marked numerically in microfarad rating. Attractively aluminum finCat. No 6054. Total 8 mfds tapped as follows $\$ 1.25$

Cat. No. 6055. Total 13 mfds., tapped as follows:

## Clarostat Line Ballasts



Victor 600 Volt-103/4 Mfd. Condenser


Block
Ideal for Any Make Pentode or 245 Set! of terminals No. 1,5 mids. No. 2, 3 mids. mids, No. ${ }^{4}$ nfds. 600 working voltage 103. conservatively rated Size: 53; in long, 5 in high and 4 in 74 id Toused in a durable and in. wide Cat. No. 271.

## 4 Terminal Improved Victor Cond. Block

 ntroduced by Victor, as a far su perior substitute for the original deign block, as above illustrated and described. Many servicemen have decided to concentrate on the use of this block, for obvious reasons. Serves as a replacement in the same ets as the above type was designed Eat. No. 7164.\$3.95

## Brunswick-Bremer Tully 600 Volt Condenser Blocks

## Ideal for General

 Replacement Requirements in 245-247 Receivers!Dimensions: 3 tf in. long, $13 / 4$ in. wide, 3 in. high.
Cat. No. 3452. Contains following capacities: 1., 1, Common; .5, Common; .25, 1.1 .., Common; . $5, .25$, Common. (Note the separate groups - desired, these separate com mons" may be wired together, giving a grand total of
5.5 mfds .!

75C
Cat. No. 3453 . Contains following capacities: 1., 1.: .25, Common; 1., Common; 1., Common; 1., Common; 1., Common. A total of 6.25 mon; 1., Common
$\$ 1.00$

## Apex-U. S. Radio and Television Filter

 600 Volt-""245 or 247',-Rating! Une of the most compact bloc':s on the signed for sub-panel assemblies, but can be mounted to suit any mechanical require ment. $27 / 8$ in. long high.Cat. No. 3460. Contains 4-1. mid 1-3 nifd Case is common 5 highly insulated leads. Total: 7 mfds .
Cat No 3461 Comains $2-1$ mid -2 mid.; $1-1.5 \mathrm{mid}$; $1-1 \mathrm{mid}$ highly insulated leads. Case is Conmon.
Total: 5.6 mifds .
$\$ 1.50$
25 Cycle Model
Cat. No. 3462 . Ideal for all 245 247 sets in 25 cycle districts! Contains: $1-2$ mid. ; $2-1$ mid. ; 1mon. 5 highly insulated $\$ 2.95$

Kolster Wire Wound Resistors
Choice of 700 ,
$1200,1400,1900$,
2200
ohms and 2300
0
Cat. No
106

[^10]
## Mershon Electrolytic Condensers



Rated 450 volts D.C. Self-healing! Absorption of voltage surges fully protect power pack components. screws-inverted types do not require this.


Philco Original Filter Condenser Replacements For Model 65 Philco No. 3515.
Cat. No. 6870
\$2.95
For Model 82 Philco No. 3279
\$2.95


For Model 86
Philco No. 3246
Cat. No. 6872.
Philco No Fnr Model 87
Pat No. 3401
\$2.95
$\$ 2.95$
General Electric 3 Mfd.
Capacitor
Rated at 110 Volts A. C.
 Furnished with heavy gauge, stranded wire,
with fabric and rubber covered insulation. in. long, $21 / 4$ in. wide,
$7 / 8$ in. thick. Note $7 / 8$ in. thick. Note
convenient mounting
fect. Ideal for A. C fect. Ideal for A. C. line filters, or, course, for geneal by-pass dutes. $\mathbf{4 5}$ Per Doz. $\$ 4.95$

General Electric 3 Mfd. 600 Volt Condenser
Encased in a durable steel cnntainer, with
mounting lugs. Gei. mounting lugs. Gen
erously proportioned erously proportioned. $47 /$ in $_{\text {in }}^{\text {long, }}$
wide, Equipped with 8 in. long, heavily sulated fexible leads. Cat. No. 85 c

6874. .

Micamold Four Section By-Pass Condenser

mon. Equipped with solder lugs and mounting feet. 2 in . long, $1 / 8 \mathrm{in}$. wide, $3 / 4 \mathrm{in}$. tall.
Cat. No. 6875
45c
Per Dozen, $\$ 4.95$

Flechtheim 1000 Volt D.C. "Superior" Condensers Safe to $\begin{gathered}\text { use in } \\ \text { type } \\ \text { the } \\ \text { ampli- }\end{gathered}$
 wer packs. Dependable for continuous servphysical size. Special process
nated. Non-Inductive windings. Flash breakdown over 3000 volts fich. Equipped with fork-type terminals. cat.
 Price
7 fyc

## 7 yc 72 c

600 Volt D.C. Non-Inductive Filter Condensers

| tat. |  |  |  | Or |
| :---: | :---: | :---: | :---: | :---: |
| ${ }_{\text {N }} \mathrm{N}$. | Capacity | $2^{\prime \prime} \times\left. 1\right\|_{1 / 16^{\prime \prime}} ^{\text {Size }}$ | 3/16" | Price |
| 60. | 25 mind. | $2^{\prime \prime} \times 1 /{ }^{\prime \prime}$ | - 1/4" | 0 |
| c95 | . 50 Mfd . | $2^{\prime \prime} \times 1 \times 1{ }^{\text {³/," }}$ | $\times 1 /{ }^{\text {c/" }}$ | 33c |
| ع96 | 1 Mfd. | $2^{\prime \prime} \times 13{ }^{\prime \prime}{ }^{\prime \prime}$ ", |  | 510 |
| 7 | $2{ }^{\text {cod. }}$ | $2 \prime \times$ $2^{\prime \prime} \times 1{ }^{\prime \prime} \times 13$ | x $31 / 16^{\prime \prime}$ | \$1.35 |



Precise Single Section Straight Line Tuning Condensers


Excellent for Gangingable Shaft Feature!
Shafts may be extended for drum dial control or due to the removable shaft feature, condensers may be placed on rear of chassis, and controlled by any length $1 / 4$ inch brass shaft, Each condenser is equipped metric adjustable Compensator! Overall length, $31 / 2$ inches, and 3 in. high, with rotor plates open.
high, with rotor plates open. YOUR
No. Cap.
PRICE
Plates Mfds. PRICE
Cat. No. 3421 . 5 . $000075 . . . . \$ 1.45$
$\begin{array}{llll}\text { Cat. No. 3421. } & 5 & .000075 \ldots . .11 .45 \\ \text { Cat. No. 3422. } & 7 & .00=13 \ldots . .1 .45 \\ \text { Cat }\end{array}$
Cat. No. 3423. 9 . $00015, \ldots$, .... 1.45
Cat. No. 3424. 13 . $00025 \ldots . . .1 .1 .50$
$\begin{array}{llll}\text { Cat. No. 3425. } & 15 & .0003 \ldots \ldots . . .1 .60 \\ \text { Cat. No. 3426. } & 17 & .00035 . . . . . & 1.65\end{array}$

| Cat. No. 3426. | 17 | $.00035 \ldots \ldots . . .1 .65$ |
| :--- | :--- | :--- |
| Cat. No. 3427. | 23 | $.0005 . . . . .$. |
| 1.75 |  |  |

Cat. No. 3428. 43 . 001
2.25

## 18 Inch Long $1 / 4$ Inch

 Diameter Brass ShaftCat. No. 3450.

"Coast-to-Coast" Dry Electrolytic 500 Volt Peak Condensers


Cat. No. 5906
Cat. No. $6884 \quad$ Cat. No. $5906 \quad 5213$ to $5226 \quad$ Cat. No. 6890
Cat. No. $6884 \quad$ Cat. No. $5906 \quad 5213$ to $5226 \quad$ Cat. No. 6890 Conservatively rated MOU NTS UPRIGHT-CONNECTED AT

 constructed conden- 6877 function under sud- 6879 ......... 8 8 8 13/8x41/8 den surges of 600 MOUNTS UPRIGHT-CONNECTED AT volts . . should MOUNTED BY RING CLAMP

 ture of the contents 6882 is such that a Self- 6882 Healing Action fol- 6884 lows! As these con- 6885 densers are non- 6888 liquid, they can be 6888
 Your sition, and further- INVERTED STUD MOU NTING-Container more, no liquids can Grounded Connection is Made at Bottom $\begin{array}{llll}\text { run or leak out. Cat. } & \text { Cap'y. Mid. Total } \\ \text { Here are a few No. } & \text { at Anodes Cap'y. Size Ins. }\end{array}$ $\begin{array}{llllll}\text { Here are a few } 6889 & \ldots . . .4_{8} & 4 & 13 / 8 \times 23 / 3 \\ \text { nore of its valuable } 6890 & . . . & 8\end{array}$ features: Low cost 6890 per microfarad per $6892 \ldots .$. .... $4-4 \quad 8 \quad 13 / 4 \times 43 / 8 \quad 1.05$ volt rating; low INVERTED STUD MOUNTING-Container Involtage
long life; exake;
extreme Cat. sulated, Connection is Made at Bottom
Cap'y. Mfd. Total $\begin{array}{llll}\text { long life; extreme Cat. } & \text { Cap'y. Mfd. Total } & \text { Cont. } \\ \text { compactness; rivals No. } & \text { at Anodes } & \text { Cap'y. } & \text { Size Ins. }\end{array}$
 Your
Cost
paper dielcetric con-
LOW VOLTAGE ELECTROLYTIC
CONDENSERS
factor: unaffected For Pentode "C" Bias
by ordinary temper- Cat.
atures; minimim No.
chemical action on 6894
Cap'y. Mfd. Total Cont.
at Anodes
Cap'y.

## Cardboard Container Dry Electrolytic Filter Condensers

| 500 Volt D. C. Peak rated. Cat. |  | Peak | Your |
| :---: | :---: | :---: | :---: |
| Equipped with two vari- No. | Capacity | Volts | Price |
| colored flexible leads. Ex- 5902 | 1 Mfd . | 500 | 30c |
| cility offered of mounting 5903 | 2 Mfd . | 500 | 35 c |
| these condensers in any po- 590 sition makes them truly in- 5904 | 4 Mid . | 500 | 40 c |
| valuable. The casing, of 5905 | 6 Mfd . | 500 | 50c |
| course, contents. | 8 Mfd . | 500 | 60 c |

## Tubular Dry Electrolytic Pig-Tail Condensers

Encased in Cardboard Containers and Equipped with Tinned "Pig-Tail" Leads!

Mounted in wax impreg-
nated moisture proof card- Cat. board tubes, closed at each No. end with metal cap, mak- 5907 ing the finished condenser 5213 unit, hermetically sealed. 5214 These condensers are made 5215 to be self-supported be- 5218 to be self-supported be- 5219 tween wire leads, or they 5222 can be eyeleted to chassis 5223
or bakelite supports. Each 5224 condenser has a negative 5225 and positive terminal. 5226

Total
Cap.
Mfd.
$\mathbf{l}^{5}$
$\mathbf{1}^{2}$
1
1
2
2
5
5
10
10
20

Compact 8 Mfd. 600 Volt Peak Electrolytic Condenser
The ribs or vanes aid in the cooling of the condenser, thereby making it more efficient in opera. "breathing" space in the midget chassis for other component parts.
Although its size has been decreased considerably, in comparison with the standard 8 mfd . metal container, the quality of the condenser has not been (Working voltage: 450 Volts.) $3_{1_{6}^{7}} \mathrm{in}$. long, $13 / 8 \mathrm{in}$. diam.

# Supreme-Polymet <br> and Dubilier Dry <br> Electrolytic Condensers 

## 500 Volt D. C. Peak!

 Can be used in any cl are not subing extremes of natural heat. and humidity conditions. The section is "potted" in a wax that has a high
melting point (it wilf not melt when placed near a resistor or power high insulation resistance so that current will not leak through the contaner multiple ground whits, which are metal cased, the conmon connection (which goes to negative) is brought out separately.

## All Models Are Enclosed in

 Insulated ContainersCnlike most electiolstic condensers, the
outside casing is not electrically a pat outside casing is not electrically a a part
of the condenser: yantakes this offers will be imneliately irgarent-makets them metal chasise ! inal for mount-
insmuch as they an be mounted in any angle, their value is furt ther enhanced. You can actuenty
mount the sinfle sections in the same mechanical manner as you would it "hang-upl" Every service-man should
carry a fair quantits of each of the most calry a
important
limeruen

## Single Sections

Condensers Are Contained in Cardboard Containers

Contained in Metal Case Containers


Crosley-Potter . 5
Mfd. By-Pass Condenser 200 Volt Rating
 One would were the these were the pro-
verbial verbial "hot cakes"-that
is how they sell! Naturally, a con siderable portion of our sales on
this item are for actual replacement this item are for actual replacement ever, due to its unusual compactness, these superior metal cased condensers enjoy a tremendous sale for any murjoses where the best quality . 5 mifl. condenser is desired. No wonder then, that they sell like hot lugs $2 \frac{3}{16}$ in. Terminal soldering lugs are well insulated from the case. Buy them by the dozen! Why be caught unprepared-a few ol these condensers in your supply bag gold":"
In Lots of 12, \$2.75.. In Lots of $25, \$ 5.45$.

## Crosley .5 Mrd. By- <br> Pass Condenser

400 Volt

## Rating for

 ReplaceNo. W4919


- Mthough thousands of these uscful sold for replapass condensers are Crosley sets, just as many thousands more are sold for general use in all receivers! Finest quality withe in all doubt! Distance quality, without a doubt holes, 23 istance between mounting holes, 238 in. The ready tinned terterminal strip. Buy them by the dozen-vou can always use them
Cat. No. $34999 . . . . . . . . . . . \quad$ 30c
In Lots of 12, \$3.25
In Lots̄ of 25, s6.25.


Polymet 1 Mfd., 300 Volt Filter Condenser
Cat. No. 287
$35 c$ ea., $\$ 3.60$ per doz.
Polymet "Wax-Tite" Pig-Tail Condensers
 sealing wax, you can solder to the two tinned flexible leads, without is a very important feature! All capacities and voltage ratings are printed
on the covering-another valuable feature, as you will carry dozens of on the corering
them in stock!

200 Volt D. C.

| 200 Volt D. C. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. No. |  | city | OUR | I.ots | Cat. |  |  | OU | Lots |
| 4225 | . 05 | Mfd. | .. 10c | 1.08 | ${ }^{\text {No. }}$ | Cap | city | PRIC | of 12 |
| 4226 | . 075 | Mfd. | 10 c | 1.08 | 4229 | . 5 | Mfd. | 16 c | 1.80 |
|  |  |  |  |  |  |  |  |  |  |
| 4231 | . 001 | Mfd. | 10 c | 1.08 | 4236 | . 1 | Mfd. |  | 1.32 |
| 4232 | . 005 | Mfd. | 10 c | 1.08 | 4237 | . 15 | Mfd. | 13 c | 1.44 |
| 4233 | . 006 | Mfd. | 10c | 1.08 | 4238 | . 2 | Mfd. | 15 c | 1.60 |
| 4234 | . 01 | Mid. | 11c | 1.20 | 4239 | . 25 | Mfd. | 18 c |  |
| 4235 | . 05 | Mfd. | 11c | 1.20 | 6057 | . 5 | Mfd. | 21c | 2.29 |
|  |  |  |  |  |  |  |  |  |  |
| 4240 | . 01 | Mfd. | 14c | 1.55 | 4244 | . 25 | Mfd. |  |  |
| 4241 | . 05 | Mfd. | 14 c . | 1.55 | 6059 | . 5 |  | 32 c |  |
| 4242 | . 1 | Mfd. | 15c. | 1.65 | 6060 | 1. | Mfd. | 59c | 6.75 |
| 4243 | . 2 | Mfd. | 19c. | 2.05 |  |  |  | . | 6.75 |

400 Volt D. C. Upright By-Pass Condensers


Universal By-Pass and Filter Condensers Highest grade it itan herneliaty , taractivid

venient mounting feet and solder Cat. No. Cap. 200 Volt 400 Volt $\begin{array}{lccc}\text { Cat. No. } & \text { Cap. } & 200 \text { Volt } & 400 \text { Vol } \\ 5943 & .1 & 18 c & 21 c \\ 5944 & .25 & 22 c & 27 c \\ 5945 & .5 & 28 c & 37 c \\ 5946 & 1.0 & 32 c & 45 c\end{array}$ ${ }^{5946}$ Dual and Triple Units ${ }^{1.0}{ }^{32 \mathrm{c}}{ }^{45 \mathrm{c}}$

| U |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 5947 |  |  |  |
| 5948 <br> 5949 | ${ }_{.25}^{12}=.25$ | - 38 c |  |
|  |  |  |  |
| 5951 |  |  |  |
| Tubular Dry Electro lytic Pig-Tail Condensers |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Encased in Cardboard <br> Containers <br> and

Equipped
with Tinned "Pig-Tail" Leads! Mounted in wax impregnated mois. ture proof cardboard tubes, closed at
each end with metal cap, making each end with metal cap, making
the finished condenser unit hermetically sealed. These condensers are made to be sell-supported between wire leads, or they can be eyeleted to chassis or bakelite sup-
ports.
Each condenser nas a nega. tive and positive terminal. Either
Can be Used for Filtering, Audio Frequency Bi-Passing, or C-Bias Work.


## Victor Triple By-Pass

 Condenser

Required as $\begin{aligned} & \text { row } \\ & \text { placement } \\ & \text { in }\end{aligned}$
placement in
Compact enoust 52,75 Receivers. tion in any R. F. Circuit By-Pass System, measuring over-all: : 274 ind terminal lugs are provided. 45 C Cat. No. 3457
in Lots of 12, $\$ 4.80$

Victor $\mathbf{1} 1$ Mfd. ByPass Condenser
Victor Part No. 608351929. 1930 Series Equipped with long flexible leads and crimping lugs. (May be bent out at rigit angles for any mounting quirement). Only ${ }^{2 ? 3}$ In in. long,
in. wide, $1 / 2$ in. high. Cat. No. 7165 high.

15c
In Lots of 12, $\$ 1.60$

## Stromberg-Carlson Buffer Condenser

## Capacity:

1. Com.
mon-. 01
Contained
compact,
in
black
compact,
japanned
metal
case, 234 in. long overall, $1 \frac{9}{10}$ in.
wide, $1 / 2$ in. high. Equipued with
soldering terminals, and two slotted soldering terminals, and two
mounting brackets.

Heary Duty Rating

| Cat. No. Lots of 12, $\mathbf{1}$ 3.60 |  |
| :---: | :---: |
| Kellogg . 05 and . 1 |  |
| denser |  |
| $8$ | Eguipped with $t \operatorname{nned}$ flexible leads, and two nounting feet. 2 in. long, ${ }^{3 / 8}$ in. OUR |
|  | Price Per Dozen |
| ${ }^{\text {Cat. }}$ No. | 15C \$1.50 |
| Cat. No. 5283 | 25c \$2.45 |

Triple Section R. F. ByPass Unit


Tungsol Quadruple Unit R. F. By-Pass Unit

最安
Contains four .25 mfd . ing a total of 1 mfd Equipred with long heavily insulated flexi 134 in. $x 11 / 8$ in.
No. 6061
39c

## Aerovox Multi-By-

 Pass Condenser Unit Contains: 1-. 25 Mfd. with its own "common"; then, Mfd.; with the casing as ,"common."Enclosed in a moisture proof compound
filled netal can, 2 in. wide, $21 / 4 \mathrm{in}$. long, 1 ? in. tall. Note the unusually long heavily insulated vari-colored leads, With stranded tinned leads-9 leads passing requirements. For subchassis, or above chassis wiring
Cat. No. 5284 .
In Lots of $12, \$ 5.40$

## Servicemen: "A Stitch in Time Saves Nine"

## Be Prepared with Any of Our Replacement Parts Assortments!



Serviceman's Assortment of Polymet Pig-Tail Tubular Condensers
Constructed physically the same as a pig-tail resistor-the tinned an may be soldered direct to terminals approxiin. diameter. Hermetically sealed. Range ages ranying from 200 to 600 volts! All assort ase are well apportioned!
Cat. No. 2434.
Kit of $12 \ldots \ldots$
\$1.55

Polymet 400 Volt Tubular By-Pass Condensers


Polymet Tubular Condenser Kits Contains 24 Assorted Condensers, 5 as follows $4-.25$ mfd.
${ }_{2=.0}^{42.0}$ midd.
Cat. No. 2442.
Our Price.....
Cat. No. 2443 .
${ }_{6 \rightarrow .1}^{2}$ mifd:
${ }_{6-} .2 \mathrm{mfd}$.
\$4.95
Kit of 12 Condensers
\$2.75
Dubilier . 25 Mfd. 200 Volt By-

## Pass Condenser

The metala case serves as one
 terminal conncction. annd $1 / 4 \mathrm{in}$. wide, 34 in . tall.
Cat. No. 6104...... 17c
G.E. Flush Current Female Outlet Receptacle

 iong View shows' terni nat luys protruding: Merimal
shell bakelite shell-bakelite housinc
Cat. No. 6105 ... 25C
Pre
D.
. 05 Mfd. 1000 Volt Condenser


Terminalscrew mount. Equipped with two 6
fle inible
in
 198 in. wide, $/ 8 / \mathrm{in}^{2}$. de
Cat. No. 6113.
30c
Per Dozen............... $\$ 3.20$


Polymet Mica Moulded Bakelite By-Pass Condenser Assortment Kits

## Mica Dielectric



Cat. No. 2438
Our Price.
Cat. No. 2439. Ass't Kit of 10 Con- $\$ 1.30$
densers. (Very well apportioned as- $\$ 10$ sortment.)
Fast Dual . 1 Mfd. 400 Volt ByPass Unit
Conderser contents insulated from the caseconmion. Mounts flatmounting feet provide this. 2 in. long, $15 / 4 \mathrm{in}$. Wide, $1 / 2$ int. th
Cat. No. 6106

. 1 Mfd. 600 Volt Condenser Metal cased-equipped with two mounting fiet.
6 in. 1 icng flexible leads. 6 in. leng flexible leats.

2 in . long, $7 / 8$ in. wide, | $\mathrm{F}_{8}$ |
| :--- |
| C |
| C |

Cat. No.
Per
Dozen.
170
.81 .90
Fast 2 Mfd. 400 Volt Metal Cased Condenser

One of the terminals is the netal case it-self-the other being made io an insulated lug. Equipped with mounting feet. 2 in. $11 / 4 \mathrm{in}$. tall.

Cat. No. 6107 107... .


Per Dozen.
$40 c$
Sprague Triple 1 Mfd. 600 Volt By-Pass Unit


Terminal screw mount. Flexible lead common. Capacities: wide, $7 \%$ in, thick. Metal cased. Cat. No. 6115

39C

## Tubular 400 Volt By-Pass Condensers

Mountings are not elec-
trically a part of this
condenser Equip 1 ed
with flexible leads. 234
in. long, $3 / 4$ in. dianl-
eter. Elongated slot
eter.



R.C.A. 1 Mfd. 300 Volt By-Pass Condenser
Used on Radiolas 17-18-60. 64-66 and late Model "Supers."
Enclosed in a durable metal jacket equipped with convenient mounting feet. Solder terminal lugs.
Cat. No. 6064
$30 c$
${ }_{.}^{30 C}$

You Need This By-Pass Kit! Asst'd By-Pass Condensers These kits contain one
 or several each of variof the most vitally of the most vitally densers, ranging from
.1 to 2 mfd., with $D$. C. working voltages 600 volts! Great care is exercised to nix the assortments so that you will be able to select denser one of these kits, possibly the wery conany of the following: Polymet Aerovox Fast, Tungsol, Potter, Brown \& Caine, Dubilier. Cat. No. 7166.
Kit of 12 Asst'd. $\qquad$ \$2.90
Cat. No. 5733.
\$4.95

## Asst'd By-Pass Condensers

Made by any of these manufacturers:
Dubilier-MPolymot Milini-Avovor -Sangamo-Etc.
Ideal for
and
Servicemen and
Experimenters
These kiis are made up by
mixing up thousands of the condensers illustrated (and
others)
ranging in size from

.00005 all the way to .1 , and then scooping them up-you are thereby assured a well apportioned mixture! Needless to say, you can use every
Condenser in the lot. You save big money ob taining your by-pass condenser. supulies by ordering them in this manner!
Cat. No. 5734.
Asstd. Lot of 12
99C
Cat. No. 5735. $\$ 1.85$
Cat. No. 5736.
\$3.40
All-Purpose Quadruple By-Pass RCA Condenser Unit
 Contains 3 one-tenth microfarad condensers and one one-half microfarard condenser, the sizes most conl-
monly used in $A C$ sets Monly used in AC sets. sealed in wax in a metal container, absolutel mossture and damp proof.
Cat. No. 378
25 c
Per Dozen, \$2.75
General Electric 4 Mfd. 800 Volt Filter Condenser
Literally, worth its weight in gold! A fortunate purctiase enables us to offer our unheard of prown price our unhear a durable and at.
Housed in
ind
 trished with heavily insulated flexible leads and mounting feet. Note its unusual conmpactness. $51 / 4$ in. long, $11 / 2$ in. wide, $23 / 4$ in. tall.
Cat. No. 6063.
\$1.25

## Polymet Auto Interference Eliminator Condenser



Equipped with a pig-tail
flexible and heavily in. sulated lead and terminal lug. The "ground" connection is made through the bracket, which can be fastened to any part of the chassis. Two condensers should be in-stalled-one between the side of the interrupter leading to the primary and the ground-the other one should be connected to that side of the generator leading to the interrupter.
Cat. No. 4004. . 5 Mfd . ( $21 / 8 \mathrm{in}$. long
11/4 in. diameter). Our Price............... Cat. No. 4005.1 1. Mfd. (3 $1 / 2$ in. long,
$11 / 4$ in. diameter). Our Price.........
"Traveling Ghost Light" Vernier Dial
In our opinion, here is the most novel and useful dial available tractive appearance is in pace with its valuable utility! A condenser driving plate, and is enclosed within a hood, that only permits this lamp to throw a slender but readily visible shadow along the translucent scale, this shadow being banked on ing a very impressing effect! No indicating levers are required! The vernier drive mechanism is positive, and fool-proof. A heavy coil spring assures permanent periormance, and no slipping. Choice of $1 / 4 \mathrm{in}$. or 38 in . diamet
Choice of 100 to 0 or 0 to $100-1$ please state this iniormation.
unusually attractive unusually attractive embossed $43 / 4$ in. wide by 3 in. high. Cat. No. 5660 . Includes Knob, Escutcheon, Lamp Bracket and $21 / 2$ Volt Lamp.

## $\$ 1.35$



Short-Wave 48 to 1 Ratio FullVision Illuminated Vernier Dial

Ideal for tuning elusive short wave stations-a series of clevery, con-
structed, non-slipping cams, of steel to brass drive principile, assure ife-long service. Movement of indicating lever hardly perceptible to the eye, proof of the value of the attractive bronze escutcheon plate and knob that are furnished.
Shaft hole is 38 in., or $8 / 4$ in. in diameter 0 in
please stipulate size desired. Elongated slot in please stipulate size desired. Elongated Cat No 5
Including Escutcheon, Knob, Lamp
\$1.25
Bracket and $21 / 2$ volt lamp.
"Slow Speed High Frequency" and "Fast Speed Low Frequency" Full Vision Illuminated Vernier Dial
The varying speed permits separation of the gradua tions at the high frequency end of the scale. This inat either end of the scale therefore please state whether the condenser is "closed at the left"" or "closed at facing you. Smooth and anism
 anism, the pointer is and in exact unison with the condenser rotor. No slippage can occur. Choice of $3 / 8$ in. or $1 / 4$ in. diameter shaft hole. is $51 / 2$ in. long. Cat. No. 5659 . Complete with Escutcheon Plate, Cat. Nob, Lamp Bracket and 21/2 Volt
Kamp. ............................... 99C Lamp.

De Jur Full Vision Vernier Dial Illuminated!


Attractively colored celluloid, caliurated disc. Universal mounting provisions. accommodate both $1 / 4$ in. diameter shafts! Removable illuminated dial light bracket. Tension spring, neverslip, friction drive.
Choice of 0 to 100 , or 100 Choice of 0 to 100 , or 100
to 0 readings, $1 / 4 \mathrm{in}$, diameter knob shaft.
State whether $1 / 4$ in. or $3 / 8$ in. hub diameters are desired. Cat. No. 2408. Choice of 0 to 100 , or 100 to 0 . Our Price.

$$
\text { ( } \$ 1.05 \text { with Escutcheon Plate) }
$$

## "Short-Wave" 16 to 1 Geared Vernier Dial

Resembles above dial in general appearance and construction. Permits micrometric tuning adjustment, all important when searching for seemingly elusive shortwave stations

Non-Slip, Revolving "SpotLight," Vernier Tuning Dial Complete with illumi. nating Lamp and Handsomely Embossed Bronze Escutcheon An ingerious instruncen! The illuminating bulb, contained in a hood with a slot to permit the light to shine through,
travels around in line with the travels around in line with the
causing only the particular dial indicating arrow, causing only the particular dial setting to be illuminated-the balance of the full
vision dial scale is therefore left in darkness ! Nothing to get out of order 1 Condenser shaft accommodation for $1 / 4$ in. and 38 in. diameters. An unusually attractive, bronzed escutcheon plate is included, measuring $4 \mathrm{is}^{8}$ in. overall. The operating shaft is $1 / 4 \mathrm{in}$. in diameter. The distance between the center of the condenser shaft hub and the mounting base of the upright standard is 134 in .
Cat. No. 3291
79c
Smooth Operating Drum Dial Automatic spring
sures
positive drive at all
tal
times.
ins. Beautiful in appearance. The driven by a-phosphor bronze cord. Turns easily and smoothly with out backlash and is guaranteed to turn easily with any multiple unit of condensers. either on the subpasily mounts or to the front panel. The scale is of black material with clear
 white detters and is iljuminated hole- Center of hole 338 in up from baseplate. 4 in. diameter drum. $11 / 2$ in. wide. Unusually attractive escutcheon plate and dial light.

95c
 densers to bo mounted on both sides of $\$ 2.45$
the dial. . . . . . . . . . . . . . . . . . . . . . . . .

Spring Friction Drive, Illuminated "Fan Type" Vernier Dial


An old favorite! The dial settings are printed in white
on a brown colored stock, of on a brown colored stock, of
attractive gloss. When illuminated, it makes a very pleasing appearance. The condenser shaft hub accom:
modates both 38 in. and $1 / 4$ in. shafts. The operating shaft is $1 / 4$ in. in diameter. in. The rernier drive mech. anism employed will never ditional.
cluded-Escutcheon 24 c ad606
"Rainbow Scale" Wide Face 5 Colored All-Wave Vernier Illuminated Drum Dial
Ideal for Single Dial Control All-Wave Sets! This diall has a total possiule calibration space of 31 inches. With tween wave channels lying beof which only 100 are in the broadcast band, it becomes evident that four additional scale divisions are none too many for short wave calibration purposes.
 Tuning ratio is 8 to $180^{\circ}$ or of condenser movement. Figured in terms of drive ratio, the dial rates 16 to l. Because of its exceptionally light and ing even at extreme short waves with a tuning ratio no higher than above. Almost no effort is required, and fine adjustments are made with corresponding precision and ease. Yet there is no tedium in traveling from one end of the scale to the other. Every wave channel, on any of the five possible scales, is quickly and easily reached and tuned in. Construction of the drum is extremely sturdy, with frame and drum of heavy die-cast metal, accurately matched. Hub diameter $1 / 4$ in. or $\$ 8$ in., as specified. Length of drive shaft ahead of bracket, $17 / 8$ in. The varicolored scale surface is blank-you inscribe Suit Your Tuner! Escutcheon Embossed Plate, Dial

## New Premier Auto Radio Remote Control



Positive Drive-No Lash-Stays Put! Direct Drive Through Flexible Shaft!
Pressed stecl construction-ahi metal parts rust proof cadmium and black finish-sinall size $31 / 2 "$ $\mathbf{x}+1 / 4$ " $x$ " thick-light weight-key lockswitch luminated celluloid dial. Furnished with Steer. ing Column mounting brackets and condenser gear plate for $1 / 4^{\prime \prime}$ shaft. $30^{\prime \prime}$ flexible shaft and casing standard.

Cat. No. 6202
Cat. No. 6203 . Additional 30 in. length of 95 C
Flexible Shafting (In Protective Casing)

## Carter-Utah Auto Remote Control

Strong and sturdy it age and requires no attentrol Unit. Flexible Control
trol Cable, Mexible Con-
 Electric Cable and a Junc-
Fion Box
Flexible Control Cable-It provides a positive, smooth manual control of the receiver, through a I/8-in. extremely flexible cable. Non-stretching, galvanized piano wire running free through a tubular housing of tinned piano wire. Requires no soldering or special tools for installation. A chuck connection, holding the cable housing firmly to the receiver case. allows instant detaching for servicing the set. Cable attached to operat ing pulley on set with set-screw-no soldering. Control Unit Case-Measures only $418 \times 258 \times$ in. Neat and trim, black enamelled, will grace
the most expensive car. Fits onto standard steering column and locks firmly in place. $1 / 8-\mathrm{in}$ leather spacers furnished for adapting to sinaller steering columns. This unit houses the dial, control unit with knob, volume control and keyswitch.
Four and one-half turns of knob completely rotates $180^{\circ}$ condenser. Tuning is sensitive, p:ecise, absolutely free of backlash and positivel Junction Box-Cadmium plated steel with bakelite terminal strip. E'sually placed on back of dash board. Simplifies installation and insures permanency of all connections. Also makes test ing easy. Equipped with a Volume Control notentiometer. Lock-Switch-Turns on and off set. No exposed terminals-set cannot be played without key. termunals-s
Cat. No. 5726. Equipped with a 4 foot, 3 Wire Electric Cable Junction Box, Lock Switch Electric Cable Junction Box, Lock
Volume Control and 10 foot Control $\$ 7.75$ Cable
$\$ 1.95$
Control Cable. Available Separately.

## Colored Inlay Bakelite Knobs

## Most beautifully designed knobs avail-

 ahle. Enraptures 1 in. $+\frac{1}{d}$ in. deep.Overall diameter in. hrass shaft, moulded solidly. 1/4 in. hrass shaft, moulded
Hardened machine set screw. Hardener mach
Cat. No. 2416.
"Inlay" Celluloid Top. 206

## Radio Knobs


Cat.
3305

${ }_{3302}$ Cat. ${ }^{\text {No. }}$

Cat. No. 3306. Walnut Bakelite Knob. Eggshell finish, $11 / 4 \mathrm{in}$. diameter, $1 / 4$ in shaft. 12C
 effect. i11/4 in. diameter. 1/4 in. diam..... $15 C$ shaft hole. Each.
 Each …
 Knob. Choice of $13 / 5$ in. or 1 in. diam. 18 C shaft hole. Each.
.$\$ 1.35$


## Pentode Adapter



Converts yower output stages
now employing 245 tubes, into now employing 245 tubes, into
PENT(S)SE (1'Z or 247 ) OP. ERATED MODELS! Pentode tube is slipped into 5 -prong socket on top of adapter, and the 4 -
prong plug is inserted into the prong plug is inserted into the there is to it.

Cat. No. 3226.
65c
46 Tube Adapter
Permits you to use the latest 46 tube in place of a 245. Many people preier the 16 tode, in place of a 245. Cat. No. 6170

95c
Individual Socket Test
Trouble Finder and Adapter


#### Abstract

Especially arlapted to trouble findtions to a 4,5 ur 6 prong tube base where no wires are exposed. Plate, riil cathode, or heater circuits can  be onened readily for connection of test equipment. May be used for meters or phonograph pickups or meters to radio sets or amplifiers. Cat. No. 1445-A. 4 prong 95c Cat. No. 1446-B. 5 prong \$1.15 \$1.75


Phono. Pick-up and Microphone


The long 10 ft . silk, rubber and cotton covered stranded copper leads are correctly wired as an elticient adapter, namely, in scries with the Cathode of a 227 or 224 Tube. Contained in a bakelite housing, with protruding UI prongs, for insertion into any U' socket-the tube for merly inserted in that particular socket is the placed into the
Cat. No. 5076 .
With 6 ft . Cord.
59c
Cat. No. 5079 .
With 20 ft . Cord. Our Price
95c

## 4-5-6 Prong Bakelite Socket

 Plugs
Cat. No. 5182.
4 Prong....

6 Prong


## 'Cinch" Wafer Radio Sockets



## Phosphor Bronze Contacts-Bakelite

 Insulation!The contacts furnished are made from highest grade phosphor bronze with a uniform spring temper. No effort or expense is spared to maintain this temper, as it is the heart of this sceket. Contacts are of sturdy construction, scientifically designed and manufactured to obtain a rigid four-point contact at all times-yet tubes may be inserted or removed with ease and smoothbe is.
Note the overall length, $Z{ }^{\circ}{ }^{\circ} \mathrm{in}$. Distance between mounting holes, its in. Tube type numhers are engraved in white on the top surface
of every socket.

> In lots of $25, \$ 1.50$
 Type
89
295
226
227
171
245
224
235
247
230
231
232
Cat. No
3208
3209
3210
3211
3212
3213
3214
3215
3216
3217
7 c
In lots of $50, \$ 3.10$ In lots of $100, \$ 5.90$
NOTE: As fast as nete tubes áre brought out on the market, we will be able to supply the proper socket.


## Readrite 4 and 5 Prong Adapters



Cat. No. 2050
Cat. No. 2051
Cat. No. 2050-54. Contains 5 prong Sockets a + prong llug Has all connections com- 59 c plete to plug. Cat. No. 2051-45. Contains 4 prong Socket on a 5 prong Plug. Has all connections com- 59 C
plete to plug. .................................

Jones 10 Conductor Multi-Plug


Consists of a male and female unit. Extrently usetul. inscrted cannot be inscried incor
by virtue of key slot arrangement. Possesses finest insulation.

39c
Cat. No. 6193
Two Piece Attachment Plug
lakelite moulded through out. Cap and plug available separately,
Cat. No 2928
CAP. Each
Pkg. of 25, for 95
Cat. No. 2929.
6c
PLUG. Each
Pkg. of 25 , for $\$ 1.35$
Cat. No. 2930. ARMORED CAP.
(illustrated). Each
$7 c$

## Single and Double Convenience Outlets

Made of white glazed porcelain. Mounts to wall with single woodscrew. Each
Cat. No. 2931. SINGLE
10C
Cat. No. 2932. DOUble
15c

Eby Bakelite Base Mounting Sockets


## Eby Isolantite Sockets

Snow white composition, possessing highest possible insulating qualities, making these sockets idcal for Short Wave Receivers-Converters.


Cat. No. 6188. 4 prong 20 c Cat. No. 6189. 5 prong 20 c
22 c

Sub-Panel Mount Bakelite 4-5-6 Prong Sockets


Cat. No. 2030
Cat. No. 2031
Ideal for use with 4 or $b$-prong dynamic sleaker plugs, short wave coil forms as well as radio dubes. Highest insulation quality bakelite, and serted throurh holes in sub panil and connt tions made thereto. tions made thereto. Iopular one hole mounting
feature.

UX 4 PRONG TYPE
$11 / 8 \mathrm{in}$. in diameter. $5 / 8 \mathrm{in}$. long lugs.
high above chassis.
Cat. No. 2030
10 c
In lots of $12,99 \mathrm{c}$
UY 5 PRONG TYPE
13 in . diameter. 58 in . long lugs. fis in. high above chassis.

12c
In lots of $12, \$ 1.20$
In lots of $50, \$ 4.50$
6 PRONG TYPE
$13 / 8 \mathrm{in}$. diameter, $5 / 8 \mathrm{in}$. long lugs. $\mathrm{I}_{8} \mathrm{in}$. high above chassis.
Cat. No. 6191.
18c
In lots of $12 . \$ 1.95$
In lots of $50, \$ 7.25$
Bakelite 4-5-6 Prong Base Mounting Sockets
$1 \not f 8$ in. diameter, 3 in. high. Choice of lugs or
t:nns. No 3218.
Cat. No. 3218.
4 Prong. Each
5 Prong. Each . 29C
Cat. No. 6192.
6 Prong. Each.
39c
4-5-6 Prong Bakelite Socket Plug, with 4-5-6 Wire 40 inch Vari-Colored Cable


Radio Serviceman's or Set Builder's Tool Chest
A tool for the perform ance of every practical
Radio nechanical re-
quirement! And all good quirement! And all good tools only !

Consists of the following tools
Center 1'unch
3 in. Screw Drive
5 in . Screw Driver


Countersink (with wood
Large End Wract
Crow Bill Pliers

Reamer
Small End Wrench
Medium Kad Wrench
Cat. No. 3399
Giant Size General Replacement Audio Transformer Sturdily constructed. Mechaniically and electrically designed for heavy duty applications. propriately coled, and eauipped with both solver lug terminals and flexible leads, for universal $21 / 2$ in. tall. long, 2 in. Wide,


Brunswick Output Push-Pull Transformer
 Equipped With Secondary Which Matches Impedance of Standard Dynamic Speaker Voice Coils
Enclosed in a 238 in. diameter round can, 3 in. tall. Note the conveniently shaped nounting ohms. Can be used with any style or make Input Push-Pull Transformer Cat. No. 4270.

90 C
Kolster Push-Pull Input Audio Transformer


Hermetically sealed within a mounting feet, equipped with panel mount. Solder lug terminals fastened to bakelite strip protrude thruugh the subpanel, thereby greatly facilitatma its installation. Kolster quality performance is an inherent feature of this superb
transformer. 348 in. tall, $21 / 2$ Cat. No. 6089. Input Po. 68 Ph-P.
Cat. No. 6090 . Audio Transformer in. diameter.
C0ast................... 90c 90 C

Brach Neon Test-O-Lite
Quickly Locates Trouble in Any and All Electric and Radio Circuits, up to 550 Volts A. C. or D. C.
 on hipler voltages up to 550 volts the glow becomes rightel in proprotion. Indicates instanty wecomm A.C. or D.C. Currunt is present. If A.C. current. both rectrodes will glow, and if D.C. current only ont newative pole of the circuit. Detects the live and sround wires-by touching one lead only to either side of a circuit, the live wire side will show a faint glow in the Neon bulb. Test resistance leaks in order that high insulation can be maintained. Test-o-Lite has the remarkable characteristic of lecoming illuminated at 110 volts through a resistance of $20,000,01001$ ohms (20 meg-ohms) and freduently as high as 50.000 .0101 ohmis (50 meg-ohms). Can be used as a pilot light it rest-0-Lite is furnished in a beautifully desimend bakelite casing and replaces and excells the oldinari clumss test bulb now being used for testing electrical cirraits. fuses, cut-outs. etc. It can be handled with ONE liLND so that it simplifies tests while workin: on laduers and inarcessible places. With One Handcrip. one can ascertain faults of insulation. interruptions, tensions against ground, etc. The Tesi-o-Lite is so direct the current aidso such small current that one can out feeling it. One, therefore, can test whether a con ductor has tunsion acainst ground of not by touching one of the leads with the hand.
Cat. No. $3366 .$. ...................... 8.31


## A. C. Filament Transformers

## Most compact available. En-

 closed in a handsome crystil. line finished metal Shielded Case, with output binding post terninals. post terninnals. 2.5 volt, 1.0 Amp. A.C. Tubes.

Cat. No. 5523 ..

Cat. No. 5524
For One or Two 210,250 , or 281 A.C. S1.
Tubes. Cat. No. $5525 \ldots . . . \ldots . . .$.
Rubber Tube Weight Inside Diameter, 1 Bht in. Inside Lengeth 1 H/ ite. Diancter of con-
ter hole, it in. Made of pliable ter hole tit in. Made of tliable
rubber. Can be used for rubber. Can be used for many
varied purposes. Actual weikhti,
 Per Dozen, 11.50

Aluminum Coil Shield 24 in. Dianeter, 24 in lont Cat. No. 638 c

$$
\text { Per Dozen, } \$ 1.00
$$

New Types 56-57-58 Three Piece Ventilated Aluminum Tube Shields


TYPE "A." Overall height, $41 / 2$
in.; inside diameter 1 p in. Base mounts to chassis over wafer mounts to chassis over wafer socket, and
snugly fitting shield itself to be removable Merefrome
Note the re-
movable screen
grid cap with
slot for inser-
tion of screen
grid lead to cap of tube.

Per Dozen, $\$ 1.60$
Type "B." Overall IIeight : $47 / 8 \mathrm{in}$. This shield Cat. No. 6383........... 15C

Per Dozen, 1.60
Ventilated Aluminum Tube Shield
Equipped with Snug Fitting Chassis Mounting Ring
An old
builders.
Avorite
witreen
srid
set.
connection is made through the large port-hole provided for same on the top of the shield -note the 6 ventilation holes. The mounting base has a 138 in. diameter cut-out, to permit
 the tube prongs, etc., to easily clear its sides. There are 3 slots along the bot tom of the shield-these serve a dual purpose: Ad ventilation, and allow leads to pass through the shield, if so desired. Overall length $41 / 2 \mathrm{in}$., Cat. No in.
Cat. No. 5341 .
14c
Per Dozen, $\$ 1.45$
Removable Hood Ventilated Tube Shield
 Furnished With Slot for Insertion of Screen Grid Lead
Equipped with two 6/32 threaded mounting pillars, which are inserted into
vided
ino
for sames chassis. These terminals are $17 / 6$ chassis. Mese terminals are
in art, and
the the base of the shield is 1118
in. The overall
height of the in. The overall height of the
shield is 5 in. There are 4 holes provided around the botton edge, for either an aid to ventilation, or for the insertion of leads above the chassis.
above the chass
Cat. No. 5340 ..
15c
In Lots of $12, \$ 1.60$
56-57-58 Type Ventilated
Aluminum 3 Piece Shield
Screen Grid Cap of Tube
Protrudes Above Cap of Shield
Overall height, 4 in. 158 in. inside diameter. Both the cap removable. Fully ventilated.


Per Dozen, si.6ó


Triple Outlet With Dual Fuse Protection


A new fuse can be inserted in a momentkind required. Both fuses are held in a special barrel moulded right Plug. Holds standard furnished wate which. 1, 2 or Cat No. 6774....
${ }_{69 \mathrm{c}}^{5}$

## Extension Cord Connectors

For speaker and phone cord ext. Eat.

9 C


## External Speaker Connector

$\left\{\begin{array}{l}8-2 \\ 0\end{array}\right.$2 five prong adapters with
plate connections on each plate connections on each
terininated in tip jacks for terininated in tip jacks for
use with $2 \cdot 47$, or 33 , or 38 , or other 5 prong power tubes.
6798
Cat. No. 6798
59c
Flat Wafer Adapter
No larger than a tube
base. Ideal for tone controls, etc.
Cat. No. 6799. 4 prong with grid and plate
$30 c$ Cat. No. 6800 . 5 prong with filament, grid or screen grid, cathode or charge grid and plate $30 c$ monnections

## Long Shank S.P.D.T.

 Toggle Switch f

Type '57 Tube Adapter and Shield


This Combination ${ }^{\prime} 57$ adapter and tube shield makes it handy for the replacing (and shielding) of the type tube. Cat. No. 6775.
$62 c$
'58 Tube Adapter and Shield
This Combination ' 58 adapter and tube shield niakes it handy for replacing and shielding the 58 tube instead 62C Cat. No. 6776

## Ear-Phone and Loud Speaker Adapter

Listen to DX at any he rest of the family. Just insert Adapter into arst audio tube soc:et, then insert tube into ume is desired, insert
 dapter into second aulding for adding additional speake power tube.
Cat. No. 6777.
For 5 Prong Sockets.
62C

Microphone or Phono. Adapter
 5 or 6 prong adapter with split cathode con-
nections. May be used in connection with a so used supplies the necessary current for operation of the microphone. It may also be used as a
phonograph adapter where the tube honograph adapter whered is an under which Cat. No. 6779.

59 c
Cat. No. 6780. 6 Prong. .


Special Wafer Adapters Contact on Plate ing plate current Cor Short Converters. Has with pin Jack on
ind. Four Prong


Cat. No. 6781
$36 c$

+ Prong Wafer Adapter with contact taken from grid prong and may be used on 4 Prong Speaker Plug to zupply plate current from
feld coil. field coil.
Cat. No.
$36 c$
Prone Wafer Adapter, with contact
on prate prong.
Cat. No. 6783 .............39C on plate prong
Cat. No. 6783

5 Prong Wafer Adapter, same construction as above 5 prong adapter, with contact taken from Cathode Prong and mav be used on 5 prong speaker pluy to supply plate current
fronn spaker fold coil.
Cat. No. 6784 ............39C
iromi speaker fie
Cat. No. 6784
Output Adapters Designed so that additional speakers can be connected to any radio set that is using push-pull am-
plification without plification without
having to disconhaving to disconGect any of the wiring of
older any connections. older any connections.
Per Pair 6785 ...................
Cat. No. $678 \mathbf{6}$. Adapter Wafer onlyLess
Leads

Grid and Plate Output Adapter
 speakers and also the Cat No. 6787 80 Cat. No. 678 Per Pai

301
Pentode Output Adapter
Designed so that additional speaker can Set that has only one "entode Tube. Wire
Leads $42^{\prime \prime}$ long and have phone tips sollered to ends. 49 C


Pentode Output Adapter Designed so that additional speakers can be connected to any set that uses Tubes. Leads are hone tips snidered on ends.
Cat. No. 6790.
Per Pair
81c
Cant. No. 6791.
Phonograph Adapter
Prong Wafter type with two (2) connec-
ions on same. Cat. No. 6792. 4S


## Phone Tip Jack

## (EG) $\begin{aligned} & \text { Sure grip jack. Note } \\ & \text { terminal } \\ & \text { soldering required. no }\end{aligned}$ Per dozen, 95 c

6 Prong Analyzer Plug With 6 to 5 Prong Locking Adapter
The cathode prong, next to the flament, is not connected to any prong of the 5 prong socket-ath the remaining contacts of both the adapter and socket are conncted
cath other
Cat.
No. $6802 . . . \$ 2.75$


Short-O-Tester Circuit and Continuity Tester

## (anging $\begin{aligned} & \text { Contains a 2i/2 } \\ & \text { volt lamp and }\end{aligned}$ 5 mall sized

 flashlight battery so connected that when the flexible wire lead with its clip is attached to one end of a circuit and contact made of the tester, to the other end of the circuit, it will indicate whether it is an open or closed circuit. Can also an open or closed circuit. flash light. Can also be used with a Ncon lamp. servicing radio and electrical equipservicing radio and electricale equithment. Cat. No. 6803 . Complete with ment. Cat. No.
battery and $21 / 2$ volt bulb
50 Watt P.A. or Transmitting Socket
$37 / 8 \mathrm{in}$. diameter-2 in. ali. Sturdy phosphor bronze contacts. Moulded bakelite base-nickeled shell.
\$1.47

Dynamic Speaker, Etc., Extension Cords

Consists of a well insulated durable cable with a male plug at one end, at the other sock $31 / 2$ ft Cut to Any

Cat. No. 6794
Length Lengeh 90 $35 c$ Cat. No. 6795 96c 37c Cat. No. 6796
6 Prong $\mathbf{\$ 1 . 2 5}$ 45c

Automatic Phonograph Stop
With this combina-
tion Stop and switch she off at the same time the Turntable is topped. It will work ll combination with all kin
Cat.
5009
\$1.75
46 Tube Adapter


Offers ideal way to dispense with type 45 tubes. Remove from its tube from its socket insert this adapter and then insert a the adapter All electrical adapter changes are automati cally made. Two
adapters are r required
No. 6797

79C Each


Phono-Radio Switch and Adapter
Simplest method of con-
necting phonograph to
audio system of the ra$\begin{array}{lll}\text { dio. Adapter plugs into } & \text { sid }\end{array}$ olugs into the adapter and switch changes from radio to phonograph instantly.
\$1.62
Condenser Shaft Reducer
 $\stackrel{\mathrm{Pe}}{\mathrm{di}}$
dial or the use
dnob diameter shaft.

No. 6806
15 c

## Copper Shield Sleeve Mesh

Can be stretched
conside rably.
Conductor cables
Conductor cables
are run through
this sleeving, which is then grounded


## Bakelite Base Knife Switches

Hardware of brass heavily nickel-plated. Mounted on highly polished bas

Cat. No. 6811 Single Pole, Single Throw .36 6812 Single Pole, Single Throw 6813 Douhle Pole, Double Throw 6814 Double Pole, Double Throw 6815 Three Pole, Single Throw. 6816 Four Pole, Single The Throw. 6817 Four Pole, Double Thic, 68185 Pole, Single Throw..
68195 Pole, Double Throw.

1 lb. Asst'd Screws, Lugs, Nuts, Metal and Insulated Washers


Compact enough to fit in when out on som tool kit, have often said you would give a dollar for just one screw, lug, nut, metal and insulated washer when you really wanted it most you really wanted it most these assortinents! Every conceivable size, Every thread, and shape of bakelite, fibre, brass or mickel plated part is included. $21 / 2$ in. $x 21 / 2$ in Cat.

## ${ }_{5}^{317}$ Cartons for $\$ 1.5 \ddot{0}$

## Asst'd Screws and Nuts

Bound to contain the very length and thread screw or nut you are looking for! A screw and well apportioned assortment. One of very best sellers! You cannot afford to be without one of Chese assortments, always on hand.
Cat. No. 2619
One Pound A $\qquad$ 19c
Cat. No. 2657
3 lb . Ass't
Cat. No. 2658 49c

5 lb. Ass't. 83c
Cat. No. 2659
10 ib. Ass $\mathrm{Ass} . \mathrm{t}$ $\$ 1.50$
Insulated Washer and Grommet Assortment
Contains most every conceivable type, size, and shape of bakelite, fibre, rubber, asbestos, etc. in metal panels. Very well assorted use in holes in metal panels. Very well assorted-ideal for the experimenter and serviceman.
Cat. No. 2693
Per 100 Ass't
Cat. No. 2660
Per 250 Pieces
Cat. No. 2661
Per 500 Pieces
50 c
$\$ 1.25$
$\$ 2.40$

## Assorted Eyelets

Fxtremely useful- our assortivents contain a
grodly portinn of each of the most popular lengths and diameters as used on Rodio chasses. Brass and nickel finish types included.
Cat. No. 6204
Per 100 Ass'tad Evelets
35c
Cat. No. 6205
Per 500 Ass'trd Evelets \$1.45
Cat. No. 6206
$\$ 2.60$
5 lbs. Asst'd Screws, Nuts, Washers, Lugs, Insulated Washers, Misc. Hardware
toie the four compart arately, the above named arately, the indispensable a ids ts every Radio mechanic or sible size makes sible size makes up this
very valuable assortmen very valuable assortment -tru!y, a part for every up the contents. $53 / 4$ in. $x 53 / 4$ brass parts make ${ }^{2}$
$\$ 1.65$

## 28 Asst'd Nickel Plated Brass

 Angles and Brackets ngles above described 'Worth its weight in gold.' Should be in every shop, or on every experimenter's work table.Cat. No.
39c
Round Head Machine Screws 7 int. long, with
$2 \neq 4$ in. long
 Cat. No. 2872
Each Dozen, 85 8c
Dozen, 85 c …................ $\$ 2.95$ 5 in. long, with $11 / 2$ in. $7 / 24$ long thread and nut.
Cat. No. 2871 Each Dozen 49c Each
 35

Porcelain Base Knife Switches


## Twin and Triple Jack Units

 An unusually strong springfirmly makes firmly makes contact to any tip inserted within its pow-
erful grip. Mounted on a bakelite strip, to in. thick, 2 in. long, 16 in. wide. Metal parts are highly nickel plated. Jacks fit any standard phone

In Lots of 12, 95c. In Lots of 25, $\mathbf{\$ 3 . 5 0}$ Cat. No. 3285
${ }^{T}$
12c
In Lots of 12, \$1.20. In Lota of $25, \$ 2.15$
Cat. No. 3286
Phone Tios, Per 50
65c
Bakelite Base Dual Screw and Lug Terminal


Multi-Pig-Tail Resistor Mounting Brackets

## Each terminal

Each terminal
lug is insul-
ated from each
other, and rigother, and rig-
idly
fastened
to the genuine bakelite strip. Three chassis mounting lugs are provided. Overall length: $43 / 8$ in.
Cat. No. 5095
35c
 Five Lugs in all. 2 in. long

15c
Per Doz..
1
Three Lugs in all.
12c
Per Doz
$\$ 1.20$
Cat. No. 6209. For mounting One ResistorTwo Lugs in all 34 in long
$3 / 4$ in. long
Per Dozen, 72c

n" Spring Tension
Press-Down" Spring Tensio
Barrel Head Binding Posts Electrically and mochanically
perfect! Universal application! perfect! Universal application!
Ideal for test equipment-permits rapid connections. Fasily insulated, from metal chassis,
if desired, $3 / 4$ inch height above
base surface.
Cat. No. 1962. Each
5C
50 c per dozen. 90 c per $25 . \$ 3.00$ per 100

## "Shake Proof" Lock-W asher Kit



Wade of bronze-sharp, hardened biting edges. Will not "tangle" together. A generous portion hole to a 58 diameter. Note the convenient bins provided for each size or type. The hox measures $117 / 3$ in. long, 1 in . tall, 236 in. wide.

## EBY Twin Jack

Perfect gripping contacts, solidly moulded in bakelite. Marked "Spoaker" and "Field." Stato which is desired. Cat. No. 324

Per Dozen, $\$ 1.20$
"Phono" Twin Jack
Also used as
Micrphone Input." Single hole
Cat. No. 1974
Per Dozen, \$1.20


12C

12C

Removable threaded sleevc. Contains hole through shank. $15 / 8$ inch long.

Cat. No. 1631

## $4 c$

28 for $\$ 1.00$

Connector Jack Tips and Jacks Ideal for all test equipment, where rapid changes of making meter reading connections are desired. Can be used wherever binding post. terminals are now employed. 1001 other uses! You cannot afford to be without a quantity of these most handy de-
vices. Ilighly nickel plated, Invices. Highly nickel plated. In-
sulated washers are included with jack-permits mounting on metal. Positive wiping contact on jack-is inch mounting hole. Total length of jack tip is $11 / 4$ inch. Cat. No. 1969. Jack Tios. Each 3 C Per 50, 90c Per 100, \$1.65 Per dozen, 25c Cat. No. 1970. Jacks. Each . . . . . . . . . . . Sc Per 50, 90 c Per 100, $\$ 1.65$
is inch diameter thread shank. Highly nickeled Makes "biting' contact.

Cat. No. 1630
$4 \mathbf{C}_{\text {each }}$
28 for $\$ 1.00$
28 for $\$ 1.00$

"Antenna-Ground" Twin Post Cat. No. Uses ERY Binding Posts.... 14C Per Doren, $\$ 1.45$
"Short and Long AntennaGround" Triple Post


Push-Button Antenna, Ground Assembly and Bind. Posts A brand-new binding post
connection
cicker,
iviven Cinch's Push-Butorn principle. As shown herewith ... just press
the bution . . insert wire . . a firm, per fect contact is cstablish pletely equipped with soldering theading. Com grounded to chassis; the other readg lugs-nne $11 t$ in. standard mounting centers for viring. in. thick. Push burtons made of monld $\cdot d$ Dake lite . . . marked ANT, and GND, respectively
Cat. No. 3282
19C
In Lots of $12, \$ 2.00$
In lots of $50, \$ 7.50$
"Cinch" Push-Button Post Cat. No 3283 . Cat. No. 3283. Each

## 6/32 Mounting Screw

Note the flattened sides-perfinhation $\quad$ eted to a shield can, etc., for attaching same to a chassis. in. ; length of flat surface $3 / 8$ of an in., $1 / 8$ in cliam. hole.
Cat. No. 5397
Per Dozen
25c

H \& H Long Shank "On-Off" Toggle Switch

Length of threaded neck, 1 inch. Excellent for insertion in thicker than usual panels, wood panels, etc.; 3 Amp., 225 Volts. 6 Amp. 125 Volts.

Cat. No. 1599.
\$2.15 Per Dozen

## Hart \& Hegeman "On-Off' Toggle Switch

Popular the worl
over. Anchored (8 inches long), flexible and tinned leads. Heavy duty -rated at 3 Amps 250 Volt! 9 Amps at 110 Volt! 1 inch long, $3 / 8$ inch length threaded shank.
Cat. No. 327
17c
Lots of i2, \$1.90
Hubbell "On-Off" Toggle

## Switch

Resembles the above switch, Cat. No. 327, both electrically and mechanically-however, it is
$20 c$
Cat. No. 6348.
Per Dozen, $\$ 2.00$
Hubbell Rotary "On-Off" Shank Switch with Leads
Rated 3 amp., 250 volt, 6 amp., 125 volts. Equipped with 6 in. long flexible leads. ${ }^{\frac{7}{18}}$ in. long threaded mounting shank, plus a $1 / 2 \mathrm{in}$. long, $1 / 4 \mathrm{in}$. diameter knob shaft. Extends $1 / 2$ in. behind panel, $11 / 8 \mathrm{in}$. long.
 Cat. No. 6349

Per Dozen $\$ 2.65$
Hubbell Rotary "On-Off" Shank
 Switch
Same as above, but not equipped with flexible leads, soldering lug terminals being used as a substitute.

Cat. No. 6350
23C
Per Dozen, $\$ 2.45$

## General Electric "On-Off" Rotary Toggle Switch

Bakelit Rated: 1 amp. 250 $11 / 2$ inches. long, $3 / 4$ inch behind panel. for verfect griuping
of knob control. Knob not included. 58 inch long shaft.
Cat. No. 328. Each............. $\operatorname{Per}$ Dozen

Ultra-Compact "On-Off" Rotary Snap Switch Rated 3 amps., 125 volts; $3 / \mathrm{in}$. lonk, and extends but sin in. behind a panel! Handsoniely lac. quered brass turnings and locking nut. Bakelte | housing. Equipped with two $61 / 2$ inth heavis |
| :--- |
| sulated, tinned end leads. |
| $\mathbf{1 9 C}$ | Cat. No. 3271.

$\frac{1 n \text { Lots of } 12, \$ 1.95}{\mathrm{H} \text { and H Rotary "On-Off" Snap }}$ Switch
3 Amp., 225 Volts, with 15 inch Pig Tails-Note $11 / 2$ inch inch Pig
Shaft. No 1598
Cat
Each
25c
$\qquad$
$\$ 2.75$ Per Dozen

H and H Double Pole, Double Throw Toggle Switch


Ideal for Set Tester Equipnent, Public Address Control Buards, and a Host of Other Valuable Purposes!

Overall length, only inch behind a panel! Remarkably compaci! This switch should at all times be at hand, due to 1 in 250 volts ; 3 amps., 125 volts Rated: 1 amp. 250 volts; 3 amps., 125 vore
Cat. No. 6351 .
Each

> Per Dozen, s6.45

H and H Double Action Combination "On-Off" and "Single Pole Double Throw" Toggle Switch

## Excellent For Use

W'ith Mercury
Rectifier Tubes!
Fssentially, this
nodel is the same in CNO
general characteristics as Cat. No. 3280, differing only in the actual manual operation. 'In thi:s model, no "push-pull" motion is required, there being two detinite snaps, to the right, or, two to the left. Overall length behind panel: 11
 Cat. No. 3281.
$\$ 1.85$
H and H Double Action Combination "On-Off" and "SinglePele Double Throw" Push-Pull, Toggle Switch


Both switches are controlled by a common shaft, the operation of which independently adjusts either switch! The unit nearest the threaded mounting sleeve is of the single pole single throw variety, and is operated in push-pull fashion. On the other hand, the single pole double throw switch is operated in the usual toggle inanner. Here is a typical application of this most unique switch: Turns on or off the A.C. line, and then pernits cither selection of Radio Tuner or Phonograph operation. Overall length behind panel: $21 / 8$ in., $11 / 2$ in. wide. Length of shaft: $11 / 2$ in. volts, 9 amps, 110 volts.
$\$ 1.65$
H and H Double Pole Single
Throw Toggle Switch
Ideal for switching on and off two separate circuits at the
same time. $1 / 8$ in. long, $1 / 2$ in. deep. 1 Amp. 250 Volts, 3 amp., $125^{\circ}$ Volts.
Cat. No. 3269.
55c


In Lots of 12, $\$ 5.90$

## H \& H Triple Contact Toggle Switch

In the accompanying illustration the lever is, shown in the "second" position, a phantom view "1st" and " 3 rd" settings. Ideal for switching on Ideal for switching on length $11 / 8 \mathrm{in}$.


Cat. No. In Lots of $^{3276}$ i2, \$12.6o.
Cat. No. 3276 -A S.P.D.T. Model, with Neutral
Position. Resembles
above illustration
\$1.55

Hart \& Hegeman S. P. D. T. All-
Purpose Toggle Switch
Also Ideal for Long ard Short Antenna; "Hi-Lo" Primary Voltage; Local-Distance Suitch; Tone Control; Set and


Tube Testing Equipment, etc. $1 \frac{1}{2}$ inches long, 36 inch wide, 5 inch behind panel. Rated. ${ }^{1}$ amp., $250 \mathrm{~V}:$; 3 amp.,
Filly Aproved.
Cat. No 2196... Cat. No. 2196..

Per Dozen, $\$ 2.49$
Hubbell Shank Type S.P.D.T. Switch


Serves sanne purposes as Cat No. 2196 switch, which it gen rally resembles. $1 / 2$ in. lon threaded shank, plus a $1 / 2$ in
long, $1 / 4$ in. diam. knob shaft long, $1 / 4$ in. diam. knob shaft.
Extends $1 / 2$ in. behind panel, $11 / 2 \mathrm{int}$. long.
Cat. No. 6352. Each... 356
Per Dozen, $\$ 3.95$
Cutler-Hammer "On-Off"
Rotary Snap Switch
$27 \%$ in. long shaft.
ieads. Squared of
Cat. No. 5432
45c
Per Dozen, $\$ 4.50$


Cutler-Hammer S.P.D.T. and D.P.S.T. Rotary Snap Switch
 Shait is 1, in. long. Bakelite

Cat. No. 7194
45c Per Dozen, $\mathbf{\$ 4 . 5 0}$

Cutler-Hammer Push-Pull Switch
Rated: 1 Amp., 250 Volts or 5
Amps., 125 Volts. Bronze finished
fittings. 96 in. long threaded shank. ${ }^{1 \frac{7}{18}}$ in, long, 1 in. high.

Cat. No. 3268.
308 In Lots of $12, \$ 2.95$
H \& H "Feed-Thru" Cord Switches

Although primarily in-

tended for use in line cords connected to electric at-
tachments, it is also ideal for insertion in line cords of receivers, power packs, nower amplitiers. 2 I' in. long bakelite housing, $111 / 32$ in. wide.

256
In Lots of 12, \$2.70
H \& H "On-Off" Snap Switch Note the generous size lever protrudes $11 / 3$ in, "Obove, plate "On" and graved into the beautigraved into the beautimeasures $21 / 4$ in. by $1 \frac{1}{15}$ in. Rated: 3 amps., 250
$V_{.} ; 5$ amps, 125 volts. The switch mechanism extends 1 in. behind the panel plate, and is 158 in . long.


In Lots of 12, $\$ 2.95$

## H. H. Momentary Switch

Resembles above switch in all respects, but the mechanism provides for a contact always being made-to "momentarily" break the contact, you throw the lever, and hold the pressure on the "off" side, as long as desired. Serves a host of uses! (Can be adjusted to remain in "off", posi tion and momentarily be snapped into "on" [nsition.)
Cat. No. 3332.
39c
5.

All-Purpose "Push-Button"
Switch
Available In Two Models: Triple Pole Single Throw and Double Pole Double Throw with Single Pole - Single Throw Switch Combined
 Extends 234 in. be. hind panel. $\frac{5}{16}$ in. mounting hole re-
quired in panel. quired in panel. $\begin{array}{ll}\text { Furnished } & \text { with } \\ \text { neatly gold plated }\end{array}$ hexagon mounting nut and collar. All solder lug terminals are tinned-highest grade insulation used throughout. When pressure is released on push-button, same springs back.

Triple Pole - Single Throw Model When push-button is pressed in, you have choice of many possible combinations of make and break circuits.
Cat. No. 6364
Double Pole - Double Throv with Additional Single Pole - Single Throw Switch Combined
When push-button is pressed in, three circuits are broken and two are made.

65c
Push Button "On-Off" Switch Brushed silver finish mounting plate measures $21 / 4 \mathrm{in}$. long, 1 in. wide. Extends $11 / 4$ in. behind plate, $\quad 3 / 4$ in. wide. Terminal screw terminals. For heavy
"make and break" circuits.
Cat. No. 6367

## 25c

General Electric Single Pole Double Throw Tumbler

## Switch

 Rated: ${ }^{3}$ Amp., 125 Volts; 1 Amp., 250 Volts. Equipped with brass terminal screw's. Distancebetween mounting holes: 1 ?
多t in. Extends 138 in. behind panel, 14 in. wide. Serves a host of valuable purposes, such as "Phono-Radio," "Longr-Short" Cat. No. 6368

30 C
Asst'd H.\&H. Bryant, Carling, CutlerHammer, etc.
Toggle-Snap-Momentary-Etc., Etc., Switches
A Switch for Every Purposel Duc to the very low
price at which these price at which these
assortments are sold, assortments are sold,
we cannot select spewe cannot select spe-
cific switches, as per
your order-we scoop then up out of a well apportioned bin, and

of the switches shown in the illustration herewith, and others not shown. Suffice it to say, authority to return the merchandise for our Crerlit.
Cat. No.
5737
Ass't of 12 Switches
Cat. No. 5738
Ass't of 24 Switches
Volume Control "On-Off" Switch With Slot-Head for Cam Attachment One hole mount. Rated 1 ampere, 250 volts; 3 am-
peres, 125 volts. Fully approved. $1 / 4$ in. long, $3 /$ in. long threaded slianl:. Cat. No. $5343 . . . .19 \mathrm{C}$
In Lots of
In Lots of 12, \$1.95


On-Off Snap Switch Noted for Its Unusual Short Throw!


Threaded shank $1 / 2 \mathrm{in}$. long, I/4 in. shaft protrudes $1 / 2$ in. therefrom. Height 1/5 in.-depth $\frac{5}{18}$ in.
Cat. No. 5080.
$10 c$

Federal Anti-Capacity Switch Choice of 6 Phosphor Bronze
 Choice of 6 Phosphor Bronz spring
spring ( throw). Equipped with highly polished nickel-plated iace plate. Sturdy aluminum frame. Springs are of phosphor bronze, silverplated for good cunductivity. The cani arrangement is of the roller type, providing smooth and easy action. Fxcellent for use as radio and phonograph Change-over switch, also in Public Address, Motion Picture, etc., equipment
Cat. No. 2201
$\$ 1.59$
Cat. No. 2202
12 Spring
\$1.89
Combination Single Pole Double Throw and Single Pole, Single Throw Roller Cam Jack Switch Positive cam action, controlled by appropri-
ate double springs. Note mounting plate and three distinctive setting of control knob. Fxtends $31 / 8$ in. behind franel. Complete with
bronze finished knob
and mounting plate.


65c
Four Pole-Double Throw Roller Cam Switch

${ }^{\text {Sturdily }}$ structed _oncontacts are pos
 Txtends. 2344 in behind panel, $13 / \mathrm{s}$ in. high 56 in. wide. Finest insulation between leaves. Anti-capacity style construction. The many leaves permit the use of this switch to serve any number of swiching requirements.

5 Position Double Pole (2 Circuit) Selector Switch for Speaker Channel Systems
A sturdy, compact selector
switch that is ideal for use switch that is ideal for use
in installations where one radio speaker is desired to be used to bring in up to five different progr:
Complete with Knob. rery useful item
Cat. No. 6369
Cat. No. 6369
95 C


Yaxley "On-Off" Switch


Walnut bakelite knob. Phosphor bronze letves, with Tungsten nonarcing and non-corrosive Contacts behind panel, 1 in. long. 23 C Cat. No. 5081

Per Dozen $\$ 2.25$

Victor Automatic Phonograph Switch
Can be used with all electric phono. Motor turn-tables. Turns off 15 C when desired.
Cat. No. 6370


## Bronze Finished Escutcheon

 PlateConceded to be the most exquisitely designed, embossed plates available. Dresses up any set-generally fund on most expensive. Standard receivers!
FOR FULL VISION DIALS
Overall length, $51 / 4$ in., $21 / 2$ in. high. $\left.\begin{array}{c}\text { Total } \\ \text { depth of window, } \\ 58\end{array}\right)$ in. Length of dial window, 338 in ., 56 in. high
.

Combination Double Pole Double Position and Single Pole, Single Throw Jack Switch
A very ingenious piece of mechanism-hundreds of uses will suggest themselves to any experimenter, set builder or serviceman. This jack switch contains 8 leaves, and "gold" plated hardware. Extends 3 in. behind panel. Highly nickeled springs and frame with Fan-tail, tinned terminals.
Cat. No. 3273.
at. No. 3273....

## Rotary Bi-Polar Voltmeter Switches

## 14 Terminals-6 D.P., and 2 for Off

 Position Furnishes 6 Active Posi tions! Consists of two,
separately insulated rotary switches-ideal fo home construction o testing equipment, meter multipliers, etc., etc. Single hole mount. Knob included. Diameter, 118 in. Extends t? in be hind panel.

59c
Cat. No. 5625. SINGLE POLE SWITCH, with 13 single contacts, and one common-terminal

59C
Cat. No. 5626. TRIPLE POLE. DOUBLE THROW. (Two positions.) Exccllent 88 C for short-wave and other applications.. 88 C Cat. No. 5627. DOUBLE POLE, TRIPLE THROW. (Three Positions.) Excep- 885 tionally useful!
Cat. No. 5628. BI-POLAR, 12
DOUBLE POLE POSITIONS
88c
All of the above are equipped with a Small
Arrow Knob and hexagon mounting nut
1-2 and 4 Gang Rotary Switches An Absolute Necessity in the Construc tion of Test Equipment and P. $A$.
 Installations
Single Hole Mount. $1 / 4 \mathrm{in}$. diameter shaft. The shaft and mounting arrangements are fuliy insulated from any current carrying parts, therebv permitting you to ground the shaft, if so desired. Self-centering brush contats.
Furnished complete with a bakelite knob, mounting nut and bronze figured, walnut background metal etched Platel O

|  | Cat. | No. of | OUR |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { SINGLE } \\ & \text { POLE } \end{aligned}$ | No. | Contacts | PRICE |
|  | 4073 | ..... 4 . | 93c |
|  | 4074 | . 7 | . \$1.05 |
|  | 4075 |  | \$1.10 |
| BI. <br> POLAR | 4076 |  |  |
|  | 4077 | 7 | \$1.57 |
|  | 4078 | 9. | \$1.71 |
| FOURPOLE | 4079 |  |  |
|  | 4080 | 7 | ... ${ }^{\text {. }}$ 2.60 60 |
|  | 4081 | 9. | \$2.94 |

Bronze Finished Escutcheon Plate for Drum Dials


Overall height, $37 / 6$ in. $23 / 4$ in.
width. Maximum depth of win. width. Maximum depth of win-
dow, 14 in Length of window, $13 / 8$ in., wilth in in. Note arrow station indicator. Heavily and beautifully embossed.

25c

## Bronze Finished Escutcheon

Plate for Spring Friction Drive Tuning Unit Dials

## Tastefully embossed. Very com

 pact, only 234 in. high, and $23 / 8$ in. height Length of window, $3 / 4 \mathrm{in}$., dicator.Cat. No. 2415.

# Rider's Perpetual Trouble Shooters Manual 

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Contains 1000 Pages2000 Diagrams and —W'eighs 6 lbs.—Loose Leaf Style-
It will help you service at a profit. It will save time because you will not be called upon to trace the circuit of a
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time trying to locate the units shown in the wiring diagram. You will not waste time guessing at the correct operating voltages, at the correct values of resistance and capacity-at all electrical values. Are you intercsted in having all the service information about commercial radio receivers? Then buy Rider's PERPETUAL
TROUBLE SHOOTER'S MANUAL. It was prepared with the cooperation of Radio Receiver Manufacturers. In it you will find every bit of service information you require to work rapidly and accurately without any guesswork. Volume No. 2.
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American time-and-location maps-and other special features.
Cat. No. 6410.
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## S. Gernsback's Radio Encyclopedia

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This book is the new edition
 of the famous First Radio Encyclopedia by S. Gerns back, the first book oi its kind ever published in Amer ica. Over 39,000 copies of the first edition were sold This large volume, bound in heavy flexible covers, with loose-leaf arrangement, pro viles a gold mine of information on all things radio. Replete with circuits, ex. planatory diagrams of all $h$ the various phases of and charts; it deals with the various phases of radio in a manner that has been kept as non-technical as is consistent with clarity and accuracy. It gives you an explanation of every word used in radio. These explanations-or, rather, definitions -are not brief outine information like those o an ordinary dictionary, but they give in fullest detail, and at considerable length, the meaning and application of every word, phrase, general and special term used in the scierce of radio. There are 2.201 Radio Definitions, 1,253 Tech nical Illustrations, 34 Tables and Charts, 24 Pages of Appendix, 352 Pages, $9 \times 12$ inches The hook is of loose-leaf construction with red morocco-keratol binding; the contents printed on strong ledger paper.
Cat. No. 6409
\$3.25

## How to Build and Operate Short Wave Receivers Heavy Board Cover

The book has becn prepared by the Editorial Staff of SHORT WAVE CRAFT, and contains a
wealth of naterial on the building and operation of Short wave re ceivers and short wave converters. Dozens of short wave set circuits will be found in this book which contains hundreds of illustrations; actual photographs of sets built, hook-ups and diagrams galore. The book measures $71 / 2 \times 10$ inches,
and contains over 160 illustrations, 76 pages.


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Ever have your radio fail when a big program was on? That's when the New Radio Trouble Finder and Service Manual is worth its weight in gold! It tells you what to do, and do quickly in order to find and epair the trouble. $81 / 4 \times 111 / 2$ in. 100 pages. Cat. No. 2706.

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"Radio News" 1001 Radio Questions and Answers
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## Radio Amateur's Handibook

Sometimes called the Radio Amateur's Bible. In cludes How-to-Build articles, with complete in structions and diagrams; new radio wrinkles, D X hints, data on the new tubes, and helpful, money-saving ideas for the radio man. $81 / 2 \mathrm{x}$ $111 / 2$ inches. 100 pages. Published by 50 C
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## Precise <br> HIGH SHIELDED . 00035 Mfd. Variable Condensers



Spacing of .130 in . between the stator and rotor blade centers, the material in the blades being. 032 in. special hardmly is provided with a split blade for taking care of any variation of circuit capacity. on wiper for each individual rotor assembly. This wiper is provided with an extension for making direct ground contact. drilled and or the that it may be mounted to three points on the bottom or either side. The bearings are of the ball race type which makes a very smooth
action. The shaft diameter is 38 in . The compensator capacities for the .00035 and . 0005 Condensers have a variation from 1 mmf , to 30 mmf .
The capacities stated on the Precise The capacities stated on the Precise
Condensers of .00035 and .0005 do not include the compensating capacity, but include the minimum capac. ity of the condenser unit. The adjustment of the variable element of the compensator is at ground potential. The high shield plates are tapped in 3 places on each end. Overall dimensions: $41 / 2$ in. long, $33 / 4$ in. high. The lengths vary as
follows: 1 Gang, $13 / 4$ in.; 2 Gang, $33 / 8$ in. 3 Gang, $5 \% / 8$ in. ; 2 Gang, 678 in. $; 5$ Gang, $858 \mathrm{in}$. The minimum capacity of the 350 munf. sections is $181 / 2$ nimf.; and the mini-
mum capacity of the 500 mmf . sections is 23 mmf




 Short wave model


## Super-Heterodyne Models

Similar to above described, differing only in that one of the sections is designed as an "Oscillator Tracker!" .00035 m md
 inituding one "tracker". \$2.95
scection Cat. No. 5882. Four ganc. including one "tracker"
section
s. section

Scovill Two Gang . 00036 Mfd. Brass Plate Variable Condenser

The die stamped chanically and metrically perfect bear ing construction as sure maximum aigidity and constancy of capacity setting
The brass plates are soldered to associate cross members, insuring no losses. A one inch long, $1 / 4$ in. diameter shaft is included. as is convenient mounting features. Length,
$3 \mathrm{~s} / 2$ in. (less protruding shaft) ; $31 / 4$ $31 / 2$ in. (less protruding shaft); $31 / 4$
in. wide.
Cat. No. 7163
89C

# Chelton <br> Miniature <br> Condensers <br> <br> Excellent for Short- 

 <br> <br> Excellent for Short-} Whae Reception, Aerial Trimmers and General Neutralizing or Compensating Applications! Single hole mount. Aluminum frame, firmly embedded brass plates. Keep a few of each size always on handthey are extremely useul. Complete ture knurled knob. Exitends only. $15 \%$ in behind panel- $13 \%$ in di ame in.
Cat .No. 3411. 9 Plates
Cat. No. 3412. 13 Plates
30c In Lots of 6 , deduct $5 \%$. In Lots of 12, deduct $10 \%$. In Lots of 50 , deduct $15 \%$.

## Precise Miniature Condensers

## A Laboratory

## Product!

The favorite of all shoper wave and set builders, and experimenters in generall. Of rugged construction, simple and compact, the Microdensers operate with velvet smoothness and make possible the most entirely of brass. Low minimum capacity.


De Jur-Amsco Multi-Purpose Midget Miniature Variable Condensers


SHORT-WAVE MODEL Cat. No. 7158
Two Gang $.00014 \mathrm{mfd} .$. \$1.95 In Lots of 12, deduct $10 \%$.

## De Jur-Amsco "Varitor"



The Ideal Intermediate Frequency Dual Tuning Condensers
Maximum Capacity:
Minimum Capacity:
4 micro-microfarads
One of the finest "peaking" condensers ever built. Mounted on a $1 / 4$ in. thick Isanolite base, 2 in. diameter. All netal parts highly nickcled. When used in conjunction with any standard wound I. F. transformer it constitutes a complctely tuned Intermediate Stage; peaking range from 150 to 2000 kilocycles. Offers micrometric adjustment.

59c
 Ideal as "tracking" condenser of "scillator to detector, or wherever a "no-loss" condenser is required.
Cat. No. $3401 . . . . . . . . . .$. . 4 e

Four Gang . 00035 and . 0005 Mfd. All-Brass Condensers
Made for Stromberg-Carlson by SCOVILL


Each rotor section can be separately adjusted allong the main driving shaft, by virtue of two case hardined steel set screws which bite nio the shaft. Solid brass frame and plates! Threc tapped screw holes a:e in the base, for ready and convenient mounting. A powerful spring band wiping contact is provided for each otor section. Overall dimensions. 10 in . long, $31 / 2 \mathrm{in}$. high, 4 in . wide, with all sections totally unmeshed. Diameter of shaft, $3 / 8$ in. May be urned down to
Cat. No. 3429
00035 mfd .
79
Cat. No. 6045.
0005 mfd................

## Fammarlund Triple Condenser Compensator Unit <br> 

3 Hammarlund compensators mounted ors a bakelite strip. $6 \$ \frac{1}{3}$ int. long. $5 / 8$ in. wide. They are $21 / 8$ in, apart. bakelite. Extremely useful-always have a few on hand! (May be sawed apart.)

35C
Cat. No. 3436............................................... $\$ 3$.
In Lots of $6 . \ldots 5$

## Hammarlund Equalizer

## Maximum Cy 100 mmifd

 Ideal for compen sating tuned grid and plate circuits. and for kcneral poses. Mounts direct to one of the terminals to which it will be connected.
Cit. 12C

Premier Supreme Quality . 00037 Mfd.
Variable Condensers


Low Minimum Capacity- 000013 MF-a very desirabie feature, and which few possess. Maximum cap. .00037 MF . Shielded between sec. tions-rigid construction - positive electrical contacts. Trimmers-rigid and "stay put" after adjusted. and stay put after adjusted. silk action. Best Materials-aluminum plates-brass shaft-cadmium plated steel-Bakelite insulation. Size-2-gang-iully open $31 / 2$ in. wide, $23 / 4$ in. long, 3 in. high;
3 -gang- 4 in. long. Most compact made. Universal Mounting-for chassis-panel or on end br

Cat. No. 5482. 4 Gang $\$ 2.25$ C SHORT WAVE MOD
Two Gank .00014 mfa... \$2.10

De Jur-Amsco SuperHeterodyne Oscillator "Tracking" Condensers


Makes possible the co-axial mount. ind of the condensers tuning the oscillator, pre-selector and first detector stages, with the composite tuning arrangement so arranged that the oscillator will track at a given frequency above the pre-selector and first detector circuits at a frequency equal to the resonani frequency of broadcast receivers, 175 present day Eliminates the cost of extra fixed and semi-variable condensers and in some desions two additional resisiors Such now useless padding arran ments are in many instancet arrange mromise and at approximation the discrepancy between the desirable discrepancy between the desirable and actual capacities being more discrepancy varies at different dial positions, resulting in a distorted positions, resulting in a distorted
sensitivity curve and poor reception sensitivity curve and poor reception
it certain points.
Makes the adjustment of the oscilMakes the adjustment of the oscillator sectior as simple as that of
the selector circuits. with exactly the same degree or accuracy readily obtained in a t-r.f receivcr.
The tour gang unit is $5 / 2$ in. long, $31 / 2 \mathrm{in}$. Wide, $41 / 2$ in. higls. $3 / 8 \mathrm{in}$.
diameter shaft. equipped with individual compensators, and the end rotor plates are slit for more minute adjustments over the entire band Can be plate-grid connections can be made from the bottom or top.
Cat. No. 3447.

T. R. F. Models-. 00036 Mfd.

Each section is identical, and is ideal
for use in ANY tuncd radio fre.
guency circuit.
Cat. No. 6027. 1 Gang
$\$ 1.05$
Cat. No. 5477. 2 Gang $\$ 1.75$
Cat. No. 5478. 3 Gang $\$ 2.50$
Cat. No. 5479. 4 Gang $\$ 3.23$
TWO G.ANG 00014 MFD .
SHORT WAVE MODEL
Cat. No. 6028
\$2.15
Micrometric Adjustable
Variable Grid Leak-
Resistance


EXCELLENT FOR USE WITH THE NEW WUNDERLICH AND 55 TYPE TUBES

Consists of a five inch long threaded shank which is insulated from the ing body effects in highly provit grid circuits. Serves many applicafrid circuits. Serves many applica-tions-indispensable in the lahora-
tory! Absolutely NOISELESS in operation-nothing
Cat. No. 6030.
95c

Super-Heterodyne Tuned GridTuned Plate Intermediate Fre-
 quency Transformers Standard Model is Labora-
tory Peaked at 175 K . C tory Peaked at
Models
Also
Available Peaked at 125,450 and 500 Kilocycles!
A high grade rigidly con${ }^{175}$ structed l. F. unit peaked at 175 kilocycles. The unit is tuned with a variable condenser on an isolantite base, and has a gain of 142 . The inductances are of lattice wound type waxed wood form and suspended across a mounting bracket holding both the coils and the trimming condenser as one unit separate from the shield, which can be renoved without disturbing the unit assembly
The unit is readily adjusted from the top of the receiver and full length R.M.A. Color Coded leads are porvided to facilitate installation. The overall dimensions of the , unit mounted
in an
a.D.
$3^{\prime \prime}$ deep. It is suggested for best results that you use at least one loosely coupled Transformer, and the remaining I.F. units should be tightly coupled. Each unit is contained in an attractively finished shield, which is bolted to a chassis by means of shietruding threaded pillar posts.
protruding threaded pimplete, loosel
coupled 175 K. C. I.F. Transformer,
coupled 175 K . C. $\underset{\text { with metal }}{ }$ disc between primary with metal secondary.
Cat. No. 2300. Complete, tightly coupled
Cat. No. 3398. Complete, tightly coupled 175 K.C. I.F. Trans., High Gain, for coupling to any tube with its grid terminal located on the base
of the tube, such as a 227 type.

Center Tapped Serondary Finding I.F. Unit for DUAL DETECrion CIRCUITS
Ideal for use with Wunderlich, RCA 55 , and similar tubes, or for dial detectors of the conventional type. Tightly coupled.

## \$1.95

Cat. No. 6091


BLUE PRINTS-Chowing above I. $F$. units as used in a complete A. C. Recriver
Use These Two Essential Coils to Build a Four Gang Band Pass Filter SUPERHETERODYNE Receiver!
"Super-Het" Preselector Antenna Band Pass and R.F. Coil
 The secondary windings of both coils are of space uniformity The antenna primary winding is of high impedance stable for use with long and short zerials. It is customary to mount the preselector in a horizontal position on the
chassis without additional shielding. The coil is $11 / 4^{\prime \prime}$ O.D. and 53/4" long.

Cat. No. 2301


95c
"Super-Het" Detector, Oscillator, and Mixing Coil
A solenoid enamel wound coil for use in a four gang Super-Heterodyne circuit in conjunction with the coil above described. The wire is space wound to provide uniform capacity and inductances. No primary is provided on the unit itself but it is intended for use with a 4 millihenry choke and 15 MMFD coupling condenser as an impedance coupled primary circuit. "the coil is
4 " long and $11 / 4$. O.D. and is intended for use without shielding. Designed to produce a heterodyne frequency of 175 K.C. when tuned by i. 00036 mfd. variable condenser.
Cat. No. 2302 . ......................... $\$ 1.25$ Cat. No. 7156. 4 Milli henry Choke ....45C Cat. No. 6092. 15 MMFD Coupling Condenser $45 c$
BLUE PRINTS of Contplete SUPERHETERODYNE Receiver, Using Above Coils

Super-Heterodyne R. F. and I. F. Essential Kit
Construct Your Own 10 K.C. "Single Spot" Tuning Band Pass Preselector SuperHet Receiver! Can Be Used with All Types of A.C. and D. C.Tubes

List of Parts Furnished:


1-Cat. No 3449. Four Gang High Shield 00036 Mfd. Super-Heterodyne Oscillator, Tracker Model, Variable Condenser.
U ${ }^{1-N}$ No. 2299 Loosely Coupled 175 K.C. I.F. Unit.
Units. No. 2300. Closely Coupled 175 K.C. I.F.
i-No. 5576. Band Pass Preselector Antenna Coil-Shielded. Coupling Coil-Shielded. Oscillator and R.F. 1-No. 6096. 22 Milliheny R.F. Filter Choke. 2-Fully Descriptive and Detailed Blue Prints. from these essential parts, and we will furnish a recently compiled blue print fully applicable thereto.
Cat. No. 5705. Complete as
\$10.25

Shielding of the universally mountable, litz wire wound coils permits any placements of these parts, without fear of any oscillation difficulties presenting themselves-makes this kit of especial value to any novice! This shielding also prevents extraneous pick-up, further adding to incorporation of a band pass filter assures maximum selectivity, even if you operatc a "super" built from these parts inmediately adjacent to a powerful broadcast station. The oscillator simplifies the construction and final adjustment of a "super"-in fact, considerably better and more stable performance is assured by its use! The 3 I.F. Units are laboratory peaked at 175 K. Please specify which type of tubes you will enploy in the "Super-Het" Tuner to be built
(NOTE: If you desire to eneploy a DUAL DETECTION CIRCUIT, 2 nd detector, please specify and add $\$ 2.50$ to your remittance!)

## SPECIAL INDUCEMENT:

Wish each order for one of these kits, we will include absolusely FREE John Rider's authoritative book entifled "Hove so Service and Build Super-Heterodyne Receivers!

Use These Tuo Essential R. F. Coils (Available Also in Shielded Form) To Build a Four Gang Band Pass Filter SUPER-HETERODYNE RECEIVER.
Super-Heterodyne or R. F. Band Super-Heterodyne "Translator" Pass-Preselector-Litz Wire
Wound, Even Gain Antenna Stage

R. F. and Detector-Oscillator Coupling Coil


Ideal for "Supers" or Highly Selective Tuned R. F. Receivers!
The preselector coil is commonly used as a band pass unit in conjunction with a four gang Super-Het. circuit, and is composed of the above anterna together by an over-all sleceving. Length $43 / 8$ in., diameter $11 / 2 \mathrm{in}$. ( 36 in . O. D. of tubing.
 Cat. No. 5576-A. Same, enclosed in an $\$ 1.15$
Aluminum Shield ...................... 15

An assembly of two separate coils end to end, secured by an overall slecving. The detector R. F. section is identical in construction to Cat. No. 5580 Interstage coil, and the oscillator section is a two bank Litz wire secondary, and a plain solenoid tickler winding. For use with Super-Het. Fariable condensers, with special oscillator tracking section, the sccondary inductance value being of correct relationship to each other to "track" uniformly at a difference of 175 K. C. across the broadcast band. Requires a .00036 mfd . condenser 76 in. O. D. $x+7 / 8 \mathrm{in}$. in length. Universal mountings.
Cat. No. 5579................... 90 C Cat. No. 5579-A. Same, enclosed in \$1. 15 BLUE PRINTS of Complete SUPER-HETERODYNE RECEIVER in which the above two coils are employed

## Super - Heterodyne Combined 175 K.C. I. F. Transformer, and Separately Shielded Oscillator Coil



Utilizes ONE TUBE (any screen grid type!) as a Combination First Detector and Dscillator Thereby Obviating the $\dot{N}$ ecessity of TWO TUBES!

Phontom Can be used with a 2 Gang .00036
View of Mid. Condenser and only one arldiInterior of Mid. Condenser and only one addiInterior tional 175 K.C. unit, plus an audio circuit, to construct a complete suplerPrint of such a receiver, 50 c !) The oscillator section is a tapped bank wound "Litz" winding with a mek-up con over the outside of the
secondary winding. Enclosed in an effective shield, 21 I $^{\prime \prime}$ diameter $\times 318^{\prime \prime}$ high. Sub panel mounting
\$1.75
550 K. C.-Self-Tuned-High-Gain-Litz Wire Wound-Remarkably Compact - Screen Grid-I. F. Transformer and Shielded Plate Choke


Ideal for Use in Super-Het-
erodyne $A L$. W AVE and SHORT-F'AVE Receivers

A comlination of a self-tuned bi filer transformer peaked at 550 K . C and a detector plate choke coil Phantom which finds popular use as an addiFiewo of tional Radio Frequency stage in Interior 45-6 tube receivers both for lome use and antomolile sets. Since no external tuning is required the only additional expense involved is for the Assembly itself and extra tube. Single hole nounting.
Height: $11 / 2$ in., Diameter, $11 / 2$
Explanatory Diagram Included
Cat. No. 5570.
55 c
"Super-Het" and T.R.F. Lattice-Wound Chokes
Wound on a moisture-proof treated cyinder, with I/s in. diameter mounting bushing. Connections are brought out to ${ }^{\text {bugs riveted to a }}$ bakelite plate. Overall dimensions: bakelite plate. Overall dim
1 in. diameter, og in. high. Cat. No. 6093. 1. Millihenry. For Short
Wave Set Application .................

Cat. No. 6094. 4.25 Millihenries. For 4.5 Cat. No. 6095 . 8.8 Millihenries. For De-
 Cat. No. 6096. 22.0 Millihenries. For 53 C
High Frequency Filter Circuits. ........

Antenna - Band Pas Pre-selector Coil Litz Wire, Lattice Wound
 Considerable attention was given to the type
and spacing of the and spacing of the
winding to keep the winding to keep the
distributed capacity as form as is dehydrated form is dehydrated for hole in one ent for mounting to the
chassis with a $6 / 32$ nachine screw. The coil is used as a band pass for Super-Het. circuits. The unit has a bigh impe. dance antenna primary, and is stable
in operation. Fxtremely compact. $O$ verall length, $2 \% / 4$ in., diame $1 / 8$ in.
Cat. No. 5571 45 c
"Telerad" High Gain Removable Cover Shielded R.F. Coils
For All Screen Grid Circuits Employing 222, 232, 234, 236, 224, 235,551 , '57, '58 Tubes!


Equipped with a High Loading Impedance to Match the Plate Impedance of All Screen Grid Tubrs!
Model With Protruding Lugs
 in. in diameter by' 2 measuring 2 2, The enamel wire primary is wound aroumi the enamel wound secondary, insulated furither by heay gauye
Einpire cloth. The terminal
 ink base, which is screwed and holted to the chassis.' The aluminumu cover, measuring 2 , in, in in dianmeter by Sy. in. lonk. can be remored at
will front the base holdin, the itself. ${ }^{\text {Yronn }}$ Come the base holding the coil mimunting screws, $s_{5}$, iveted to the base.


Model with Non-Protruding Terminal Lugs
In general counstruction these coils resemble the ahove described with dite tubing measures 1 in. in diameter by 158 in. long. Holes are proterminal leads, which do not inter fere with the ready removal of the aluminum shields.
Cat. No. 3234. Antenna Coil,
 Cat. No. 3237. R. F. Coil.. Each
View
showing
Shield
Covers

Here Are Two Essential Coils for Building A Three Gang Condenser
SUPER-HETEROIDYNE RECEIVER

## Combination DETEC <br> TOR and OSCILLATOR <br> High Impedance <br> Primary Antenna Coil



## COIL

the right, have that inert menter on efficiency that obviates the necessity for employing shiclding around them The bakelite tube is threaded with an 88 pitch thread with a space gap ior anjustiny inductance. Enamel coils wound on threated tubing have a very uniform distributed capacity which facilitates set phasing. end soldering lussembled with dondele all timernion of $11 / 4$ in. $O$. D. D +56 in. long. Requires a .00036 mid. conderser.
Cat. No. $6079 . . . . . . . . . . . . ~ 95 c ~$

## Rlue-Print for Complete Receiver

 Solenoid type,wound $\begin{aligned} & \text { with } \\ & \text { enamel wire } \\ & \text { un a threaded } \\ & \text { bakelite tube } \\ & \text { with a gap }\end{aligned}$ secondary winding for adjusting same to accurate inductance standards. The primary is a high impedance type. the inductance of which is ex-
ceptionally high, and distributed canacity low, due to the very narrow winding.
The bakelite tube is assemhled with double end lugs and is $11 / 4 \mathrm{in}$. O $\times 25_{8}$ in. long. Requires a .00036 mid. conternser.
Cat. No. $6080 . . . . . . . . . . . . . . . . ~ 85 C ~$

Two Coils for Ruilding a Three Gang
Cond. MIDGET 'Super-Het" Receiver Cond. MIDGET "Super-Het" Receiver "Teleradio" Ant. Coil "Teleradio" Super. Equipped with High Imped. Heterodyne Oscillaance Antenna F'inding


Blue-Print for Complete Receiver...50e

## High Gain Shielded R. F. Coil



Equipped with a High Loading Inpedance to Match Plate Impedance of All Screen Grid Tubes
For maximum performance of any type screen grid tube, a high loading plate impedance must be employed A special inductive ant capacitative coupling coil is wound at the far end of the secondary winding. This two piece alunimum shield mounts above or below a chassis hy virtue of a protruding 6/32 screw. Over-
all length, 234 in., $2,1 \%$ in. diameter. all length, 234 in.. 2 in. diameter. for a screen grid connection. For .00036 Nid . Con. Range 200-500 meters.
Cat. No. 5567.39 C
R. F. Coil Cat. No. 5567-A. An tenna Coil. (Equipped with His Antenna
Winding !

"Conoid" Shielded Compact High Gain R. F. Coils


Remarkably Compact Only $21 / 8$ in. diameter, 1-9/16 in. deep For All Types of Tubes!
Extremely sensitive and selective-
funnished complet in a soft coppler
shiell. Winding is seli-supporting-
no core or tube used-eliminating all abscrption losses and greatly reduc ing high frequency loss resistance Designed for mounting anderneath out of sight or on top of chassis. Designed for .00035 mfd . condensers Range 200-550 meters.
Cat. No. 5200. Antenna Coil 4S Cat. No. 5201, R. F. Coil.

With These Three Colls Listed Below, You Can Construct a Three Gang Condenser Iuned SUPER-
HETERODYNE Receiver, Whersin the R. F. Circuits of the Antenna, Detector and Oscillator Tubes Can Be Individually Shielded, Offering Mora Complete Controllable Coupling Either by CAPACITATIVE Method or by INDUCTIVE Coupling Method, Due to Their Separately Con. structed Units!
All-Purpose Compact, Litz Wire Wound, Even Gain Antenna Coil

 collar which slips over the secondary winding and is detuning the antenna stage by variations in anltenna lengths. The complete ring is provided to prevent loss of energy at the higher frequencies the interstage the phasing of the antenna with Adaptable for
R. $\mathbf{F}$. or Super-II as an antenna stage for tuned ing. Requires . 00036 Mfd . Viriable Condenscr.

Cat. No. 5575 55
Cat. No. 5575-A. Same, enclosed in 75
All Purpose R. F. and Super Heterodyne Even Gain Interstage R. F. Coil—Bank Litz Wire Wound
Wound on a 36 in. O. D.
234
in. long. bakelite coil 234 in. long bakelite coil is of high impedance lattice coupling inside th dary form and peaked
 provide increased signal strength at that point of the band. Equipped with a low loss mica coupl minals to improve the 1500 K C. signal strengih this providing a uniform amplification gain across the entire broadcast band. Bank wound Litz wire plays an important part in the gain of impedance coupled R. F., and the extreme coils has made them very pousular for midget and automobile sets as well. Universal mount. Covers 200-550 Meters with

Cat. No. 5580.
Cat. No. $5580-\mathrm{A}$. . Same, enclosed in Aluminum Shield Cat. No. ${ }^{\text {S580.B. }}$ Yrovided
for $D$ ual Detection Circuits. Shielded
$\$ 1.45$

## Compact Super-Heterodyne Oscillator Coil



## For 200.600 Meter

## For use in circuits requiring a shielded oscillator The coil is wound on a $3 / 8$ bakelite tube having a silk

 covered solenoid tickler winding and a pick-up, tire length of the bank wound secondary on a sleeve. Termination of all leads are made to for borizontal mountinr in an aluminum shield can. Requires a . 00036 Mfd. Condenser. Cat. No. 5577No. 5578. Same, enclosed in an erodyne Receiver Utilizing These Coils, $50 c$.
Compact 175 K.C. Super Heterodyne Intermediate Frequency Unit
Designed to Operate Efficiently With All Types of Tubes Retaining much of the efficiency of its larger brothers, this unit boasts in tall, 178 in. dianeter. Terminal screw mount. R.M.A. Color Coded Flexible Leads. Padding condenser control through top of zinc alloy shield. Splendid for use wherever space is at a premium. On this page, we list suitable three gang condenser tuned antenna and oscillator detector mixing coils.
Cat. No. 6384. Each
90c

High Gain-Litz Wire WoundScreen Grid-175 K. C. SuperHeterodyne I. F. Unit A Generously Proportioned Piece of Apparatus
Coupled rogether at optimum by Correct angle of rotatio 140 Mmid . and have a 85 Mmfd . When the unit The peaked at 175 K . C. The unit is housed in an O. D. $x 3$ fi in. high, to tached for mounting the
 complete assembly. The unit is adjustable from the top and has full length installati $\$ 1.50$

(a)

## Honeycomb Coils

 Ideal for broadcast and long ware lengths. I-isten in on trans-occanic telephony. "Read news comes flashing over from news comes fiashing ove all parts of the wMilhenriea Length Wave

| Cat. No. 3038 | $\begin{aligned} & \text { No. } \\ & \text { Turns } \end{aligned}$ | Milhenries Length with |  | Dur Price |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Appx. | Condenser M | Mounted | unted |
|  | 25 | . 040 | 170-375 | $\delta .50$ | \$1.25 |
| 3239 | 35 | . 075 | 200-515 | . 50 | 1.25 |
| P940 | 50 | . 15 | 240-730 | . 55 | 1.30 |
| 3241 | 75 | . 8 | 330-1030 | . 60 | 1.35 |
| 3242 | 100 | . 6 | 450-1460 | . 65 | 1.40 |
| 3243 | 150 | 1.3 | 660-2200 | . 70 | 1.45 |
| 3244 | 200 | 2.3 | 800-2850 | . 80 | 1.55 |
| -3245 | 250 | 4.6 | 1120-4000 | . 85 | 1.60 |
| 3246 | 300 | 6.5 | 1340-4800 | . 05 | 1.70 |
| 3247 | 400 | 11. | 1860-6300 | 1.15 | 1.00 |
| 3248 | 500 | 20. | 2340-8500 | -1.30 | 2.10 |
| 2243 | 600 | 40. | 2940-12000 | 1.45 | 2.25 |
| 3250 | 750 | 65. | 3100-15000 | 1.60 | 2.40 |
| 3251 | 1000 | 100. | 5700-10000 | - 1.90 | 2.80 |
| 325 | 1250 | 125. | 5900-21000 | - 2.20 | 3.10 |
| 3553 | 1500 | 175. | 7200-20000 | - 2.50 | 3.40 |

In lots of 6 coils (assorted, if you wish) deduct a 30\% discount.

Triple Honeycomb Coil Mounting Holds econdary and ickler coils. Ûse with above coils Cat bakelite.

## \$4.45

## 10 to 200 Meter SUPERHETERODYNE SHORT <br> WAVE COILS and Four Position Wave Length Switch



Ideal for Building Your Own Super-Heterodyne and Receivers. Consists of a sturdy aluminum bracket, with mounting shelf, long, $21 / 2$ in, high. Loss Triple Switch Assembly rotated by a common Bakelite Shaft, with a slot running through $t$, to engage the three switch levers concurrently. Troken precisely at the same moment.
Permiss the immediate selection of the following Short-F'ave Bands: 10 to 20 . Meters, 20 to 40 Heters, 40 to 80 Meters and 80 to 200 Meters cireuit requiredt
The coil inductances themselves are wound on High Grade Insulation Tubing which is supported and held together by rigid bus bars, forming both a mechanical as well as an electrically perfect connection! Both silk covered and appropriately spaced enameled wire are precision wound, of course. The bakelite slaft is fitted with an attractive Bakelite knob, and a suitably. embossed wave-band selection plate, for mounting on the front panel, completes the assembly of this most unique apparatus. Remarkably Compact. Over-All Dimensions: $47^{7}$ in long, 63 in. deep, and $45 \%$ in. high. Requires a 2 Gang. 00014 Mfd. Variable Condenser. Cat. No. 7201. Complete: 4 Coils Escutcheon, Knob,
 7201 and a HAMMARLUND 2
GANG . 00014 Mfd. Vari. Cond.

Screen Grid Super-Heterodyne Coil Kits Equipped with a Amsco-De Jur Three Gang . 00036 Mfd. Variable Condenser with Oscillator "Tracking Section"
A boon to all set builders, experimenters, and dealers build a real "super." Posrange extreme sensitivity and selectivity, tremendous gain per stage, with no
R.F. distortion incidental
 o side-band cutting. The ains a higly coil conoil. The oscillator coil prinary, and an R.F coil, oscillator and R.F. coil of such desioning to produce a beat frequency 175 K . C. of the carrier frequency. Three Factory aligned 175 K.C. I.F. Transformers, and accurately matched coils, assure $100 \%$ simplicity of construction and positive efficiency of performance. Two R. F. chokes (lattice wire wound) are also ncluded, one for the R. F. Plate and the other for the B plus lead, as $\stackrel{\text { and }}{\text { filter }}$ Build a Real "Super"-No Elaborate Test Equipment Required!
The very latest in super-heterodyne condenser construction is included, the "tracking" section not only eliminating the critical stator to grid series condenser, but also permitting any layman to now construc ultra-cfficiency, and to compensate for the variations all ans the broadcast range caused by long and irregular leads the end rotor plates are long and irregular leads, the end rotor plates are plate serve as five individually adjustable micrometric tuning condensers! Each condenser sec tion is further under your control by virtue of the self-contained and individual compensating condensers. Note the extremely valuable electrostatic "high" shield plates between each section! A set of fully explanatory and detaile Cat is is included.
"COAST-TO-COAST" UItra Precision Wound 175 K.c. Super-Heterodyne I.F. Units Especially
with
oithe
Latested
RCA Triple Grid Super Control Tubes. . Can Also Be Useld with Any Other Type of Tube as Well?
I aboratory peakerl precisely at 175 K.C. If further adjustment is necthe top of this apparatus. Special center tapped secondary model avail-
able for use with R.C.A. 55 , Wunderlich or for Dual Detectors. Equipped with R.M.A. color coded flexible leads. AND WIRING DIAGRAM. For use in "Super-Het" cir-
cuits employing a 3 or 4 gang variable con-denser-please refer to the various combinations of other necessary R.F. Coils, such as Cat. Nos. 6080, 6081; 3407, 3408; 2301, 2302; 5575, 5577, 5580 , etc. Contained in an aluminum, sub chassis mounting shicld, with protruding threaded pillar posts. Compact in size. measuring: 2 in. diameter, 21/8 in. tall.
Blue Print of Complete "Super-Het" Receiver Included Gratis!
Cat. No. ${ }^{7203}$. Complete, loosely with metal disc between primary and secondary.
Cat. No. ${ }^{7204}$. Complete, tightly Gain!

## Cat. No. 7205. Center Tapped Secondary Wind

 ing I.F. Unit for DUAL DETECTION CIR CUITS Ideal for use with Wunderlich, R.C.A 55 , and similar tubes,the conventional
Tightly coupled.
$\$ 1.95$
Kurz Kasch Vernier Port Dial


4 inch
Mameter. Popular the cears. No backlash. Fits $1 / 4$ in diam. Shafts. Ratio 100 to 1. Cat. No. 6200.
4 in. diameter
59c
49 c

# SHORT WAVE FANS: Exclusively use the Apparatus Listed Belon to Construct the Most Efficient SUPER-HETERODYNE SHORT WAVE RECEIVERS and CONVERTERS! 

## "Coast - to - Coast" <br> Short Wave 10 to 200 Meter SuperHeterodyne Coils <br> 

Covers The Entire Short-Wave Band: 10 to 20 Meters, 20 to 40 Meters, 40 to 80 Meters and 80 to 200 Meters!
Wound on $45 / 8 \mathrm{in}$. long bakelite tubing in accordance with latest stage of perfection attained in short-wave low loss construction. The windings are automatically air-spaced, and are of highly enameled structure. The terminal lugs are appropriately placed, with a view to cut down all losses. The 10 to 20 meter, and 20 to 40 meter coils are wound on $7 / 8$ in. diameter tubing, and the 40 to
80 , aid 80 to 200 meter coils are wound on $11 / 4$ in. dianmeter tubing. lhese coils require a two gang 10 to 20 Meters
Cat. No. 6031 . ................. 50. Cat. No. 6031.
$\qquad$ 60c
20 to 40 Meter $\qquad$
40 to 80 Meters 70c 80 to 200 Meters 70 c
SPECIAL INDUCCEMEN When these 4 coils ( 10 to 200 metYour Total Net Cost Is \$1. 95
Cat. No. $6035 . .$. ......
"Coast-to-Coast" 10 to 200 Meter Super-Heterodyne Short-Wave Coils and Automatic Wave Band Switch
Ideal For Assembly of
Short-Wave Converters and



## Receivers

Obviates Use of Plug.in Coils ! Consists of two coils, one coil being tapped at 70 meters. The single
pole, double throw toggle switch included therefore gives you a choice of two wave bands, namely, 10 to
70 meters and 70 to 200 70 meters and, 70 to 200 meters.
Either the oscillator coil alone need Either the oscillator coil alone need be tuned by a 00014 mifd. variable condenser (the detector coil then remay fo untuned), or, both coils may be tuned by a two gang . 00014 method ariable Condenser-the latter Double is of course more desirable. on bakelite forms, $15 / 4$ in. in diameter, $21 / 8 \mathrm{in}$. high Cat. No. 5732. Detector Coil, OscilSwitch and
Diagram
\$1.45

\section*{Radio Frequency Chokes <br> 

Hammarlund Isolantite Low-Loss Base Two Gang . 00014 Mfd. Midget Variable


Ideal for Use in Super-Heterodyne Short-Wave Converters or Receivers Vibration proof construction. Their small size, high ratio of minimum to maximum capacities, low losses and accurate construction indicate the condensers use for broadcast tuning condensers, intermediate frequency tuning condensers, antenna tuning condensers, wave traps, compensating or vernier condensers, regeneration and neutralizing condensers, as well as for laboratory and test equipment in general. Soldered noncorrosive brass plates, heavy alumifitted bearings assure positive and permanent capacities at all settings ; noiseless brush type four point wip ing contact eliminates objectionable inductive reactance; sphit bushing lock for fixed frequency work, lowsions for both panel and base mounting, and elinination of all screws and nuts, everything being with a $1 / 4$ in. diameter trudes $1 / 2 \mathrm{in}$. from the $3 / 8$ in. long threaded sleeve. Overall length: 3 in. behind panel, $\frac{2}{2}$ in. wide with plates unmeshed, $21 / 2$ in. $\$ \mathbf{2 . 8 2}$

Bank Litz Wire Wound, Long Wave R. F. Coil A very recent development in coil winding for long application requiring large ductance values. Banked our deen producing a coil our deep, producing a col of exceptional efficiency at frequencies lower uning at frequencies lower Range 550 Meters to $1 z 00$
Ceters with
Condenser; up to 2000 Meters with a, 001 Mid. Condenser. Length:
$27 / 8$ in. $\mathrm{O} ., 11 / 4 \mathrm{in}$. mounted in $27 / 8$ in. $O$. D., $11 / 4$ in. motinted
a shiclded can.
Cat. No. 5581.
95c

## Litz Wire Wound Loading Coil

 Finds application as a long wave loading series with broadcast series with broadcast coils to extend the long wave lengths or can be used with a tightly coupled | primary as an R. F. transformer |
| :--- |
| the lower frequencies |
| $9 \mathbf{9 C}$ | Cat. No. 5572.

## Low-Loss Coil

Especially made for tuned radio frequency work, It is com-
pletely air wound, and has no dope or cement to keep the wires together; the entire winding is held together by means of waxed string. To keep the set from oscillating, a special aperiodic primary is wound in the center of the secondary, which gives best results. To be used with 17 plate or . 0 CO35 mid. condenser. This coil is used for wave lengths between 200 and 550 . Total diamete $3^{\prime \prime}$, width $1^{\prime \prime}$, ${ }^{5}{ }^{\circ}{ }^{\prime \prime}$ thick.

Short-Wave Automatic Wave-Length Selection Switches


Available In Two Models, One Covering 10 to 200 Meters-The Other Covering 10 to 600 Meters.
Consists of either three or four bakelite discs, onto which is firmly fastened either four or five contacts -an insulate contacts, providing the gages these contacts, providing the
selection desired. Durably con-structed-no lost motion or tendency to develop noisy or ten Excellent for use in public addres. Excellent for use in public addres speaker distribution and general witching applications. Over-all length, $51 / 4$ inches, plus $11 / 4$ in. ength of $1 / 4 \mathrm{in}$. diameter shaft. Single hole mount feature. $21 / 8$ in. diameter-knob, and escutcheon plate included.
Cat. No. 5267
Four Tap 3 Pole,
\$1.75
Cat. No. 5657. Four Pole-Five Tap Model. Permits you to utilize One Switching Arrangement, in preference to employing two witches, one to cover the selection feters bands between 10 to 200 meters, and the other being em ployed solely to switch the antenna rom the short wave converter to meter broadcast receiver. This One Switch Serves the Same $\$ \mathbf{3 . 2 5}$
Purpose!..............

## Lattice Wound Chokes



Wound on a mois-ture-proof treated in diameter ing. Connections are brought out to ugs riveted to a bakelite plate. Overall dimensions: 1 in, diameter is in. high.
Cat. No. 3402. 1. Millihenry. For Short Wave Set Application. 20 C Cat. No. 3403. 4.25 Millihenries. For General Purpose R.F. 20C
 For Detector Plate and all screen
grid tube circuits. Our Price 250
Cat. No. 3405. 22.0 Millihenries. For High Frequency 25 C

Low-Loss Ribbed Form Bakelite Short Wave and Television Plug-In Coils


Can Be Plugged Into Any UX Type Socket
Low loss construction assures maximum sensitivity and selectivity, insuring extreme long distance reception. Each coil form is separately quires a .00014 mfd . Variable Condenser. Explicit and thorough ing diagram included.
Cat. No. 6043. Per Set
Cat. No. 6044. Broadcast
Coil. ( 200 to 500 Meters)
"Coast-to-Coast" Short Wave 10 to 200 Meter Super-Heterodyne Coils and Automatic WaveBand Switch Unit
 Heterod, io Shoit-Wave Converters and Recervers. Consists of a stundy aluminum bracket. With mounting shelf, 3 in lons.
$\sum 1 / 2$ in. high. liolted thetero is an aucomatic wave length selection switchato described on this page. An attractive Bakelite knob, and 2 suitably embosised wave-band selection plate. for mountin on the front panel, completes the a Remarkably Compact All Dimension 47/16 in. Long: $6 \frac{3}{8}$ in. deep, and $4 \%$ Cat. No. 5262. Complete as illustrated, 4 Tap switch b Cat. No. 5207, 3 Pole. Mfd. Variable Condenser. to 200
\$3.95
Cat. No. 5263 . Same as Cat. No. 5262 above, but equipped with a liammeriund Condenser. mounted on one frame, if desired


## "Coast-to-Coast" Short-

 Wave Plug-In Coils
## Consists of four coils, cov-

uninter-
rupted range
of 14 to 220


0001 Mfd . variable condenser. Note generous size finger rings, moulded f bakelite-a simple matter indeed, moving from one wave coils, when moving from one wave band, into another. Fits all U. X. four prong sockets. Wound on bakelite forms each coil. 2332 . $\$ 1.47$

Set of Four Short-Wave Plug-In Coils

## Accurately wound

 on moulded bakeite tubes, which crminate at one end into ventional U
ocket; can be plugged into any 4 prong tube socket-a very valuable feature! Wound with Litzhendradt ire. Cover following ranges: 10 to 110 meters, 103 to 225 meters 54 to with a .00014 mfd variable conde:
Per Set of 4 Celler!
Cat. No. 1296.
\$1.95
Broadcast Band PlugIn Coil
For use with above Short Wave Coins, increases range of receivers 00015 mfd . variable condenser.

Cat. No. 2331 Cat. No. 2331 Coil available Cat. No. 2331
gether for $\$ 2.59$.

Semi-Assembled or Factory Wired
4 Tube "Coast-To-Coast" Jr. Model SuperHeterodyne 15 to 200 Meter Short Wave "Booster Converter" and Broadcast Receiver Antenna Amplifier
Tubes Required:

## pon a rigid, nicely plated

Employs Full Wave 280 Tube Rectification Does Not Use a 227 Type Rectifier!
We do not approve of 227 tube rectifiers, with one side of the A. C. line actually dangerously being an integral part of the chassis itself-not only are the
rectifer (passing only 110 volts, which is Not sufficient !), but there is alays that possimity of danger. No wonder then that we have incorporated

## Self-Contained Unique Antenna Pre-Amplifier Serves Dual Purpose

 to either this short-wave converter itseli But Also to Any T. R. F. or Super-Heterodyne 200 to 550 meter Broadeast Reciyer, to which the converter may be coupled, In other, woris. even whic you are tuning in

 ing from the most distant poiints
Universally Adaptable to All Makes and Types of 200-550 Meter Receivers-Available With or Without Self-contained A. C. Pover Supply, and Can Be Used W'ith All Types of Tubes, Including Any Battery Operated Type!
Chassis Only-Without Self-Contained A. C. Power Supply-Model "C-53"


## Chassis Only-With Self-Contained A. C. Power Supply-Model "C-54"

Cat. No. s586. Semi-Assembled
Cat. No. 5587. Factory wired
Cat. No. 5588. Sct of 4 Cunningham Tube

[^11]"Coast-to-Coast, Jr." Crystal Set

1-57, 1-58, 1-56, 1->80

## Valuable Features

Very compact, the chassis measuring 9 in. long, $61 / 2$ in. deep, 634 in, tall. The range of 15 to 200 meters is available in two steps by means of a toggle switch. No Plug-in Coils Beng Required! A high ratio verntier iluminated full vision dial permits nicrometric tuning adjustments. Anothe controls the A. C. Power Sumply, and auto short-wave converter, or to the 200.550 meter receiver-no wires to change! Over-size air recelver-no Wires to change! Over-size air cooled A. C. Power transtormer is used, on
self-contained A, C. Models. Constructed
$\$ 7.50$
$\$ 10.50$
$\$ 10.60$
$\$ 13.50$ \$3.33


An efficient receiv
ins set which wil set which will
receive broadcast ing loud and clear. ing loud and clear
and will bring hap. piness to all isteners. The beautiful modern design in gold and the cabinet plack leatherette. This set has ye appeal and can ha

|  |
| :---: |
| Cat. No. 5178. |



Improved Crystal Set


Designed to give
most efficient results and possess ing unusual selec. a tapped matclied With
.00035 Mfd . var
able condense Will bring in one station after an other and will tune out all other stations. The reception is loud and clear without distortion or other noises. Contained in a beautiful cabinet with a panel of modernistic design. On the panel is a dial for tuning and logging stations, two headphones, and a dust proof glass headphones, and detector which inludes Supersensitive Crystal Cat No 5179
$\$ 4.99$

Isolantite 4-5-6 Prong Low Loss Coil Forms
 Isolantite is specified for
use in the finest laboratory Whin instruments, being the finest

Cat. No. 7160. 4 prong.
45c
Cat. No. 7161. 5 prong. 55c Cat. No. 7162. 6 prong. 65 c

## Vari-Colored 4-5- <br> 6 Prong Bakelite Ribbed Coil Forms

Use in conjunction with any standard prong tube socket. I. ${ }^{\text {tow }}$, construction assures maximumi efficient: Extended ridge on wo permits eas of forms, withot1 windings. $O$ verali diameter, $11 / 2$ in., windins: space length, $21 / 2$ in Choice of following colors: Brown, Black, Orange, Red or Green.
Cat. No. 7159. Four Prong 23C
Cat. No. 6021. Five Prong 33C
Cat No. 6022. Six Prong 43C
"Coast-to-Coast"
Police Thriller-
hort Wave Adapter
$\$ 0$ to 200 meters on any broadcast re elver made possiole Police Calls and perhaps witness a baring Rubbery or pick up some other event which never appears n print! Can easily eattached to any ecessity of changing any wirimg in the set! Jas a self contained Reeneration Control. This model can be used with sets using any ive
detector!
Cat. No. $6727 \ldots . . . . . .$. .

## Bakelite Moulded Plug-In Coil Forms <br> Available in Choice of 5 Colors and with 4-5 or 6 prongs. <br>  <br> For Short Wave or Broadcast Band Coils. Contacts of coil fortus tit into any standard 4,5 or 6 prons Green, Biue, Red and Orange. Pleast state colors desired. Cat. No. 3256 . With 4 prongs (U.X.), each 15c <br> Cat. No. 3257. (U.Y.), each With 5 prongs ( 17c Cat. No. 6026 . With 6 prongs. each 19c

Universal Type Detector 80-200 Meter Short Wave Adapter

Can Be Altached to Any Make Receiver Enabling Reception of Police Calls, Amateurs, Television and Code Signals? The plug furnished inserted into your present detector socket, and the tube from that socket is inserted into the socket in this adap:er. An able oscillation as suring
maximum provided, sensitivity and performance. A hand$\times 144$ in. houses this adapter
Cat. No. 5717.
\$2.95
"Rainbow Color Coded" Bakelite Coil Forms cling these durably corttructed forms permits ready dentification, of wave-length band. Inci ects from the winding jects fromb the winding surface, to provide easy
removal of the in n from the socker. The vinding surface available is 2111 . long, i $1 / 4$


Choice of Red, Yellow, Green, Blue

[^12]"Coast-to-Coast" Weston Meter Equipped Portable Laboratory Set and Tube Analyzer
Tests All Latest Series of Tubes Including Six Prong Types


1000 OHMS PER VOLT WESTON METER USED 1 Makes Ten Vital Tests-Rivals the Performance of Much More Costly and Bulkier Set Analyzers and Tube Testers! TENT NO. 1: D. C. Yolts, $1000-500-250-50-10-5$. TEST NO. $2:$ A. C. Volts, $1000-5110-250-51-10-6$.
TEST NO.
D.
D. mils. $100-20-5-1$. TEST NO. 1 TEST NO. $4:$ A. Mis. mils. 0 to 1 .
TEST NO. $5:$ Ohms. 0 to 10,000 .
 TEST NO. 8: Frrquener, 10 to 100 oscles.
TEST NO. 10: Completu Set Analyzer.
And All This Comprised Fithin $81 / 4$ in. $x$ a Radio Engineering Skillt
Fire round $1 \%$ Accurate Precision Resistors are em plosed! Two 10 M. A. Precision Fuses offer $100 \%$ protection. Two rugged rotary switches provide the various Volt and Milliammeter ranges. A special spitch fives a insure protection to this instrument, a safets P'ash-But ton Switch is provided. Another switch gives Onmmeter readings, and still another switch gives a choice of either 0 to $10,0 n 0$ Ohms or 0 to 100,000 Ohms. And then an other switch pernitn newrute alen. (lapacity acu

## "All-Test Purpose" Weston

Meter Equipped Radiometer
Fulfils the necessary requirements of every Radio Engineer, Service Man, Technician, Retail Store or Service Bench
This instrument serves as an
ohm-meter, pacity-meter, in ductance - meter Citput-meter, A. C. voltmeter, A.

with sixteen useful ranges.
The Capacity Meter measures condensers from 0005 MFD . up to 20 MFD . Calibrated in three convenient ranges, namely, $0-2 \mathrm{MFD} ; 0-2 \mathrm{MFD}$., and $0-20 \mathrm{MFD}$. The Ohm -Meter will measure all types of fixed or variable resistors. Also
measures the impedance in ohms of output transmeasures the impedance in ohms of output transthe transformer will mateh the fmpedance of the plate circuit of the output tubes. Calibrated in three ranges, nantely, $0-50,000$ ohms; $0-500,000$ ohms and 0.5 megohms. The Inductance Meter is useful in many ways. The henries of chokes comprared as well as deternine if there are any partial shorts present. Three ranges of 0-100 partial shorts present. Three ranges o henries. The Three Range Output Meter couples either to the power tube plate circuit or to the dynamic speaker voice coil. The ranges of Low, check the output of receivers, amplifiers, and
public address equipment. The A. C. Milliampublic address equipment. The A. C. Milliammeter is calibrated in two ranges, and currents of $0-1$ M. A. and $0-10 \mathrm{M} . A$. can be measured.
The A. C . Voltmeter is of the low current, high resistance type ( 1,000 ohms per current, high meter is especiall: transformer ratios and for in calculating autio powered circuits. Calibrated in two ranges of $0-10$ volts and $0-100$ volts.
This instrument is completely self contaired and housed in a neat compact leat
$x 7^{\prime \prime} \times 434^{\prime \prime}$. Net weight $31 / 2$
pounds! Cat. No. 6431.
$\$ 31.85$
ments, the 110 volt A. C. line heing employed for this
purpose. To insure ubsolute constancy of the Ohmmeter Calibrations, a unique and valuable Bridge Circuit is incorjorated, further aided bs a Rheostat which
compensates for any drop in voltage in the selt-contained "C' battery.
Makes Every Possible Test on Any Make Or Any Type of Tube!
There are yrovided 4 . 5 and 6 prons sockets. with individually remorable links on enen pirong, circuit, permitting the following tests, Plate curiente Currents, Eent, Serecn Grind Tests (indicates amplification fractor), To acrompish this, the test plus (with a Grid Cap
for screen grid tube staure) is inserted into the korket in the reeverer tion which the narticular tube undier test was removed. The Tube and Set Annlizzer Test Plug is of the 6 prons type. and is furnished with

Makes Every Possible "Trouble Shooting', Test!
In realits. while this remarkable instrument is serving Ya TUBE TEMTEA, it also serves as a sET ANALaccessible removable links on the tube testing panel sockets, the test prods can make contact with every one lowing voltage readinps: Ilate to Filament. Ilate to Cathode. 1'late to Grid, Screcn Grid to Filament. Screen Grid to Cathode, Grid to Cathode. Space Charte Grid.
l'entode frid, Filanient Voltages, Rectifer l'late Volt l'entode Grid, Filanient Voltages, Rectifer l'late Volt-
ates (A.C. and D.C.), Filament to Chassis, Grid to Chassls. Piate to Chasis. File., Etc., Etc.

## Furnished Complete With Following Accessories:

Highly Insulated Test Cables and Prods, with readily removable phono. needie contacts: Seven wire extension cable with 6 prong Test Plug and 4 and 5 Drong adapters; Calibration Charts; Full Instructions, Fit These aceessories can be stored within the roomy com partment heneath the socket panclin
Cist. No. 5555 . Complete. Fully Wir
\$39.50
"Coast-to-Coast" Portable Volt Ohmmeter

Employs a WESTON Mòdel 301 1,000 Ohms Per Volt Meter and Precision Wire Wound Resistors!

Range: $0-10-50$ -250-1000 Volts D.C.; 0 - 10,000 Ohms and 0-100, 000 Ohms.
Reads resistances from 0 to 100,000 ohms, by merely throwing the Another toggle switch controls the resistance scale reading, reducing it from 0 to 100,000 ohms, down to 0 to 10,000
 ohms. This supreme unit s meter, pair of test prods with removable needle contacts and selfcontained "C" battery. A special Bridge Circuit and adjustnient is provided for compensation or tery, assuring Permanent Accuracy! Enclosed in a durable and handsome metal case, measur ing only 5 in. long, 678 in. wide, 819.51 478 in, tall. Cat. No. 2455.

"Coast-to-Coast" A.C. and D.C., 1000 Ohms Per Volt Voltmeter and Dual Range Weston Meter Equipped Ohmmeter
Ranges : A.C. and D.C. Volts:
$1,000-250-50-10$.
Ohms: 9 to 10,000 and 0 to 100,000
Guaranteed Accuracy of Meter: 2\% of full scale! $1 \%$ Accuracy Wire Wound Precision
Readrite Set Analyzer-Tester and Tube Tester

Readrite Capacity Meter
 For testing paper type con-
densers only. The A.C meter reads directly in microfarads, 008 to 10 . Contains rheostat, switch test leads and plug fo In a seamless nuetal case $41 /{ }^{\circ}$ dia, baked ename and charts are furnished and charts are furnished for testing from 10 to 400
84.71


In One Case!
Over-all dimensions: $21 \times 14 \times 7 x / 2 \mathrm{in}$.
Cat. No. 6434-406-710.
$\$ 29.40$
List, \$50.00. Y Y our Cost .............
includes Cat. No. 6046-407 Tube and Short
Tester, instead of Cat. No. 4067-406. $\$ 32.34$ List, $\$ 55.00$. Your Cost.............. \$32. 34

Readrite Resistance Panel Meter
Range: 0 to 10,000 ohms.

-I Iesistor terminals for use 500 ohmmeter to battery to increase reading of $\mathrm{No}_{4} 500$ ohmmeter to 60.000 . \$1..................... $\mathbf{1 5}$ ohms. No. $6051-503$-A-same without inals for 501 meter
 for use with 45 v. battery to increase reading of
500 and No. 502 obmmeters to 100.000 . $\$ 1.45$
henrys.
, 000 ohms.
Cat. No. 4065-800
Combines Ca67.406 Tube
Tester and Cat. No. 2191-710. 2191-710
bs.

Meters are employed. The meter and copper oxide rectifier are fully protected by two 10 M . A. fuses. A rheostat and a valuable bridge circuit maintains absolute accuracy of the resistance calibration, despite any , nossible drop in voltage of the self-contained "C" battery. Reads resistances from 0 to 100,000 ohms, by merely throwing the toggle switch provided. Another toggle switch controls the resistance scale read ing, reducing it from 0 to 100,000 ohms, down to of either A. C. or D. C. voltage readirgs. Furnished with a pair of highly insulated test prods, with removable phono. needle contacts. Enclosed in a handsome compact metal case, 476 in. tall. Cat. No. 5552 .
$\$ 26.50$
$\$ 31.50$
Cat. No. 5552-A. Enclos

## Readrite Set Tester-Tube Tester-Oscillator

Combines Cat. No. 4067-406 Tube Tester, Cat. No. 2191-710 Triple Meter Set Analyzer, and Cat. No. 4061-550



Please refer to the thorough and detailed de scriptions of the three complete units above ferred to, listed separately on another page. The oscillator and tube tester are on one pane with the set tester in a drawer underneath. Clos ing the case cover automatically locks the drawer in place. Case size $223 / 4$ Cat. No. 6432-576. List, \$85.00.
$\$ 49.98$ Your Price
Cat. No. 6433-577. Same as above, but includes stead of Cat. No. 4067-406. List, \&52.27. $\$ 90.00$

Readrite Triple Meter Set Analyzer


Equipped with a practical selector switch for checking all varts of the tube circuits by convoltages of plate, grid, cathode, suppressor grid and screen grid is done quickly and accurately. supply volts are measured. The battery is power for the continuity testing of transformers, chokes, etc. Capacity and resistance charts are furnished showing use of instruments for testing condensers, also measuring resistances up to
100,000 ohms. The nine scale readings of the meters may be used separately with the jack terminals provided. The scale readings are $0.20-$ 60-300-600 D.C. volts, 0-10-140-700. A.C. volts
and $0-20-100$ milliamperes. Beth A.C. and D.C. andament vollages are accurately measured on the one meter. Contains new wiring with added 6
hole socket. Housed in a strong case with leatherette covering. Attractive. Compact. Complete. Fills every need for radio set testing.
Size $1034 \times 31 / 2 \times 8$. Cover is removable.

Cat. No. 2191-710
\$14.70
Tool Carrying Case Model
 deep for carrying tubes, tools, etc. The test equipment and panel are in a removable tray in
the top of the case. The tray equipment may be used separately as a complete test panel for shop purposes.
$\$ 17.64$
Cat. No. 2192-610

## Readrite Direct Reading Ohmmeters

 Complete with a smau 3-
cell fashlight batery; cur
rent druin is nerligible. rent drain is ne siligible.
Tests
resistances us to $10 .-$ 000 ohms. Model 500 tesis resistances by direct reading
up to 10,000 ohms. Model 502 has a second scale for tesiting low resistances up to
40 ohms, in addition to the higher resistance of 10,000 ohms. Voice coils of drmam-
tc speakers and shorted turns ic speakers and shorted turns best on the low range 0-40 ohms. Rheostat knob adjusts the needle to full scale. Wire leads are furnished for continuity tests. A high grade instrument. Case is
benutiful baked enamel finish, seamless steel, $4^{\prime \prime}$ dia Weiglis but one pound

Indispensable Cat.
$\$ 3.53$
$\$ 4.12$

## Readrite Resonance Visual Tuning Meter

High resistance type milliam-
meters used in the plat. $\overline{\text { Eircuit }}$ in sets for visual tuning. The circuit is brought to resonance when the needle swings to its
furthest position. Most set manufacturers have adopted
 Rearlite as standard tuning meters where visual
tuning is used. The translucent dial is illumi nated through the rear window. 88c Cat. No. 5728.
(Escutcheon Plate, 29c additional)

Readrite Service Test Oscillator


Furnishea with shateded oscillator. self modulated. Furnishea with batterres and one 30 trpe tybe. Covers
entire broaacast and intermediate bands. The runing dial is direct reading for intermediates $120-185 \mathrm{k}$. and harmonics cover intermediates $266-262$ and and 475 k. c. Shielded antenna lead wire furnished. Test lead wires and break-in adapter are supplied when euluppad With output meter.
The heavy metal pancl contains the tuning control, widely spaced dial which has a large swing, aiving switches contro! the circuits. The rotating switch has wo positions for Broadcast and Intermediate. The due drain when not in use. Cannot close cover when battery switch is ON. The attenuator control. like the tube and battery compartments, is separately shielded. Callbration is controlled by the trimmer condenser, accessible through the panel. The oscillator is carefully calibrated at the factory, and the indicator made to thack orer the entire scale of both bands.
eatherette covered case with remoralio in $\overline{3}$ strong. handle and rubber feet. Full operating cover, leather With the connecting wires Fure operating instructions Weighs but 8 pounds. Size 6 yl2" The the cover. assembled for las of the best materials throughout, and trim appearance will be the pride ot every serviceman to own and use. One of the serviceman's most important cate defective r. f. transformers. adjust i. f. transand determine the sensitivity of a rece gain in tubes with or without output meter built in the Fumished tuly remarkable instrument at a remarkable



## Readrite Capacity Tester

For Testing Electrolytic and Paper Type Condensers


## Readrite Counter Tube Testers

Tests All Tubes Including Recently Issued 6 Prong Models, without Adapters Connects to A.C. Supply Line

tached to pan el gives simple Anstructions Anone can push button provides two plate current d etermining ance $e^{\text {conduct }}$ worth of and outstand all other types of tubes. A test to rectifier as ton provides for testing both separate push but tubes. A socket for the new six prong tubes is provided.
ible simplifed single scale meter is made pos meter is connected in tip jacks. Attached to the meter is a small protecting fuse. A pilot illumin also directly underneath the meter for are easily g the dial. Both the lamp and fuse are easily renewed by detaching the meter. These Rejection and acceptance of tubes to every user Rejection and acceptance of tubes tested will be mually as satisfactory as with nany times more.
Cat. No. $4057-406$
$\$ 14.70$
Special Model-Equipped with Self-Contained "Short"' Tester Combines with Cat. No. 4067-106 described above, complete short test of the tube. All shorts, gas and operating the same socket used for short testing. The pilot lich for illuminating the fial is short testing. The pilot light shorts, gas and leakaye condition
Cat. No. 6046-407
$\$ 17.64$
built aith above testers are stronaly fcct. The leatherette cozering and trim makes a reery attractive instrument. The coner for portable use.

Readrite "Exploring Coil" Designed for the service-
man to use in localizing man to use in localizing ferred use is in conjuncplied by an oscillator, which is induced into the grid of the tube when placed around the tube. Trouble big
 eliminating parts of the circhit where it is found that the induced signal rom the exploring coil is satisfactory. In the aper-hetcrodyne circuit it is used also for peak ng thout meter the amount of used along wit ermined by bringirg to resonance the be de termined by bringing to resonance the parts of shielded. Shielded covering is split to break eddy currents, and finished in baked enamel Full instructions for using are furnished.

Cat. No. 4066-525.
$\$ 2.06$
Readrite Output A. C. Voltmeter Copper-oxide Rectifier Type
 A reliable instrument for indicating output voltage of a radio
set. Csed for lining up r.f, and set. Used for lining up r.f, and i.f stages bs determining max-
imum gain. Also comparing gain of tubes. r.f. tuner selectivity.
hum, and fading. A practical hum, and fading. A practical.
low poltmeter with d.c.
conjer-oxide rectifler of the full wave tspe. Test leads are fur nished. Case is baked ename
over seamless steen $41 / 2 "$ dia
The assembly includes voltmeter. rectifier. jacks and condenser. Connect low voltage ( $0-5$ ) jacks to dynamic speaker votce coil. and high roltage (0Cat. No. $4070-575$
$\$ 4.41$
\$3.82

Readrite Panel Mount Meters

Choice of narrow rim or wide flange (as ilustrated). Highly attract$25 / 64$ in diam, hole for $5 / 64$ in, diam, hole for th in). Accuracy fully guaranteed!
D. C. Voltmeters

| Cat. No. | Range | Ohrm: | Your Cost |
| :---: | :---: | :---: | :---: |
| 7502 | 0.1 | 30 | \$.58 |
| 7503 | 0-3 | 175 | . 58 |
| 7504 | $0-5$ | 410 | . 58 |
| 7505 | $0 \cdot 6$ | 550 | . 58 |
| 7506 | 0.8 | 850 | . 58 |
| 7507 | 0.10 | 1475 | . 58 |
| 7508 | 0.15 | 2914 | . 58 |
| 7509 | 3-0.3 | 550 | . 58 |
| 7510 | 0-25 | 1625 | . 58 |
| 7511 | $0-25$ | 7720 | 1.47 |
| 7512 | 0-50 | 3250 | . 58 |
| 7513 | 0.50 | 15440 | 1.76 |
| 7514 | $0 \cdot 100$ | 6500 | . 73 |
| 7515 | 0-100 | 30888 | 1.76 |
| 7516 | 0-150 | 9750 | . 88 |
| 7517 | 0.150 | 46320 | 1.76 |
| 7518 | 0.300 | 92640 | 1.76 |
| 7519 | 0-500 | 154400 | 2.35 |
| 7520 | 0-60.300 | 92640 | 2.53 |
| 7521 | 0.750 | 231600 | 2.94 |
| 7522 | 0.8-160 | 850/16220 | 1.18 |
|  | 1iant | nineters |  |
| Cat. No. | A.A. | Ohms. | Your Cost |
| 7562 | $0-5$ | 2160 | \$1.20 |
| 7523 | 0-10 | 700 | 1.03 |
| 7524 | 0-15 | 295 | . 58 |
| 7525 | 0-25 | 85 | . 58 |
| 7526 | $0-50$ | 20 | . 58 |
| 7527 | $0-100$ | 5.5 | . 58 |
| 7528 | 0-150 | 3.3 | . 58 |
| 7529 | 0-200 | 1.9 | . 58 |
| 7530 | 0-300 | . 8 | . 58 |
| 7531 | 0.400 | . 5 | . 58 |
| 7532 | 0-20 | -0-100 175/30 | 1.03 |
| 7533 | $0-15$ | 150 305/24 | 1.03 |

D. C. Ammeters


##  Complete with five-foot <br> eord, plug and tap for connecting to <br> \$3.82

Readrite Portable Type Meters

care repulsion type and call be used with accuD. C. testing. This type should not be confused with the ordinary vane type instrument with its restricted applications Readrite A. C. meters are accurately calibrated arc accurately calibrated divisions throughout the divisions throughout the scale lengths. The higher contain over 100 ohms per volt resistance. The D. C. Voltmeters are of the polarized vane solenoid type, and contain resistance up to 300 ohms per volt. These meters give excellent per-
formance

## D. C. Voltmeters

( 300 ohms per volt. 3 inch case)

| Cat.No. | Volts | List | Your Cost |
| :---: | :---: | :---: | :---: |
| 7563 . | 0.300 | \$4.50 | \$2.65 |
| 7564 | $0-500$ | 5.50 | 3.23 |
| 7565 | 0-60/300 | 4.50 | 2.65 |
| 7566 | 0.750 | 6.00 | 3.53 |
| 1. C. Millamineters |  |  |  |
|  |  |  | Teur |
| Cat. No. | H.A. | List | Cost |
| 7567 | 0-25 | 84 | \$1.76 |
| 7568 | 0-100 | 5.5 | 1.76 |
| 7569 | 0-200 | 1.8 | 1.76 |
| 7570 | 0-400 | . 5 | 1.76 |


| Cat. No. |  |  | Your Cost |
| :---: | :---: | :---: | :---: |
|  | Amps. | List |  |
| 7571 | 0-1 | \$3.00 | \$1.76 |
| 7572 | 0.5 | 3.00 | 1.76 |
| 7573 | 0-10 | 3.00 | 1.76 |
| 7574 | $0 \cdot 50$ | 3.00 | 1.76 |
|  | 1rie | 215 |  |
|  | as per |  |  |
| Cat. No. | Voles | List | Your Cost |
| 7575 | $0-150$ | \$4.00 | \$2.35 |
| 7576 | 0.300 | 5.00 | 2.94 |
| 7577 | 0.600 | 6.00 | 3.53 |
| 7578 | 150/750 | 8.00 | 4.70 |
| A. C. Milliammeters |  |  |  |
| Cat. No. |  |  | Your |
|  | M.A. | List | Cost |
| 7579 | 0-25 | \$3.00 | \$1.76 |
| 7580 | 0-50 | 3.00 | 1.76 |
| 7581 | $0-100$ | 3.00 | 1.76 |
| 7582 | 0.250 | 3.00 | 1.76 |
| 7583 | 0.500 | 3.00 | 1.76 |

A. C. Ammeters

| Cat. No. | Amps. | List | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 7584 | 0-1 | \$3.00 | \$1.76 |
| 7585 | $0-3$ | 3.00 | 1.76 |
| 7586 | 0.5 | 3.00 | 1.76 |
| 7587 | 0-10 | 3.00 | 1.76 |
| 7588 | 0-50 | 3.50 | 2.06 |

Readrite Pocket Meters
Carefully calibrated. Surprisingly accurate. Pol ized vane type, indicate polarity

## Ammeter

Cat. No. 7589. Scale 0-40. Used for A\&C

## Voltmeters

Cat. No. 7590 . 0-8 SCALE. For testing 58C
" A " batteries. dry or storage.........."
"A" batteries, dry or storage. 58c
"A" batteries, dry or storage.......... 58 C
"A" batteries, dry or storage........... 58C
Cat. No. 7593. 0-50 SCALE. For testing 58C
"B", batteries. ...........................
Cat. No. 7594. 0-100 SCALE, For testing 73C
"B" batteries.
Cat. No. 7595. 0-150 SCALE. For testing 88C Cat. No. 7596 ., $0-8,0-100$ SCALE.
For testing " A " and " B " batteries.. $\mathbf{0 3} \mathbf{3}$ For testing "A" and $B$ " batteries...
Cat. No. 7597. $0-8,0-150$ SCALE.
F1.17 For testing " $A$ " and " $B$ " batteries.

## Voltammeters

Cat. No. 7598.008 VOLTS, 0-40 AMPS. For testing amperage of dry cell' "A" batteries and voltage of dry or storage "A" bat- 73C
teries. ................................
Cat. No. 7599. 0-50 VOLTS, 0-40 AMPS. For testing amperage of dry cell "A" batteries 88C and voltage of " $B$ " batteries.

## Acrocycle Oscillator

Produces a Signal of Any Desired Frequency and Power, in Either Broadcast or Super-heterodyne Intermediate Ranges
For Use in Test-
ing, Comparing, and Adjusting All Kinds of Radio Receivers, Either in Whole or by Stage

Direct Through Read-
 ng Scale, permitting
pointer to be easily set to any desired scale reading with a precision well witluin plus or readus $1 / 10$ of one per cent. No Calibration minus 1/10 of one per cent. No Calbiation Curve to hother with and add to probability of errurs. Each Instrument Calibrated to read correctly at all points of the seale with an allowable error of less than $1 / 2$ of one per cent. Abundance of Power for accurate readings, with Extra Strong Signals available when necessary, as in neutralizing, hy simply thrusting the antenna lead to the bottom stop of the Ant. jack. Full Vision Dial. Extremely Sharp Tuning. No Body Capacity effects when operated according to instructions, by the 68 to $\frac{1}{1}$ vernier. which also nakes possible the hair line accu:acy in setting. Produces Fundamental Frequencies from 115 to $280 \mathrm{~K}, \mathrm{C}$. and Harmonics from 230 to 1680 (sixth harmonic of 280) K, C. and higher. The Scale for fundamental K. C. has a division line for each K. C. up to 200 and beyond 200 a line for every two $K$. C. Consequently all super-heterodyne intermediate frequencies adopted by manufacturers to date fall exactly on a scale line, where the pointer is most easily set accurately, and so do all the RMA and IRE standard adjusting broadcast frequencies $-600,800,1000,1200$ and 1400 K. C. However, the divisions over the entire scale are large and clear enough to permit settings to any fractions of K. C. that can be judged with reasonable accuracy by the eye of the operator. Quick Shifts from one part of the scale to a notger are easily made by turning the large knob, Requires installation of the required dry batteries. The 230 tube is not visible in this illustration.

Cat. No. 4085.

## $\$ 17.50$

NOTE: We can furnish this oscillator mounted uithin a handsome and durable leather case, with cover as illustrated, for \$5.00 adilitional.

## Readrite Radio Set and Household Utility Tester

 For servicing
electrically op-
erated refriger-
ators, ironing
machines, wa-
ter pumps, ofl
burners, stokers,
ventilating sys.
tenns, ranges and
general house-
hold appliances,
Contains input
and output out-
lets for measur-
ing volts and
amperes, A. $C$.
Ammeter read-
ing up to 20
amps., A, $C$.
Voltmeter reading $\quad$ in to 300 volts, and a complete direct readins Ohmmeter $0-40,0-10,000$ ohms for continuity testing. In a leathe
YOUR COST
$\$ 13.23$

Flush Push-Button for Set Tester

## Panels

34 in. diameter, maximum connections. Terminal serew
cons connections.
Cat. No. 4082

20c
Improved Pearl Push-Button with mounting plate. 30 C
Cat. No. 6347 ........


D. C. Plate MilliammetersModel 301
Cat. No.
2351 Choice of $5,10,15,20,25,30,30$, or 1,000 milliamperes

## D. C. MicroammetersModel 301

2352200 microamperes
9.92
9.18

## D. C. Filament AmmetersModel 301

2354 Choice of $1,1.5$, 2, 3, 4, 5, 8,10 or 5.88

## D. C. Filament or Plate Volt-meters-Model 301

2355 Choice of $1,1.5,2,3,5,7,8,10,15$,
 2357150 ance 200 olts (Resistance 200 ohms per
 $2359 \begin{gathered}300^{\text {volts }} \\ \text { volt }\end{gathered}$ (Resistance $6 \mathbf{6} 6 \ldots$ ohms per
 2361 Choice of $5,8,10,15,25,50,75$ or
100 volts ( 1000 ohms per volt) .. 2362 Choice of 150 or 200 volts ( 1000 ohms
2363300 volts ( 1000 ohms per volt).
2364500 volts ( 1000 ohms per volt). 2365 750/250/100/59/10/5 volts ( 1000 ohms

Volt-Ohmmeter-Model 301
2366 Choice of 4.5 volts, 100,000 ohms or volt ranges, 1000 ohrns per volt).. 9.56
Thermo-Ammeters-Model 425
2374 Choice of $1,1.5,2,2.5,3,4,5,6,8$. 9.92
Thermo-MilliammetersModel 425
3375 Choice of $\mathbf{1 2 0}, 250$ or 500 milliamperes $\mathbf{1 1 . 0 2}$
Wavemeter GalvanometerModel 425

## a Complete Stock of All JEWELL and WESTON SET TESTERS, ANALYZERS and AII <br> Products of Their Manufacture! Write for Wholesale Quotations!

Weston 0 to 1 Model 301 D. C. Milliammeter Ideal for Home Construction of a Laboraange Per Volt), or a Multi-
hange Ohmimeter
Also used in the construction of output meters, grid dip oscillators, tuning meters and a host of other useful laboratory, service, and test instruBakelite or Metallic Case. 33 3 in . over all diameter, hole required in panel: $31 / 4 \mathrm{in}$. Internal sistance. 27 ohms.
REE: With purchase of this meter: InternaNo. 2069, Ohmmeter Sisales Chart No. 2065, and Volt-Ammeter Adapter Leaflet.

Cat. No. 1894
\$7.35
"Coast-to-Coast" Copper Oxide Meter Rectifier and Precision Safety Block

The use of this unit. which A., plus any 0 to 1 or 0 to at Cat. No. 1894, converts same into a "Universal" $A$. which is the heart of a 1000 ohm per volt $D$. $C$. or $A$. Voltmeter. A detailed cali. bration chart and simple wiring diagram are inchuted - permits any novice o construct a mult animeter, and 0 to 1 A . C. Milliammeter-for detailed description, please refer to Cat. No. 5548 . Insulated mounting plate measures $21 / 4$ in. by $21 / 4$ in. This plate can be mounted right on to
the rear terminal bolts of the milliammeter, with which it will be employed.
Copper Oxide Rectifier, Two 10 M . A. Fuses, Block, as illustrated.

Copper Oxide Rectifier Only.
Cat. No. 5551.
\$3.95

Weston Universal A. C.-D. C Meter Actually Three, Pernanent magnet moving Cul type with a self-con dained copper oxide rectifier for the A.C. measurements voits and 1 milliampere $A$ . and 50 millivolts and 1 double scale D. Cone for A. C and the other for $D$. C. Each calibrated 0.5 volts a connection diagram giving suggested ranges is included. By using readings of 1.2 and 10 amps. $\$ 13096$ Set of Precision Wire Wound Resistors for Above Meter: Permits the use of the WESTON "UNI VERSAL'" meter in the manner abowe descrii,ed, to ohtain the following ranges: A. C. or D. C $100-25-5$ and 1 ; A. C. mils. : ${ }^{\text {mils }}$ Fully ex


# Available in Assembled (Unwired), or Laboratory Wired Models "COAST-TO-COAST" WESTON METER EQUIPPED UNIVERSAL SET ANALYZER, OHMMETER, CAPACITY METER, OUTPUT METER, A.C.-D.C. VOLTMETER, TROUBLE SHOOTER AND TUBE TESTER 

 Gives All Vital and Possible Laboratory Accuracy Readings, Due to Use of Weston Meters and Precision Wire Wound Resistors in Perfectly Clear and Astoundingly Simple Form-
## EMPLOYS THREE WESTON SERIES 301 D. C. AND A. C. METERS

Mounted in Uniquely Designed Double Cover Carrying Case Why carry a set tester no one hand, and a tool other-there is amp.e :com helow and behind the pancl for such purpose. - NOT bulky-123/ in. Sandsomely Constructed
The Wide Scope of Its Many Applications

## D. C. Milliammeter

$0-100,0$ to 20,0 to 1 mils.

## D. C. Volts

1,000 Ohms per Volt! $0.1,000,0$ to 250 , 0 to 50 and 0 to 10 volts.
A. C. Volts

1,000 Ohms per Volt! 0.750, 0-150, $0.15,0$ to 5 volts.

## A. C. Mils 0.1 Milli-Amp.

Resistance Range
$0-10,000$ and $0-100,000$ ohms.
Capacity Measurements $1 . \mathrm{mfds}$ to 6 mfds .
The D. C. Millammeter ranges permit the iollowing current measurements: Plate M. A., Grid M. A.. Screen Grid M. A., Screen Plate
M. A.. Rectifier Plates (2). The D. C. Voltmeter ranges pernit the following voltage meas. urements: Mlate to Filament; Cathode to Fila. ment: Screen Plate to Filanent; Grid to Fiilament screen Grid to Filanent ; Filament Vola ages.
${ }^{\text {mentrit }}$ Reverse" switch allows the instantaneous re versal of the polarity of the D. C. Yoltmeter conuections, should this be necessary. The A. A.
Yoltmeter ranges will pive you the A. C. Filamitmeter ranges will give you the A. C. Ala-
ment ment readings, lire yotrage readings, and AL
transiormer secondary readings up to 750 volts! transiormer secondary readings up to 750 volts!
Di.ect readings of resistance values from 0 to Di, ect readings of resistance wales
10,000 and 0 to 100,000 ohms permits testing of 10,000 and 0 to 100,000 ohms permits testink of
Avdio Transformers for ratios. values of carboun, metalized, wire wound, rlieostats, volume controls, etc... and
test is desired test is desired. ( 1 seli-contained $4 Y / 2$ volt "C" lattery in the
special circuit makes this special circuit makes this possible.) A Rheostat is provided to maintain the albsolute accuracy Makes All Tests With Special Cable and Plug Inserted Into Any Tube Socket

'All models furnished with above illustrated accessories. The 232 Dynatron Oscillator Tube is Fully Shielded-Not so shown in above illustration

## FREE GERNSBACK or RIDER SERVICE MANUAL! <br> With every purchase of either a kit or a factory wired modet, ue will include absolutely free, either a 1,000 page 1932 Rider Service Manual or a Gernsback Dfficial Service Manual (Latest Edition!) It fits into the rear cover, and can be carried along with you certainly a fitting companion?! (For the purpose of illustration, it is shown on the front cover.)

By removing any tube from any socket in a re ceiver and inserting same into either the 6 or
 Which is inserted into are autonatically informed whether the Circuit Constants in that particular stage are correct.

Completely Tests All Types of Tubes No adapler is required to test Pentodes or any other 5 or 6 prong tube. Another unique feature is the simple and fully effective precautions contained that will not injure the meters whatsoever. A separate $41 / 2$ volt ${ }^{\text {C }}$ battery and speecial Grid Factor of every type of tube, in terms of plate Choice of Self-Contained Dynatron Modulated Oscillator. Operates Directly from A. C. or D. C. Lines Permits thorough checking of R. F. stages each tuned R. F. circuit, etc., etc., independent of an R. .f. broadcast signal. The oscillator is Modu-lated-can be varied from 550 kilocycles to 1500 kilocycles, and by throwing a switch the lower
frequencies, in the neighborhood of 175 frequencies, in the neighborhood of 175 k available for "peaking", the i. fi stages of Super-
Heterodyne Receivers Heterodyne Receivers 1111 This oscillator is operated by a self. contained fully shielded 232 tube. The Weston A. C. 0-1.0 milliammeter is ideal for making output, loud speaker, decibel, inductance and many other vitally necessary measure-

## Incorporates Neon Tester!

Note that this unit is removable and can be used beparately from this test equipment, when so desired. Tells whether current is A. C. or D. C., indicates polarity, etc., etc. Space indeed prevents us from too lengthy elaboration of its seemingly countless other valuable features! Highest Possible Quality Parts and Self-Explana tory Assembly Bluc-Print Diagram, Operating

## Amazing Low Prices

The net prices below include your free choice of either a Gernshack or Rider "SLRVICE MAN. CAL" as listed in this cataln, AS WELL AS UAL: "RADIO SET ANALYZERS . . . And How To Use Them."

## Model RSA-52

Semi-Assembled (Unutired)
 wiring instructions. Less Oscillator $\mathbf{\$ 6 4 . 5 0}$ Cat. No. ${ }^{4171 .}$ Same as Cat. No. 4170 , but
including Oscillator Unit. less 232 tube. ............................. \$76.50

Laboratory Wired Models
Cat. No. 4172. Complctely assembled $\mathbf{\$ 8 4 . 5 0}$ and wired.
Cat.
Noss.
4173 . Scillator Unit.
Same as Cat. No. Cat. No.
including Oscillator Unit. less
tube. Completely assembled and wired.
$\mathbf{\$ 9 6}$

## "Coast-to-Coast" All-Purpose A.C. and D.C.

 1000 Ohms Per Volt Universal Tri-meter Manufactured for 'cCoast-to-Coast" by WESTON1\% Accuracy Wire Found Precision Resistor Kit for Cat. No. 5548

Unitersal Meter:
A. C. and D. C. Volts: 1000, 500, 250,

50, 10 and 5. D. C. Mils.: 100, 20, 5 Cand 1 A. C. Mils.: 0 to 1. \$9.50 Cat. No. 5549
highly accurate ranges: 1000 C. or D. C. volts; $100-20-$. C. or D. C. volts; $100-20-1$ mil. A. C. Guaranted accuracy of meter: $2 \%$ of ful
scale!
Equipped with two scale!
10 M . A. Priped with two
A. precision protective fuses. Wiring liagram urnished. 33.4 in, diamecte n. diameter hole required.


Weston Volt-Ohmmeter Range: 1 M. A., ardjusted to 50 millivolts, at 50 ohms resistance. Furnislied with scale calihrated
1000, 250, 50 Volts D. C., and 0 to 100,000 Ohms Intended for use wit!) external resistors listed Cat. No. 7603. YOUR COST $\$ 7.35$

1\% Accuracy Wire Wound Volt-Ohmmeter Resistors and Shunts . 7604. YOUR COST
$\$ 7.45$
"Coast-to-Coast" Five - In - One Serviceman's Neutralizer- Compensator and "Tool Kit"

Can Be Carried In Your Vest PocketNo Larger Than a Fountain Pen!
At Your Finger Tips: Radios' most vital and useful tools- $1 / 4 \mathrm{in}$. and $5 / 16$ in. Nut Wrenches, Miniature a Full Size General Purpose Screw Driver. Note the cleverly constructed, regulation sice screw miner chuck, easily remozable, is tully sheathed and immediate use-jet das whe your clothing when not in uset You thereby enjoy the valuable uses of an Insulatd Shank, Full-sizo Screw-Drivert The smaller screw driver blade, ideal for general Neutralization and Compensating rexuirements, is likeyase sheathed. When not in use. The Nut Wrench Sockets are extremely durable, and not remorable. being formed at each end of an attractively turned Insulated rod. Fully constructed of the Highest Grade Metals and Insulating Materials Obtainable, and skillfully designed through-
out-no servica man, general mechanic or experimenter out-no servico nuan, general mechan neessary tool-in reality, 'worth its weight in gold!'
\$1.25
Cat. No. 5090.
In Lots of $12, \$ 12.60$
In Lots of $6, \$ 6.60$
"Coast-to-Coast" Laboratory
Model Phono. Needle Contact

## Test Leads

## Permits Piercing

Insulation of Wires or Rosin Sol lered Connec. tions)

## s)

 Actually "Bites" Into Surface of Any Metal -Particularly Advantageous on Oxided Metal Surfaces Such as Aluminun, etc.
 Hructed in accordance whth overy perfection known to Mechanical and lilecrical linuineers-no wonder then that Radio and Electrical Laboratories throughout the land are loud in their praise of this highly etliclent test prod. The Ilighly Insulated handles are jully $5 / 4$ in. long and $1 / 2$ in. in diameter-the one piece nickeled itself consists of a neatly knurled lock:n; medium and a sule-gly. four bllar chuck-any iteel phonograph
needle may be used therein. discara them as fast formen an their woints blunt1 In metal if ak can be used without a now ilis protrud-
ing therefrom. Each handio is vari-colored, viz. Red Cat. No. 5075-5076 quality insulated wire leads. Cat. No. 5075 (Rack) with Spade Tips 95c Cat. No. 5076.
Same, per pair, with Phone Tips ...... $\$ 56$ In Lots of $6, \$ 5.40$ In Lots of '12, $\$ 9.95$ Furnished With Sharp Pointed Nickeled Brass Cat. No. 5097. Spade Terminals 65c minals

Per Pair Either Type
Cat. No. 5099. Test Prods Only-No
Wire Lead-Choice of Red or Black. Each 4OC Wire Lead-Choice of Red or Black. Each
Drop Forged Radio Use Nut Wrenches


All-Rubber Handle, All liubber Attachment Plug. 2

conductor No. 16 Type sJ conductor No. 16 Thbe cord that sou can run trucks over all day long and never short or injure the cord. The acids and abrasive materials. The handle is made of a high grade live rubber and is shock-proof. Yo The lamp guard is made of a patented steel, heavily tinned and is one of the finest guards made. You can't buy a better trouble lamp at any price. ${ }_{\text {Each }} \mathbf{\$ 0 . 9 0}$ Cat. No. 6197 Iensth 10 teet .....Ezich $\$ 0.90$ cat. No. 6199 Lungrb, 30 teet ......Eanell $\$ 1.30$

Screw-Holding Screw Driver


Gets into places where it is impossible to get
with the fingers. Wiil hold nuts, machine and wood screws, lock washers, etc. Blade of the finest tempered steel, handle moulded of high grade bakelite, holding device consists of four finger-like prongs of spring steel which hold the screw head in vise-like grip.
Cat. No. 1626.
85 C
${ }^{8}$ Cat. No. 1627.
\$1.15
10 inch
No Serviceman Should Be Without This
All-Purpose Radio-Electric Tester!

## Neon-Flashlight Radio Set

 Trouble ShooterCombines Seven Valuable Testing Provisions, All in This One Testing Tool: No. I: Low Resistance Continuity Test; No. 2: High Resistance Continuity Test; Vo. 3: Condenser Tester and Capacity Indicator; No. 4: Polarity, Potential and Fre-
quency Indicator; No. 5: Flash-Light; No. 6: quency Indicator; No. S: Nash-Light;
Speaker Tester; No. 7: Output Indicator.
Replaces a multi-
meter set tester and
 desired to ovtann speciflc and absolute

of a heavily in-
ished tube, which
size dry cells (ob-
tainable anywhere!) for lighting the 3 volt flash-lamp and which houses a Neon glow lamp. A syeclally designed line cord, plug and phono. needle tspe test prod is furnished, of this permits operation of the neon glow lamp, by inserting the plug into any 110 to 220 volt, 25 to 60 cscle A. C. or D. C. line. spring clasps. one is equipied with a spring test clip (for attaching to any part of the grounded chassis circuit) and the other is enuipped with a phono. needle chuck. It follows that either one of these two intter mentioned test leads can be used at one time, Explicit instructions furnished shows how to timploy the flashlight when making low resistance continuity tests (such as r. f. colls, power transformer primary and filament windings, all wiring circuits, etc.): it also shows how to uso the neon lamp when
maklng high, resistance contimulty tests (such as audia transformers windings, grid-leaks, loud speaker windinks, etc., etc. Fou are also shorn how to check capacitles as low as .00001 mfd., how to check automobile ignition systems, determine if current to be
tested is A. C. or D. C. which side of the power tested is A. C. or D. C., which side of the power credited to neon lamps This device can also be used as a flashlight, for illuminating interiors of chassis, undergoing repairs.
flash-light bulb, neon lamp, with all batteries, hash-light bulb, neon lamp, and
$\$ 4.95$
Cat No. siso. Exta 3 Volt Bub ..... 15 C
Cat. No. 5961.
20c

## Handy Radio Nut Wrench Set


type", sockets. Hollow handle holds screv "chuck socket and 5 wrench sockets size $1 / 4 \mathrm{in}$., 6 in. 36 in., $\frac{7}{18}$ in., $5 / 2$ in. making it an ideal radio and general use set. Handle and shank are $71 / 2$ in. long and handle is heavily knurled proyiding a good gripping surface and is finished in white
nickel.
Cat.
596

## Hand Eye-Let Crimping Machine



|  |
| :---: |
|  |  |
|  |
| $\substack{\text { Cat. No. } \\ \text { Per } 100}$ <br> N195. |

"Fountain Pen Type," Neutralizing and Compensating Tool


Combines $1 / 4$ inch and $5-16$ inch Socket Wrench as Well The two sizes of socket wrenches and the neut ralizing screw drivers included are ideal for use with practically all commercial receivers. Unlike other tools for the purpose, the neutralizing screw driver itself cannot become lost, as it is
inserted and screwed into the larger socket wrench holder when not in use. Note the fountain pen clip-simply slip this really good looking tool right into your vest-pocket as a com panion to your fountain-pen and pencil. Highly delicate adjustments or readings.

49C Cat. No. 1975.
I. C. A. Test Leads


A necessity for the radio sery For testing sets and tracing trouble in sets where shorts. opens and othur defects com-
mon to radio sets are enmon to radio sets are entached to any meter for testing batteries or any eloc trical pparatus. Made of sturdy insulated tubing solderless plugs and the best grade of wire. Supplied Fith red and black iubing for positive and negative tips and the other type using spades. 50 inches loing Cat. No. 1610.
Pair of tip type leads
23c
Catat No. Nant
Pair of spade type eads................... 23C
23C
Neutralizing Alligator Wrench and Screw Driver


Knob-Handle Neutralizing Aligning Screw Driver

Its convenience is quite self-apparent. Bake
knob. Very useful.
Cat. No. 5093
45c

## Neutralizing-Compensating

 Screw DriverHardened steel blade-firmly attached to Highly Insulated Şhank. Serves a host of mechanical and electrical requirements Cat. No. 5091

35 c

## Continuous Threaded Brass Rods




Columbia Electric Automatic Record Changing Phonograph Plays Continuously For . A Half-Hour!
 Push-Pull 245 Kolster Power 12 Amplifier,
Rola 12 Dianete Rola 12 in. Diameter
Auditorium
Dynamic Speaker, a Columbia Up, and a Genuine Co umbia Electric Phono. Motor, and 30 minute consecutive playing Original sale price $\$ 295.00$ ! The rich walnut piaino grainer finish, and exquisite motif of the general de sign, makes this console worthy of installation in the finest of nomes. It measures 40 in. high, 26 in. vide, 20 in. deep. The power pack can deliver "A-B if so desired. $A$ nicrophone arrangentent tuner installed-this mich be plification! Simplifer is ideal for speech amspecial holder all at once and this marvelous nachine does the rest. After you hear the first musical strain . . . musical minute after musical minute continues! Records keep changing for you quietly, swiftly, invisibly, nore than half an hour! No need to stop and change Mechanism reco:d. Foolproof will reproduce both 10 in. and 12 in. records, in all makes? The volume is instantly variable from a faint whisper to fill an auditorium fullness that can hill an auditorium
Cat. No. 5557. described less Tubes. No. $\mathbf{~ C a t . ~}$ Cunningham 55 Tubes.



Victor 2-Stage, 245 Push-Pull Power Amplifier

## DemonstrationFormerly Used in

 $V$ ictor Receivers RE-75, 32, 42 and 45 Besides furnishing ample "A-B-C" cur-
rent for the tubes in rent for the tubes in
this amplifier, there is "A-B-C" current proused in any tuner, namely, $5-226$, and $1-227$. The first A. $F$. tube is lit on a separate $11 / 2$ volt wirlding, as are the $2-245$ tubes.
This amplifier may be used without a Radio tuner if desired, for the electrical amplification of phonograph records. The volune produced is really amazing, and its remarkable fidelity of reproduction is most pleasing. As a 226 tube is conventional 227 type, this amplifier is read now operation the moment the switch is tuined onno time "lag" waiting for tubes "to heat up!" A phonograph motor plug is provided on this annplifier chassis.
Designed to operate with any 15 ohm impedance voice coil, 2,500 ohm $D$. C. dynamic speaker, drawing 50 mils, but it is recommended that the MATCHED VICTOR speaker listed below be nlsed, for maximum satisfaction!
A Tone Control and a Hum Control adjustment is provided. All the component parts, such as the power transformer, audio and push-pull transformers, condenser block, etc., etc., are mounted within separate and removable steel cases, for rapid servicing, if ever required. The finest of parts, such as General Electric, are employed throughout. All the wiring is made beneath the chassis. A cable plug socket is provided, for connections of the "A-B-C" tuner voltages, and input of either the phonograph or Radio Tuner. Compactly constructed on a durable, attractively sirayed metal chassis, $13 \mathrm{x} / 2 \mathrm{in}$. long, $101 / 4$ in.
 cycle A-C
Cat. No. 6910. Amplifier, less Speaker and Tubes $\cdots$.........
Cat. No. 6911 . Set of $\mathbf{R}$.
Cat. No. 6911. Set of R.
Tubes. $1-226,2-245, ~ 1-280$
\$9.95

Cat. No. 6912. Victor
Matcher Tirnamic Sneaker

Here Are Various Metal Chasses For Home Construction of Public Address Power Am－ plifiers，Receivers，Etc．These Same Chasses Are Employed by Us in the Construction of ＇Coast－To－Coast＂Apparatus！

Public Address Amplifier Chas－ sis and Four Removable Shielded Cases


Same as used in the ＂Coast－to－Coast＂＂${ }^{3}$ Stage Dual Push－Pull
Auditorium Ampli－ fiers．Handsome hlack crystalline fin is h ．
Overall length： $17 \%$ 沰
in．： 9 in．wide， 3 洛 in．； 9 in．wide， 3 棌
removable metal shield included measure $57 / 8$ in．long， $31 / 4 \mathrm{in}$ ．wide， $51 / 2$ in．high．The chassis is equipped flanges．The tube

shelf has seven stand－
ard socket holes，and the control panel has holes drilled for two volume controls，two twin jacks． two toggle switches．On one of the sides there is another twin jack and toggle switch hole．The rear wall of the chassis has six more standard socket holes punched out－ideal for dynamic Speaker UY socket outlets．There is also a line
cord hole．These Chasses Are Brand New！ cord hole．These Chasses Are Brand Cat．No． 5767.
\＄3．95

Cadmium Plated Chassis－ Undrilled

Made of $\frac{1}{16}$ in．thick 13 in long 10 in wide． 18 in．long
3 it
in．tall．Ideal for universal application！ Can be casily drilled ${ }_{\text {and }}$ and soldered 1 ion 1.95
Cat．No．5768．．．
Electralloy Chassis－Undrilled Fabricated of a metal alloy superior to both steel and aluminun．Lnlike aluminum，it will not corrode，and can be soldered to like brass，copper
or steel．Can be drilled with no trouble．No． 16 qauge thickness．Rescmbles Cadmium （I）ull Silver Finish）． Cat．No． 6101.10 in．$\times 12$ in．$\times 3$ in． $\$ 1.95$ Cat．No．6102． 10 in．$\times 18$ in．$\times 3$ in． $\$ 2.95$ Cat．No． 6103.10 in．$\times 24$ in．$\times 3$ in．$\$ 3.95$

Five Tube Amplifier Chassis With Three Removable Shield Cases
 side mounting flanges） Each removable case measures $57 / 8 \mathrm{in}$ ．long， $31 / 4$ ini．wide， $51 / 2$ in．tall．One of them has ventila－ installes on two sides．for power transforimer ard wafer socket holes punched out，a power transformer cut－out 5 in．long，by $21 / 1 \mathrm{in}$ in．wide． There is also provided elongated slots and four $\{8 \mathrm{in}$ ．diameter holes for accommodating two ictor 30 Henry 150 nil．chokes．A th in cliameter hole is also provided for filter con－
denser or audio transformer leads，on the right． Along the control panel，holes are punched out for two twin jacks，three volume controls．two forgle switches．Another twin jack assembly is toggle switches．Another twin－jack assembly is
provided on the right side．On the rear shelf provided on the right side．On the rear shelf
of the chassis，holes are provided for three stand－ ard water sockets，for use as additional speaker
outlets，＂A－B－C＂voltage outlet to a tuner，etc．，etc．Cat．No．6109．．．．．．$\$ 3.05$
Adjustable Metal，Bakelite or Wood Circle Cutter Ideal for Cutting out Socket and Meter Holes，Etc．
Cuts holes from $1 /$ in．to 4 in in in in ineter．
Made of the best
materials possible．The eut：－ ting edge is made of the best tool steel and properly tempered．Can be used in any hand
drace jreast drill or power nachine．D Dills its drace，ineast drill or power nachine．
own pilot hole．
Cat．No． 5769.
\＄1．45
Extra Cutters．
Cat．
No．
5720
25c
Non－Adjustable Circular Saw Cutters
Choice of Squared or Rourd Shank
Cat．No． 5771
1 15 in．Diam．
For Wafe
\＄3．95
Cat．No． 7167 ．For $21 / 8$ In．
Diam．For Weston or Read－ Diam．For
rite Panel Meters
$\$ 4.95$


ELECTRALLOY METAL 8 BAKELITE PANELS SPECIAL SIZE（NO． 16 GAUGE）ELEC－ TRALLOY PANELS CUT TO ORDER Multiply Length by Width Desired to Determine Total Square Inches Desired．Ic Per Square Inch． SPECIAL SIZE BAKELITE PANELS CUT TO ORDER
Available in Plain Black or W＇alnut Grained Stock $21 / 4 \mathrm{c}$ a square inch for $1 / 8 \mathrm{in}$ ．stock $23 / 4$ c a square inch for $3 / 16$ in．stock
＂Electralloy＂is a non－corrosive non－magnetic sheet metal material for radio panels，radio cans and radio shielding purposes．Drills and ma－ cluncs much easier than other metals．F No． 16 in beautiful dull silver．Supplied in No． 16
thickness．Can be soldered to in the same man－ ner as steel．brass，copper．etc．！


Bakelite panels are availahle in a choice of either BLACK OR WAINUT GRAIN finish，in either $1 / 8 \mathrm{in}$ ．or $\mathrm{r}_{6}$ in．thick．Fabricated from lami－ nated indestructible material－guaranteed high polish surface on arrival．

| BAKELITE |  |  |  |
| :---: | :---: | :---: | :---: |
| 1／8in． | Thick | $3 / 16 \mathrm{in}$ ． |  |
| Cat．No． | Price | Cat．No． | Price |
| 2610 | \＄ 88 | 2620 | \＄1．32 |
| 2611 | 1.05 | 2621 | 1.56 |
| 2612 | 1.22 | 2622 | 1.84 |
| 2613 | 1.58 | 2623 | 2.36 |
| 2614 | 1.88 | 2624 | 2.76 |
| 2615 | 2.10 | 2625 | 3.16 |
| 2616 | 2.32 | 2626 | 3.40 |
| 2617 | 2.46 | 2627 | 3.78 |
| 2618 | 2.70 | 2628 | 3.94 |
| 3029 | 3.15 | 2629 | 4.72 |
| 6099 | 16.40 | 6100 | $24.00{ }^{\circ}$ |

4 Tube Short Wave Converter or Midget Receiver Cadmium Plated Chassis


Same as used in our Fat．No．5586－5587 （Oonverter． 9 in．long， 613
tall．in．wide， $21 / 8$ in．
steel，beautifully pauke plated． Two $1 / 2$ inch mounting flanges are provided－ Note they face the interior of the chassis．A standard size A－C Transformer cut－out is pro－ rided，as well as cut－outs for four standard wafer sockets，three $1 / 2$ in，diameter holes on the front panel，four convenient holes on the rear panel， and numerous other equally convenient holes on the top not ahove nentioned．
Cat．No． 6110.
75c
8 or 9 Tube A．C．Receiver Chas－ sis With Two Removable Shield Cases


5 Tube Short Wave Converter－ Receiver or A．C．Midget Chassis －and Shielded Case
 in conjunction with our $\begin{array}{ll}\text { Cat．} & \text { So．5296－5297－5605－} \\ 5606 & \text { Super．Heterodyne }\end{array}$ 5606 Super．Heterodyne
Shint Wave Converters and Super－Heterodyne Receiv． ers．The chassis itself meas－
ures 115 in．long， $93^{\prime}$ in ures $115 / 8$ in．long， 944 in．
wide， 2 in．tall．Cut－outs are provided for a triple anode oblung cased Elec－ trolytic Condenser．
loser Transformer，and five standard wafer Suckets．On the front shelf of the chassis there
are wo volume control holes．（On the rear shelf are iwo volume control holes．On the rear shelf
there is a standard waier socket cutout，as well there is a standard water socket cut－out，as well as 8 other convenient holes．The handsoniely crystalline finishel auto steel shield fits snugly
around the chassis，and measures over all $11 \$ /$ around the chassis，and measures over all $111 / 4$
in．long． 978 in．Wide， 8 in．tall．it cut－out is provided on same for an escutcheon of a thang dial，and two additional $1 / 2$ in．diameter holes Tor midget condenser．wave length switch，etc． The cover is removable．Large ventilation holes Cat．No． 6112.
\＄3．95
Genuine Victor RE－32 Amplifier Chassis
Furnished completc
with 4 attached
line plugs， 1 Re－
sistor mount．dual
hum－bucking control
mounting bracket
and an unusually clever 16 contact terminal ceptacle． $131 / 2$ in．long， $101 / 4$ in．wide， 2 in． transformers，condenser bounting


95c

Cadmium Plated Universal Metal Chassis and De-Jur Amsco

4 Gang . 00036 Shielded Variable Condenser


This chassis is made of exira heavy gauge tandsomely cadmium plated steel measuring 14 in. long, $73 / 4 \mathrm{in}$. Wide, $31 / 2$ in. tall. An corners are riging flanges facing inwards are provided. The following cut-outs on the chassis surface are provided: Power Transformer, three electrolytic cundensers, eight standard water sockets and many assorted small holes where the condenser mounts. The ${ }^{+}$gang condenser is of the valuable ball hearing design, and is equipped with individual section conpensator, split segment end plates, etc. Measures $51 / 2 \mathrm{inn}$. long, $31 / 2 \mathrm{in}$.
wide $4^{11 / 2}$ in. iall-plus a $11 / 8$ in. long, $3 / \mathrm{in}$. wide, $41 / 2$ in.
Cat. No. 6371. + Gang Condenser
\$3.95
and Chassis, as illustrated
\$1.25

## 110 Volt Universal AC and DC Electric Motor

Fully enclosed in a cast sturdy threaded mounting feet. $1 / 15$ th horcenower eet. $1 / 15$ th honcrenower ble commutator brushes. Slotted shaft makes easier couphing thereto. Overall dimensions: $5^{\frac{7}{n}}$ in. long 43 in. width ${ }_{4}$ in. tall

$\$ 2.95$
Robbins and Myers 21 Volt A.C. Motor

Gives Dual Speed: 3300 R.P.M. and 19 R.P.M.
The main shaft (not visible on illustration) revolves at whereas the shaft on the right, adjacent to the stendown a gear box revolves oly 19 R P M. Formerly used on Kolster Remote mechanisms. Can be used for many othe: purposes, such as store window slow motion denionstration turntables, etc. $53 / 4 \mathrm{in}$. long, $3 \frac{1}{4}$ . overall diameler Cat. No. 6374. 21 Volt,
$50-60$ Cycle A.C. Model
Cat. No. 6375 . 110 Volt
\$3.95
S0.60 Cycle A.C. Model ........... $\mathbf{\$ 4 . 9 5}$
G. E. Induction Motor Coils

Used in G.E. Induction Phono-Motors - E.
cellent for Expericellent for E.
menters
Used in General Electric, Radiola, Graybar, WestingAtwater Kent, Brunswick, Atwater Kent Philco and
many other makes of phonomany other makes of phonograph combinations.
required for each required for
110 volt, 60 Cat. No. 6376 .... $\$ 1.45$
Build or Repair Your Own Microphone! Carbon Balls and Grains



## Clobular Carbon <br> 037 in. Diameter

Cat. No. 2967
Per Bottle
70 c
"Coast-to-Coast" Line Interference Eliminator Heary Duty Inductive
 and Capacity Type -Passes up to Amperes!
For filtering out electrical disturbances, such as those caused by signs, flashers, motors, vacuum cleaners, electrical refrigerators, etc etc., of the most stubborn nature, the most effective system to employ is that incorporating both ca pacitative and inductive filtering principles, as tween the line and your receiver, when it is impossible, or not practical, to attach an interference eliminator right at the source itself
Cat. No. 5446
$\$ 7.95$

## Jr. Model <br> This model has been found to serve the purpose of noise in- terference elimination in all but the most stubborn cases. It is built into <br> Cat No. $5447 \quad \mathbf{\$ 4 . 9 5}$ <br>  <br> Capacitative Line Filter

Excellently designed for use right at the source of electrical interference-simply insert plug of offending electrical appatatus into receptacle provided thereon-and insert cord and plug into wall socket recepta. cle-ground the binding yost provided. Enclosed in a metal wall-plate case of conventional size. Cannot blowout
$\$ 2.95$

## I. C. A. Resistovolt

Stops tubes from blowing out and prevents them from being strained by excessive house current voltage. I ocal line voltages vary $30 \%$ or more. This neans that tubes
 designed for 110 volts have to be operated any where from 95 to 135 volts. Levels out the current supply as to give at all times the most efficient operating voltage. Clears up reception eliminating fading. Resistovolt jugs into house current oullet and set plugs into Resista$2 \geqslant 0$ volts, all cycles, including 32 volt farm 220 volts, all cycles, including 32 volt farm
s'stem. Light Duty-for sets using up to 6 tubes. IIeavy Iuty-for sets with over 6 tulbes.

Cat. No. 6377
\$1.05

## Capacity Type Interference Filter

Here's a highly serviceable filter that does away with "man-made static" caused by motors, elevators, bells, refrigerators and other electrical appliances. As a pure capacity filter, there is no danger of burnouts. Built into a neatly finished, all bakelite box. Size
of Bakelite Box: $45 / 8^{\prime \prime} \times 278^{\circ \prime} \times 134^{\prime \prime}$.
$\$ 2.75$
Cat. No. 6378
Make Your Gicn Home Recording Outfit or Microphone W'ith This
Skinderviken "Mike" Button
Smallest microphone made, measuring only 3.4 in . in diameter by means of this
microphone button a great nany experiments can be made. It can be used as a detectograph (dictophone) to listen-in gond sensitivity. With a Skinderviken button you can make a powerful Hand-microphone.

45c

Serviceman's Tool and Repair Parts Kit


Automatic Cantilever Tray Tool Kit

$\stackrel{\text { Cover. }}{ }$
$14 \mathrm{in} x \quad .6 \mathrm{y} / 2 \mathrm{in}$.
$\$ 1.00$
Cat. No. 5674 .
Portable Leatherette Covered Carrying Case


Combines completely renovable front and back, with the additional feature of a two piece hinging cover. in. side dinkensions: 18 in ,
long, $10 \mathrm{~L} / 2$ inches high, 8 in. deep. Provision for steaker baffle, if a portable receiver or ainlifier is to be housed within. The front is covered with an attractively patterned cloth. Weighs only $61 / 2$ lbs.
\$2.95

## Senior Size Leatherette Covered Portable Carrying Case



Ideal for Large Size Public Address Amplifiers with Associated EquipmentAlso Make Excellent Portable Dynamic Speaker Baffle Chambers!
Overall size : 21 in. long, $123 / 4$ in wide, 17 in . tall. Amplifier chamber inside dimensions are 20 in. long, 12 in, deep, 9 in. tall. The three compartments are employed for storing a selfcontained or removable control board, pre-ampli$10 \frac{1}{8} \mathrm{in}$. Iong, 12 in . deep, 634 in . tall, and the two smaller compartments measure $45 / 8$ in. long, 12 in. deep, $63 / 4$ in. tall. If this case is to be used as a dynamic speaker baffle chamber, we measuring 20 in. long by $153 / 4$ in. tall ( 12 in. (eppth.) If you desire a hole driled out in the finish fittings Equipped with lock and gold Durably constructed! equinal weight: $141 / 2$ lbs. Cat. No. 6.379. Cat. No. 6.379.
As Illustrated $\qquad$ th compartments. .
$\$ 15.00$ Cat No. 6380 . Equipped with Celotex Baffle Board, for DYNAMIC SPEAKER USE.
\$16.50
(Compartments illustrated Not Included.)

[^13]Electrad Standardized VOLUME CONTROLS and POTENTIOMETERS


Five Models Indicated Be low Can Scrvice 799 Different Receivers!

Although there are 24 circuits in popular use ror volume controls, set flve controls can be universally adapted therein. In orde: to make each type control as universaly applicahle as possible, an is desirable in RI-20i. Where a rheostat type is needed only two of the terminals are used. When a volume control is of the in a series circuit, it has a regular or right-hand taper. This means that the resistance of the first quarter-section is higher than that of the second quar-ter-section, etc. When contiol is used in a shunt circuit, it has a reverse or left-hand taper. That is, the iirst quarter-section has lower resistance than the sections is equal, the taper is linear or uniform. A these replacement controls have insulated bushings. No insulating washers are needed when mounting the unit on metal panel. All shafts are over-size. 1 7 in. long; they can be easily sawed off to length neeessary. Overall diameter, $17 / 16$ in. If your purpose in purchasing these controls is to employ them as universal replacements, be guided by this authentic table:
15,000 Ohm Model Will Service 314 Receivers! 75,000 Ohm Hodel Will Service 194 Receivers! 10 Ohm Model Hill Service 155 Receivers
500,000 Ohm Model Fill Service 85 Receivers? 50,000 Ohm Model Will Service 51 Receivers!

| Available in Following Resistances: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value |  |  | Value |  |
|  | In | *Taper of |  | In | *Taper of |
| Type No. | Ohms | Control | Type No. | . Onme | Control |
| RI-204 | 10 | Cniform | 12I-278 | 5000 | Reverso |
| RI-269 | 20 | Cniform | RI-240 | 10.000 | Reverse |
| RI-270 | 30 | Cnlform | [1J-283 | 10,000 | Uniform |
| RI-271 | 50 | En!form | RI-201 | 15,000 | Reverse |
| -272 | 100 | Uniform | R1-279 | 25.000 | Uniform |
| -273 | 200 | Cniform | RI-280 | 25,000 | Reverse |
| I-274 | 400 | Cniform | RI-241 | 30,000 | Reverse |
| RI-282 | 600 | Uniform | RI-205 | 50.000 | Cniform |
| RI-275 | 800 | Cniform | RI-202 | 75,000 | Regular |
| RI-276 | 1000 | Cniform | RI-2\$2 | 100,000 | Reverse |
| RI-232 | 2000 | Cniform | RI-281 | 200,000 | Uniform |
| RI-233 | 3000 | Cniform | RI-208 | 250.000 | Reverse |
| R1-277 | 4000 | Cniform | 117-203 | 500,000 | Reverse |
| RI-234 | 5000 | Unifor | 12I-206 1 | 1.000 .000 | Reverse |

NOTE: Unlform taper means that resistance varia tion is proportlonal to percent rotation of kmob. Re-
verse taper means that resistance change ver degrea of verse taper means that resistance change der degree of
clock-wise rotation increases. Regular taper means that resistance change per degree of clockwise rotation lecreases.

60c
Cat. No. 5436 Less A.C. Suritch
Cat, No. 5437 With Self-Contained A,C. Switch 85c

## ELECTRAD DUAL POTENTIO-

 METERSResistance Values
Your
$3,800-3,800$ Ohms
$6,000-25,000$
$10,000-50,000$
Ohms
$\begin{array}{lll}\text { Cat. } & \text { No. } & 6015 \\ \text { Cat. } & \text { No. } & 6016 \\ \text { Cat. } & \text { No. } & 6017 \\ \text { Cat. } & \text { No. } & 6018 \\ \text { Cat. } & \text { No. } & 6019\end{array}$
$10,000-50,000$ Ohms
$50,000-50,000$ Ohms .95
1.15
1.50
1.65
1.75

Electrad's Com-
plete Resistor and Volume Control
Replacement Hand Book

## Geruine Dupont

Fabrikoid Flexible
Cover-Loose Leaf


Here is a book as necessary in the radio service man's kit as pliers, or a screw-driver. A perpetual guide to resistor and volume control valmailed to you four times a year. It shows you at a glance, exactly the value of resistor or volat a glance, control required for the job in hand, so that replacements can be made with accuracy. Never before has such a complete, convenient guide been published for the service man, $o$ ou
need it now. Use it every day. Your helpers need it. It's the biggest $\$ 1$ 'tool's in the service man's kit
\$1.00

## Clarostat "Ad-A-Switch"

 Wire Wound Potentiometers -Volume Controls and Switch Coverplates The A. C. Switch
unit cover can be
snapped onto any snapped onto any
of these controls, at
will-takes a mo-
ment ! Insulated ment ! $z$ insulated

tends $\$ / 4 \mathrm{in}$, behind panel, and is $1 \frac{1}{t}$ in. round. (Net Prices herewith No. 5441
(Net Prices herewith quoted do not include
Resis- Characteristics of Resistance
tance Element and Suggested
Ohms Uses of Units
50 Standard potentionteter, no taper 100 Standard potenticmeter, no taper 200 Standard potentiometer, no taper
300 Standard potentiometer, no taper
500 Standard potentiometer, no taper
750 Standard potentiometer, no taper 1,000 Standard potentiometer, no taper 1,000 Tapered potentiometer for untuned antenna control.
2,000 Standard potentiometer, no taper 2,000 Tapered potentiometer for un2,000 Tapered potentiometer bias control
3,000 Standard potentiometer, no taper 3,000 'rapered potentiometer for combined antenna and "C" bias 3,000 T 5,000 bias control
5,000 Standard potentionieter, no taper Tapered potentioneter for comcontrol
5,000 'lapered pote
7,500 Standard potentiometer, no taper
7,500 Tapered potentiometer for coin control
7,500 Tapered
10,000 Standard potentiometer, no no taper
10,000 Tapered potentiometer for antenna 10,000 or R.F. coil control

## Ad-A-Switch

Fits onto any of the above controls!
29c
C. R. L. Potentiometers and Volume Controls


35c

Centralab-Cartermprost-Wire Wound and

## Assorted Volume Controls and Potentiometers

Some Are Equipped Fith Self. Contained A. C. Suitches
Range: 200
500,000 Ohms !


In a kit of these controls you will find one to suit the particular circuit requirements of the moment-of course you will fare better along these lines with a larger size kit as the ranges and types included would be that much more extensive. If you are not fully pleased with your purchase return these Asst'd. Controls to us at purchase return the
Cat. No. 5743.
Asst'd Kit of 6 .
Cat. No. 5744.
Asst'd Kit oit 12 .................. \$4.45
Cat, No, 5745.
$\$ 7.50$

## C. R. L. Dual Range <br> Potentiometer



## 10,000 and 250,000

 Offers many interesting and valuable Applications. Vary smooth running and noiseless. When connected in antennae and screen grid circuits, inconing signals are reduced proportionately with the amplification constant of the R. F. amplifier, thereby eliminating detection in $R$. F. amplifier and consequent distortion. May also be used for volume control with phonograph pickup. When both resistances are connected in paralle control is formed, which is ideal for volvolume contron ume control work in public address and ether amplifying systems.Cat. No. 338. Each $\quad \$ 3.50$ Per Dozen

## Victor Dual Range Volume Control <br> 3,000-3,800 Ohms

Guaranteed to stand considerable use without b
out. Used on all VICIOR sets-can find valuable use on all sets. phono. pick-up fader.
${ }_{5}^{4} 4.25$ Per Doper, 8.85 per 25
39c
Cat. No. 332.
Clarostat Panel Mount Tone Control Unit


Ideal for incurporating a tone control or to an amplifier or receiver chassis Bakelite cased. shaft is insulated and is unusually long, viz., 2 inches. Standard threaded one hole mounting. The proper value condenser is self-contained and is permanently connected Cat. No. 3152
to the circuit. $13 / 4$ in. dianeter.
808
"Symphonic" Combined Table and Panel Mount Tone Control The listener may adjust the tonal qualities of his reabled to get the blending of abled to get the blending of tones which suits hill best, rather than being forced to accept what seemed best to the originai designers of the
 receivers. in reality one a huge symphonic orchestra-right in your own armehair! Iout become master of your interpolations of tonal effects! Enclosed in a crystalline finished metal case, $25 / 2$ inch diameter 3 inches high. 36 -inch long leads! Note provision for base mounting, if desired.
Cat. No. 1996
$\$ 1.95$
PENTODE AND ' $\mathbf{4 6} \mathbf{T Y P E}$ MODEL
\$2.45

## "COAST-TO-COAST" WIREWOUND "PIG TAIL" 2-5-12-18 WATT RESISTORS



## We take pleas-

 ing this announcof wire wound esistors design. ed especially to meet require ments for low priced high resistance units of small dimensions and high wattage carrying capac a porcelain tube with a special high grade rect sistance wire of low temperature coefficient. Com. pletely coated with a newly developed refractory compound which resists wear and will not chip terminal leads $2^{\prime \prime}$ long for convenient mounting and wiring.| Cat. No. | Wats | Resist. |  | Your |
| :---: | :---: | :---: | :---: | :---: |
| 6488 | 2 | 500 | $\begin{aligned} & \text { Dimensions } \\ & 1 / 4 \times 11^{\prime \prime} 1 \end{aligned}$ |  |
| 6489 | 2 | 1,000 | $14^{\prime \prime} \times 1$ " | 20 |
| 6490 | 2 | 5,000 | 1/4"x1" | 20 |
| 6491 | 2 | 10,000 | 3/4"x1" |  |
| 6492 | 5 | 1,000 | 1/4"x134" |  |
| 6493 | 5 | 5,000 | 1/4"x134" |  |
| 6494 | 5 | 10,000 | 1/4"x14" | 28c |
| 6495 | 5 | 20,000 | 1/4"x134" |  |
| 6496 | 5 | 30,000 | $11 / 4 \times 134^{\prime \prime}$ |  |
| 6497 | 12 | 5,000 | $7{ }^{7 \prime} \times 1{ }^{\prime \prime}$ |  |
| 6498 | 12 | 10,000 | T ${ }^{1}$ "x $x^{\prime \prime}$ " | 34 c |
| 6499 | 12 | 20,000 | $1^{7} 8^{\prime \prime} \times 2{ }^{\prime \prime}$ |  |
| 6500 | 12 | 30,000 | ${ }^{2} 8^{\prime \prime} \times 2{ }^{\prime \prime}$ |  |
| 6501 | 12 | 40,000 | \% ${ }^{\circ} \times \times 2$ " ${ }^{\prime \prime}$ | Ac |
| 6502 | 12 | 50,000 | ${ }^{7} 8^{\prime \prime} \times 2{ }^{\prime \prime}$ | c |
| 6503 | 12 | 70,000 | 7 ${ }^{7}$ |  |
| 6504 | 18 | 10,900 | 7 ${ }^{7}$ " $\times 3$ " | 0 |
| 6505 | 18 | 26,000 |  | 1 c |
| 6506 | 18 | 30,000 |  | 10 |
| 6507 | 18 | 40,000 | \% ${ }^{\prime \prime} \times 1 \times 3$ |  |
| 6508 | 18 | 50,000 | $7{ }^{\prime \prime} \times 3^{\prime \prime}$ |  |
| 6509 | 18 | 75,000 | \%" ${ }^{\prime \prime} \times 3^{\prime \prime}$ | 100 |
| 6510 | 18 | 100,000 |  |  |

## Variable Sliding-Band Voltage Dividers



1 Expressly de signed for use as replacestandard and in custom designed receivers as voltage dividers where it is essential to determine the EXACT voltage necessary. for the most efficient operation, of the tubes deriving their individual plate voltage, from a particular tap. You just vary the movable slider voltage is obtained. 75 WATT RATING desired

TRIPLE TAPPED MODEL
Cat. No. No. Inch 2207.
Total Resistance 5,000 ohms.............. 75C
Cat. No. 2208
$80 c$
Equipped With 4 Variable Taps
3/4 Inch Diameter, 41/2
Cat. No. 2208-A.
Total Resistance 13,000 orms
Cat. No. 2200
Total Resistance 15,000 ohms
80 C
90 C

Cat $3 / 4$ Inch Diameter, 5/4 Inches Long Cat. No. 2210
Total Resistance 20,000 ohms.
Cat. No. 2211.
Total Resistance 25,000 ohms......... \$1. 25
Cat. No. 2212.
Total Resistan
$\$ 1.15$
\$1.35

## Equipped With 6 Variable Taps

Cat. No. 2214.
Total Resistance 36,000 ohms.
Cat. No. 2215.
Total Resistance 41,000 ohms.
Cat. No. 2216.
Total Resistance 45,000 ohms.
Cat. No. 2217
Total Resistance 50,000 . ohms.

## "Rainbow Brand"--R.M.A. Color Coded--"Ace High" Quality Carbon Pig-Tail Resistors

The material in these resistors is uniform and homogeneous conditions and permanently maintain their accuracy LOW VOLTAGE AND TEMPERATURE CHARAC TERISTICS: Variation of resistance with current flow, or voltage drop, is usually small. Temperature coefficient is negative and is comparatively small. $P$ ROOF FI ECTRICAL CONNFCTIONS Wirc iead are soldered to heavy coppered resistor ends. QUIET. point These units are quiet in operation resistor appli cations. PERMANENCY: The units retain a constant resistance. Will operate without failure at double their rated load. STURDINESS: The units are molded under high pressure, are solid throughout and have a resistance to breakage from vibration and shock. These Resistors are covered with colored insulating lacquers, preventing under and other deposit from affecting them. Resistors under this code carry three colors placed in three positions


## AVAILABLE IN FOLLOWING RESISTANCE VALUES:



ELECTRAD. Movable Band "Truvolt" Adjustable Resistors


Permits Accurate Resistance Values

Through the use of extra sliding clips intermediate values can readily be obtained. Greatly appreciated by service men and experi. menters, since it makes the ideal for replacement and laboratory work

Cat. No. 4600. 25 Watts - 2 inches long

| 'Type | Resistance in Ohms | Current Milliamperes | Price |
| :---: | :---: | :---: | :---: |
| B. 1 | ${ }_{10}$ | Milliamperes 1500 | Price |
| B. 1 | 100 | - 500 |  |
| B-5 | 500 | 224 |  |
| B. 10 | 1000 | 158 |  |
| B. 15 | 1500 | 129 |  |
| B-20 | 2000 | 112 | 0 |
| B. 25 | 2500 | 100 |  |
| B-30 | 3000 | 91 |  |
| 13-40 | 4000 | 79 |  |
| B. 50 | 5000 | 71 |  |
| 13.70 | 7000 | 60 |  |
| B. 75 | 7500 | 58 |  |
| B-100 | 10000 | 50 | - |
| B-150 | 15000 | 41 | 300 |
| B-200 | 20000 | 35 | C |
| B-250 | 25000 | 32 | c |
| B-300 | 30000 | 29 | 74 c |
| B-400 | 40000 | 25 | 77 c |
| B. 500 | 50000 | 22.5 | 82c |

## Wire Wound 5 Watt Midget Resistors

Covered with a protective
coating which hermetically
seals the unit, thus preventseals the unit, thus prevent
ing oxidation or deteriora ing oxidation or deteriorato the wire from heating and cooling as the thermal expansion of the coating corresponds closely to that
of the wire. May be run of the wire. May be run
way hevond their rated ca-
pacity without danker to them from deterioration or "hurn-outs." Due to their extreme compact ness (only 1 in. to $13 / 8$ in. long!) pig-tail wire leads can he soldered to the copper lugs provided. therehy giving you flexible choice of installing them. They are ideal wherever space is at a
preminm and when $100 \%$ accuracy and long life pren noise.free characteristics are most cssential!
"Coast-to-Coast" 10 to 75 Watt Wire-Wound Vitreous Enameled Resistors
 Covered with heat-resisting, insulating enamel, this protects the wire from the effects of mois ture, oxidation or mechanical injury. The lugs are already coated with solder, offering a great and valuable convenience.
We truly believe are the Finest Possible Quality Resistors Ob tainable


Wire Wound 5 Watt Midget Resistors Available in the Following Values: Figures below represent Resistance Value in Ohms $\begin{array}{rrrrrrrrr}1 & 5 & 20 & 100 & 750 & 1500 & 4000 & 7500 & 15000 \\ 2 & 7.5 & 25 & 200 & 850 & 2500 & 5000 & 8000 & 20000\end{array}$ $\begin{array}{rrrrrrrrr}2.5 & 7.5 & 25 & 200 & 850 & 2500 & 5000 & 8000 & 20000 \\ 2.5 & 10 & 50 & 300 & 1000 & 2000 & 6000 & 9000 & 25000\end{array}$ Your Choice of Any Value $5 \quad 7000 \quad 10000$ Your Choice of Any Value 5 Watt Wire-30C
Wound Resistor. Cat. No. $1748 . . . . . .$. . Kit of 12 Assorted Resistors of Your
Choice. Cat. No. $1749 \ldots . . . . . . . . .$.
$\$ 3.40$ Kit of 25 Assorted Resistors of Your $\$ 6.60$
Choice. Cat. No. $1750 . . . . . . . . . . .$.

## Lynch or IRC Metalized "Pig-Tail" Resistors



FREE: One Dollar Copy "Service Man's Resistor Manual" with Each Purchase of a

## Lynch Handipak

 Resistor AssortmentsPacked ten resistors to a packet Cat. No. 6438 . Handipak No
one each ONE WATT Resistors: 500 - 1000 -2,000-10,000-20.000-50.0(4) -
\$1.77 (00,00-260,000-500,00 N Cat. No. 6439 Handipack No. ${ }^{2}$ each ONE-WATT RESSIST ORS: $250 \rightarrow 0 v=$ $5,000-15,000-25,000$
$60,000-70,000-200,000$ Meg.
\$1.77
Cat. No. 64.40. Handipak No. 3. Containt
no each TWO WATT Resistors: 500-$1,000-2.000-2.500-3.000-5.000$ -


## Serviceman's Resistor Replacement Manual

every user of resistors!
$\$ 1.00$

Lynch Metallized Motor
Spark Plug Suppressors
Conipletely eliminate spark plug and distributor disiurbances, when operating radio while car is rumning-yet do not impair efficiency of motor. Universal mosunting pro-vision-w car requires a suppressor for each spark-plug, one distributer head suppressor and one g
denser
Cat. No. 3006 Spark-Plug Model No. 3007 . Späriug
Cat. No. Model-cable type,
Buicks, etc
Cat. No. 3008
Head Model
Cat. No. 3009. Generator
Condenser Silencer


## Suppressor Kits



A generator silencer condense
included.
2918. Kit
inder Cars $\$ 193$
Cat. 6
Cylinder $\$ 2.50$
Cat. No. 2920.
\$3.09

Lynch Precision Wire Wound Resistors
 Per Cent!

## Cat t. No <br>  <br> 

> R.C.A. Voltage Divider | For Radio- |
| :---: |
| las $18, ~$ | $\begin{aligned} & \text { Tas } \\ & \text { and } \\ & \text { and } \\ & \text { Sta } \\ & \text { sind }\end{aligned}$ circuits. $\begin{aligned} & \text { Wound nost compactly on a strip o } \\ & \text { bakelite. R.C.A. part No. } 2242.41 / 2\end{aligned}$ inches long. Consists of two separate the other is 2,340 ohms, tapped Cat. No. 2222. Each 25C Porcelain Voltage Divider Comprising one 3200 ohm section on dyy and one 1665 ohm section, which section is tapped a 330 and 950 ohms $\begin{aligned} & \text { Used on Radiola } 42,48 \text {, Victor } 14 \text {, } \\ & \text { 15, General Electric T-41, Westing- }\end{aligned}$ 35 c

Kolster Wire Wound Resistances


## 令

## Tolerance Plus or

 Mintes 1\%Have hollow ceramic forms for mounting gangs of these ter rod or screw. Mention Re
Cat. No. 7213. sistance Value Desired. OUR
COST










 5
100
200
2
3
100
6
6

## Lynch 5 Watt Pig-Tail Power WIRE WOUND Resistors



Variable Grid Leak $V$ ariable from
$1 \quad(100,000$ ahms, to 10 negonms. screw adjustment. Fits any rometer screw laak mount. Yery flex ble in application.
at. No. 2206.
$28 C$

Lynch Pig-Tail Type "Precision" Wire Wound One Watt Resistors

## Non-Inductive-

KOLSTER part No. 4919. Total:
$;, 700$ ohms, tapped at 500 ; 2,100 ; 3,100 ohms.
Cat. No. 1458.
32 C


Wire-Wound Grid Suppressors
Your
Fhoice:
From 1
ohm to 3,000 ohms-including every
resistance value

## 12 C



12C ${ }_{\text {sinch }}^{\text {Each }}$
Cat. No. 350 . Flexible Type.
Cat. No. 351. Rigid Type
Peerless Courier No. 22 Voltage Divider



"Surplus-Low-Priced"
Carbon Pigtail Resistory Kits

Ohmite Standard Resistor Blanks


Amer Tran Voltage Divider
For 250 Power Amplifiers
Total: 41.0000 ohms,

 shms.
mounting
nete
oracket. handy Cat. No.
$\$ 2.95$
For 245 and 247 Amplifiers Constructed sinilarly to the will
model above, and as illustrated. Wirewound, vitieous enameled. Sturdy bracket mount. Tapped: 2.000-3,000


Wire Wound Resistance High grade. German silver resistance
wire wound on heat resisting insula tion. Resistance: 10 ohms per ittch Cat. No. 2049
$\$ 1.00$
Center Tapped Resistors
Eliminates
Hum in A.C
Eliminates
Hum in A. $C$



Cat. No. 347
For 171 Packs ( 13.000 ohms). 95 Packs
(13,000 ohms) $\$ 1.35$

Cat. No. 349. For 250 ${ }^{3,35}$ 85 95c
 Circuits

## Standard R. M. A. Color Coded "Synthetic" Pig-Tail Resistors Acknowledged Superior to Carbon Type Resistors!



Fully realizing the need of a really good, lowpriced Pig-Tail Resistor, we have closed a conresistance manufacturers in the country, to manufacture these first quality resistors in exact accordance with our most rigid specitications, which are as follows: They are Zapon and Duco colored, in strict accordance with the R. M. A. resistance color code of 10 color combinations, 3 colors appearing on each resistor (esistor order They are very conservatively rated, and enjoy a tolerance of plus or minus $10 \%$. The resistor ends are silver-plated before the broad surface contact band is most rigidly, electrically and long, noiseless and corrosion-free contact, and
performance. The Duco enamel covers the entire resistor, and thereby makes then absolutely inpervious to atmospherics, elimmating any possible change in resistance variation. A porcelain of age. Note that the tinned "pig-tails" extremely durable. They are not subject to the ravages but make a perfect and life long contal whemselves are not connected to the resistance proper, but make a perfect and life long contact with the wide band encircling the silver plated resistor

1-2 and 3 Fatt Types Available in the Folloving Resistance Values:
 values, or, we will exercise our own good judgment in making up a flexible assortment of the most
Multiple-Condenser Tapped

## Tone Control

Contained within a 158 in. diameter bakelite chamber, there are 7 arm noiselessly the contact arm noiselessly glides over them and in that manner CONTROL ket. Capacity ranges from 50 Mmif. to .006 . ${ }^{\text {ket. }}$ Working voltage: 400 volt $D . C$. 1 in. long, $1 / 4$ in. diam. shaft. Only $5 / 8$ in. 85 e.
thick! Cat. No. 6515..................

Carter 15,000 Ohm Wire Wound Rheostat with Two S.P.S.T. Switches

When contact arm reaches certain point, one switch is Can be universally adapted to a host of valuable purposes. $17 / \%$ in. dianı., $1 \neq /$ (1/ long. (1/4 in. diam.).

85


Carter 10,000 Ohm Wire Wound Heavy Duty Potentiometer
Dissipates 15 Watts. Carries 35 miss. Excellent for Kolster sets. ${ }^{2}$ Single hole mount. Cat. No. 6518.

65 c

## Every Radio Man Should Own a Copy of This Big and Valmable Book

 586 PAGES!FITS THE POCKET A practical concise treatise pre senting in easily understood form the theoretical and practical intormation necessary for the proper operation, maintenance and service as applied 11. MODERN RADIO PRACTICE hy FRANK D. GRA. HAM. Large type-clear illus. tration - fine paper - flexible binding with red edges-a bnok Cat. No. 3014. .

98 C

2 Ohm-2.5 Amp. Base Mounting Amsco Rheostat
$23 / 8$ in. bakelite frame. Diameter $1 / 4$ in. thick. No shaft re. quired.
Cat. $\begin{gathered}\text { No. } \\ \text { Per Dozen, } \\ \text { D522..... } \\ \text { Dozo }\end{gathered}$
12 C

Fusible Line Cap
Ideal for radio dealers and service men for fusing radios not already protected, and for general use
around the laboratory. Holds two standard size Holds two standard size
Radio Fuses. Moulded Radio Fuses. Moulded black finish, $13 / 32^{\prime \prime}$ cord hole. Fits all standard
 Outlets.
When fuse blows, you can replace it very easilymmuch easier than if you had to remove a chassis! Cat. No. 6520.. $\qquad$
Carter Volume Controls and Potentiometers

A. C. Switch

| Cat. | o. Type | Resistance |  | Diameter | Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5158 | Yol. Control | 2.000 | Ohms | $21 / 4 \mathrm{ln}$. | 69 c |
| 51.59 | Vol. Control | 2.1000 |  | $1 \%$ In. | 59 c |
| 5160 | I'gtent | 4.000 | - 0 | $14 / 4 \mathrm{ln}$. | 59c |
| 5161 | Vol. Coatrol | 5.000 | . | 1\%812. | 49c |
| 5162 | Vol. Control | 10,mo | - | $1 \%$ In. | 59c |
| 5163 | Vol. Control | -18.000 | - | $24 / 4 \mathrm{In}$. | 69c |
| 5164 | Vol. Control | 15,000 | - | 1 1/8 In. | 49 c |
| 5165 | Yol. Control | 20.000 | $\cdots$ | 1\%/4n. | 59e |
| 5168 | Fol. Control | 20.000 | $\because$ | 24/4n. | 69c |
| 5167 | Potent | 20,000 | - | 1\% In. | 49c |
| 5167 | Vol. Control | 200,000 | $\because$ | 18 In. | 49c |
| 5168 | Vol. Control | 500,000 | . | $1 \%$ In | 49c |

Electrad Dual 250,000 Ohm. Potentiometer


Both potentionsters are thor onghly insulated from each other Ideal for use in public address control hoards, or wherever you desire to control or "mix" two different circuits without affecting each other. Diameter: $11 / 3$
in. Length: $11 / 4$ in. Shaft
Length: $/ 8 / 8 \mathrm{in}$.
\$1.25
Electrad Wire Wound 4th Terminal Potentiometer Ideal for Phono. Fading Standard Potentiometer, 50,000 ohms. The 4 th terminal is the exact midpoint of the resistance unit. Noise-
less contact. $13 / 8$ in. diameter, $1 / 2$ in. thick. diam. shaft
Cat. No. 6517
in. long.


75 c
Victor-Electrad Tone Control Rating: One million ohms. Can be operated by a knob ( $1 / 4$ in. diam a slot in the or by means of a slot in the shaft head. $1 \frac{1 / 2}{}$ in. diameter, 5s in. thick. 396
Cat. No. $6521 . . . . . . .$. .

Per Dozen, \$3.95
"Radax-Supreme" Panel Mount Tone Control
At the slightest twirl of a
finger you place emplasis on the high, medium or low notes! Nothing to get low notes! Nothing to get out of order! Adaptable to All sets, both battery and A. C. types ! Takes a few
seconds to install-special seconds to install-special adapters are slipped on to power tube prongs-that is Solid there is to it
Solid bakelite molded. Finest quality, 36 in. flexible well insulated, braided leads. Single hole, panel mount. The socket wafers are so well insulated that they will not make any electrical contact with the chassis 123 in in. diam. eter, 1 in. deep behind panel.
Cat. No. 2006.,
\$1.65
Heavy Duty Pentode or 46
Model
Cat. No. 2007.
\$1.95
Yaxley 40 Ohm Potentiometer
 Offers many valuable uses any set builder, repair man and experinienter
Ideal as a lium control for 227 and 226 tubes. An excellent rheostat or potentiometer, center tap resistance, adjustable resistance, etc. etc bias, etc.. etc. One ameter by $1 / 2$ in. thick.
Cat. No. 408
23c
5000 Ohm Allen Bradley Volume Control Encased in a bakelite frame 1538 in. high, 1134 in. wide, $1 / 2$ in. thick. Threaded sleeve is $3 / 3$ in. long, and flattened side of shaft protrudes $1 / 2$ in. beyond the threaded sleeve
Cat. No. 5172.
14c


## Per Dozen, $\$ 1.40$

Grebe SK-4 Wire Wound Volume Control Potentiometer


One hole mount. Solid bakelite molded. Perfect phosphor bronze spring contact $11 / 4 \mathrm{in}$. diameter. $1 / 4$ in. diameter, burred shaft.
2600 ohms

A. C. DAYTON

| A. C. 63. | 9000 | . 95 |
| :---: | :---: | :---: |
| A. C. 65 | 9001 | . 95 |
| A. C. ${ }^{\text {C }}$. 66 |  | . 95 |
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| Lyric Model "J", | ${ }_{9017} 9016$ | .90 |
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| 171 "ABC', Power Unit. |  |  |
| 7100, C-7075, C-7076 | 9033 | 1.95 |
| A. C. |  | . 80 |
| A. C. | 9035 | . 80 |
| A. C. 7 |  | . 80 |
| 70 | 9037 | 1.10 |
| 81 and Bel Canto Serie |  | 1.10 |




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| :---: | :---: | :---: |
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| Type "K", Series | 9162 | 90 |
| Type "M" Series | 9163 | 1.05 |
| FREED-EISEMANN |  |  |
| N. R. 11 Power Pac |  |  |
| N. R. 55 D . C. |  | 1.30 |
| N. R. ${ }_{\text {R }} 57{ }_{60} \mathrm{~A}_{\mathrm{D}}$ C. $\mathrm{C}_{\text {c }}$ | 7 | 1.30 |
| N. R. $60 \mathrm{~A} . \mathrm{C}$. | 9168 | . 90 |
| N. R. 70 A. C. | 9170 | 1.30 |
| N. R. 78 D. C. | 9171 | . 90 |
| N. R. ${ }^{\text {R }}$ 88, ${ }^{79}$ D. C . | 9172 | 1.30 |
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$G^{\text {ENERAL ELECTRIC }}$

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|  |  |  |

GENERAL MOTORS

Day-Fan "55" A. C.
Day-Fian "6", A. C. 5066
Day,Fan "6" Junior
Day, Fan "6" Junior ${ }^{\text {"b" Supply } 5524,5525 \text {, } 5065}$
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$5077,5088,5069$
$25,26,27,28,43,48$
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GRAYBAR ELECTRIC


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| Power Units: |  |
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| 997A .............. . 9337 | 1.45 |
| A. P. 947, 947A, 947X, $951 \ldots 9338$ | 1.45 |
| A. \& B. . . . . . . . . . . . . . . . . . . 9333 | 1.45 |
| A. P. 1080 . . . . . . . . . . . . . . . . . . . 9340 | 1.45 |
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STEWART WARNER


## STROMBERG-CARLSON



## $T^{\text {EMPLE }}$



UNITED AIR CLEANER


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## WESTINGHOUSE ELEC



7ENITH RADIO


## ELECTRAD REPLACEMENT VOLUME CONTROLS AND POTENTIOMETERS


#### Abstract

This remarkably comprehensive REPLACEMENT VOLUME CONTROL LIST was compiled enpeeially for the SERVICE MAN by ELECTRAD to enable him to not only obtain the proper control immediately . . . but, also to enable him to purchase one at a minimum price that will assure a handsome profit to the Serviceman. A vote of thanks is certainly due The House of Electrad, one of the oldest and most responsible Radio Manufacturers in the World. It is with pride that we feel privileged to be the medium of linking ELECTRAD and RADIO SERVICE MEN of the World.


|  | Your Cost |
| :---: | :---: |
| XL5, \L10, XL20, XL25........ 8000 |  |
| XL30, XL50, XL60, XL61, X X $\mathrm{L}_{70} 8001$ | \$. 60 |
| AC63, ^C65, . ${ }^{\text {che6 }}$. . . . . . . . . . . . 8002 | . 60 |
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| 82.83, 7100 AC-6-C $\ldots$. . . . . . . . . . . . . . . . . . . . 80.8027 | . 60 |
| AC-7, AC-7-C ................... . . 8029 | . 60 |
| 81 ............................... . . . 8030 | . 60 |
| 84 . . . . . . . . . . . . . . . . . . . . . . . . . . . 8031 | . 60 |
| Andrea, F.A.D. |  |
| 41, 42, 44, 46, 47............... . . 8032 | . 60 |
| Model 45 (KU). | . 60 |
| Model 48, 49 (KW)............. 8034 | . 60 |
| Model 51, 53. 57 (KOC) ...... 8035 | . 60 |
| SF-50/80, $408 \mathrm{~B}, 160,192 \mathrm{~A}$. 192 S , SF-501, 80A, 192B3, 460A, 480A, |  |
| 22 ........................... 8036 | . 60 |
| 625, 192A spec. $475 \mathrm{~A}, \mathrm{SF} 45,75 \ldots 8037$ | . 60 |
| 472UA, CA, SF, $45 / 75,4572,10$, <br> 11, 31, 10Z, $112 \ldots . .$. | . 69 |
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| UACA, $7 \mathrm{AC}, 475 . . .3 . . . .$. | . 69 |
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| 16, 17, 32, 16Z 32Z, 18 D.C...... 8041 | . 60 |
| 20, 20 Z , $25,25 \mathrm{Z}, 15 \mathrm{M}, 15 \mathrm{MZ}$. ${ }^{\text {c. }}$. 8042 | . 60 |
| 35, 35Z......................... . . 8043 | . 60 |
|  | . 60 |
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| 75, 77............... . . . . . . . . . . . 8046 | . 69 |
| Atwater-Kent |  |
| 43, 44, F, P, L1, L2........... 8047 | . 82 |
| 55, 55C, 60, 60C, 61, 61C, $66, \ldots 8048$ | 60 |
| Models 37, 38, 40, 42, 44, 52 (Re- |  |
| sistance Strip) ............. . 8049 | . 41 |
| Models 55, 60, 66 (Strip)...... . . 8050 | . 41 |
| Model 82, . . . . . . . . . . . . . . . . . . . 8051 | 1.10 |
| Audiola Radio Company |  |
| 8-T Super Pentode, 9-T, Super Pentode | . 60 |
| 6 Tube, 5 Tube, $527,627,6 \mathrm{~T}, 8 \mathrm{8T} .8053$ | . 60 |
| 308, 7330............ . . . . . . . . . . . 8054 | . 60 |
| 8430 .............. . . . . . . . . . . . . . . 8055 | . 60 |

In order to make each type eontrol an univers ally ;pplicable as possible, all types are poten tiometers, except where an off position is de sirable. Where a rheostat (Volume Control) type is needed only two of the terminals are used. All these replacement controls have in sulated bushings. No insulating washers are needed when ruounting the unit on a metal punel. All shafts are over-siac, $13 / 4 \mathrm{in}$. long; they ean be easily sawed off to length if neces sary. Overall diameter $17 / 16 \mathrm{in}$. We guar antes that these controls will function efficiently signed receiver for which they have been compactness, no difficulty will be experience installing them.


| $\begin{array}{ll}\text { Manufacturer } & \text { Cat. } \\ \text { No. }\end{array}$ | Your Cost |
| :---: | :---: |
| Abbey .......................... 8116 | . 69 |
| R-200 . . . . . . . . . . . . . . . . . . . . . . . 81117 | . 60 |
| E-175 ........................ 8118 | . 69 |
| Models R1, R2, R3 (Front)..... 8119 | . 80 |
| Electrical Research Laboratories |  |
| R-1 . . . . . . . . . . . . . . . . . . . . . . . . 8120 | . 60 |
| 224 AC ......................... 8121 | . 60 |
| 245 Super ....................... 8122 | . 60 |
| 335 . 350. . . . . . . . . . . . . . . . . . . . . 812123 | . 60 |
|  | . 60 |
| Emerson Radio \& Phonograph |  |
| F, 100-A . . . . . . . . . . . . . . . . . 81 | . 96 |
| Series 65 ........................ 8126 | . 60 |
| Eveready (National Carbon) |  |
| Models 1, 2, 3.................. 8127 | 95 |
| Federal Radio Corporation |  |
|  | 60 |
| Series Fil. D ............. 8129 | . 60 |
| G-10-60, G-40-60, G-41-60, K-10-60 |  |
| K40-60, K41.60, M $35-60, \mathrm{M} 40-60$, |  |
| Type H, ${ }^{\text {M }}$ (145-60, M46-60 $\ldots . .88130$ | . 60 |
| Freshman |  |
| Masterpiece, Equaphase ........ 8132 | 50 |
| G-Q-15, Q-16 ................... 8133 | . 60 |
| H, K, L, LS . . . . . . . . . . . . . . . . . 81314 | 60 |
| 2H, M, 2N . ...................... 81313 | . 60 |
| Earl Radio Corp. |  |
| 31, 32, ${ }^{41 . \ldots . . . . . . . . . . . . . . . . . . ~} 8136$ | . 60 |
| $21 \mathrm{DC}, 22 \mathrm{DC}, \quad 24 \mathrm{DC}, \quad 3 \mathrm{DC}, \quad 32,$ |  |
| SDC, 21AC, 22AC' ............. 8137 | 60 |
| Freed-Eiseman Radio Corporation | . 60 |
| NR7, 8, 9, 10, 12, 20, 40, FF.15, 18, |  |
|  | . 60 |
| NR.78, 79, $95 . . .$. . . . . . . . . . . . . . 81440 | . 60 |
| NR55, AC \& DC. . . . . . . . . . . . 8141 | . 60 |
| NR30DC, AC ................... . 8142 | . 60 |
| General Electric Co. |  |
| H-71, H51, H31.................. 8143 | . 60 |
| K-32 ........................ . . . . . 8144 | . 60 |
| T-12 .............................. 8145 | . 69 |
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| General Motors Radio Corporation |  |
| Day Fan Nos. 527, 5044, OEM7, |  |
| Six Junior, $6661,6,6 \mathrm{~B}, 5050,35 . .8149$ | . 62 |
| Day Fan Nos. 8AC............ 8150 | . 60 |
| $\text { Day Fan Nos. 5003, } 5091,5077$ | . 60 |
|  |  |
| 251, S2A, S2B ..................... 8152 | . 60 |
| 216, 217, 219, 250 ............... 8153 | . 60 |
| Gilfillan Bros. |  |
| 10 .............................. . . 8155 | . 60 |
| 60 ...................... . . . . . . . . . 8156 | . 60 |
| 33 . . . . . . . . . . . . . . . . . . . . . . . . . . . 8157 | . 60 |
| 100 . . . . . . . . . . . . . . . . . . . . . . . . 8158 | . 60 |
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| Graybar Electric Company |  |
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| AC6, AC7, 428.................... 8163 | . 60 |
|  | . 60 |
| SK-4AC . . . . . . . . . . . . . . . . . . . . . . . . . . 8165 | . 60 |
| HS. 4 H.......................... 8166 | . 60 |
| HS-4 Models 1, 2, 3, 4.......... 8167 | . 60 |
| SK4DC .......................... 8168 | . 60 |



## Electrad Volume Control-Potentiometer Replacement List Continued on Next Page

 AND POTENTIOMETERS-Continued


| $\begin{array}{ll}\text { Manufacturer } & \text { Cat. } \\ \text { No. }\end{array}$ | Your <br> Cost |
| :---: | :---: |
| United Air Cleaner Corporation |  |
| 106B, 440, 10B, 666C, 666....... . 8322 | 60 |
|  | 60 |
| Series K-70 ..................... ${ }^{\text {. } 8324}$ | . 60 |
| Courier 65 ...................... 832 | 60 |
| 104 … . . . . . . . . . . . . . . . . . . . . . 8326 | . 60 |
| 110, 108-A, 108B | . 60 |
| 7 Tube Super | . 60 |
| Sentinel 114 ........................... . . 8329 99 ............... 8330 | .60 .60 |
| U. S. Radio and Television Corporation |  |
| Case 80, Apex, 36, 37........... . 8 | . 60 |
| Apex, 31, 32 .................. 83 | . 60 |
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| Apex 50, 60 .................... 83334 | . 60 |
| Model 90 ........................ 8333 | . 60 |
| Model 99 .............. . . . . . . . . 83336 | 60 |
| Gloriatone Early 27 ............. 8337 | . 60 |
| Gloriatone 28 .................. 83338 |  |
| No. 8 Series Super Heterodyne. . . . 8339 | . 60 |
| No. 10 Series Super Heterodyne. 8340 | . 60 |
| No 26, Late 27 ................. 8341 | . 60 |
|  | . 60 |
| 7 Series, Pentode | 0 |
| United Reproducers |  |
| Series 20, Peerle | . 60 |
| Series K-70 | . 60 |
| Courier 65 | . 60 |
| Wells-Gardner \& Company |  |
| C, CG | . 60 |
| Arcadia 72 ................... . . . . 8348 | . 60 |
| Mndel 80A ..................... 8349 | . 60 |
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| Westinghouse Electric \& Manufacturing Co. |  |
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| WR-14 ......................... .8353 | . 69 |
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| Zenith Radio Corporation |  |
|  |  |
| $33,34,35,35 \mathrm{~A}, 342,352,352 \mathrm{~A}$, $362,333,353, \ldots \ldots \ldots . .$. | . 60 |
|  | \% |
| $35 \mathrm{PX}, 35 \mathrm{APX}, 352 \mathrm{PX}, 352 \mathrm{APX}$, 37A, 55 | . 60 |
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| 5 Tube Zenette :.............. 8368 | . 60 |
| 5 Tube Zenette with Pentode . . . 83689 | . 60 |
|  |  |
|  |  |
| Atwater Kent |  |
| Model H | 1.95 |
| All American Mohawk Co. |  |
| Colonial Radio Company |  |
|  |  |
| 32 A.C. . . . . . . . . . . . . . . . . . . . . 8374 |  |
| Earl Radio <br> Models 21, 22 A C...... |  |
| Electrical Research Laboratories |  |
| 271 ......................... |  |
| Jesse French \& Sons |  |
| Midget |  |
| Colin B. Kennedy 8378 |  |
|  | 2.20 |
| Grigsby Grunow (Majestic) |  |
| Model 30 Chassis . . . . . . . . . . . 8379 | 1.65 |
| Model 100 Chassis ............... 8380 | 1.38 |
| Model 50 Chassis ............... 8381 | 1.38 |
| General Motors Radio Corp. |  |
| Model A Chassis, Models 120, 130 , 140,150 and $160 \ldots \ldots \ldots . .$. | 2.20 |
| National Carbon Co. |  |
| Philadelphia Storage Battery Co. |  |
|  |  |
|  |  |
|  |  |
| R-32. RE45, RE52, RE75 ...... 8385 | 1.37 |
| R-15, 48, 92 .................. . . . . 8388 | 2.20 |
| R.14 ........................ . . . . 83887 | 2.20 |
| RE-35, RE-39, 57 | 2.20 |
| Sparks Withington |  |
| 410, 420 (Junior, Jewell) . . . . . . . 8389 | 1.65 |
| Stewart-Warner <br> Models 950, 980, Battery-950, 970 |  |
| Modeks $950,980, ~ B a t t e r y-950, ~ 970, ~$ |  |
| Sterling |  |
| 8.61, 8-81, 8-91 . . . ............... . 83921.37 |  |
|  |  |
| Westinghouse Elec. \& Mfg. Co. <br> WR-4 .............................. . . . 83932.20 |  |
| Zenith Radio Corp <br> 70 ...................................... . . 83941.65 |  |
|  |  |

GIANT DX"ROOFAERIAL SIUPER POWER ON DISTANCE

 Cat. No. ${ }^{6916 .} 10$ Foot $\$ 2.25$
Long "Dx" Cage Aerial. Cat. No. 6917 . $\begin{aligned} & 30 \text { Foot Long "DX" } \\ & \text { Cage Aerial ( } 5 \text { Spacer }\end{aligned} \mathbf{\$ 3 , 2 5}$ Cage Aerial (5 Spacer
Rings) $\ldots \ldots . . .25$ Cat.
Cage Aerial. 8 . 818.
Spacer Reings.
S Contains 300 Ft . Wire.

Window or Indoor "DX" Aerial
7. wire cage aerial, only 5 ft . high-
can be attached outside any window Ideal for super-heterodyne broadeast and short wave reccivers. Eliminate long lead-in troubles. Non-directional. pins, wood screws and mounting brackets.
Cat. No. 6919.
$\$ 1.70$
"DX" Sound Truck and Window Sill Aerial


Non Directional! Mounts conveniently and quickly on a sound truck, car, or Ideal for Super-Heterodynes and Ideal for Super-Heterodynes and
Short Wave Reception. Rigid channel Short Wave Reception. Rigid channel
iron bracket support, properly drilled iron bracket support, propery dr plete winsulators and soldered lead-in
Cat. No. 6920
\$1.35

## Aerial Eliminator

## Can be placed within,

 Radio Console. Only 3in. long! Fool-proof. Greatly increases selecin a moment! Cat. No. 6921.

80c

Wizard Aerial
 An ingenious installation on midgets, soles, portable as well as automo-
bile radio sets All self con. tained, no ground most of the electric sets. On the older model sets it may be necessary to make a ground directly to the wizard Installed in a jiffy. Can be placed within the cabinet, or externally
therefrom-in autos, under any 59 C
seat ! Cat. No. $6922 . . . . . . .$. " $\$ 100.00$ Free Insurance" Lightning Arrester Made of hake-
lite, $41 / 2 \times 1 \mathrm{x} \times \mathrm{x}$
$1 / 8 \mathrm{Z}$. The safest lightning a

## 75 C



Antenna Spring Insulator
porcelain insulators at each end, takes up slack in aerial. Ideal when aerial s attached to a mo
Cat. No. 2296.
Each
"Coast-to-Coast" LocalDistance Control Unit By throwing a toggle switch, a special cir
cuit is intraduced be $t$ ween the antenna and antenna binding post that so sharpens selectivity, sharpens se,
lhat " $D X$ " reception is often pos. "locals." night through
 required to install between aerial system and connects beon to all troubled with in- $\$ 1.25$
terference! Cat. No. 6924 ..

## "Coast-to-Coast" Wireless Key

 Equipped with 3 bhosphor springs, subject to four adjust-
ments;
steel
lever arm; brass fittings and highly insulated finger rest. Mounted on a mahogany base, not shown in illustra-

tion. $51 / 4$ in. long, $23 / 4$ in. wide. For practice or actual transmission appli| Cat. N. |
| :--- |

$\$ 1.10$

## "Wireless" Code Practice Set

Attaches
radio. Simplest and
lowest priced code
practice set. Easy
way to learn wire
less telegraphy. Can
radio set and need
radio set and need
not be disconnected from set to receive broadcast stations as its adapters fit
directly under tubes of any radio directly under tubes of any radio re-
ceiver. Supplied complete with ceiver. Supplied complete with In-
ternational Morse Code chart and wiring dragram. The ideal thing for the boy, experimenter and amateur.
Cat. No. $6926 . . . . . . . . .$. .
Crowe Broadcast Low Ratio-Short Wave High Ratio Tandem Dial
 Equipped with one common lengthwise individual indication levers. Non-slip belt drive principle. Distance between condenser Shaft mounting holes, $83 / 8 \mathrm{in}$. Shaft holes accommodate $1 / 4$ in. or $3 / 8$ in.
diam. shafts. Equipped with tastefully embossed escutcheon
$\$ 2.95$
Cat. No. 6927
"Coast-to-Coast" Audio Frequency Oscillator Range 50-10,000 Cycles


Excellent for General
Audio Frequency Trouble Shooting, for Test ing $A$. $F$. Stages and Transformers, CarbonCondenser and Mic rophones Speakers, etc.
Has self cortained " A " and "B" batteries which will last 9 to 12 months. A unique comaudio transformer with taps and a large . 001 mifd variable condenser, makes the wide audio frequency range possible Employs a 230 tube. Absolutely stable selection of frequency ranges By pligging in certain fixed condensers pligging win jack provided, the rangens goes below 50 cycles. goes below 50 cycles. Another con-
trol varies the output, from 0 to $2-3$ volts. Fully shielded. Excellent for laboratories.
Less 230 Tube
$\$ 16.50$
"Coast-to-Coast" Operated Pre-Selector and Band Pass Filter Wave Trap and Antenna Stage Booster

he Sensitivity,
ing extreme
ong dis
Has a complet
A.C. Power Paok, utilizing a Raytheon B.H. Tube (not visible in illustration) Employs a 236 tube, as the R . F.
amplifier. A high ratio vernier dial, tube socket and necessary terminals are positioned on an attractive panel, Which is secured to an attractive metay
Shielded Case, measuring 634 in. long, $47 / 8$ in. wide, $41 / 2$ in. tall. Were this tage, it would be well worth the mount herewith quoted-but-you also receive an extremely valuable and efficient Band Pass Filter Stage! Cat. No. 6929. Ready for Immediate Tubes
\$14.75

## RADIO-CRAFT

"Radio's Livest Magazine"


During the past
 part-time stage and now ranks among tions in the country. It is only natural, should be a magazine devoted to th
Service Man. S builders and exper menters occupy a position in radio that very closely approaches the Servshould be benefitted by a periodical, The closely interlocking relations o in RADIO-CRAFT, which contains nformation that is useful to both classes.
RADIO-CRA FT is published diagrams, hook-ups photos and illustra wagrams, hooks photos and illustra ith in each issue;
Monthly copies will be mailed direct rom the publishers.
ion-12 issuss, mailed $\mathbf{\$ 1 . 9 8}$ nonthly
$\$ 1.98$
(Regular Subscription Price, $\$ 2.50$ per Year)

## GENUINE COPPER MAGNET WIRE

Double Cotton Covered


When 6 rolls (assorted) are purchased at one time, deduct 40\% discount from above net prices; if 12 rolls (assorted) are purchased, deduct $45 \%$ discount.

## Wall Plates



Fits any stan-
dard wall recep-
tacle. Iwo stan-
dard tip jacks
are furnished
they fit into the
tight gripping
jacks, which are
fastened onto an
insulated disc,
suitabl
graved. $23 / 4$ in.
wide, $4 \%$ in. Wide, $41 / 2 \quad 1 n$.
long. Hard Cat. No. 4047 ished.
Cat. No, 4047. "Aerial-Ground" 30c Cat No 4048. "SPEAKER." WALL PLATE. 30 C

## Bakelite Wall Plates

Fit standard wall boses or receptacles. Aerial and Ground less phone tips, for readily made connections thereto. Cat. No. 6316. "Aerial-Ground"
Cat. No. 6317. "Speaker" Cat. No. 6319. Cual No. Cpeaker , Plate


Cat. No 6318. "Speaker" with
a Self-Contained Volume Control

"Aerial-
Ground" and
Dual Electric
Socket Outlet Bakelite Wall Plate

Cat. No. 6320
85c
"Aerial-Ground" and "Speaker" or "Head-Phone" Outlets
Fit standard wall outlet boxes. A pair of solder-less phone tips are included.
Cat. No. 6321
40 C

## Cable Clamps

Extremely useful in the shop or at home. Thousands of valuable uses will suggest themselves.

| at. No. |  | Size of Hole | Price Each |  | of 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 95-78. | in. x \% 4 |  | Each 1c | $\begin{aligned} & \text { of } 100 \\ & \$ 8.00 \end{aligned}$ | $\begin{array}{r} \text { of } 1000 \\ 85.00 \end{array}$ |
| 3196-79 | $\mathrm{in} . \mathrm{x}^{1 / 2} \mathrm{in}$. | No. 8 |  | 80 | . 00 |
| 3107-25 11/6 | in . $x^{\text {//3 in. }}$ | - |  | 1.40 | 12.00 |

## Solderall

This is a complete
combined. A small
quantity applied to

dered when heated will flow and unite the parts the same as wire or bar solder. Furnished in collapsible tubes.

10c
In Lots of $\mathbf{2} \mathbf{4}$ Tubes, $\$ 1.75$

## Bakelite Outlet Wall Case

 Overall dimensions: 2\%/8 in
long. $45 / 8$ in. high, $15 / 2$ in. deep Distance between centers of tapped Bakelite pillar posts, $31 / 4$ in. Primarily designed for housing current ontlets or switches (fits all standard wall plates). it can be adapted by any ingenious experimenter to serve a host of just as valuable other applications.

59c
Cat. No. 4045-A Bakelite Cover Plate, with holes to correspond to threaded mounting 19C

Automatic Alcohol Blow Torches

$\qquad$ Blows itself. $\mathrm{O}_{\mathrm{p}}$ or conn denatured hol. Solid alcomakes it mechanically leak Size $51 / 2$ in. $x 21 / 8$ in. $x$ Highly nickel plated Exass. stance. Screw-top makes it easier to load, Nozzle-cap prevents evaporation. Copper heat conductor generates
quickly. Bigger barrel holds more fuel.
$90 c$

Duplex Radio and Electrical Blotorch
A heavy duty torch featuring a bunsen burner for outdoor use and heavy soldering jobs. Bunsen burner can be detached if needle-point flane is desired. Pressure valve on burner permits adustment of flame between $1200^{\circ}$ and $2000^{\circ}$ When bunsen burner starts generating prining tube can be extinguished and used as handle Size $6 \frac{1}{8}$ in. $x 23 / 8$ in. $\times 11 / 4$ in. Highly nickel plated brass.
Cat. No. 3365.
$\$ 1.75$

## Automatic Alcohol Blow Torch

Powerful $2200^{\circ}$ blast with attached burner. One turn of thumb screw releases burner, producing $1700^{\circ}$ needle-point flame. Double burner-one for a needle-pont flame-and the attachment for a heavy intense flame. The pressure release valve-no sputtering, no boiling over, no evaporation, no leaks: A cleaning pin alvays handy when you want it-kept securely in the handle. A full grip handle, always cool. Substantially built-to last a lifetime. Fool-proof construc-tion-no adjustment necessary. Filter screen in jet prevents plugging of orifice. 7 in. $\times 43 / 4 \mathrm{in}$. $x 3$ in. Highly nickel plated brass.

Cat. No. 3367
\$3.00

## Brach Mouth Blow Torch

Should be part of every electrician's tool kit; it is indispens able for use in all repair work Burns denatured alcohol and delivers a long, hot needle poin flame which can be directed to the precise part of the work to
be heated. be heated
cat. No. 3374....... \$1.95


Use this solder on aluminum in the same manner as you would regular solder on other metals. deal for use on aluminum chassis.
Cat. No. 3359. Per Stick, 17 in. long, 256
if in. diameter. Weight. 2 ozs. ......


## Super-Spec O Solder Iron Bricks

Size 2 in. $x 2$ in. $x 1$ in.
pecially for electric soldering irons. Not only cleans and tins, but maintains irons in condition. Tips last two or three times as long as when dipped in acid, which fumes heavily and quickly corrodes copper. Less filing required, which saves labor. SuperSpec O keeps atmosphere fresh and healthy, because minimum of furing. No fire risk. Used by leading radio and electrical manufacturers.


25c


Cat. No. 3032. Cat. No. 3032. 6 in . long corner posts (grooved minum pieces are slid into end. Each ....................... tapped at each 4 es ALUMINUM ANGLE STOCK Cat. No. 3033.
 $3 / 4$ in. $x 3 / 4$ in. $x$ if in. thick. Per ft... 40 C Cat. No. 3035

Solid Copper-Rubber Covered Lead-In Wire


Best grade No. 17 pure copper wire, with a $3 / 64$, new code, live rubber covered insulation.

Cat. Continuous OUR In lots No. Length Reels PRICE of 25 $\begin{array}{lllrr}2281 & \ldots . & 25 \mathrm{ft} & \$ .10 & \$ .08 \\ 2282 & \ldots & 50 \mathrm{ft} & .17 & .15\end{array}$ $2283 \cdots 100 \mathrm{ft} . \quad .27$. 26

No. 14 gauge tinned and heavily rubber insulated lead-in wire. Outer fabric covered. Easy to strip and solder.

| Cat. |  | Length | Single <br> Lots | In lots <br> of 10 |
| :--- | :--- | :--- | :---: | :---: |
| No. |  | 25 ft | 14 c | $121 / \mathrm{c} \mathrm{c}$ |
| 6006 | $\ldots$. | 50 ft | 26 c | 24 c |
| 6007 | $\ldots$. | 100 ft | 50 c | 48 c |
| 6008 | $\ldots$. | 500 ft | 2.25 | 2.15 | 2-piece attachment of black cord, enameled handle, highly-nickeled tube, and large copper tips. Length 3 in. Weight 11 ounces. $\quad$ No. Cat. No. 2686 . WATV MODEL

Furnished With Two Removable Not too bulky for radio work. Pure copper tips Weight $11 / 2$ lbs. Cat No. 3145. 2.95 Series of
Holes in Gen. uine Copper

Ready Attachment to Any Diameter Pipe up to 2 in.
Cat. No. 1720 In Lots of $50, \$ 2.00$

6 C J,arge, highly polished nickel tube. Mahogany removable handle. 6 feet heater cord. Element wound on high grade amber, nica and steel core. Larke removable copper tip. A good torl for heavy $\$ 4.75$
work. Cat. No. 6011 . . $\$ 4$.

## ALL-PURPOSE COPPER HOOK-UP WIRE

22 GAUGE STRANDED WIRE


Contains seven tinned strands No. 29 wire, covChoice of bolors. waxed, cotron, and rubber layers 25 ft . Coil 50 ft . Coil ${ }^{10} \mathbf{~ f t . ~ C o i l ~}$ 9 C

17C
$30 c$
22 GAUGE SOLID WIRE
Same general characteristics as Cat. No. 6000 25 ft. Coil 50 ft. Coil 100 ft. Coil 9c 17c

30c
GENUINE "PUSH-BACK", TINNED COPPER HOOK-UP WIRE
Available in either RED or BLACK
No. 19 Gauge Solid $\quad$ No. 18 Gauge Stranded Cat. No. 1602
Per 100 ft . Roll
39C ${ }_{\text {Per }}^{\text {Cat. }}$ 100 ft . Roll

63c
HEAVY DUTY STRANDED WIRE NO. 14 GAUGE Conrains ${ }^{40}$ strands No. 29 copper wire. Tinned surface assures rapid
soldering. Unusually well insulated soldering. Unusually well insulated. Easy to work. Excellent for heavy 25 amperage filament wiring circuits. $\ddot{\mathrm{ft}}$ Coil No. No. 6002
ft. Coil
65c
100 ft. Coil 35C
$\$ 1.20$
NO. 12 GAUGE EXTRA HEAVY DUTYSTRANDED WIRE Contains 65 strands No. 29 Tinned copper. Insulation is strong enough to stand 10 amps . at $21 / 2$ volts. Cat. No. 6003
25 ft. Coil
ft. Coil
100 ft. Coil
48c
90C
\$1.75
NO. 20 GAUGE TWISTED PAIR
Composed of two twisted conductors. each containing 16 tinned strands No. 29 wire. Heavily rubber insulated. Excellent for filament wiring cir${ }_{25}$ fuits. Coil

## 18c

50 ft. Coil 34c
HEAVY DUTY TWISTED DUAL CONDUCTOR CABLE Excellent for A.C. filament circuits. Contains 19 strands No. 25 tinned copper wire-very heavily insulated by a layer of cotton, then seamless
25 ft . Coil 70c
$50 \mathrm{ft} . \mathrm{Coi}$
$\$ 1.40$
100 ft. Coil
\$2.50

## Shielded Lead-In

1lso Ideal for Connecting Hultio Speaker and Control Box Installaions.
Consists

## stranded

wire conper with a heavy, rubber insulation and an over-all braid of fine tinned copper wire, which serves as a shield. In general utility work, this shield can serve as one conductor? Length
Cat. No. 2069. 50 ft . 5 C
Cat. No. 2070. 100 ft . S
Cat No. 201. 500 t. $\$ \mathbf{\$ 4 . 5 0}$
Cat. No. 2072. 1000 ft. $\$ 8.50$
Window Lead-In

No Leakage Losses Assured Due to Effective Water-proof Lacquered "Feb Wocen" In. sulation Over Copper Band. 12 in. Long.

Cat. No. 1722.
4 C
Box of $50, \$ 1.40$
$\$ 2.75$ per 100
Automatic Air-Cooled Voltage Control
Air-cooled- Note ventilating screen. Designed for all types of
radio
sets. . $\mathbf{C}$. vents primary voltage from exceeding 110 , as required for safe operation.
Cat. No. 359
35c
Copper Ground Clamp With Fahnestock Clip


5c
$\left.\begin{array}{ll}\text { In single lots } \\ \text { Lots of } 50, ~ \\ \$ 1.20\end{array}\right)$ Lots of $100, \$ 2.20$
Rosin Core Solder
Cat. No. 3355.
tion can
Cat. No. ${ }_{\text {Per }}{ }^{3356}$
Cat. No. 3357
Per 5 Ib . Spool 1.90

## ELECTRIC WIRE



Available In 100 to 1000 Ft. Rolls In One Continuous Length!
Cat. No. 2937. Single cotton covered. Rubher insulated. No. 18, 1/64. Per 100 ft .
Cat No. 2938. Double Twisted (Green and Yellow) Lamp Cord. Cotton covered. Heayy
rubber insulation, Size wire, No. 18, 95 C $1 / 64$. Per 100 ft .

95C
Cat. No. 2939. Silk Covered Paralle!
colurs available.
Per 100 ft .
95C
Cat. No. 6411 . Silik Covered Twisted Lamp Cord, No. 18. 1/64. Rubber Insulated. Asst d colors available.
Per 100 ft .
Filament or All-Purpose HookUp Wire

Heavily rubber-
ized insulation on each multi-twisted strand.
ranges from size
No. 12 to No. 18.
The rubber insula-
Type "B'
ored. Now in cable form, and can be used as such, or easily uturavelled giving individual use of each vari-colored strand.

## TYPE "A"

Contains 12 conductors, representing a total of 150 inches of wire
Cat. No. 6412. Per Cable.
18c TYPE "B"
Contains 12 conductors, each one being 6 ft . long, therefore, offering a total of 72 feet of valuable wire.

90c


## Litz Wire

Ideal for Loops and High Efficiency R. F. Inductances


Brown silk covered. Exceilent for indoor aerials.

Cat. No. 6430.
Per $1 / 4 \mathrm{lb}$. Spool
$32 c$
Per Doxen
Spools
\$3.50

Speaker Extension Cords


Finest quality, flexible wire, with ample braided insulation Equipped with thone tips at both ends. Extension cord connector additional.



## Steel Core Copper Multi-

Stranded Drum Dial Cable


Cat. No. $162125 \mathrm{ft} . . .5$. 60
Cat. No. $162250 \mathrm{ft} . \cdot:$
Cat. No. 1823100 ft .. 1.0 Cat. So. 2823500 ft . . 2.75

## Genuine Phosphor Bronze Stranded Dial Cable

## Cat, No. $211510 \mathrm{ft} . . \mathrm{S}$. 45 Cat. No. $2118100 \mathrm{ft} . . .53 .50$

 $\begin{array}{llll}\text { Cat. No. } 2116 & 25 & \mathrm{ft} \ldots \\ \text { Cat. No. } 2117 & 50 \mathrm{ft...} 1.85\end{array}$Victor and R.C.A. Linen Dial Cables
Specially treated-remarkable tensile strength. and wearing qualities. Looped at each end. 23 inches long. $\qquad$ 10 C
Cat. No. 2114. ........

Highly Treated, Finest Long Fibre, Pure Japan Silk Drum Dial Cable
Used by Hammarlund on all their latest drum Used by Hammarind glazed-possesses tremendous tensile strength. Waterproof-braided hard and even-will not loosen. Surface will not wear down or frínge.
$\begin{array}{ll}\text { Cat. No. } 2104 & \text { Per } 3 \mathrm{ft} \text {. length } \\ \text { Cat. No. } 21105 & \text { Per } 10 \mathrm{ft} \text { length } \\ \text { Cat. No. } 200 & \text { Per } 25 \mathrm{ft} \text { length } \\ \text { Cat. No. } 2107 & \text { Per } 100 \mathrm{ft} \text { length } \\ \text { Cat. No. } 2108 & \text { Per } 500 \mathrm{ft} \text { length }\end{array}$ .12
.30
.60
.2 .25
8.95

## Peerless Cable Cord

Approximately $1 / 16$ in. diameter-heavily braided. Ideal ing, or cord wearing too readily.
ing, or cord wearing too readily.


Majestic and R.C.A. Drum Dial Cables
Can Be Used Trith All Drum Dials! 301/2 in. long. Very
 Cat. No. 1619.
Each
In Lots of 50
In Lots of $12,65 \mathrm{c}$. In Single Lots, 8 c each

Multi-Wire Remote Speaker or Battery Cable
Available in 3-4-5-6-7-8-9-10 Conductor Cables!
Heavily insulated, hoth individually and by virtue of an outside covering of excellent wearing
quality.
Each strand is indiquality.
vidually vari-colored, for ready illentification.

Per 100 Ft .
Cat. No.
Roll
$6+2$
6422
6423
6424
6424
6425
6426
6427
6426
6427
6428


Also Availab In 1000 Ft Roll 6.35 Continuous Length-Deduct 10\%


Contains Every Conceivable Type of W'ire Needed on a Service Job
You will find shielded wire, hook-up wire, two conductor twisted leads, sortment of No. 22 No 20 , No. 18 No. 16 wire sortment of No. 22 , No. 20, No. 18 , No. l6 wire down to a heavy No. 12 for heavy duty hlamen leads, in fact, all wire neerled for any service of radio wiring job
Cat. No. 6429.
Per Packet.
49C
Per Dozen Cartons

## Heat-Proof Cambric

Ideal for use in hot
pitch filled trans-
former cans-will not
melt even under ter-

sulator. A substitute for conmun types of fit up to So, 12 B. \& S. gatige wire.
Cat. No. 2074.
$10 c$
Per 3 ft . length. $\qquad$ .

## Hook-Up Wire Spaghetti

36 In. Long. Black.
Cat. No. 6419. Per Dozen
35c

$$
\text { Per 100, } \$ 2.50
$$

"Extra Wide" 5/16 In. Diameter Spaghetti
Will actually fully insulate No. 4 Gauge Wire! 3 ft . long each length.
Cat. No. 6420.
Per Dozen.
95c
Supreme Quality Lead-In Wire


Not to be confused with ordinary lead-in wire-. this conductor is a No. COPR'FR WIRE, heavily rubber insulated, and then covered with a durable weatherprnof fabric insulation. Strips very
easily and neatly.
$\begin{array}{lc}\text { Cat. No. } & \text { Coil } \\ 7198 & \text { Lcngth } \\ 7199 & 50 \mathrm{Ft} . \\ 7200 & 100 \mathrm{Ft} .\end{array}$

| Single | Lots |
| :---: | :---: |
| Lots | of 10 |
| 14 c | 13 c |
| 26 c | 25 c |
| 50 c | 49 c |


| 26 c | 25 c | $121 / 2 \mathrm{c}$ |
| :--- | :--- | :--- |
| 50 c | 49 c | 24 c |

## "No-Leak" Hook-Up Wire Choice of Solid No. 22 Gauge or 20 Gauge STRANDED

Costs a few cents more than cominion types of this wire, but, you are assured maximum safety wire! Double Insulated, rubber and braid corered. Tinned, 7 strand. 20 gange, Chosce of TBlack wellow, Grecn. Black, Black with Red tracer. Yellow with Black tracer Red with Black tracer, Black with Yellow tracer Cat. No.
$\begin{array}{ll}\text { 7472. } & 25 \text { Foot Coil } \\ \text { 7473. } & 50 \text { Foot Coil }\end{array}$
7474. 100 Foot Coil


As we are distributors of all types of tubes, and our stocks of same are at all times ample, you can well select us as your exclusive source of supply for any type tube. All tubes are double checked
and tested, once, tohen we receive them from its manufacturers and again, just before they are shipped. As rapidly as new tubes are produced, we will be in a position to ship such carrent models, at
proportionate discounts, as below indicated. Should your tube requirements not be covered by the listings on this page, let us know the facts, and permit us to quote you accordingly. We desire to be of SERVICE TO YOU!

Eveready

| Type Tube | List Price | Description |  |  | De Forest Audions | Arcturus <br> Blue Tubes | Sylvania Tubes | Raytheon 4-Pillar Tubes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UX112A | \$1.55 | 5.0 | Volt | Detector Amplifier | \$ . 91 |  |  |  |
| UX120 | 3.00 | 3.3 |  | Amplifier . ....... | + 1.76 | \$ $\begin{array}{r}.83 \\ 1.70\end{array}$ |  |  |
| UX171A | . 95 | 5.0 | " | Amplifier | . 55 | 1.70 .51 | 1.59 .51 | 1.62 .55 |
| UV199 | 2.75 | 3.3 | " | Detector Amplifier | 1.65 | 1.46 | 1.46 | . 1.45 |
| U X199 | 2.55 | 3.3 | " | Detector Amplifier | 1.51 | 1.36 | 1.46 1.36 | 1.49 |
| UX201A | . 80 | 5.0 | " | Detector Amplifier | . 47 | . 1.36 | 1.36 .42 | 1.40 .45 |
| UX210 | 7.25 | 75/2 | " | Power Amplifier | 4.27 | 3.85 | . 38 |  |
| UX222 | 3.15 | 3.3 | " | Screen-Grid R. F. Amplifier | 1.87 | 3.85 1.70 | 3.85 1.70 | 4.05 1.95 |
| UY224A | 1.65 | 2.5 | " | Quick Heater R. F. Amplifier | . 97 | . 8.87 | 1.87 | 1.95 |
| UY551 | 1.65 | 2.5 | " | High Gain Var. Mu. S. G. Amplifier | . 97 | . 87 | . 87 | . 91 |
| UX226 | . 85 | 1.5 | " | A. C. Amplifier ...................... | . 49 | . 87 | . 87 | . 90 |
| UY227 | 1.05 | 2.5 | " | Detector Amplifier | . 61 | . 54 | . 44 | . 46 |
| UX230 | 1.65 | 2.0 | " | Battery Detector Amplifier | . 97 | . 87 | . 87 | . 58 |
| UX231 | 1.65 | 2.0 | " | Battery Power Amplifier . | . 97 | . 87 | . 87 | . 90 |
| UX232 | 2.35 | 2.0 | " | Battery Screen-Grid Amplifier | 1.39 | 1.26 | 1.26 | 1.29 |
| UX233 | 2.80 | 2.0 | " | Battery Pentode Amplifier | 1.68 | 1.50 | 1.50 | 1.53 |
| UX234 | 2.80 | 2.0 | " | Super Control R. F. Pentode Amp. | 1.68 | 1.50 | 1.50 | 1.52 |
| UY235 | 1.65 | 2.5 | " | Var. Mu. Screen-Grid Amplifier | . 97 | . | . 87 | . 91 |
| UX236 | 2.80 | 6.3 | " | Auto S. G. R., FF. Amplifier | 1.68 | 1.50 | 1.50 | 1.53 |
| UX237 | 1.80 | 6.3 | 8 | Auto Detector Amplifier | 1.06 | . 96 | . 96 | . 98 |
| UX238 | 2.80 | 6.3 | * | Auto Pentode Amplifier | 1.68 | 1.50 | 1.50 | 1.53 |
| UX239 | 2.80 | 6.3 | " | Super Control R. F. Pentode Amp. | 1.68 | 1.50 | 1.50 | 1.53 |
| UX 245 | 1.15 | 2.5 | " | Volt Power Amplifier ............. | . 67 | . 61 | . 61 | . 63 |
| 46 | 1.55 | 2.5 | " | Class B. Amp. A. C. or D. C. | . 91 | . 82 | . 82 | . 82 |
| UY247 | 1.60 | 2.5 | " | A. C. Pentode Amplifier | . 94 | . 85 | . 85 | . 87 |
| UX250 | 6.20 | 71/2 | " | Power Amplifier | 3.64 | 3.28 | 3.28 | 3.34 |
| UX280 | 1.05 | 5.0 | " | Full Wave Rectifier | . 61 | . 55 | . 55 | . 56 |
| UX281 | 5.20 | 71/2 | " | Half-Wave Rectifier | 3.06 | 2.76 | 2.76 | 2.81 |
| 55 | 1.60 | 2.5 | " | Duplex-Diode Triode, A. C. or D. C. | . 94 | . 85 | . 85 | . 87 |
| 56 | 1.30 | 2.5 | " | General Purpose Triode, A. C. or D. C | . 76 | . 70 | . 70 | . 73 |
| 57 | 1.65 | 2.5 | " | Triple-Grid Amplifier Detector, A. C. or | . 97 | . 88 | . 88 | . 91 |
| 58 | 1.65 | 2.5 | " | Triple-Grid Super-Control, A. C. or D. | . 97 | . 88 | . 88 | . 91 |
| 82 | 1.30 | 2.5 | " | Mercury Vapor Rectifier | . 76 | . 69 | . 69 | .73 |

## Arcturus 15 Volt A: C: Tubes

| Type | List | Description | Your Cost | Type | List | Description | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | \$4.00 | Detector | . $\$ 2.12$ | 30 | \$3.00 | Power Amplifier | \$1.59 |
| 28 | 3.00 | Amplifier | 1.59 | 40 | 3.00 | Power Amplifier | 1.59 |
| 48 | 3.00 | Amplifier | 1.59 | 22 | 7.50 | Screen Grid ... | 3.97 |

## Sylvania Sparton © Kellogg Type Tubes

| Type | List | Description | Your Cost |
| :---: | :---: | :---: | :---: |
| 182B | 2.50 | Sparton A. C. Amplifier | 1.33 |
| 183 | 2.00 | Sparton A. C. Amplifier | 1.06 |
| 485 | 1.75 | Sparton A. C. Detector and Amp. | . 92 |
| 401 | 4.00 | Sparton \& Kellogg Type 3 volt | 2.40 |
| 484 | 2.75 | Sparton Type 3 volt | 1.65 |

# "COAST-TO-COAST" 50 or 60 CYCLE, 80 TO 135 VOLTS A.C: SYNCHRONOUS ELECTRIC CLOCKS 

## Accuracy Absolutely Guaranteed! No Winding! No Adjusting! Nothing To Get Out of Order! <br> OPERATING COST: APPROXIMATELY TWO CENTS PER WEEK!

Once you insert the plug into any 50 or 60 cycle A. C. Light Socket Plug, you need never
 ple involved is the same as employed by Govern-
ment bureau electric clocks, the accuracy of
which must be unquestionable! Absolutely silent in operation-absolutely safe. . . . Approved by all civic and state underwriters. The current consumption cost is too trifling to even be con-
sidered. Available in two models: one operating from 60 cycles A. C., and the other, 50 cycles A. C. Wherever not specified, we will ship a 60 cycle clock.

## Every Clock Carries a Liberal One Year Guarantee = - Should Last a Life-Time!

## Model "A" Synchronous Electric Clock

Available With Electric Bell Alarm I/ Desired


A handsomely patterned electric time piece-will improve the appearance of any room. Enclosed in a moulded bakelite case, resenbling Genuine Walnut in finish! Stands 5 in. tall, 4 in. wide, and $21 / 8 \mathrm{in}$. deep. black numerals. A flasher type indicator behind a suitable window denotes the synchronous motor is in motion. A genuine clear crystal lens further enhances the beauty of this clock. It is further equipped with a 6 ft . long rayon silk covered cord and electric plug. Stupendous Value!
\$1.49
Cat. No. 7458

## Electric Alarm Equipped Model "A" Synchronous Electric Clock

Resembles Cat. No. 7458 Electric Clock just described, but features a conventional automatic electric alarm. AN INVALUABLE FEATURE!
Cat. No. 7459
\$1.69

## Model "C" Synchronous Electric Clock

Another popular seller. Appeals to housewives who prefer a genuine wood case to a moulded bakelite one. This model is enclosed within a handsomely finished and hand rubbed genuine walnut case, measuring $9^{1 / 2}$ in. long and $51 / 8$ in. tall. Its rugged and irregular pattern dein. tall. is highly pleasing. The dial surface is sign is highy pleasing. The dial surface is
 beauty is appropriately: offset by a gilt bezel beauty is appropriately oftset by a git bezel of its synchronous motor, encirching inconspicuous flashing indicator window is provided on the dial an almost inconspicuous ftasheng is included as is a 6 it . long rayon silk suriace. Alectric cord and socket plug attached.

Cat. No. 7461

## Model "E" Kitchen or Wall Synchronous Electric Clock

Housewives throughout the nation acclaim this electric time clock as the kitchen's most important necessity Can be hung against the kitchen wall very readily. It is enclosed in a WHI and is available in a choice of hithly enameled colors The diameter of $61 / 4 \mathrm{in}$. makes the embossed numerals from any distance in a room, the embossed numerals showing up nicely from the bun colored dial suriace Equipped with a flasher type indicator, durable 0 silk VEX CRYSTAL LENS, and a 6 ft . long rayon silk covered electric cord and socket plugl
Choice of Blue-Green or Ivory Gloss Enamel!
\$1.85
Cat. No. 7463


## Model "G" Easel Rest Novelty Synchronous Electric Clock

Intended for use on dressing tables, desks, mantel pieces, etc., where the ieature ot supporting the clock on an easel is in good taste. (The easel rest is not visible in the illustration herewith.) A highly nickel plated metai case, measuring 7 in . tall, 5 in . wide, houses this metalue clock. The black numerals and buff colored dial surface are a pleasing combination, assuring ready visibility from a distance. A fine piece of clear crystal lens of ample thickness, a flasher movement type indi cator and a 6 ft . long rayon silk covered electric cord nocket plug is included

Choice of Blue, Green and Pink
\$2.25

## Model "B" Synchronous Electric Clock



A faithsul reproduction in style of a clock design that bas been a favorite for hundreds or years. Enclosed in a genuine rubbed mahogany wood cabinet, fitted with hand some walnut over-lays. Its soft beauty will well deserve your warm praise! Gen erously proportioned, measuring 14 in. long, by $51 / 2$ in. tall. The scale surface is rich aluminum offset by an attractive gilt bezel. The conventional flasher type indicator shows the clock mechanism in operation. A substantial convex erystal lens enlarges the dial numerals. Fitted with a 6 ft . long rayon silk covered electric cord, and socket plug.

Here Is Value Plus

## Model "D" Commercial Synchronous Electric Clock

Mainly intended for use in offices, stores, institutions, factories, sales windows, etc., etc., where a substantially sized clock is necessary. Enclosed in a richly f.nished, hand rubbed MAHOGANY wood frame, measuring $151 / 4$ in. square. Its numerals and arms are so large that they can be readily read at great distances! The dial surface itself measures 14 in. square and is made of WHITE ENAMELED ZINC There is included a flasher indicator and a double
covered electric cord and socket plug. Can be universally mounted.
Cat. No.


Cat. No. 7462................

## Model "F" Non-Alarm and Alarm Synchronous Electric Clocks



An intricately patterned design of rare beauty, available in a choice of black or green crackle finish. The metal case is formed of durable die-cast white metal, handsomely engraved. This clock stands $51 / 2$ in. tall, $41 / 2 \mathrm{in}$. wide and $23 / 8$ in. deep. Its dial suriace is buff finished and offers a contrasting relief to. the set black numerals. There is included a hasher typens and a long motion indicator, a heavy clear crystal lens and a long wearing quality rayon silk covered electric cord and socket plug.
Cat. No. 7464.
NON-ALARM MODEL
$\$ 1.65$
Electric Bell Type Alarm Model
6"9
$\$ 1.95$
Cat. No. 7465

## Model "Hי" Synchronous Electric Clock

 Available in Alarm and Non-Alarm Types NO SPRINGS. No Winding. Continuous Correct Time. Guaranteed to keep the same accurate timealways to the second-just as any of the nore expensive clocks. Derives its motive power direct from the electric circuit. All you do is plug cord into any convenient electric light socket, 60 Cycle, 100 to 135 Volt Regulated Alternating Current. Economical, consuming approximately two watts costing on an average of less than one-third of a cent per day. Equipped with a 5 foot cord with plug. Size $41 / 2$ in. high, $31 / 2$ in. wide, $21 / 8$ in. deep. Furnished in Green Pastel Enamei.Cat. No. 7467. Non-Alarm Model...... $95 C$


Electric Alarm Model "I"
Cat. No. 7468
$\$ 1.95$

## $\frac{20}{2 c \mid}$

RCA-Radiotron And

(and

The House of "Coast-To-Coast" Strongly Urges Their Dealers to Concentrate on the Exclusive Sale and Use of RCA Radiotron and Cunningham Radio Tubesyou will accordingly build Good-Will Thereby!
Supply Them With RCA RADIOTRON and CUNNINGHAM Tubes-TO-DAY THEY COST YOU NO MORE: The RCA or Cunningham Liberal Replacement Guarantee Assures Your Protection!


## RCA UX-112A

CUNN. CX112A

Detector-Amplifier
Dealers
Cost

RCA UY-224A CUNN. C-324A (Replaces UY-224 and C-324-the, present series "A" series are faster heaters.) Screen-Grid R. F. and A.F. Amplifier Dealers Cost 97C
RCA UX- 120
CUNN. CX-220

Power Amplifier Dealers
Cost $\$ 1.76$

RCA UX-226 CUNN. CX-326
R. F. and A. F. Amplifier
Dealers
Cost

| RCA 234 |
| :--- |
| CUNN. CX-234 |
| D. C. Screen Grid |
| Pentode R. F. Amp. |
| Dealers |
| Cost |$\$ 1.65$


| RCA 247 CUNN. C-347 <br> Pentode Power Amplifier |  | RCA 46 CUNN. C-46 <br> Class "A" ard "B" <br> Power Amplifier |  | RCA 56 CUNN. C-56 <br> Standard UY Socket Detector-A. F and R. F. Amplifier and Oscillator |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Dealers Cost | 9 | Dealers Cost | 91 c | $\begin{aligned} & \text { Dealers } \\ & \text { Cost } \end{aligned}$ |


$\left.\begin{array}{|cc|cc|}\text { RCA UX-250 } \\ \text { CUNN. CX-350 }\end{array}\right)$ RCA 852

RCA 57
CUNN. C-57
Six Prong ScreenGrid Short-Fave R. F. AmplifierDetector
Dealers
Cost 97 C

| $\begin{aligned} & \text { RCA UX- } 280 \\ & \text { CUNN. CX-380 } \end{aligned}$ |  | $\begin{aligned} & \text { RCA } 864 \\ & \text { CUNN. CX-864 } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: |
| Full-IF ave Rectifier |  | Amplifier-Detector |  |
| Dealers Cost | 61 c | Dealers Cost | \$1.61 |

RCA 58

CUNN. C-58 Six Prong Variable Mu R. F. Amplifier -1st "Super" DeDealers
Coctor $\quad 97 c$

RCA UV-199, -199 CUNN. C-299, CX-299 Detector-Amplifier DealersCost $\$ 1.65$ DealersCost $\$ 1.51$

| RCA UX-281 CUNN. CX-381 |  | RCA 865 |  | $\begin{gathered} \text { RCA } 55 \\ \text { CUNN. C-55 } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| H | ave <br> er | $\begin{array}{r} \text { S. } G . \\ F . \end{array}$ | and $R$. <br> plifier | Duo $D$ tor, Tri Volun | DetecAmpli natic ntrol |
| Dealer <br> Cost | \$3.06 | Dealers Cost | \$13.22 | Dealers <br> Cost | 94 c |


| RCA UX-201A | RCA 231 | RCA 238 |
| :---: | :---: | :---: |
| CUNN. CX- | CUNN. CX-331 | CUNN. C-338 |
| 201A | D. C. Pover | D. C. Pover |
| Detector-Amplifier | Amppifier | Amplifier |
| Dealers Cost 46C | Dealers Cost 97C | DealersCost $\$ 1.65$ |


| UNN. C-82 | $\begin{gathered} \text { RCA } 866 \\ \text { CUNN. C-366 } \end{gathered}$ | $\begin{gathered} \text { RCA } 83 \\ \text { CUNN. C-83 } \end{gathered}$ |
| :---: | :---: | :---: |
| Full Wave Mercury Vapor Rectifier | Half-Wave Mercury Vapor Rec- | Full-Wave Mercury <br> Rectifier |
| ealersCost 76 | 2 | $\text { alers Cost - Less } 40$ <br> and 2\% from List |

RCA 83
CUNN. C-83
Full-Wave Mercury Rectifier
Dealers Cost - Less 40

RCA 210 CUNN. CX-310
Power AmplifierOscillator
Dealers
Cost $\$ 4.27$
RCA UX-222 CUNN. CX-322 Screen Grid R. F. Amplifier
DealersCost\$1.86

RCA 232 CUNN. CX-332
D. C. Screen Grid R. F. Amplifier $\underset{\text { Cost }}{\text { Dealers }} \mathbf{\$ 1 . 3 9}$

RCA 239
CUNN. C-339
D. C. R. F. Pentode Amplifier Dealers
Cost $\$ 1.65$

| RCA UX-841 CUNN. CX-841 <br> Oscillator-Power Amplifier <br> For Class "A" " "B" - | CUNN. CX-868 |
| :---: | :---: |
|  | Photo Tu |
|  | D |
|  |  |

$\left|\begin{array}{cr}\text { RCA } & \text { UX-245 } \\ \text { CUNN. } & \text { CX-345 } \\ \text { Power } & \text { Aniplifier } \\ \text { Dealers } & \text { 67C } \\ \text { Cost } & \end{array}\right|$

RCA 233 CUNN. C-333
D. C. Pentode Amplifier Dealera 2 ast $\$ 1.65$

RCA 235
CUNN. C-335
Super Control Screen-Grid R. F. Dealers
Cost 97c

RCA 55 CUNN. C-55

Duo Diode DetecThore Ampli fier, Automatic
Volume Control

94c

RCA 85 CUNN. C-85 Similar to 55 But Intended for 6 Volt Auto Sets Dealers Cose - Li'ss 40

RCA 89 CUNN. C-89
Class " $A$ " and " $B$ " Pentode for Auto Dealers Cost - Less 40
R.C.A. and Cunningham Full Wave Mercury Rectifier Tube Series 83


Supplies large currents with minimum of tube voltage drop. Ideal for use in Class " $B$ " amplifiers.

## CHARACTERISTICS:

Filament: 5 Volts, at 3.0
Amps. Plate Voltage: 500 R.M.S. Current: 300 Mils.
Approximate Tube-Voltage Drop:
99C

588 Full-Wave Mercury Vapor Rectifier
Replaces $2-281$ 's-Can alsin be used to replace -
Fil. Volts 5.0 ; Fil. Amps. 2.0; A. C. Voltage per Plate R. M. S. 500 ; Has a U.X llase. Same Physical ize as a 280 .
Cat. No. 5526. Mercury A. C. Transformer is designed for use rmarkable tube.
\$2.95
Cat. No. 5195
Cat. No. 5196. DOUBLE-AC'1ON SWITCH, lrolongs life of above ube-autmatically turns on its FILAAENT befor OLTAGF $1 S$ \$1.45


## De Forest Transmitting Tubes

Cat. No. 6549. Type 510-15 Watt Oscillator. Specially treated plate gives high plate dissipaion. No "creeping." High voltage breakdown. l.ow leakage. Ideal for crystal $\$ 4.20$ control oscillators.
Cat. No. 6550. Type 511-50 Watt Oscillator. R.F. Amplifier, Modulator or R.F. Power Amplifier. Indeed a general purpose
tube ................................. \$15.00 Cat. No. 6551. Type 503-A-50 Watt Oscillator and R.F. Power Amplitier. The $\mathbf{\text { standard }} \mathbf{~ \$ 5 0 ~ w a t t e r . " . . . . . . . . . . . . . ~} \mathbf{\$ 1 0}$ Cat. No. 6552. Type 545-50 Watt A. F. Ampliner and Modulat.
an Oscill
Amplitier
\$15.00
Cat. No. 6553. Type 552-75 Watt Oscillator and R. F. Amplifier. Low internal capacity hetween elements. Low "frequency $\$ 23.00$ shifting

 qutires no neutralizing
$\$ 35.00$
Cat. No. 6555. Type 560-75 Watt Screen Grid R.F Amplifier. Exiremely low control gria-plate Gpacity. Requires no
neutralizing
\$35.00
Cat. No. 6556. Type 575-"Intermediate size hot cathode nercury vapor rectifier. Designed power is required. Rated 12500 volts inverse lieak and 2.5 amperes peak cur rent. $\mathbf{\$ 3 0 . 0 0}$
Filament 5 volts, 12.5 ampleres....

$$
\begin{aligned}
& \text { All Other Types Available- } \\
& \text { Up to } 10,000 \text { Watt Tubes !! }
\end{aligned}
$$

6.3 Volt D.C. or A.C. Low Consumption Tubes
Ideal For Sound Truck and Auto. Use Type $41 \times$ Power Amplifier Pentode 6.3 Volts at 65 Anins. Plate Voltage, 110 to 180 volts. 10 to 16 mils. plate current. Amplification Factor .65-1.2 watis.

## Cat. No. 6559

ntode
6.3 Type $42 \times$ Power Amplifier Pentage: 250 Plate Current: 34 mils. Amplification Factor ${ }^{2} 20$. Undistorted Output: 3 watts. Cat. No. 6560.
\$1.54
Type 44 Screen Grid R. F. (and A. F.) 6.3 volts, at 3 amps. Plate Voltage: $9 n 10250$ Plate current: 6
tor: 152 to 6.30 .
Cat. No. 6561

The Ideal Tube for 250 Public Address Amplifiers
Type 871 ( 866 Type) HalfWave Mercury Vapor Rectifier Two of These Tubes Can Be Substituted For 2-281's! Radiate Considerably Less Heat!

Maximum Peak Inversw Voltagm-5000 Volts Maximum Peak Plate Current-300 Mils. Approximate Tube oltage Drop- 15 Volts FILAMENT VOLTAGE: 2.5 VDLTS
FILAMENT CURRENT: 2.0 AMPS. FILAMENT CURRENT: 2.0 AMPS. Due to the low filament wattage re
quired by this remarkable tube, it is the most economical mercury vapor rectifier obtainable.
Two of these tubes may be operated in series from a 5 -volt winding as the total filament current and voltage of the two tubes in series is equal that of a 280 type tube. Filament and plate current may be applied at the same time. Unusually compact-only, $13 / 4$ in max. diameter, and 5 in height over-all above the UX prongs. Approximately the same size as a 227 . We recommend that you use these tubes in conjunction with the $871-588-866$ Type A. C. Power Trans former, our Cat. No.
this catalog.
$\$ 2.95$
R.C.A. 866 Half-Wave Mercury Vapor Rectifier Specifications amps. Ma- Pcal Inverse Voltange. 7500 . Max. . Peak Plate Cur
rent: 600 mils. A Prox. Voltage rent: 600 mils. Approx. Voltage
1)rop: 15 . For Full-Wave Rectitication, two of these equired.
Cat. No. 6544
$\$ 6.30$
"COAST-TO-COAST"

## Mercury Vapor Rectifiers

Type 866 Half-Wave Rectifier Filament Voltage: 2.5. Filainent Current: 5.0 amps. Plate Volts Inerse Peak: 7500. 1Plate Current: 0.6 amps. ( 600 mils.). Voltage Droos 12
\$3.75


## Type 881 Half-Wave Mercury Rectifier

Filament Voltage: 7.5. Filament Current: 1.25 Current Peak 400 om. a. $\quad \mathbf{\$ 3 . 9 5}$ Cat. No. 6546 .

Type 872 Half-Wave Mercury Rectifier
Filament Yolage , 5.0. Filament Current
 Cat. No. 6 5477.

Type 875 Half-Wave Mercury Rectifier
Filament Volagge: 5.o. Filianent Curent: 10.0 amps. ipate Polts inverse Peak: 15000 . Mlate
urrent Peak: 2.5 anns
$\$ 25.00$

0

## Wunderlich Tube

Dual grid detector and automatic Folume control in one: Produces double the amount of distorion free youme. Can be used with anyy

 tilering required. Its. output is towerful enoush to bc fed to any power output stage tube, or tubes. SPECIFICATIONS:
Filamen: 2.25 volts, 1.0 A.mp. Amp plifation Factor: ${ }^{12}$. Phate Cur rent: 2 to 5 mils, Choice of 5 rrong base (witit tube app cathode terminal) or 6 prong base. Plate volage: 180 to 250.94 C
Cat. No. $6557 . . . . . . . . . . . . . . . . . . . . . . . ~$


Speed "Triple-Twin" Tube

1Actually 3 Tubes In One! Gives iriple the nutput of a 245 , (or the output of $1-250$ !) and voltare a rentode at equal plate tubes tute plate potential: 180 to 250 volts. Filament voltage. 2.5 volts +0 amps. Fxplicit diagrams furnished 5 jrong I. Cat. No. 5689

Television Receiving Lamps Features: Striking Voltnge 100. Minimmm Current to cover plate 5 Mils. Resistance 1000 Ohms in Fernal Prone Bakelite Base Prong Bakelite Base. Plate Area 1 in square cathode. Overal
$\mathrm{X} 31 / 2$ in.
Cat. No. 5272.
\$3.90
Cat. No. 5273. i $1 / 2$ in. square $\$ 4.41$

## Photo-Electric Cells

Gas-filled, potassium nagnesium type, eniploying a suecial setoback anode to increase its output. Its fairly low ionization joint reduces battery noises to a minimum, The bases are of Bakelite UX + Prong Type.
Cat. No. 5274.
4 in. long.
$\$ 4.50$
Caisium Photo-Electric Cells Conccled to be sup photo-electric cell
$\$ 6.90$
$\$ 9.00$
Rectifier Charger Bulbs

Cat. No. Type
2980. 6/10 Amp. Trickle
2981. 2 Amp. Old Type
2982. 2 Amp. New Type.
2983. 6 Amp. Reg.
5690. Raytheon B. H

## 110 Volt A.C. or D.C. Neon <br> Glow Lamp

Standard screston base. Note divided
 plates-both lirht on A C only one lights on 1). C. Excellent for continuity tests-purchase a pair of test prods, and wire them in series with your house current and this lampthe glow will indicate the approximate
resistance in the circuit, or, not glow resistance in the circuit, or, Not grally, no resistance in the circuit, the lanp will glow full strength. Also used for testing resonance in speakers-sone experimenters devise Television applications with them. Height above Cat No 5277

95c
Amperite Automatic Line Voltage Control For All Sets
The proper AMPERITE for any 110-120-volt Transformer Primary can be approximated by the following chart
2.'45's (or Pentode)*
${ }^{7}{ }^{7} 45$ to (or Pentode)*
1-'45 (or Pentode)*

6 to $9 \dagger$
1-210*
6 to $8 \dagger$
7 to $10 \dagger \ldots$ (use 2) 9-A-5
Output tubes in set
$\dagger$ Total No. tubes in set
Cat. No. 5069.
Your Cost, Each
Special Adapter
NOTE: Special amperites for sets they were designed for also available.

## Here Is the Radio Set of Tomorrow to Suit the Purse of Today!

"Coast-to-Coast", Jr. Model $\overline{5}$ Tube Triple Grid, Super Control Pentode A. C. Midget Receiver Require 2-58 Triple Grid Super Control, 1-57 Screen Grid, 1-247 Pentode and 1-280 Rectifier Tubes!
Mass production has enabled this receiver to be sold at a low price far out of line with its actual worth, comparing it rightfully with larger and considerably more expensive receivers. The requisites that go to make for complete satisfaction are offered in full measure by this triumph of modern Radio engineering brains and mechanics.
Featuring satisfactory periormance, stability, ease of operation and inconsequential operating cost. Illuminated dial-individually compensated section variable condenser. Fully shielded throughout-all sockets plainly marked. Air cooled A. C. Power transformer Electrolytic condensers Volume Control and selfcontained A. C. Switch. Attractive Cabinet. True Reproducing Utah Dynamic Speaker. Volume enough to warrant keeping it under control. Selectivity and sensitivit" that will delight you.. in short, here is a receiver to warrant your complete approval! For 110 volt $50-60$
\$11.95 $\begin{gathered}\text { Cat. No. } \\ \text { ningham } \\ \text { Thubes }\end{gathered}$
$\$ 4.26$

Dumont "Hum-Free" Latest Model 6 Volt "A" Eliminator

## Equipped for satisfac-

 tory service for sets using up to eight 6 volttype tubes. Absolutely type tubes. Absolutely acic, Guaranteed to lie absolutely quiet and gives "a, constant supply any hum. Eurrent without stall and simple to operate. 110 vo
Cat. No. 438 ,

\$8.95
Dumont "A" and "B" Eliminator "Aonc-Dry. Furnishes 6 volts (at $21 / 2$ amperes) tuhes, and ample " $\mathrm{B}^{\prime}$ " voltage (several intertuhes, and ample " $\beta$ " voltage (several intermedtate voltages provided). Humless and Quiet. 110 A. 2.
Cat. No. is 57. .
\$14.75
280 Tube, 50c Additional
R.C.A. Speaker Filter

Connect across any voice soil4


When connecteci across any voice coil from 1 to 20 ohms this filter eliminates all scratch noises and all interfering high frequency signals picked up by the speaker cable. Contains a 250 micro henry inductance and 600 volt condenser Cat. No. 7603

Replacement Phosphor Bronze Condenser Drum Dial Belts

Cables and Cords for All Receivers

| Cat. No. | SET | Our Price | Per Dozen |
| :---: | :---: | :---: | :---: |
| 3308 | Atwater Kent belts, Models 35-37-40-41-42-43-46-51-52-53- |  |  |
| 3309 | 55-56-61 (short and long). | 30 c 20 c | $\$ 8.25$ 2.25 |
| 3310 | Balkeit cabl | 30 c | 3.25 |
| 3311 | Bosch Model 58a | 30 C | 3.25 |
| 3312 | Bosch Model 48 | 25 c | 2.75 |
| 3313 | Bosch 28 | 25 c | 2.75 |
| 3314 | Bosch 58. 60 | 30 c | 3.25 |
| 3315 | Colonial Belts, Models 31 -32 (complete with spring screw and bolt) |  |  |
|  |  |  | 3.75 |
|  | $60-S_{:} 804$ | 30c | 3.25 |
| 3317 | Crosley Model 601-602-607 | 30 c | 3.25 |
| 3318 | Einerson cable Model 8-2-F | 30 c | 3.25 |
| 3319 | Freed-Eisemann Belts, Model |  |  |
|  | N.R. 60 | 30c | 3.25 |
| 3320 | First National | 30 c | 3.25 |
| 3321 | Freshman Model | 30 c | 3.25 |
| 3322 | Grebe SK4 Cable with Spring | 20c | 2.25 |
| 3323 | Kolster | 18c | 1.95 |
| 3324 | Majestic 52, 60 | 20c | 2.25 |
| 3325 | Majestic Band Model, 70-71- | 25 c | 75 |
| 3326 | Philco, All Models | 25 c | 2.75 |
| 3327 | R.C.A. 16. $17,18,33$ Linen | 60c | 6.75 |
| 3328 | R.C.A. dial cable, Models 17 - |  |  |
| 3330 | R. C. A. 64,67 (very heavy phosphor bronze wire) complete with connector | $30 c$ $\$ 1.00$ | 3.25 10.50 |

Machine and Wood Screws 10 of a Size in an Envelope


MACHINE SCREWS
Choice of Round, Flat or Oval Head Cat. No.
2664
2665
2667
2667
2668
Per pkg.
of
12
10
pkgs
7 c

## WOOD SCREWS

Choice of Round, Flat or Oval Head
Cat. No.
Length Size
2670

2673
2674
7c
Per pkg
.70c
Machine \& Wood Screw Assortments
Each Box Contains 85 Screws, $3 / 3,1 / 2,3 / 4$, and

1 in. long

## A ACHINE SCREWS

Cat. No. 'ご̄5. Ass't Round Heads ........ . 35c
Cat. No. 2676. Ass't Flat Heads . ............ 35 35c
Cat. No. 2676. Ass t Fat Heads
Cat. No, 2678. Ass't Round Heads ( $8 / 32$ ) .... 45c

## Wood Screws

$1 / 2$ and $8 / 4$ inches long
Cat. No. 2679. Ass't Round, Flat, and 35c
Oval Heads.............................$~$
SPECIAL OFFER: One each of
the 5 Assortments above listed
$\$ 1.35$

## "COAST-TO-COAST" SIX TUBE TRIPLE SCREEN GRID PENTODE PUSH-PULL AUTOMOBILE RECEIVER

Uses 3-236, 1-237, 2-238 New Series Automobile Tubes

Equipped with REMOTE CONTROL and DINAMIC SPEAKER

Can Be Installed on the Steering Post or Anywhere In Any Car by Any NoviceJust a Few Screvs To Tighten! ExtraOrdinary Performance, Exquisite Tone and Remarkable Volume Compares Favorably with the Average Set for Home Use

Smallest ever designed for motor car use. The ingenious layout of the chassis provides all necessary shielding. "Miles Ahead" in Automobile Radio Design, Tone, Volume and performance. Draws its "A" current from the storage battery of the car. " $B$ "" or plate current, is obtained from large. dry " $B$ " batteries or from Auto " $B$ " eliminators listed elsewhere in this catalog. Voltages from " $B$ " batteries are divided within the set and each learl is filtered to prevent interstage coupling. The standard equipment furnished inn; cludes a steel case for the housing of the " $B$ " batteries. This case. fastened out of sight is easily removed for occasional


This view shows a suge 3 ted installation. You can of course mount the squip. ment anywhere in the car to sait the conveniences that suggast $^{\text {ung }}$ themselves. Any novice can install this remarkable Auto Receiver the car in doing so!
inspection and change of the batteries if desired, or a " $B$ " eliminator can be fastened within this case. Requires four 45 -volt " $B$ " batteries. The "C" bias is automatically taken care of within the chassis. There are only four, weatherproof and shielded cables to attach, two for the " $B$ " batteries, and two for the storage battery within the car. The Utah dynamic speaker (with 8-inch diameter cone!) is equipled with a four prong, readily removable plug and cable-two leads take care of the receiver output, and two are for the 6 -volt field current supply. All " $A$ " and " $B$ " battery leads are appropriately by-passed and

## Employs Remote Control Principle

## She Utah remote Tuning and Volume Contro

 and Lock-Switch-not much larger than a cigar ette box ( 4 in . long, $23 / 2 \mathrm{in}$. wide)-is best at. tached to the steering post and from there effectively controls, tunes and operates the set. no matter where the set itself may be located. Con nection between the control and the set is marle by a flexible shaft. This shaft is supplied with standard equipment A key lock for filament control is included-two keys furnished.
## Remarkably Compact

The receiver case measures 10 in . long, 6 in . wide, $51 / 2 \mathrm{in}$. high. The battery case measures 13 in . long, 9 in . wide, 8 in. high. The dynamic speaker is 10 in . high, 10 in . in diameter, 4 in . deep. A clever mounting bracket on the dynamic spealier provides for universal mounting facilities anywhere in the car
Cat. No. 7602, Fully Assembled. Ready for Immediate Use
$\$ 32.50$
Complete With RCA 'rubes and Auto Receiver in Metal Case, Metal "B" Bat tery Case, Remote Control and Shaft, Dynamic Speaker. Spark Plug Suppressors, Two Filter Condensers, and All Necessary Mounting Clamps.

# R.C.A. LICENSED "COAST-TO -COAST" 8 TUBE SINGLE TUNING DIAL ALL-WAVE 10 TO 550 METER AUTOMATIC VOLUME CONTROL A.C. SUPER-HETERODYNE RECEIVER 



This One Chassis Illustrated is Entirely Self-Contained and Covers 10 to 550 MetersAbsolutely No External or Auxiliary Apparatus Required!
Employs Latest Design R.C.A. Tubes: 1-56, 2-57, 3-58, 1-247, 1-280
able receiver-this apparatus is built for the masses, although any trained Radlo Engineer could want for on finer machine:
Modern Perfection of Radio Set Construction Has Made Possible This Most Compact Assembly!
A few years ago, were it possible to have built a receiver of its scope, the progress of radio set construction then could not have permitted the erection of this receiver on a smaller chassis than possibly 24 in, long-conpare that to these di-
mensions: $131 / 2$ in. long, $101 / 2$ in. deep and $81 / 4$ mensions: $131 / 2$ in. long, $101 / 2$ in. deep and $81 / 4$
in. hight Yet, there has been no crowding of parts, and no losses incurred or any sacrifice of elfficiency, drue to this remarkable engineering
achieventent The Chassis itself is made of achieventent I The Chassis itself is made of
durable, heavy, cadmium plated steel, with alt parts most securely mounted. An exclusive feature is the priniciple employed of anchoring the variable condenser on a three point rulber mounting, to preserve the alignment of plates, and inci-
dentally preventing any microphonic showis, Its careful design permits its use, under any clinatie conditions-excellent for use in the trop.
ics, where short-wave reception is highly desired.

Employs a Poverful Array of TubesEach One Functioning To Its Utmost! The Tubes used include one 57 screen. grid first Super Control Intermediate frequency amplifiers, Super Contron
one 56 diode detector which also acts $2 \approx$ the ontomatic volume control unc, one 58 vaiinhlemu controlled audio amplifier, one 247 pover pentode output aube, and one 230 full-wave rectifer. Note the fact that a
stitutes the $v$ variable Mu conAmplifier. Y will be amazed by as a the tremendous degree of volume produced in the a. f. amplifier, and the qualily of its reproduction will thrill you with its sheer realism! To insure the sensational results that this remarkable receivcr is capable of,
we sincerely
recommend that you purchase the Matched Electro-Dynamic Speaker listed herewith.

The Most Modern and Effective Form of Automatic Volume Control Is Utilized Many other features are incorporated in the desizn and construction of this chassis. One of these is a method of using a portion of the voltage generated in the radio frequency automatic
volume control, to govern the audio amplification This prevents all possibility of overloading the receiver and reluces distortion to a bare minimuin, thus providing a remarkable degree of au-
tomatic volume control. ${ }^{\text {nn }}$ addition, the autotomatic volume control. In addition, the auto-
matic volume cointrol is so proportioned that the receiver is tuned accurately and easily without an Indicator or meter. An intermediate frequency of 507.5 kilocycles insurcs proper image The quality
The quality of reception obtained is shown by the fact that the fidelity is essentially flat over an
audio range from 50 to 4000 cylles. The sensitivity is better than 6 microvolts, while the selectivity is in the order of 10 kilocycles. These stock model chasses are designed for use with are available- $25 \%$ additionall)

Volume Sales Alone Account for These Exceptionally Low Prices!

|  |
| :---: |
|  |  |
|  |  |
|  |  |

Special Combination Offer If you purchase AT ONE TIME, Cat. No. 520 Chassis, Cat. No. 5722 Tubes,
and Cat. No.
s.7.


Portable 8 Tube Super-Heterodyne and Permanent Magnet Dynamic Speaker
Employs the Same Chassis as Described to the Left


The super ket herodyn described is described is designed to
accommodate accommodate sion tuning dial in place mote control
mechanism. Dry cell 230 Two Volt series are employed, viz. $2-233$ 3-234, 3-230 tubes, which require Two Volts A, obtained from two $11 / 2$ volt dry ceds, and, $90-135$ B' batteries. There is also required $13 \mathrm{t} / 2$ volts "C," furnished by a small $221 / 2$ volt tapped " C " battery. All these batteries can be stored comfortably within the rear of the chassis.
A volume control and battery sw'tch. tone control and full vision dial knob corrtrise simple but fully effective controls. The handsome lez h long, 10 in . wide, and 11 in. high. long, No 5750. Fully Assembled. Explicit wiring diagrams furnished. Unvired. Portable Case, but I ess Tubes and $\$ 34.30$ Cat. No. 5751. Same as s3t. No. 44.50 5750, but Factory Wired.
\$44.50 Cat. No. 5752.
ham
Tubes. Cat. No. S5. . 573.
Magnet
Dynamic $\begin{gathered}\text { Jensen Permanent } \\ \text { Speaker........... }\end{gathered} \mathbf{\$ 7 . 9 5}$

Produces 7 WATTS UNDISTORTED OUTPUT

## Employs Recently Released R.C.A. Tubes: 4-58, 2-56, 1-55, 2-247, 1-280

 Absolutely Attains Perfect 10 K. C. Selcctivity and Produces Tremendous Volume-Free of Distortion and Possessing Remarkable Fidelity of Reproduction! Band Pass Filter, Super-Control Triple Grid First Pouer Detector, Combination Duo Diode 2nd Detector-Triode Amplifier and Automatic Volume Control, Resistance Coupled Ist A.F. Audio Stage, 7 WATT Output Push-Pull Pentode Amplification.

Incorporates Every Known Circuit Improvement of Advantage. Modern Chassis Construction and Carefully Engineered Layout Assures Maximum
Performance
The simple plans and diagrams included will entable any urvice to success fully, wire this re-
markable receiver-and its performance will markable receiver-and its piperformance will
equal that of any factory buit chassis. THE LABORATORY CONSTRUCTED MODEL is of course without doubt one of the finest Radio Receivers available-it is shipped ready for 1 M MEDIATE USE! Visual Meter. Tuning: By watching the deflection of the indicator, you are automaticaily apprised when Perfect Resonance has been established-invaluable for elimi. nation of distortion and as an Automatic Volume Control. Maintaits e eluation of volunue, not
exceding a cerains derree to suit your tastes exceeding a certain degree, to suit your tastes your enjoyment of Radio! Push-Pull Diode Detection: Completely rectifies poth carrier hands, pernititing greater detection action. Mraterer sensi,
ivity
ine nates any distortion from creepink into the audio amplifier circuits! it is indeed an invaluable feature! In addition to serving as a DTODF

AMPLIFIER and
UME CONTROL.

## Circuit Features

Unlike many other "supers", this model utilizes a Four Gang variable condenser with one special oscillator "tracker" section. The circuit comFrises a valuable and fully effective Band Pass Filter R. F. Antenna Stage, requiring a 58 Super Control Triple Grid Tube, this is followed 58 Mixing Tube and Linear Power 1st Deetector, then follows three accurately Laboratory Peaked 175 K . C. I. F. Transformers, coupled to two more 58 tubes followed by a 55 DUO DIODE Push-Pull Linear Second Detector. The signal
is so tremendously amplifed by this time that it is so trimendously anmplified by this time that it
could be fed directly into $2-247$ Super P 'ower could be fed directly into ${ }^{2-247}$ Super P'ower
Pentode tubes in Pusll Pull. ${ }^{\text {However, a }} 56$ Pentode tubes in Pusle Pull. However, a 56
Resistance coupled Stage (1st A. F.) is introduced between the 55 and the 247 's. for the purpose of actually producing 7 Watts of Undistorted Volume, more than enough to suffice for any fair sized auditorium!

## Study These Vital Improvements!

Sturdy cadmium plated chassis. 18 in . long, 10 in. Wide. and $8 / 2$ in. tall. The conirols consist of a Tone Control with self-contained A. C. Line Switch, and Automatic Volume Control with selfcontained Phono-Radio Switch, and a single vernier illuminated dial, of the latest Traveling "Ghost-Light" design (or any other type dial to suit your tastes! ). These following features are included in addition to thase previously men.
tioned: Two Piece Ventilated Aluminum Tube tioned: Two Piece Ventilated Aluminum Tube
Shiclds, Massive Heavy Duty $50 \%$ Over Safey Factor A. C. Power Transformer, Filter Condensers, Filter Cho ies. Voltage Dividers, etc. high shiclded, individually compensated slit end plate variable condenser; 5 prong D. C. Dynamic Speaker Outlet, Jack for Additional Dynamic Speakers (A. C. Type); Multiple Power Supply Filtering, extremely short R. F. leads, heavily by-passed and filtered; Safety fuse Protective Block; Sangamo Input Push-Pull Transformer, no crowding of parts: shielded inductances; accessibility to all wiring, etc., etc. Fits the console listed here, or any standard cabinet you console listed here

Furnishes D. C. Field Excitation to Your Choice of a JENSEN, WRIGHT DE COSTER or R.C.A. 1000 ohm. MATCHED D. C. DYNAMIC SPEAKER:

## Model A-38

Cat. No. 7132. Fully assembled, but $\$ 29.50$
Unwired. Less Speaker and Tubes . $\$ \mathbf{y}$
Cat. No. 7133. Laboratory Wired. \$37.50
Cat. No. 7134. Set of 10 R.c.A...... Tubes, $\$ 8.82$
$4-58,2-56,1-55,2-247,1-280$ $4-58$, 2-56, 1-55, 2-247, 1-280 Cat. No. 7135. Jensen $111 / 2$ in. Diameter "Concert" Matched Dynamic
$\$ 7.95$
Cat. No. 7136. WRIGHT DE COSTER MATCHED DYNAMIC $\quad$ SPEAKER.....................$\$ 4.50$ Cat No. 7137. R.C.A. Improved MATCHED DPEAKER
$\$ 19.50$

## Attractive Walnut Six-Legged Console <br> Separately Available If Desired!

Houses the above Receiver, and any other type, Combining CHAMBER OF PERFECT ACOUSTIC DESIGN! The latest mode in modern Radio cabinet construction. The speaker baffle chamber is of generous proportions and will greatly asportions and will greatly assist in the perfect reproducthe qualities of any receiver. The over-al follows: 44 in . high, 25 in. wide, $151 / 2 \mathrm{in}$. deep. The inside depth is 11 in. and width, $221 / 2$ in. The width Cat. No. 7138. Console onl ceiver chassis. Furnished with an $\$ 23.50$ Undrilled Set Panel, if Desired


COMBINATION ELECTRIC PHONOGRAPH SUPER-HETERODYNE RECEIVER

Avuiluble With Choice of 78 R.P.M. or Combination $331 / 3$ und 78 R.P.M. Electrie Phono= graph. At the Throw of a Switch-Either Phono or Radio Reception is Made Possible.


The remarkable feabination this come and Phonograph is the fact ograph is rifice in efficiency was made, hecause of the difficult en ginerring feat of
combining both instrunnents in one compact
$231 / 2 \times 175 / 2 \times 14$ inf. deep! The Super-
Heterodyne Receiver employed is of current design. employ-
ing the latest R.C.A iubes which actually deliver greater power per socket out erodyne Receiver possessing the sently, Super-llet and amazing sensitivity and selectivity of and model would JIAVE TO HAVE. EMIPIOYED 9 to 10 TUBES!
Handsomely Designed-Ruggedly Constructed Mantle "Console"
Made of the finest hardword veneers ohtainable,
selected for their intricate grain effects. lieauti-
fully shaded and finished-worthy indeed of placement in any finely appointed home! The hinged top is unusually heary and is full piano hinged-cquipped with a siop lever. The speaker mum accoustical perfection!

Description of Electric Phonu. Motors Employed
The 78 R. P. M. Model includes a General Electric Incluction Phono. Motor and 12 n. Felt Lined Turn-Table. The nick-ur is the fully flexible volume control. For combination $331 / 3$ and 78 R. P. M. record reproduction, a suitable dual Speed-Motor and pick-up is fur-nished-either

## Latest 1933 Model Super Heterodyne

 ReceiverConstructed around a NEW CIRCUIT, incorporating $1-58$ Triple Grid Super Control 1st Power detector, 1-55 Duo Diade 2nd Detector diate Stages, $1-55$ Duo Diode and Automatic Combination Triode Amplifier and Automatic Rectifier. The sum total of this receiver proRectifier. The sum total of this rectrer pinE
duces amazing results, such as IIAR-LIN

## SEI.ECTIVITY-FXTREME SENSITIVITG

 Amplification - ABSOI. TTE PERFECTION. OF FAITHFUL REPRODCCTION, aid all other good features that will make your Trade fully pleased with their purchase.
## Model A-39

Cat. No. 7139. FACTORY WIRED. Ready for Immediate use, Including a JENSEN DYNAMIC SPEAKER, 78 R. P. M. G. E. Electric Combination PHONO-RADIO Console, less Tubes
$\$ 56.50$
Cat. No. 7140 . Same, but equipped with Com-Pick-Up and Motor
\$62.50
Cat. No. 7141. Set of 7 R.C.A.
Tubes: 3-58, 1-56, 1-55, 1-247, 1-280
\$7.09

## Phono-Radio Cabinet Separately Available

[^14]
# FULLY ASSEMBLED (UNWIRED) OR FACTORY WIRED "COAST-TO-COAST" 16 WATT CLASS "B" 10 TUBE DUAL SPEAKER SUPER-HETERODYNE RECEIVER 

Employs a Vastly Improved New Circuit Designed Around Radio's Latest Tube Sensations . . The 58 Triple Grid Super Control R. F. Amplifier . . . The 56 Improved Triode Oscillator . . . The 55 Duo Diode Detector-Triode Amplifier and Automatic Volume Control Tube $\ldots$ The Class "A" 46 "Driver" Into Class "B" 46 PUSH-PUSH Amplifiers . . . The 82 Mercury Vapor Rectifier. Requires: 4-58, 1-56, 1-55, 3-46, 1-82. Range: 200 to 550 Meters.


Produces Maximumi Undistorted, Faithfully Reproduced Volume (16 W'atts!) and Is Conceded to Be One of the Most Selective and Sensitive Receivers Available!
The enormous power produced by this remarkable receiver makes it suitable for use in audihere is the ideal Phono. amplifert Mammoth Volume is not its only attribute, for it further boastse of , matchsess to tonal quatity, rive rived fonly
br the orisinal broadcast
qe Po sititer

 most sensitive. selective and powerful' receiver! Erery Known Valuable Improvement in Super-Heterodyne Circuits Is Herein Embodied






then into a Class "A" "46
 which the sum total of
 Detector makes possible the rectification of both car. rier bands, assuring greater detector action, arater sen sitivity, areater amplifica tion, and practical elimina
tion of distortion tendencies ${ }^{\text {At }}$ Miracle, s. sme tite time. this in coniunction with is used cuit that rives full $A_{\text {uto }}$ matic Volume Control action. Possesses These Really Valuable and Exclu. ${ }^{\text {sive }}$ Features
The sturdy cadmium plated chasssis measures 18 in. long
 overall. Alil the control. s are
confind permitting the use of confined to with min 8 inches. with: 2 Traveling "cmost any console. Equi pped $V$ isual Tuning Meter. Tone Coxtrol with Dial. containcd A.C. Lime Swith: Automatic Volume Control: Phono-Radio Switchi Two Pitce Alumi num Ventilated Shield Si Massive A.C. Power Transformer i Heavy Duxty Filiter Condensers Choper and Three Electrolytic Condensers: High Shielded Variable Condenser with Individual com persatars, and OSCILLATOR TRACKER SECTION; ${ }^{5}$ prong Speaker socket and Plug: fur. nisher D. D. field excitation for 2.2500 ohm Dy namic Speakers; Additional Spleaker Jock eith her namic Deakers; Adaitiona Sbeaker Jack reither
Power Byamic or Manetic typers): Multiple
 tcads; heazily by-passed and filtered: safety fuse protective biock; Sangamo Input Pussa-Puwll Transe former: no crowding of parts; absolute accessi bility to all wiring: etc. etct.
Use of Dual Speakers Producea Most Realistic Reproduction Possible!
Each of these Speakers are individually pitched one to accentuate the lower frequency audio sound band, and the other to stress the highcr fre ouencies, the sum total of which prodices fully
equalized tonal reproduction, throughout the entire equacised
axdion trenal reproduction, throughout the entire
treacncy


Furthermore, by employing two Sweakers, each one of them dissipates one half the total audio onid output, inereby assuring fazeliss reproanc ncidentally. you can mount either or both these peakers any distance from the amplifier, actual of undis corted outhut . more than sufficient sound The Neuly Released R.C.A. Tubes Are a Tribute to Their Sponsors and Designers The new 58 tube. which is the successor to the 224 and 235 , has an R.F. Gain of 128 as com ${ }_{5}$ pared to 370 of the 235 ... Compare that! The 35 actually takes the place of 3 tubes, serving and resulting tremendou full wave rectification amplification l Duc to pish increased gain and is Duc to push-pull detection, there ents absence of any radio frequency cur onts ine plate circuit, thereby prez'enting dis ortion. The Class $B$ to tules permit enor ons volume outputs ivith relatively low plate most effective Automistic Volume Control, as a aing signal response, and hindering blasting.

## Visual Tuning Meter Feature

By noting the shadow caused by the deffection of the Tuning Meter arrow on the illuminated dial, he eract condition of reasonance is made known hereby further tending to check distortion.

Wiring of Assembled, Unwired Receivers Constitutes a Simple Task
If you purchase the "kit", model, you will re have to do is follous the simste sian all you
 110 Volts, 50.60 Cocies A.

## Model SR-49

Cat. No. 7085. Fully assembled, but unwired -CON Speakers, but less tubes........... 49.50 Cat. No. 7086. Same as above, but FACTORY WIRED, and LABORATORY
 NOTE: We Can Furnish Two F'right De Coster Dynamic Speakers Instead of Two Jensens, for $\$ 12.50$ Additional.


## A. C. Model

Employs 3-58, 1-55, 1.280 Tubes "Hair-line" sclectivity. . distant reception right frechlest of lowals: ultra-sensitivity . . .picks up the fecblest of long distance stations; tremendous pais per stane . So pooverful is the resultant ampli-
fication within the four tuned stages, that a loud fication within the four tuned stages, that a loud
speaker may be inserted in the detector tube plate speaker may be inserted in the detector tube plate
circuit! No cross modulation, due to the use of circuit! No crass modulation, due to the use of
the 58 type twbes. not one, but THREE of
THEMI To "cap" the clima.x, a Linear Power

Detector is included-this assures distortion-free detection-no distorted signals will be passed on to the A.F tubes. Then again the tremendous output of these ${ }^{4}$ highly sensitive stages can be
connected directly to an output power stage, using connerted directly to an output power stage. using thereby dispensing with the conventional 1st. A.F. tube. You may, however, , use this tuner with any of our "Coast-to-Coast" amplifiers, or for that nıatter, with any other good amplifier.

## Modern Chassis Construction

## Handsome in appearance, due to its high cod-

 mium plated finish. Generously constructed-no crowding of parts. The sturdy chassis measures 14 in . long, $73 / 4$ in. wide, 8 in . tall over all.
## Exclusive Features

The four precision wound HIGH GAIN Skielded R.F. Coils are mounted beneath the chassis and
located at strategic points that will assure Shortest Possible Leads! A traveling "Ghost Light" on the Vernier Dial is indeed a valuable feature! Its usefullness is further enhanced by an unusually attractive embossed bronze escutcheon plate. A fully-effective AUTOMATIC Volume Control is included, as is provision for Buillin Aerial. Long and Short Antenna. Twin Jack for Output (to amplifier): antenna. Precision Shielded 4
shiclded condcnser, with slit end plates on each shiclded condcnscr, evith slit end blates on each
section; dccoratize knobs; ventilated Twbe Shields A.C. Line Cord

The Visual Tuning Meter indicates the exact state of Perfect Resonance, thereby checking distortion
Can Be Coupled to Any Amplifier!

## Model TRFT - 50

Tuner-Less A. C. Power Pack
Requires 3-58, 1-55 Tubes, or, the Equivalent in 2 Volt or 6 Volt Battery Operated Tubes.


# "COAST-TO-COAST" 6 TUBE SCREEN GRID PUSH-PULL PENTODE AUTOMOBILE RECEIVER 

Equipped With Remote Control and Dynamic SpeakerEmploys Latest Type Automobile Tubes:


Can be installed in any car in but a small fraction orme. The chassis itself is housed in a smant, by virtue of the 3 heavy protruding screws, to any part of the car. It may be tucked away in any part-inside or outside of the car. Note that the chassis itself is readily removable from its

## Employs Renote Control Principle!

The Remote Tuning and Volume Control and Lock-Switch-not much larger than a cigarette box ( 4 in . long, $21 / 2$ in. wide)-is attached to the steering post and from there, effectively controls, tunes and operates the set, no matter where the set itself, may be located. Connection between the Control and the set is made by ${ }^{2}$ flexible shaft. This shaft is supplied with standard equipment and may be cut down to any length required. A key lock fo
is included-two keys furnished.

Performance Compares Favorably with the Average Set for Home-Use

The ingenious layout of the chassis provides all necessary shielding-note illustration. "Miles Ahead" in Automobile Radio Design, Tone, Volume and Performance. It employs 2-239, 1236 , 1-237, 2-238 Auto Tubes-a combination which makes for the utmost in automobile radio efficiency and performance. Draws its "A" current from the storage battery of the car. " B ," or plate current, is obtained from large, dry " $B$ " plateries or from in Auto " $\mathbf{B}$ " Eliminator, as listed in this catalog.
The "B" battery steel case, fastened out of sight under the floor boards, is easily removed for occasional inspection and change of the batteries. Requires four 45-volt " B " batteries or a 180 vor if you use the latter, The "C", bias and intermediate " $B$ " voltages are automatically taken mediate "B" voltages are automatically taken care of within the chassis. There are three,
weatherproofed and shielded cables. All "A" weatherproofed and shielded cables. All A" B " battery leads are appropriately by-passed and "B" battery leads are appropriately by-passed Gang Amsco-De Jur, ball bearing condenser is Gang Amsco-De
Car Antenna and Magnavox Dynamic Speaker Easily Installed
We recommend the use of our Automobile Antenna, illustrated and described on another page. A complete set of interference suppressors are

## The World Renowned

## Radiola 288 Tube Super. Leterodyne Receiver



All Radiodom Will Welcome This "Old Timer!" Limited Quantity Available! Shipped in Original Cases!
Dry cell battery operated in present form-but cas be operated by suitable eliminators
Ideal for use on boats, yachts, camps, or in communities where ent Loop operated-no aerial or ground of any form or ground of any form necessary greatly assists in selectivity. Employs time prover, Supecond Har monic" Super-Heterodyne UX 120 Power 3 Volt Dry Cell, low amperage tubes. All the batteries fit beneath the chassis proper, and are readily accessible due to the in genious tilting arrangement of the hinged chassis. The "uncanny" sensitivity, selectivity, volume and tonal quality produced by this remarkable receiver will amaze and thrill you!
The exquisite design of the graceful two tone mahogany cabinet included will harmoniously grace its presence in any well appointed home It is 38 in. tall (plus 25 in . for the loop itself 1 ), 27 in. long, $161 / 2$ in. deep.

## SPECIAL CLOSE-OUT PRICE

\$16.50
Cat. No. 5547
Including 8 R. C. A. Radiotron Tubes Original List Price, $\$ 295.00$
NOTE: These receivers are NOT
SECONDS-nor factory rejects! Buy with unreserved confidence!

## Complete with Tubes and Batteries

[^15]available; with them you can operate the Radio ven while the motor is in operation, without any disturbances incideutal to arcing spark plugs, disributor, generator, ctc. The Speaker ( 8 in . cone 1) is mounted within a protective, durable teel baffle drum. and can be bolted to any convenient part of the car

## Remarkably Compact

The receiver case measures $98 / 4 \times 61 / 2 \times 75 / 8 \mathrm{in}$. The battery case measures $10 \times 81 / 2 \times 9 \mathrm{in}$. The dynamic speaker $\mathbf{i} 10 \mathrm{in}$. in diameter, 4 in . deep.


Cat. No. 7188. Automobile Receiver, complete as illustrated. Includes RCA Tubes, Magnavox
 tery Case,

Crosley Triple Screen Grid 5 Tube Console Receiver


An Exceptional Buy! Shipped In Original Factory Cases! Brand New!
The use of three screen grid tubes in the vibrantly sensitive $R$. $F$. stages seemingly perform mira-
cles amazed at the unusual results it produces. Use a Linear Power Detec tion-and a Screen Grid
Power Detector at that! The undistorted but highamplified impulses of he detector are fed into a 45 Super-Power. Stage, and the resultant Dis tortion-Free Voluine is threlingly reproduced in the properly bafficd 1200 ohm. Crosley Speaker The sum total of all its highly engineered cir lay-out is Periect Satisfaction!

Other Vital and Valuable Features Fully shielded inductances and R. F. stages and tube compartments. Three gang, pre-compensated variable condenser. Constructed upon a cadmium plated rigid steel chassis. Shielded Power Transformer, Mershon Electrodytic Con denser. Non-distorting amplification. One Dial Tuning Control. sniooth volume control, and On Off Switch. Silk-covered line cord and plug. Consumes only 45 Wratts costs, therefore, as ittle to run as a cominon house lamp! Housed n an exquisitely carved effect console. Cat. No. 5288 . Complete Receiver, less tubes. For 110 volt, 25 or 60 eycle A. C. $\$ 11+5$ Cat No. $5289 . \quad$ Set of 5 Tubes $\$ 3.4$ R.C.A. - Victor Electric Phono. Pick-Up


Generally conceded to be one of the most sensitive and faithful reproducing instruments available. Represents the final stage of Mechanical and Electrical Perfection-Costs a
little more, but-its superior performance more

Cat. No. 5425
(Less Turn.Table, Board eta.)
$\$ 9.95$ Cat. No. 5425-A. Special Matched Im pedence Phono. Input Transformer
"COAST-TO-COAST" 8 TUBE DUAL WAVE SUPER-HETERODYNE RECEIVER


New and Improved Design Tubes Have Made Possible Extra-Ordinary Radio Receiver Perfornance

The imposing array of eight tubes employed in this remarkable receiver in reality equals in perWHEREIN 10 TO 12 TUBESI OF THE THE THEN EXISTING TYPES, MIGHT HAVE is termed a "Midget," BUT ELECTRICALLY, IT IS IS IN "MEALIT, BUT ELECTRICALLY, TT IS IN REALITY A "LIARGE" CON: ING APPROXIMATELY ${ }^{4}$ WATTS OF
DISTORTION-FREE VOLUME.

## Gives 10 Kilocycle Selectivity

 TUNES IN THE WEAKEST OF FAR DISTANT STATIONS, RIGHT THROUGH "LOCALS." If you are situated in a big city Although this degree of selectivity, is unusuallypronounced, NO "SIDE, BANDS" ARE CUT

## Employs Latest R.C.A. Tubes:

2-58, 1-235, 3-56, 1-247, 1-82

## EXCLUSIVE FEATURES:

Single Dial Control-Dual Wave Selection at Will! Dual Grid Power Amplification-Triple Grid Super Control Circuit-Mercury Vapor Rectifica-tion-Parallel Detection-Tone Control-Automatic Voltage Control-Shadow-Graph Tuning-Variable-Mu-Pentode.

- ARE CUT
and hence distortion will not occur. Few reimmense value Radio set!


## Durably Constructed

No attempt was made to sacrifice quality throughout its design and assembly-it will merit your most scrutinous examination. The chassis itself is handsomely cadmium plated, and measures 8 in. tall, $151 / 4$ in. wide, $83 / 4$ in. deep. NOTE CONDENSER IS EMPLOYED as well as appropriate TUBE AND INDUCTANCE SHIELDING.

## Contains Dual Wave Feature

Reception down below 200 meters-in the realm
of Police Broadcasts, Amateurs. Trans-Oceanic and All Foreign Stations, ARE TUNEABLE BY MERELY THROWING A SIMPLE SWITCH ARRANGEMENT. COVERS THE EXTENSIVE RANGE OF 60 TO 600 MEKILOCYCLE CALIBRATED TUNING


Produces More Than Ample Volume With Thrilling Realism of Reproduction To insure FULL TONAL REPRODUCTION, a Magnavox Dynamic Speaker is furnishedyou will be charmed by its ability to handle the enormous volune produced by this powerful receiver, and give EOUALIZED FIDELITY
THROUGHOUT THE ENTIRE AUDIO BAND. THE ENTIRE AUDIO
Housed In. An Unusually Attractive Cabinet-Chassis Is Separately Available

## For Console Installations

The illustration herewith fails to do justice to the unique and ' 1 armonous design this artistic cabinet possesses-you will be pleasantly surprised! Will enhance the environment of any room in which it is placed. Highly polished selected walnut and attractively embossed escutcheon. 18 in , high, 14 in , wide, 10 in . deep. Should you wish to install this worthy radio receiver in a conventional size console, the chassis and speaker are available.
Cat. No. 7017. Chassis and MATCHED DYNAMIC SPEAKER. Ready for $\$ 27.50$
Immediate Use, less tubes........ $\$ 27$ Cat. No. 7018. Same, but mounted $\$ 29.955$
in the Table Cabinet Illustrated,. Cat. No. 7019. Set of 8 R.C.A. Tubes: \$6.91

# GCOAST-TO-COASTMS 12 TUBE VARIABTE MEDPENTODE PTSELE  Recliver with two strsen dxnamic spraners 

Employs Recently Developed New Tubes-Providing Greater Pover Output and Over-All Efficiency Per Socket


## R.C.A. Tubes Required: 2-58, 1-227, 2-235

## 4-56, 2-247, $1-82$

Radio Circuit Design, resulting in a Receiver that functions in a manner that is positively thrilling to witness!
Use of New Tubes Provides Greatly Increased Power Output Per Tubel
The sum total output of this most remarikable receiver is really tremendous-sufficient to flood an auditorium! Yet, perfect clarity and absolute SENSITIVITY possessed by this receiver is The Canny-the most possessed by this receiver is un-canny-the most disfant stations roll in. from one end of the kilocycle calibrated dial to the other. Its SELEECTIVITY
astounding-provides perfect 10
is.C. tually as
tung, astounding-provides perfect 10 K.C. tuning,
making possible long distant recention of stations in the neighborhood of powerfut "locals."
Unusually Well Designed and Efficient Chassis Construction
Mounted upon a sturdy, handsomely finished metal chassis, measuring 17 in . long, $91 / 2 \mathrm{in}$. leep, 9 in . tall. Employs a three gang oscillator tracker condenser. All inductances and
vital tubes are correctly shielded. The power transformer is mounted on spacing bushings, preventing losses generally existing when the transformer laminations rest directly on the chassis surface. All vital leads are unusually short, greatly increasing its efficiency.

## Some of Its Exclusive

## Valuable Features

Employs "SHADOW-GRAPH" TUNINGonly found on the most costly receivers. AU-
TOMATIC SELECTION OF TOMATIC SETECTION OF SHORT. CLEAR UP TO 600 METERS! Tuning is accomplished in the short-wave and broadcastwave ranges by a SINGGLE DIAL A Equiped tion of the illuminated arrow INDICATES EX: ACT CONDITION OF DESIRED RESO. NANCE THEREBY PREVENTING DIS: TORTION AND ALLOWING MAXIMUM ENERGY TRANSFER. The AUTOMATIC VOI.UME CONTROL FEATURE EQUAL. IZES VOLUME ON ALL BROADCASTS, Preventing blasting and uneven tonal response. PARALLEL DETECTION is indeed an ex-
 TION-FREE VOLUME OUTPUT DEquipped with a fully effective TONE CONTROL and also a anique DISTORTION CONTROL! There is also provided a PHONO. PICK-UP JACK I and a vitally valuable SHORT-W.AVE features are DUAL GRid Pome of its other FICATION and the use of a TRIPLEE GRID latest mode of MERCURYIT. Employs the FICATION OFFFRING LONGER RECTILESS HEAT DISSIPATION AND LESS WATTAGE CONSUMPTION.
 frequencles and the highe of the audible frequencies accentuates the balance offering COMPIETE offering COMPLETE AND EVEN FREQUENCY RESPONSE, from 50 to 10,000

## SIX-LEGGED CONSOLE

## Separately Available If Desired!

## The latest mode in modern Radio cabinet con-

 struction. The speaker baffle chamber is of generous. proportions and will greatly assist in the perfect reproduction qualities of this receiver and will accommodate either one or two dynamic speakers. The over-all dimensions are as domic 44 in . high, 25 in , wide, $15 \mathrm{I} / 2 \mathrm{in}$. deep. The inside depth is 11 in., and width, $221 / 2$ in. The width across the set panel is $101 / 2$ in. M. MDE Width Cat. No. 7020. 12 Tube ALL.WAVE CHASSEN ( 10 to 600 Meters), including TWO JENSEN DYNAMIC SPEAKERS, $\$ 44.50$ Cat. No. 7022. Console only, less $\$ 19.50$speakers or receiver chassis. ..........
Furnished woith an
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Transmitting Tubes.
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Tube Checkers
Tubing, "Fibre.
$\underset{\text { Tuning }}{\text { Tuner }} \underset{\text { Meter, }}{R} \underset{\text { Visual. }}{\text { Fin }}$


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Wall Plat
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Washers 1 Window i........................ 8
Wire ...................... $8 \mathbf{8} \mathbf{4}, \stackrel{8}{86}$,
Wire
$x^{\infty} \times \infty$
Wire, Antenna
Wire, Magnet
Wire, Phosphor Bronze.
Wire Splicer


# All Receivers Listed on This Page Employ the Latest Types of R.C.A. Tubes. "Coast-To-Coast" 3 Stage Dual Push - Pull 250 Phono-Radio-Microphone, Sound Truck, Auditorium and Public Address Power Amplifiers 

Commendable Engineering Skill Has Made Possible The "Midget" Size Proportions of These Remarkable Receivers-However Their Performance Rivals That of Considerably Larger and Far More Costly Models ... It is Therefore an Injustice to Consider These Amazingly Powerful Receivers as "Midgets"!

> 7 and 8 Tube Models Possess Similar Valuable Features

'lhe only essential difference between the 7 and 8 tube models is the addition of one more f. F. stage and 58 tube in the 8 tube model. Naturally, the additional feature makes the 8 tube model highly desirable where extreme sensitivity and selectivity are essential although under average conditions, the difference in results is not as great. Ioth receivers possess a degree of SENSITIVITY that is really unusual
distance reception of stations from COAST-TOCOAST are quite the rule, and not the exception. At every point of the dial, a station awaits your reception! There is a thrill in listening to far earn your plaudits. 10 KILOCV CLF: SEL.EC IIVI'ly, the goal of all Radio Desigal Env. gineers, is an actual accomplishment of these receivers. This feature is indeed of great imnort to those Radio listeners who reside in the sound shadow of local broadcast stations in

Produces Enornoous l'olumue |F'ithout Any Distortion
The use of two 247 (or the latest 88 Heater Type) Pentodes assure maximum audio outputthe circuit design and high quality throughour this receiver construction, plus the use of a
flawlessly reproducing Jensen or Rola DYNAMIC SPEAKER will please the nost dis-

An Exclasive Feature: Both These Receivers Employ R.C.A. Tube Engilie ers Greatest Trinmph . . . The Duo Diode mad Automatic Volume Control Combived 55 Detector Tube!
This radically new and unsurpassed form of detection assures maximum energy transfer, actually making audible the weakest of Radio impulses heretofore considered as too weak to noise level"-and tbat is not all! For at the same tine, this tube functions as for at the of volume, preventing any undue blasting from of volume, preventing any undue blasting from the more powerful stations coivin truth, AN
AUTOMATIC VOLVME CONOL.

Emplors Another Great RC A Achier ment-The 82 Mercury Vapor Rectifier The most powerful broadcast pransmitting sta RECTIFIER TUBES (toy M today, it is possible RECTRFIOY this superinr eectifier in Radio possible to employ this superine rectifier in Ratlio receiving sets! The 82 Meccury vapor Rectilier actually consunnes less A. Cinrent, aut has a
far lower degree of heat dissipation. This tube has such superior merits that it is., today being almost exclusively used in Class "IB" Ampliiers? Here Are Some of Its Other Valuable

## Fatures:

Mounted on a nicely finisherl callominn folated chassis measurimg $125 / 2 \mathrm{in}$. long, $81 / 2 \mathrm{in}$. deen, $7 / 2$ in. tall. Equipped witis ann Illuminted Frili Varion Dial. Three Gang Oscillaior Tracking tarices and Tube Shiclds. Air Conled Indeaty tarices and Tube Shields, Air Conled Ifeavy trol and Self-Contained A. C. Line Switch,
 Phono Pick-Up Wack, Built-In Antenna (ar,
tually dispenses with need for cxternal tutemi, Tone Control. IIeavy Filtering and By-Pass Provisions, and a hnst of other fentures all combining to nake these receivers worthy of

## 7 TUBE CHASSIS

Cat. No. 7023. 7 Tube Super-Heterodyne Cha
Matched Dynamic Speaker, and 7 R.C A. Tubes: Matched Dynamic Speaker, and

7 or 8 Tube Console De Luxe Super-Heterodyne Receiver


Top, and sides of birch plyood Pilasters of nutched butt walnut with arch and apron of lacewood. Radio
natiel of matched diamond patnel of matched diamond carvings walnut Gentine throughout Cabinet finished in shaded and rubbed American walIleight $381 / 2$ in., Depth $151 / 4$ in., Width $2 t$ in. Contains an acoustically perfect baffle
chamber for the dynamic
Speaker! ${ }^{\text {Sat. No. 7029. Includes a }}$ Super-Heterndyne 023 Chassis,

Matched Dynamic Speake and 7 R.C. A. Tubes.
$\$ 36.50$
Cat. No. 7030. Includes an 8 Tube Super-Het erodyne Cat. No. 7024 Chassis, Matched $\mathrm{I}_{\mathrm{y}}$ namic Speaker and
8 R.C.A. Tubes.
$\$ 40.50$

## 7 or 8 Tube Super-Hetero-

 dyne Mantle Receiver

The illustration herewith fails to do justice to the
unique and harmonious design this artistic cabinet possesses-you will be pleasantly surprised! Will enhance the environment of any room in which it is placed. Highly polished selected walnut,
tractively bossed escutcheon. 18 in . nigh, 14 in Cat. No. 7027. Includes a 7 Tube Super-Hetero dyne Cat. No. 7023 Chassis, Matched Dynamic Speaker and 1 R.C. Tubes 20 Cat. NO. Tubes
$42 y \cdot 20$ Cat. No. 7028 . Includes an 8 Tube Super-Het
erodyne Cat. No. 7024 Chassis, Matched Dy erodyne Cat. No. 7024 Chassis, Matched Dy namic Speaker and
8 R.C.A. Tubes ..................... $\$ 33.30$

8 TUBE CHASSIS
 and
$1-82$
$\$ 30.50$
7 or 8 Tube 6 Legged Console Super-Heterodyne Receiver


A splendid example of Master Cabinet Makers, yet priced to suit the most nodest purse! it will grace the decorative effects of any home, its simple beauty of design and at tractive linish pleasing all Overall diniensions:
high, 22 in. wide, 14 in.
deel
7 Tube ${ }^{7025 .}$ Includes Cat. No. 7023 Chassis. Matched Dynamic Speaker and 7 R.C.A.
Tubes
\$39.50
Cat. No. 7026. Includes an 8 Tube SuperHeterodyne Cat. No. 7024 Chassis, Mattlied Dynamic Speaker and
8 RCA Tubes ......................
Cat. No. 7197. Same as Cat. No. 7026 but IN.
CLUDES TWO DYNAMIC SPFAKERS CLUDES TWO DYNAMIC SPEAKERS. in stead of onel An invaluable feature!

NOTICE: All receivers listed on this page are intended for use on 110.120 rolts, 50.60 cycles. A. C. However, we can furnish similar type receivers for $110-120$ volts, $25-40$ cycles A. C., or, 220 or 240 volts, $50-60$ cycles-or, 110 or 220 (or 240) volts D. C. for $30 \%$ additional above net prices quoted abore. Sperial Models are also arailable for Recoption from 600 to 2,000 Meters-For European Broadcasts $\$ 9.75$ additional cost abore net prices

All Receirers Described On This Page Employ LATEST TYPE K.U.A. TUBES!

## "COAST-TO-COAST" 5 TUUE ALL-WAVE SERIES SUPER-EETERODYNE RECEIVERS

## Arailable in Tu* Models . . . One Covering 200 to 550 Meterg and the Other Cocering from 60 to 550 Meters.

Employs R C A's Latest Design Tubes: 2-57, 1-58,


1-247, 1-82
This Combination Producing the Performance of Previous 7 Tube Receivers! Equipped With a Matched Dynamic Speaker Affording Amazing Realism of Reproduction!

Provided With a Three-Gang Variable Condenser, Phono PickUp Jack and Self-Contained leriul

## Exclusive Features

Two 57 tubes are employed, one serving as a COMBINATION 1 st Detector, and Oscillator, and the other as the second detector, being in that position suitably biased, providing a large audio frequency output of excellent quality to the Pentode Tube. resulting in enormous sound volume output. Bear in inind that these 57 tubes serve as triple grid detectors and as selfinherent amplifiers, possess an amplification factor each of 1500 compared to 420 claimed by a 224 tube. The 58 tube is employed as an I.F. amplifier and due to its triple grid super control feature it greatly enhances the overall efficiency of the receiver. . proof of its absolute supremacy can be readily seen by comparing its premacy can be readily seen by comparing 1280 , while its predecessor, the 235 , only possesses an amplification factor of 370 ! The 82 Mercury Rectifier assures less wattage consumption and more even plate current flow, IIere are some of its other val uable features: Air Cooled Transformer: Shielded Inductances and Tube Shields; Volume Control and Self-Contained A.C. Switch and High Safety Factor Power Pack. The durable chassis measures 10 in . The cabinet is attractive and worthy of any furniture lover's full esteem


## DUAL WAVE FEATURE


#### Abstract

Special models listed below are available that can tune in from 60 to 550 meters, by merely throwing a switch. histe in on P.otice Broad casts, Amateurs, ship-to-Shore Stations, Tele vision, and countless Foreign Short Wave Stations, depending on conditions. Cat. No. 7045. 200 to 550 Meter Chassis. Complete with Mantle Cabinet and Dynamic Speaker $\$ 14.95$ Cat. No. 7046. 60 to 550 Meter Chassis. Complete with Mantle Cabinet and Dynamic Speaker \$16.95 Cat. No. 7047. Set of 5 R C A $\$ 4.61$


## "COAST-TO-COAST" 6 TUBE SUPER-HETERODYNE RECEIVERS



Produces Results Equal to Former 8 The latest series of tubes, as contained in this receiver, are comparable to the stage of perfection attained in motor car design of today and 10 years ago ${ }^{1}$ BETTER CAR fou can today buy a FAR BETTER CAR for less money. ${ }^{\text {Bame }}$ condition and this same condition exists today in Radio. The amazing degree of perfection of SENSITIVITY, REPROIUCTION attained by this latest model receiver is one of the reasons why this receirer is one of our best sellers. Affords considerable long distance station reception, from 1500 to 3000 miles, and absolute 10 Kilocycle Separation tremendous and the MATCHED DYNAMIC SPEAKER employed will reproduce free of disintiots.
fossesses Features Nour Offered by Feut Higher Pricnl "Super-IInt" Recrivers The use of a 55 type detector provides maximum full wave detection, which assures double amplification, and more even response. At the same time, this tube functions as an effective Automatic Volume Control, which equalizes volume strength nutputs. The new Ileater Type 88 Pentode Tube (with optional 247 type, if desired) provides an assurance against hum background. The new 82 Mercury Vapor Rectifier

Arailable in Three Models: One Tuning 200 to 550 Meters. One Tuning 60 to 550 . Meters. One Tuning 200 to 2000 . Meters Ideal for Amprican and European Broadcast Reception
Employs Latest Types of R C A Tubes: 3-58 Triple Grid Super Control Tubes; 1-55 Full Wave Diode Rectifier and Triode Amplifier Detector (Automatic Volume Control); I-88 Heater Type Pentode (or 247); 1-82 Mercury Vapor Rectifier
provides more even plate current flow and lower operating cost. The inductances are all carefully shielded and so are the radio frequency tubes. A Three Gang Oscillator Tracker Con. denser is employed-your assurance of maxi mum satisfaction! Equipped with an Air Cooled, raised pilar mounted Power Transformer, High Safety Factor Power Pack, Full Volume Control with self-contained A.C. Line Volume Control with self-contained A.C. Line
Switch, etc., etc. The chassis is of heavy Switch, etc., etc. The chassis is of heavy
gauge cadmium plated metal and measures: $121 / 2$ in. long, $81 / 2 \mathrm{in}$. deep, $71 / 2 \mathrm{in}$. tall.
Wide Choicr of Vodels to Serve All W'are-Length Rereption Requiremonts The standard model tunes from 200 to 550 meters, and is also available SHORT-WAVE RECERTION DOWY TO 60 MFTERS, by merely throwing a switch: A special model provides reception of European Radic
Station Wave-Lengths. as well as the American range of 200 to 550 Meters.
Housod in a Highly Aftractive Ilantel Cabinet
This cabinet is not to be onnfused with the average "Midget" Radio Set Cabinet. Sor it is a splendid example of Master Craftsmen! The choicest of walnut woods have been employed in its substantial construction, and the decorative effects are indeed highly pleasing. Particular thought was stressed to perfecting an acoustically correst baffle chamber, to success

Equipped With Phono Pick-Up Jack and Self-Contained Aerial Features:
fully enhance tonal reproduction. It is nicely finished and hand rubbed.

Cat. No. 7048. 6 Tube Super-Heterodyne Chassis, Complete with Matched Dynamic Speaker and Mantle Cabinet. RANGE. 200 TO 550 METERS. Furnished COMPLETE WITH THESE R C A TUBES: 3-58, 1-55, *26. Cat. No. 7049. Same as Cat. No. 7048, but covers a range from 60 to 550 Meters.
Cat. No. 7050. Same as Cat No. 704 covers a range from 200 to 2,000 Meters


1
 lar type rpceirers for 110 - 120 rolts. 25.10 cyclps. A. C.. or, 220 or 210 volts. 50.60 cycles-or, 110 or 220 (or 240 ) rolts D. (. for $25 \%$ additional above net prices quoted abore.


[^0]:    Purchaning Agentr of huge bisiness. edurational and government institutions are fully posted on sources of supply . . . only after eareful Standard Oil Co.
    New York City
    Westinnhorse Elec. \& Mfa Co
    Sears. Roebuck \& ${ }^{\text {Pa. }}$
    Sears. Roebuck
    Chicato. III.
    Sing Sing Prison
    Ossining. N. Y
    University of Michinan
    Ann Arbor, Mich.
    Gimbel Bros.
    New York
    Wurlitzer
    Cincinnati, Ohio
    $G e n e r a l$ Motors Corp.
    Detroit, Mich.
    Detroit, Mich
    University of Pittsburgh
    Pittsburgh. Pa.
    Pittsburgh. Pa.
    University of Colorado
    Boulder, Colo
    Hygrade Sylvania Corp

    Jamaica Pub. Serv. Co.
    Kingston, Jamaica. B.w.I

    ## National Theatie Supply Co.

    New York Public Schools
    Battle Creek Public Schools
    Battle Creek. Mich.
    Utah State Agricultural Collene
    Westhanipton Beach Hinh School
    Westhampton Beach. N. Y.
    Loomis Radio College
    Washington. D. C.
    Larkin Co. Inc.
    Buffalo, $\mathbf{N}$. $\mathbf{Y}$
    General Elec. Co.
    Schenectady. N. Y.
    West Const Power Co
    West Const Power Co.
    West Texas Elec. Con
    West Texas Elec. Co.
    Stone \& Webster Eng. Corp.
    Stone \& Webster Eng. Cor
    Bass.
    place orders. We there oud of the honor bo Burenu of Standards Washington. of Atlantic Coast Line R.R. Co. Wilmington, N. C. U. S. Dept. of Agriculture Washington, $D$. $\mathbf{C}$. Board of Education
    Jamestown. N. Y
    Moryan Park High School
    Duluth, Minn.
    State of Kansas
    State of Kansas
    Topeka. Kansas
    State Unlversity of lowa
    lowa City. Lowa
    City of Richmend,
    Richmond, Va,
    John Hopkins University
    Baltimore. Md.
    Woodlawn High School,
    $\underset{\text { Bhillips }}{\text { Birmingham, Ala. }}$
    Bhillips Univer
    Enid, Okla.
    enjoying the valued patronage of these few in ternationally renowned firms and institutions, eclected at random from our hugo order files :

    Texas \& La. Power Co.
    Mass. Institute of Technology
    Mass. Institute of Technology
    Lincoln High School
    Canton. Ohio
    Kansas State Agricultural College,
    Manhattan. Kansas
    Troy High School
    Troy High School
    Firestone ${ }^{\text {Tire }}$ \& Rubber Supply Co.
    Purduc University
    Lafayette, Ind.
    R.C.A. Communications

    San Francisco, Calif.
    Supply Officer
    Naval Research $\quad$ Bellevue. Anacostia, D. C.
    University of State of Dakota
    Vermillion, S. D.
    Gonsoidated Gas \& Elec.
    Gonsolidated Gas \& Elec

    Merchandise, Low Prices, Service, Sales Policies and Guarantee Must Certainly Be Satisfactory to Warrant Such Valuable Patronage! Permit Us to Serve You!

[^1]:    $$
    \|
    $$

[^2]:    The enterprising Radio Serviceman and Dealer

[^3]:    Constructed upon a sturdy and handsome black crystalline finished steel chassis, nieasuring $131 / 2$ in. long, $97 / 8$ in. wide. $83 / 4 \mathrm{in}$. high. The component parts are bolted to the netal chassis proper and three separately removable steel Shields cover them. A pleasingly effective Tone (ontrol and smoothly graduated Universal Volume Contiol serve a much needed purpose. Tlirec separate speakers, one for Phono-Pickup or Microphone, and the other for Radio Tuner Input. Two RADIO (or also provided, one for PHO master battery switch. All audio frequency components are shielded and placed in stragetic points, and wherever necessary, double shielded and in addition, all $a$. f. circuits are heavily by-passed and filtered! All vital components, Output and Input Audio Transformers, etc. are Specially Dcsigned for Specific Class " $B$ " Operation Re-

    ## Can Produce Front 10 to 25 Watts!

    To obtain greater wattage outputs, all, that is necessary is to employ 250 , Volts " $R$ for 10 400 Volts "B" for 20 to 25 Watts! !!
    Battery Operated Class "B" Amplifiers Actually Excell in Performance That of A. C. Onerated Amplifiers

    This is due to the inherent characteristics of noiseless and hum-iree battery sources of power supply 1 Model A-26 Cat. No. 7097. Fully Assembled. Unwired Complete, With Self-Explanatory $\mathbf{W} \mathbf{W 9 . 5 0}$ Cat. No: 7098. FACTORY WIRED-I.ABOR. ATORE TESTED. Realy for Im. $\mathbf{\$ 4 9 . 5 0}$ | Tat. No. 7099. Set of 5 R.C.A. |
    | :--- |
    | Tubes: $2.56,3-46 \ldots . . . . . . . . . . .$. |
    | 4.27 |

[^4]:    Maximum Undistorted Output: 12.9 watts Gain at 1000 cycles: S0 D. B. Frequency Char acteristic Variation between 50 and 5,000 cycles : (Model A-6); Hum Level: Too insignificant to be heard; Input: To GRID of first tube pobe heard; input: Po (Use Phono-Microphone or Line to Grid Input Transformers.) Output Impedance: Grid Input Transformers.) Output Impedance:
    4,000 ohms.

[^5]:    Janette Rotary Converters
    Transforms 6-12-32 and 110 Volts D. C.
    Into 110 Volts 60 Cycles A.C.
    Extreme compactness and rugged construction yermits therr installation in sound
    trucks and automobiles. Require little or no attention,
    and are fully dependable. Ali "COAR fully dependable. Ali plifiers listed in this catalog state their wattage consump.
    tion-select that
     tion-select that converter If you are NOT employing a radio tuner, yon have no occasion for a self-contained filter.
    Slipnnent of AL 1 Janete Converters can be made from Chicago or New. York
    6 Volt D.C. to 110 Volts 60 Cycle A.C.

    |  | Output | Input |  | Rilter <br> Your |
    | :---: | :---: | :---: | :---: | :---: |
    | $6245$ |  |  | \$26.25 | ${ }_{\$ 20.58}^{\text {Cost }}$ |
    | 6246 | 30 | 14.0 | 27.75 | 22.05 |
    | 6247 | 40 | 16.0 | 39.40 | 34.55 |
    | 6248 | 60 | 22.0 | 45.35 | 38.22 |

    12 Volts D.C. to 110 Volts 60 Cycle A.C.

    |  | Output | Rnput | Filter <br> Iour | Filter <br> Your |
    | :--- | :---: | :---: | :---: | ---: |
    | Cat. No. | Fatts | Amps. | Cost | Cost |
    | 6349 | 20 | 4.5 | $\$ 26.25$ | $\$ 20.58$ |
    | 6250 | 30 | 7.0 | 27.75 | 22.05 |
    | 6251 | 80 | 15.0 | 39.40 | 34.55 |
    | 6252 | 120 | 19.5 | 45.35 | 38.22 |
    | 6253 | 160 | 22.0 | 60.75 | 48.50 |

    32 Volts D.C. to 110 Volts 60 Cycles A.C.
    

    ## Esco Sound Truck-Autoand Home Use Rotary Converters

    Transforms 6-12-32 and 110 Volts D.C. Into Perfect 110 Volts 60 Cycles A.C.
    Equipped with Fully Effective Filters-producing
    no objectionable noises in Speakers.
    Completely protected con. truck installation. Convenient plug receptacles. struction. Wool packed bearings requiring very little attention
    $\begin{array}{lcccr}\text { Cat. No. } & \begin{array}{c}\text { Input } \\ \text { Volts }\end{array} & \begin{array}{c}\text { Output } \\ \text { Writs }\end{array} & \begin{array}{c}\text { Input } \\ \text { Amps. }\end{array} & \begin{array}{r}\text { Your } \\ \text { Cozt }\end{array} \\ 6266 & 6 & 40 & 16.0 & \$ 37.29\end{array}$ NOTE: Other models, not above listed, also available. Write for details
    

    If you do not intend to employ a Radio Tuner, you do not exactly require a filter built in with these Rotary Converters. In thai event, yon may deduct $10 \%$ from the net prices above shown, if the filter feature is not desired.

    ## Esco Gasoline Driven Electric Power Supply

    Ideal for Souning Sound Trucks, Home Elec. Plant, Fair Grounds, Athletic Fields-or wherever public utility A.C. Lines are not available.
    
    "Coast-To-Coast" Weston Meter Equipped AllPurpose Public Address Amplifier Control Board
    

    Permits Any Degree Volume of Speech or Music To Be Super-Imposed Over Phono. or Radio Reproduction. Controls the Volume of Phono. Microphone or Radio Independentiy! Ideal for Speech-making with a Musical Background, Furnished by Either Phono-Records or Radio Tuner!

    ## Offers the exclusive and valuable convenience of

    placing any power amplifier out of sight yet maintaining a complete and fully feximarily designed to obtain optimum microphone, radio and phonograph reproduction, individually or simulphonograph reproduction, individually or simultaneously! For this. purpose a low resistance 0 to 25 Weston milliammeter, a rheostat and a switch are incorporated into each microphone button circuit. Tront half of the control unit. This in the upper front half of the control unit. This permits a pertect and equal current and sensiphone, which is the desired condition for suc cessful push-puli input amplification. The meter is only connected in the circuit when the proper
    jack switch is closed, thereby eliminating any jack switch is closed, thereby eliminating any
    losses. The four controls are the following: losses. The four controls are the following
    Microphone No. 1 Volume Control; Dual Phono Pick-Up Fader; Phono. or Radio Volume Control; Microphone No. 2 Volume Control. Note this valuable feature.... each control juss
    mentioned is connected in series with a mentioned is connected in series with a switth;
    for she purpose of disonnecting any eontrol, when same is not actually in use, zhereby assur ing muximum efficiency!
    The Fader control permits the "fading" of one phono. pick-up into another one, permitting the change over from one record to another without interruption. A Special phonograph pick-up im pedance matched input transiormer is self-contained. (Specify whether a low or high impedance pick-up is to be used.) A switch give the choice of phono. pick-up or radio tuner input to the amplifier. These Control Boxes are fur-

    200 or 100 ohms per button (specify whether 100 or 200 ohm single or double button micro phones are to be used.) The dual potentiometers and switches provided for each microphone and phono-radio circuits give complete control of every channel without affecting each other. Thi by-passed to insure faithful reproduction. There is also contained a microphone current switch, for conserving current drain when not in use. The rear view shows two rows of binding posts microphone connections, a set of binding posts or the only two leads that go to the amplifier, volts, or storage battery of a car), and one set of binding posts for the Radio Tuner Outpnt Connections. The lower 2 jacks are for insertion trol board is recommended to be used with a shielded output cable, which can be connected shielded output cable, which can be connected into the input circuit of any amplifier. However, feet away from the thelaced "oun feet away from the amplifier, an "output to Line Transformer can be incorporated in the interior of this unit. (A line to grid transformer closed in a handsome finished steel case (fully shielded !) measuring 10 in . long, 7 in. deep, $61 / 2 \mathrm{in}$. tall. Cat. No. 7062. For One Double Button \$34.50 Cat. No. ${ }^{7063 .}$ For Two Double Button
    "Mikes" (or Four Single
    Button)
    "Coast-to-Coast" WESTON METER EQUTPPED Microphone Control Input Stage
    Available with 100 or 200 Ohm per Button Microphone Transformer, For Either Single or Double Button "Mikes." Also Ideal For Use With Condenser or
     Dynamic Microphones. Permits
    free transfer of sound waves into electrical impulses to be fed into any conventional audio amplifier, with every assurance of maximum efficiency. A WES. TON 0 to 25 MIL.
    LIAMMETER resistance) is ?rovided This, in onjuanction
    with individua

    Cat. No. 7066-R phone button circuit provide accurate balance of current in each button, thereby preventing distortion. Note that switches are also provided to
    cut the meter into any one of the microphone button circuits, offering convenient flexibility and at the same time disconnecting the meter when not in use. The center knob (dual poentiometer) gives perfect volume control-two controls are provided for use in two d-uble but
    ton microphone models. A switch turns on and off the battery current. Handsomely encased in a handsomely finished metal shielded box, meas uring 6 in. long, $33 / 4$ in. deep, $51 / 2$ in. high. permits any placcinent of this unit. All connections to and from this device are made on the rear panel. Cat. No. 7066. For a Double Button or
    Two Single
    Button "Mikes" . . . . . . . . . . . . . . . . .... Cat. No. 7067. For Controlling One or Two "Mikes.") 100 or 200 Ohm per Single Button Button Microphones
    \$19.50

    ## Readrite Meter Equipped

    \$12.75
    Cat. No. 7066-R
    \$15.75

    ## "Coast-to-Coast" Condenser, Dynamic or Double Button Carbon Microphone Input Stage

     unction with all ain plifiers and receivers, to which it is desired to couple any type microphone. It contains a microphone transformer (for 100 or 200 ohms buttons or for 100,200 or 400 ohm lines) 200 or 400 ohm lines), a rheostat with self-contained battery on-off tained battery on-off
    switch. Covers wide
    feed-back! Ample space for inclusion of selfcontained battery. 6 in . long, 4 in . wide, $5 \frac{1 / 2}{2}$ in. tall.
    Cat. No, 7068. For One Single
    Button Microphone
    Cat. No. 7069. For One Double Button Micro phone. (Also Ideal for Two
    \$5.25
    Be Sure to Mention Microphone Resistance Value, 100 or 200 ohms
    "Coast-to-Coast" Junior Model All-Purpose Public Address Control Board for All Types of Carbon-Condenser and Dynamic Microphones
    Permits Any Volume of Speech To Be Super-Imposed over phono. Record or Radio Reproduction. Control the volume of Each One Independently! Ideal for Speech Making uith a Musical Background, furnished by either Phono-

    Records or Radio Tuner!
    This instrument has been primarily designed match the impedance of microphones. pick-ups and Raputs, controlling
     them individual-
    ly or simultane-
    ously! For this
    Cat. No. 7064 purpose a 0.25 milliammeter and a rheostat are mserted into each microphone button circuit. This permits a perfect and equal curent and sen-
    sitivity adjustment for each side of the microphone, which is the desired condition for successiul push-pull input amplification. The three controls are for Microphone Volume Control, Phono-Radio Volume Control and Single or Dual Pick-up Fading. These Controls are of the Dual Fotentiometer type, and as such, the various circuits do not affect each other. A special transformer is self-contained. (Specify, whether a low or a high impedance pick-up is to be used). The rheostats and dry cell are heavily by-passed to insure faithful reproduction. There is also contained a microphone current switch, is also contained a microphone current switch, for conserving current drain, when not in use. Provision is made for instantancous switching from Phono, from Microphone, from Phono and Microphone together, and from Phono. to Radio Tunerl Binding posts provided for attaching either one or two single, or one to two double button microphones. Two pairs of tip jacks are included for two pick uis. Despite the many controls and flexibility of uses of same, only two binding posts are included for connecting the mixing panel to any amplifier All the connec tions to and from this control box are made to appropriate binding posts located on the rear panel. These control boxes can be used at any distance from an amplifier-if over 50 feet, an output to line transformer is recomplendç, Be sure value of the microphone transformer we should incorporate. Handsomely encased in a crystalline finished fully shielded metal case, measuring $85 / 8$ in. long, 358 in. wide,
    558 in. tall.

    $$
    \begin{aligned}
    & \text { Rear View } \\
    & \text {. } 7064 \text { For One Double Button "Mike," } \\
    & \text { to } 2 \text { Single }
    \end{aligned}
    $$ or for 1 to 2 Single

    Button Mikes
    $\$ 19.75$
    Cat. No. 7065. Special Model, for controlling One or Two Double Button 100 or 200 Ohm per button Microphones (or 1 to 4 Single Button "Mikes.") (Specify Microphone Resistance
    \$24.75

    ## Remote Amplifier Tone Control Feature

    Assuming an amplifier is placed out of reach, and it is desired to accentuate the LOW or HIGH FREQUENCIES, we can incorporate trithin Cat. Nos. 7062, 7063, 7064, 7065, 7066, and 7067 INPUT CONTROL BOARDS, listed on this page, a fully effective variable TONE CONTROL. A separate two CONDUCTOR SHIELDED CABLE is then run from this TONE CONTROL to your power anplifier tubes. If you desire this valuable feature, please affix the letters "RTC" to any INPUT CONTROL BOARD Cat. No. ordered, and remix $\$ 3.50$ additional.

    ## "Coast-to-Coast" Broadcast Studio Double Button Microphone

    

    If it is good enough for broadcast studios, then surely this microphone should be purchased for any public address installation - more extremely modest Price this exceptionally efficient microphone is offered at! acteristics speak for itself!
    SPECIFICATIONS
    ELECTRICAL. Frequency Response: Less than 2 db yariation from 30 to OVER 7000 c . P. s. Sensitivity: - 39 at normal speech pressure. Harmonics: None in audible range. Button Resistance: 200 ohms each. Normal Operating Current: 5 to 10 milliamperes per Button. Maximum Safe Current: 18 milliamperes per Button. ME duralumin 24 Kt . gold contacts. Stretched Duralumin diaphragm. Has no natural resonant pelumin diaphragm, Has no natural resonant pe-
    riods. Extremely thin and very sensitive. Dampriods. Extremely thin and very sensitive. Damp-
    ing: Totally air damped with correct anti-damping: Preserves the depth, shading and brilliancy of music and the clean cut personality of speech. Button Pressure: Not appreciable. Diaphragm Stretching Arrangements: Threaded stretching ring exerts pressure equally from every point eliminating all harmonics. Buttons: New type buttons are longer lived and reduce carbon hiss to an inappreciable degree. Advanced performance. Flat response, wide frequency coverage, inin. "hiss" and high sensitivity. Frame: Turned carbon steel of high tensile strength eliminates all possibility of warpage. Tolerances . 001 in Entire assembly chromium plated, Excellent mechanical construction. Inappreciable button presDimensions: $31 / 4$ by 1 , Weigh bridg

    Cat. No. 5760
    "American" Model "SJ" Single Button Microphone
    Extremely rugged in construction, using only the best material obtainable.
    Handles frequencies from 70 to 3000 cycles; the single button is 100 ohm nickel highly polished.

    Cat. No. 6820

    ## \$3.95

    
    "American" Model "EL" Double Button Microphone
    

    Possesses unusual high quality - employs a Stretched, gold-plated diaphragm! Excellent frequency response be-
    tween 40 and 3500 tween 40 and 3500 cycles. Resistance rattou. Highly nickel Value! d. Tremendous Cat. No. 6821. $\$ 5.95$ <br> \section*{Build Your Oven <br> \section*{Build Your Oven <br> Condenser Microphone}
    The present trend in micro phone application seems to lean towards the electro-static type, partly due to the superior frequency response and freedon from carbon hiss. Requires no "button" current. Remains unaffected if position is dis turbed! Complete parts in cluded, together with a fully descriptive assembl tion sheet, and an extra dia phragm. Diameter, $29 / 4$ inCat. No. 6822.it only-compleCat. No. 6823. Factory Assembled-Reary for immerinte, use
    $\$ 9.95$
    "Coast-to-Coast" Super-Sensitive Condenser Microphone Head
    

    Ainazing frequency response, entirely devoid of hiss (sometimes crophones) makes this remarkcrophones) makes this remark-
    able microphone worthy of your able microphone worthy of your
    consideration. Changes in consideration. Change mounting position will not affect
    SPECIFICATIONS: The frame diaphragm is duralumin .001" thick. The elec. trode is hand lapped to within . $000 \mathrm{l}^{\prime \prime}$ in accuracy Long leakage path insures quiet operation. Comvensating device corrects differences in barometric pressure, making it possible to operate it in any part of the world. Frequency response from 30 to 8000 cycles per second! The back electrode is sealed so that it will operate indefinitely. A protective screen prevents injury to the diaphragm. Does not draw any current, at its opto two stage resistance coupled pre-implifier, such as listed in this catalog, $31 / 4 \mathrm{in}$. diameter, 1 in. thick.
    \$29.70

    ## "American" De-Luxe Model Lapel Microphone

    Austretched gold-plated single button carbon microwhone. Will stand current to to 25 mils., 15 nils. being recornmended.erating voltage $11 / 2$ to 6 .
    miper 100 ohms. Fre
    quency range 80 to 3,000
    public speakers be handi-
    
    public speakers be handi-
    capped by the necessity of
    capped by the necessity
    new device is so diminutive microphone. This
    $\$ 27.50$
     worn inconspicuously on the
    lapel of the speaker's coat lapel of the speaker's coat,
    allowing him full freedom of motion, even to the extent of turning his back. Note the convenient clasy-
    on and off in a second! Can on and off in a second! Can
    also be held in the hand when
    talking.
    $\$ 9.75$
    Rear View
    6825.

    ## "American" Supreme Double

    Button MicrophoneExcellent
    pick-up, faithfully reproducing all the notes and sounds within the audible range of the hecially built for Pubic Address
    Anateur Broadcasters, and experimenters. A great many radio broadmodel entirely, when
     model entirely, when grams. Its frequency range is from 45 to 4000 grams. its requency range is fromton and oprates on 6 volts and not over 10 mils per button. Bright nickel finish, highly $\$ \mathbf{1 1 . 5 0}$
    polished. Cat. No. $6826 . . . . . . . . .$.
    "American" Super-Quality Broadcast Studio Double Button Microphone
     An extra large two button microphone
    tremely rugged tremely rugged
    construction, built construction, built es-
    pecially for all broadcastifng purposes. Only the best mav diaphragm is of special duralumin .002 thickness, with pure gold contacts on each
    surface under the butsurface under the but
    tons. This model is $31 / 2$ in, in diameter, by $13 / 4$ in. thick, the fre quency range being from 30 to 7500 cycles; 100 ohms per button, requiring 6 volts with not over 10 mils per button. Very beautiful in appear ance, being of bright nickel finish, highly pol
    ished. This microphone compares with any other microphone on the market in appearance
    and quality of tone.
    Cat. No. 6824.
    

    Tist. \$72.00. Ynur Cost
    $\$ 36.00$
    "American" Ace-High Double Button Microphone
    
    microphone, built of only the finest materia? obtainable, with a very minimum of hiss. This unit uses a duralumin diaphragm . 002 thict ness, with pure gold contacts below gold button the same dia phrarm as you phragm as you obtain in the largest microfrequency range from 30 to 6500 cycles, which is greater than that of competitive models, which use entirely Gold Plated Diaphragms, that cannot give you the frequency response desired. Buttons 100 ohm resistance each, 10 mils. or less, at 6 volts. Many of these models are in use in Broadcasting Stations throughout the country, producing very satisfactory results, with an ever increasing demand. Bright nickel,
    lighly nolished. Cat. No. 6829 . highly flolished. Cat. No. 6829. $\mathbf{\$ 2 4 . 5 0}$
    I.ist, $\$ 50.00$. Ynur Coct...........
    R.C.A.-Victor Recording High Gain Speech Microphone
    Furnished With Radiola 86 and Victor R.E. 57 Home Recording Combinations
    This is not to be confused with "toy" or "stunt purpose" microphones; it cial requiremients. Single button. 100 ohms-draws 10 mils., at $11 / 2$ volts. Gun metal finish. Equipped with 50 -inch length high qualitv phone cord. Total length, $6 \frac{1}{2}$ inches long. Equipped with a 5 ft . cord.
    \$2.45
    Microphone Tone and FeedBack Control
     Permits you to blend or tone down voice impulses passing through ANY MICROPHONE to suit your liking. Also eliminates "feed-baok" resonance, sometimes referred to as a "ringing echo." acoustical cond itions sreatly enhance the feedclosed in an atractively finished metal case. $\$ 4.45$
    Cat. No. 6830
    Universal Microphone Cables and Plugs
    Employs a heavily rubber
    insulated
    covered
    triphe insulated
    conductor
    covered triphe
    appropriately metal shielded (for grounding). Splendid for outdoor use, or in or throukh
    water. The heaviest trucks passing over these cables
    cannot ruin them! Furnished with G. E. Polar ized Armored Male and Female Connectors. Cat. No. Lengih Your Coet

    | 6831 | $6 \mathrm{ft}$. | OUr Cosi |
    | :--- | :---: | ---: |
    | 6832 | $12 \mathrm{ft}$. | $\$ 1.62$ |
    | 6833 | 25 ft | 2.65 |
    | 6834 | 50 ft | 4.41 |
    | 5835 | 100 ft. | 7.08 |

    Midget Single Button Carbon

    ## Type Microphone

    

    Double Button Model
    (100 or 200 Ohms Per Button!)
    Cat. No. 4597
    $\$ 7.45$
    

    Polarized Screw on locking flange feature. Fully water proof-metal jacketed. Tightening clamps accommo
    date any sice caule. Length: $51 / 4$ in., 2 in. diameter.
    Cat. No. 6562.
    Microphone or Speaker Bakelite Cable Polarized Connectors
    
    cable connectors insuring tacts, and con- 100 per cent insulation. The steel armor making the cable clamp as shown. No better plug on the market for carbon microphones. The prong arif in. diam. cord hole.
    

    Bryant 4 Pole Single
    Throw Tumbler Switch
    
     cut-out.
    Cat No. 6565
    55c
    G-E S.P.S.T. Tumbler Switch (Breaks Circuit in 4 Places)

    65 c Cat. No. 6566

    G-ED.P.S.T. Tumbler Switch
    ${ }^{\text {(Bracaks }}$
    twice in ent cuit Cat. No. 75c
    Duplex Phone Plug
    Takes two cords with tips, which are
    $\begin{aligned} & \text { held firmly in place with screw } \\ & \text { Moulded Bakelite handle rugged }\end{aligned}$
    $\begin{aligned} & \text { construction. IIighest grade of ma- } \\ & \text { terials used. Will stand unusual }\end{aligned}$
    amount of hard usage. Fits all jacks.
    29C

    It is only a small part, but serves an mum sound vibration control, yet will not stretch! Made of finest spring bon or condenser microphones. Cat. No. 7208

    756

    Hubbell "Twist-Lock"
    Three Wire Cable Cord Grip Polarized Connectors
    

    Plug-in • in wist jacketed. And they're dates $23 / 32$ in
    Cat. No. 6570
    Male PIug

    76c Cat. No. $6571 \quad \$ 1.29$
    Body
    Hubbell 3 WirePolarized Twist Lock Flush Receptacle. Porcelain Body. Fits Standard Outlets.
    

    ## 3 Wire Polarized Connectors

    ## Cap Cat.

    

    ## Triple Relay

    C
    4 Relay Remote Control Unit
     menters
    ane notice! Each relay can be sepwith 7 wire, 45 in. cable and terminal Hock. Size of bakelite mounting
     Western Electric Microphone Cable and Plug
    

    SIIIELDED WATERPROOF Triple Conductor MICROPHONE CABLE. Can be placed heavy trucks heavy trucks passing over it. Equipstructed male and female plugs.
    Cat.
    7209
    7210
    7211
    7212

    | Zength | Your |
    | :---: | ---: |
    | 12 Ft | Cost |
    | 25 Ft | 3.25 |
    | 50 Ft | 6.20 |
    | $10 n \mathrm{Ft}$. | 10.90 |

    ## Heavy Duty-Water Proof and Damage Proof Heavily Shielded and Quadruple Insulated Stranded Wire Microphone and Speaker Simplex Cable

    

    One Malf Actual Size ver it will Not Damage It mobiles. running over it will Not Damage It or impair its per-
    formance. Due to the heavy gauge stranded wire cmploved (No. 16) heavy gauge stranded wire employed (No. 16) the resistance of each
    conductor is less than One Half An Ohm Per 100 Feet! Ideal for all Public Address Installations!

    The illustrations herewith are selfexplanatory. The sulation is $3 / 32 \mathrm{in}$. sulation is $3 / 32$ in. thick, hereby making the cable absolutely This waterproof! This cable can be actually laid across a strcet, and auto-

    Two Conductor Cable 3/8 In. Over-All Diameter Cat. No. 7189

    Cut to Any Length, $\underset{\boldsymbol{\gamma} c}{ }$ per $f t$.
    THREE CONDUCTOR CABLE

    |  |  |
    | :---: | :---: |
    |  |  |
    |  |  | Cut to Any Length, 8 c Per Foot

    ## Four Conductor Cable

    1/2 In. Over-All Diameter Cat. No. 7190 81/2C ${ }_{\text {Per }}$ Ft.Cut to Any Length, 9c per ft.
    FIVE CONDUCTOR CABLE 9/16 In. Over-all Diameter

    ## Cat. No. 5755

    Cut to Any Length, 11c Per Foot
    Six Conductor Cable 5/8 In. Over-All Diameter Cat. No. 7191
    $12 \mathrm{C}_{\mathrm{Per} \mathrm{Ft}}$
    Cut to Any Length, $13 c$ per $f$ t.

    ## Seven Conductor Cable

    > 3/4 In. Over-All Diameter Cat. No. 1192
    $14 C_{\text {Per Ft }}$
    Per 100 ft. Coil $\ldots$ Length, isc per ft.
    Cut to Any Lent
    Eight Conductor Cable 7/8 In. Over-All Diameter Cat. No. ${ }^{1193}$
    $18 \mathrm{C}_{\text {per Ft. }}$
    Cut to Any Length, 20 c per ft.

    ## Microphone Suspension Ring

    Furnished with 8 microphone springs. 6 inch diameter. Bronze
    sprayed. $7 / 8$ in. wide. Cat. No. 4608
    Cat. No. 4609.
    Silver finish.
    

    For Studio use.
    \$3.95

    Microphone Suspension Springs
    

    Made of piano wire-guaranteed non-rusting. Finely tempered chromium plated Cat. No. 4952. Per Doz.

    Compact Inter-Communication
    -Public-Address Unit
    Can Be Attached to Any Radio Set or Power Amplifier!
    A Complete Ilicrophone input stage, all self-contained in one stage, all self-contattied in one
    box, including a really sensibox, inclucing a really sensiSingle Button Microphone, Single Button Microphone,
    Potentiometer, Switch, Input, "ransformer, $4 \frac{1}{2}$ Volt "C" Battery receptacle and 25 ft . Double Cord. This box when connected to any Radio set or Amplifier can be used as a Calling System, Broadcasting device or for countless other uses. Assembled and ready to be attached to a Radio or Amplifier. Equipped with handle for carrying purposes. Size $6 \mathrm{in} . \times 6 \mathrm{inl} \times 10$ in. Nicely finished wood-you can rest this unit on any desk, and feel justly proud
    \$10.95
    Pre-Amplifier Stage Equipped

    ## P. A. Unit

    Identical to Cat. No. 4599 above described, except a fully effective PreAmplitier Stage, requiring a 230 type dry cell battery operated tube, is self:contained. The purpose of this anplifier stage is obviously to boost output of the normal microphone circuit, so as to insure ample voluine, under all circumistances. Requircs external power supply as follows: Two $1 / 1 /$ yolt dry bat eries, Completet
    eration!
    eration!
    Cat. No. 6340.
    $\$ 16.95$

    ## Midget Hand or Desk Microphone

    Hear your own voice broad casting over the radio-will furnish excellicnt entertainfriends. May be operated in any roonn you clioose distance does not interfere. Your own voice is clearly repro-
    duced in the radio speaker. All you have to do is press a Aitle bution on top of the Mike and do the broadcastMike and do the broadcasting yourself. This automatically cuts off or diminishes the program on the radio and your voice appears instead. When you have finished talking, release the button, and the program re-
    turns. Alidget Hand-Mike is no larger than a turns. Midget Hand-Mike is no larger than a small alarm clock and is easily, attached to any radio in two minutes-no tools are necessary. The simple instructions that come with it ent-
    able you to attach it yourself. Made of white oronze, beautifully designed and chromium plated
    $\qquad$ \$3.53
    "Gem" Broadcasting Microphone and Desk or Floor Stand
     Can be used for all broadcasting pur poses, precision instrument buit for ing. You will marvel studio broadeast performance of these instruments. Clear and distinct. No feedback-they are scientifically designed and manufactured. These microphones are sentsitive enough to detect and transmit sitive enough to detect and transmit the slightestone construction! Can be atlached and used with every radio. They permit cutting in on any programmethey can be used with any form of public adthey can be used with any form of public ad-
    dress anplifier. Microphones and stands are dress anplifier. Microphones and stands are
    nade of white bronze castings. The stands are made of white bronze castings. The stands are
    finished in a beautiful bronze effect. Are equipped with a Microphone transformer and "C" Battery, also an "On" and "Off" switch, the same being btuilt on the inside of the base. The " C " Battery with intermittant use will last approximately six months and can be easily changed, if found necessary. All Microphones furnished with 25 ioot cords
    Cat. No. 6342. Table Model complete as above described, mounted on stand,
    height 17 in. over all.
    $\$ 5.88$
    Cat No. 6343. Floor Model, same 6342, except the stand, telescopes from 4 to 7 feet
    $\$ 8.24$
    Table And Floor Stands Available SeparatelyIIlusirated and Described Immediately Above. Cat. No. 6344. 17 in. tall table
    model, with switch
    $\$ 2.94$
    Cat. No. 634548 in. to 84 in.
    \$5.30

    Table or Desk Microphone Stand
    

    This type stand supplied with 8 microphone springs and toggle switch for switching the microphone on or off. Diameter of ring $6^{\prime \prime}$ and the entire stand finished in dark bronze. The base is made of casted heavy material so that the nucrophone is never top heavy Ideal for portable microphones for atnateur phone transmission or for public address systems. $\$ 3.95$

    Cast Iron Floor Stand
    Adjustable 45 in. to 72 in.
    6 in. Diameter Ring. Bronze finish.
    Eight Microphone Springs included.
    Cat. No. 1823
    $\$ 7.95$

    ## SPECIAL OFFER

    This Stund, complete rith "CO.AST. TO-COAST' Cat. No. 5.60 BRO.AD CAST
    PHONE
    $\$ 31.50$
    De Luxe Finish Broadcast Use Microphone Floor Stand

    Is specially desigued for rigidity wilh heavy base for thrm soid support. No chance for swaying or vibrating. Extends from $40^{\prime \prime}$ to $72^{\prime \prime}$. A large size screw securely holds extension in place, thus preventing any possibility of its dropping and damaging the microphone. Bent suspension hooks for easy insertion of springs. Eigh springs included. Finished in handsome brushed steel.

    ## Cat. No. 6346

    \$12.95
    SPECIAL OFFER This Stand, Complete with "COAST-
    TO-CO,1ST" Cat. No. 5760 BROSD TO-COAST: Cat. No. 5760 BROADCAST STUDIO MICRO.
    PHONE..........

    ## Three Conductor Shielded

    Microphone CableThe finest cable obtan:
    able. Consists of 3 indi-
    vidually insulated cables
    color coded. Each indi-
    vidual cable has rubber
    
    insulating and cotton
    covering. Woven, flexi-
    ble tinned copper shield self cotton covered. Cable is finished with spade tips on both ends. A shielded ground lug is provided on one end of cable. Supplied as follows
    Cat No. 1938
    BC
    Per ft. (Cut to any length l)
    Stock Lengths
    Cat. No. 1939
    
    ${ }^{25} \mathrm{ft}$....i9i
    $\$ 2.75$
    50 f

    ## 5 Wire Shielded Cable

    Sinilar to the 3 Conductor Microphone cable above described and
    Per 100 Rt Roll
    $\$ 7.50$

    ## Flexible Un-Shielded MicroPhone Cable

    Contains 3 Conductors-Similar to Above Described Shielded Cable, Except It Has No Outer Metallic Shield-Very Well Insuiated
    
    
    
    Cat. No. 1937
    Pat. No. $1 . .$.

    ## General Electric Victor

    Phono. Table Ensemble
    BRAND NEW
    Shipped in Original Factory Sealed Cartons Note Exclusive Sliding Hinging Motion! Contains a Gen eral
    Electric Electric Heavy Duty steady Speer Induc
    tion Motor, and General Electric electric phono. pick-up (with Inertia
    Tone Armi). T llere is Control, Volume Control, and Automatic Stop. A Switch is also provided for optional use of Radio or Notenograph as wete as ano. Pick-up Impedance Switch. Note that a Phono. Pick-up lmpedance
    matching transformer is also included-a valumatching tra
    The End Table is easily worth $\$ 20.00$ by itself The walnut
    through closed permits the use of same as a coffee table! It
    stands 24 in. tall, and is 26 in. long, by $151 / 4$ in. A shelt across the bottom permints amplifier - record etc. $\$ 19.50$
    

    ## R. C. A.-Victor Phono. Table Ensemble <br> Equipped F'ith Conventional

    Hinging Cover $\$ \mathbf{\$ 1 7 . 5 0}$Cat. No. 5400
    "Coast-to-Coast" Weston Meter Equipped Vacuum Tube Peak (A. C. and D. C.) Voltmeter
     Superior to All Other Types as It Does Not Affect Voltages Impress-
    ed Upon It-Due to ed Upon It-Due to 4 Megohms as Compared 1000 Ohms PerVole? Employs a Weston 0 to 1 Milliammeter, which is nlaced
    in the PLATE CIRCUIT of a self-contained 30 tube. Calibrated in 3 Ranges:
    0 to $1 / 100$ th of a volt, 0 to $1 / 10 \mathrm{~h}$ of a vult, and 0 to $21 / 2$ Volts. A chart furmished shows how to measure up to 1000 volts! ldeal for measuring GAIN of any kind of a tuhe, trans-
    former or conplete R.F., I.F., and A.F. Stage. former or complete R.F.; I.F. and A.F. Stage. to servicemen and laboratories! A chart also
    furnished shows how to measure DB's of Prefurnished shows how to measure D B's of Pre-
    amplifers, audio stages, transmission lines. Mis amplifers, audio stages, transnission hines. Has
    
    

    Neon Continuity and Condenser
    Connect A.C. ccrd to
    Connect A.C. ccrd to
    110 volt 60 cycle out.
    let. Touch test prods let. Touch test prods If a condenser is be ester
    ing tested, a momen.
    tary hash when the a good condenser. A regular, intermittent flashing when the test leads are maintained across the condenser terminals shows a high resistance leik. A continuous (low resistance leak-poor condenser), and a bright glow indicates a dead short. In general. When the test leads are applied to any other electrical part, a bright glow indicates continuity, low resistance, or short circuit, a dim glow indicates a high resistance path, a
    to glow at all indicates an open circuit.
    Enclosed in a neatly japanned metal case, with Encher feet. measuring over-all
    in. tall. Equipped with a G-E Neon Bulb. self contained 112 Vacuum Tube Voltmeter seif contained
    Principle Tube, a line cord and
    insulated test prods and cable. insulated test
    Cat. No. 7107.
    $\$ 9.75$
    "Coast-to-Coast" 1933 Improved Model Condenser Microphone Head and SelfContained 2 Stage Pre-Amplifier
    

    Excellent for Use in All Broadcast Studios and in All P. A. Installations Where Highest Quality Reproduction and Extreme Sensitivity Are Desired
    Offers the exclusive
    aflyantage of being
    FREE of hiss and FREE of hiss and
    noise background, sometinies characteris tiv of other type microphones. Actually is far
    more sensitive than any other type more sensitive than any other type. of offers greater pick-up sensitivity on pick-up of distant sounds. Its range is actually limited only by the will it blast. Aging has no effect on it-performs continuously in a nost satisfactory manner. Eniploys a duralumin diaphragm, which is laboratory aligned. A wire mash shield prevents tampcring of the microphone interior. Chrome plated head. Can be mounted in any conceivable position The pre-amplitier case is solidly made of heavy steel, neatly black japanned, and measures $+x$ $61 / 2 \times 71 / 2 \mathrm{in}. \mathrm{decp}. \mathrm{Weight} 81 /$,2 los. Equipped
    with a standald threaded bushing for attachment to any microphone stand. Can also be suspended trom a ceiling in any room or rozf of a sound truck, etc. A 10 ft . long 6 wire heavily in fillated cable is included for all battery and out srages of 237 noiseless resistancer contains two stages of 237 noiseless resistance coupled ampli-
    fication. The tube sockets are cleverly rubber fication. The tube sockets are cleverly rubber
    cushioned, to prevent microphonic noises. The cushoned, to prevent microphonic noises. The
    output is 200 ohms, and can be connected directly to a 200 ohm primary input microphone transformer, the secondary of which is connected direclifer to the grid ciucuit of the 1 st tube in any
    amplifier The output transformer included permits the installation of this CONDENSEI MICROPHONE any distance, even 2.000 feet, from the P.A. Amplifier. Requires 180 Volts "B" battery, at 10 mils, and 6 volts, at .6 mil. TO-COAST" INPUT CONTROL BOX. Cat. No. 7100. Condenser Head only, $\$ 39.54$
    lcss amplifer. ...................... $\$ 39$ scribed, Including 2 Stage Pre-Ampli- \$69.50 Cat. No. 7102. Stand-adjustable from 52" to $63^{\prime \prime}$. Accommodates Pre-Anmplifier \$14.75 Cat. No. $7103 . \quad$ DESK STAND-12 $12 \$ 7.50$
    ln. Tall..
    
    "Coast-to-Coast" Dual Control and Low Frequency Tone Compensator
    Ideal for Use Across Any 100 to 3000
    Ohm Impedance Circuits
    

    The two controls pro vided permit you to
    greatly diminish the volume intensity of both or either bass
    or high frequencies, to compensate for conditions, or to re move phono needle scratch or carbon mi-
    crophone hiss disturbances.
    justment of each control does not affect the other, and by setting these controls to their off position, normal reproduction in both the high and low frequency ranges is restore mounted
    
    Cat. No. 7070

    ## Fibre Tubing

     Solid Bakelite Rod
    Cat. No. 7482.
    Cat.

    # "COAST-TO-COAST" ALL PURPOSE 1, 2 OR 3 STAGE CARBON, CONDENSER, DYNAMIC MICROPHONE, PHONO PICK-UP OR SOUND-ON-FILM PRE-AMPLIFIERS 

    SOUND-ON-FILM PRE-AMPLIFIERS}
    
    tortion due to use of RESISTANCE COUPLING. Tube Sockets rest or sponge rubber, to prevent microphonic guaranteed to perform noiselessly Housed in fully shielded steel boxes, pro for polarized socket holes, if requested stead of employing binding post termi nals, as illustrated. Refiuires externa batteries as follows: 90 to 180 Volts or, 6 volts "A" for 237 type tubes When employing Sound-On.Filin Photo Microphones, 2 or 3 Stages are required For Carbon Microphones or Phono Pick-ups. 1 or 2 Stages are required
    special input transformers, subject to your requirements-state for what pur for a 200 ohul line-however, we can furnish any other transformer, from 50 to 150,000 ohms, according to your specification, to match the INPUT IM PEDANCE of your amplifier. Note carrying handle-extremely compact Equipped with OVER-ALL GAIN CONTROL. ON-OFF SWITCH.
    Cat. No. 7126-M 27
    1 Stage Pre-Amplifier
    \$19.50
    Cat. No. 7127-M 28
    2 Stage Pre-Amplifie
    $\$ 27.50$
    Cat. No. 7128-M 29
    3 Stage Pre-Amplifier
    $\$ 39.50$

    NOTE: No tubes are included at the prices above shownhowever, INPUT and OUTPUT Provisions are included.

    ## SUPER-SENSITIVE Combination 33 1/3 and 78 R.P.M. Phono. Pick-Ups <br> Available in High or Low Impedance-Models and Equipped With a Self-contained Volume Control

    The Free Movenent of armature while in riding position on the record will prolong the life of the record naterially and will allow for any warp in line with other type units'at the frequency range of 4000 to 5000 cycles and cut off sharply at this range. No one wants all highs and no funda mentals. Hydro covers the range from 32 cycle straight through the register with greater output than other type units. Many other type units produce no voltage output from 32 cycles to about 60 cycles. The new Hydro unit has greater output with a full round smooth tone with half the needle scratch. Plays equally, well Cat. No. 5348. High Impedance
    Unit. (Universal Use!)
    (U.7........... Unit.
    Cat.
    (Universal
    $5348-\mathrm{A}$ Cat. No. 5348-A. Special Matched High Im.
    Transformer $\$ 2.95$
    Cat. No 5348 - B. Low Impedance Unit. ( 200 shms-Use with conventio
    phone Input Transformer)

    16 Inch Theatrical Record Long Tone Arm Models
    

    Designed for 33 1/3 and 78 R.P.M. Records Cat. No. 5431-High Impedance unit $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ $\$ 7.95$

    Cat. No. 5431-A.-Special matched $\$ 2.95$ Cat. No. S431-B.-Low Impedance unit.
    ohnins, use with any suitable micro- $\mathbf{( 2 0 0}$
    phone Inyut Transforiner). .
    

    Allen Hough Synchronous Motor

    Only $11 / 4$ in. thick. Re volves exact speed of 78 R.P.M. despite any voltage variation in 110 volt, 60 cycle 10.in turn-table included
    $\$ 3.25$
    General Electric Synchronous Phono. Motor
    Furnished with a 10 Inch Felt Lined Turn-Table
    

    Only $3 \mathrm{I} / 4 \mathrm{in}$. deej! Turn-table revolves at pre cisely the sane number of prescribed turns per munute (namely, 78 R.P.M.) despite voltage pitch pitch. o. 5010 10 producing
    \$3.75

    General Electric Portable Dual Section Speaker Trunk With or Without Jensen or Wright De Coster Speakers
    

    Permits Installation of One or Two (Up to 14 in. Diameter) Dynamic Speakers Each Perfectly Baffled Unit Can Be Placed Any Distance Front Each Other! These trunks are very substantially huilt, and will withstand the roughest usage, yet they are markably light weight! It will be noted from e illustrations herewith that the unique two -ction construction of this miniature trunk permits both halfs to be separately detached.
    the nen ers do not strike or touch each other. A lock, key, and clasps, etc., of the conventional trunk type are provided. The carrying handle is expra
    thick leather and is securely bolted to the case.

    All the edges are metal lined, and provided with beavy gauge metal corners. The dynamic speaker mounting surface forms an unusualiy effective and acoustically perfect baffle, neasuring $213 / 8$ in. 22 in. The cone diaphragm is protectell by a porthole cover. ( $81 / 2 \mathrm{in}$. diameter) fitted with a snap lock-in operation, this cover can be hinged backwards. Roomy enough to store and transport other equipment, such as substantiai lengths of spenker extension cable, control board, microphones, Pre-Amplifires, etc. When closed together, the overall dimensions of the entire case gether, the overall dimensions of the ent in. $231 / 4 \mathrm{in}$. long, $123 /$ ind. Cat. No. 7484. G-E' Portable "Trunk." (Two Sections.) Less Any Speaker
    $\$ 22.50$
    Cat. No. 7485. Same as Cat. No. 7484, but equipped with your choice of 2 JEN- $\$ 34.50$ (Two A.C. Models, $\$ 7.50$ Additional) Cat. No. 7486. Same as Cat. No. 7484. but equipped with your choice of 2 WRIGHT DE COSTER D.C. DYNAMIC

    ## SPEAKERS

    $\$ 47.50$
    (Two A.C. Models, $\$ 10$ Additional) NOTE: State D. C. Resistance Desired of Speakers Ordered, as Well as Output Transformer Requirements.

    Pre-Grooved and Plain Aluminum Phono. Discs
    

    Double Faced. 6 in. Double Faced.
    diameter allows
    in. minute recording on each side-8 in., ${ }^{2}$ minutes on 3 each side on each in.: ${ }^{3}$

    Cat. No. ${ }^{7606 .}$ Special Carbon Steel Recording Needles. For Use on either Plain or PreGrooved Records (Aluminum or Black Compo sition). Cuts a "U" shaped groove. 25C
    Per Package of 15 Needles............

    Cat. No. 1945
    Cat. No. 1946.
    Pre-Grooved

    Cat. No. 1946.
    8 inch
    40c 60c 80c

    |  | Size | Playing Time |  |
    | :--- | ---: | ---: | ---: |
    | Cat. No. 5011. | 6 in. | $13 / 2$ minutes | 19 c |
    | Cat. No. 5012. | $71 / 2 \mathrm{in}$. | 2 minutes | 29 c |
    | Cat. No. 5013. | 10 in. | $33 / 4$ minutes | 49 c |
    | Cat. No. 5014. | 12 in. | 5 minutes | 59 c |

    Presto Recording Equipment Pre-Grooves Its Own Records:
    

    It is a proven scientific instrument that reproduces any sound With startling realism self! The records are permanent and can be played many hundreds loss of the origina brilliance of reproduction. With Presto, your home or store is transforined into a perfect recording studio. Comes to you complete with motor, turitable, volume control, microphone, patented feed mechanisin and recording head, selector switch and radio-phonograph switch, and is housed in a beautiful compact portable leatherette case. Converts your radio or any amplifier into an Electric Phonograph that will play all standard records. It both makes and plays back records. Uses a smooth metal dise (not pregrooved) $6,8,10$ or 12 inches in diameter and cuts its own grooves as it records. List : $\$ 85.00$. Completely assembled and wired. Ready to op erate. Instantly attachable to any make radio Cat. No. 5007. COMPLETE. AS $\$ 39.50$
    ILLUSTRATED. ................. $\$ \mathbf{8}$

    ## "COAST-TO-COAST" Model RH-51 Recording Head

    Ideal for those who already have a phono. pickup, motor and turntable. This complete outfit consists of : A Cutting Head. Swivel Arin. Auto matic Threader. Center Spindle, Miscellaneous Hardware, and Complete Operating Instructions. Can be installed across any present phono, turn table. For $331 / 3$ and 78 R.P.M. Recordings.
    Cat. No. 7487. Complete as Described. Choice of 15 S. soo or 4000 orm Impedance $\$ 19.50$
    Cuting
    Head.

    Racon Dynamic Horn Units can also be furnished with 90 to 140 Volt D.C. 1000 to 3000 ohm fields, (instead of 6 volts D.C.) Their field excitation, for from one to four such units, can then be furnished by any "COAST-TO-COAST' Public Address Amplifier!

    Racon Super-Giant Electrodynamic Horn Unit
    Ideal for All Class "B" or 50 Watt Class " $A$ " Amplifiers
     ${ }_{\text {cit }}^{6.8}$ yoit D. C. field ex citation. in 1.0 ampere
     pedance. Continuous op: pedance. Continuous op.
    erating capacity 8 watts. erating capacty 8 watts.
    eak
    load
    capacits
    25 watts. Particularly adapted for theatre and audito:ium use where the finest quality repro-
    duction is yequired. Has standard threaded collar able in $1000-2500$ and 3000 ohm Field, 90 to 140 Volt D. C. Morlels.
    

    ## Racon Giant Electrodynamic

    Horn Unit6.8 volt D. C. field excitation. 1.1 anpere consumption at 6
    volts. 15 ohm voice coil impeyolts. 15 ohm voice coil impe-
    dance. Continuous operating cadance. Continuous operating ca-
    pacity $7-8$ watts. Peak load capacity $7-8$ watts. Peiak load ca-
    pacity 25 watts. scrviceable unit with pericet re. production; can be used for all gencral sound purposes. Special heavy duty construction for aero-
     plane and hi-power public ad-
    dress work, if dcsi-ed. $11 / 2 \times 18.7$ in. tall, 6 in. diameter 140 Volt D. C. Models. Weight $\$ 35.28$

    Racon Master Electrodynamic Horn Unit po., mis. Models.
     6.8
    field
    volt D. D C
    C 1.1 ampere consumption
    volts. ${ }_{15}$ at ${ }^{6} 6$ voice coil inspedance. Continupacity $6-7$ watts. Peak load capacity 25 watts. powered unit especially suitable for portable systems and pernaquired. The perfect reproducer. Standard threaded collar, $11 / 2$ к 18.6 in. tall, 6 in . diameter. This unit can also be furnished with a $131 / 2$ pounds.
    Cat. No. 6444
    $\$ 29.40$
    Racon Junior Horn Unit
    Electrodynamic. 6.8 volt field excitation, 1.1 amp. consumption.
    Peak load capacity is. 15 watts.
    Weight: 11 lbs. Cat. No. 7183 .... $\mathbf{\$ 2 3 . 5 0}$ Weight: 11 lbs. Cat. No. 7183.

    ## Racon Baby Horn Unit

    Electrodynamic. 6 volt excitation. $1 / 4 \mathrm{amp}$.
    

    Racon Magnetic Unit
    Requires NO FIELD EXCITATION! Continuous operating capacity is 2 watts. Impedance is 2000 ohms. Reproduces without blasting and is reommended for public address use where great volume and projection are re-
    quired. Weight: 4 lbs. Cat. No. 7185.
    $\$ 14.70$
    a NOTE: Cat. Nos. 7183 and 7184 can be furnished with a choice of 1000 -2500-3000 ohm Fields.

    ## RACON EXPONENTIAL TRUMPETS

    Made of impregnated and hardened fabric-will withstand the rigors of all climates, seasons and temperature variations. Light-weight, despite apparent bulk. Acoustically perfectly designed and constructed. Equipped with standard threaded mounting collars.

    ## 31/2 Foot Trumpet

    Bell 22 inches round
    STORMPROOF MODEL. Lquipped with metal beaded edge, cast aiuminum ferrule and suspension ring. Guaranteed for one year. For out $91 / 2$ pounds.
    Cat. No. 6451
    \$23.42
    DE LUXE MODEL. Equipped with metal headed edge, cast aluminund terrule and suspension ring. For indoor use or temporary outdoor use. Weight 7 pounds.
    Cat. No. 6452
    \$14.70
    REGULAR MODEL. Equipped with metal beadcd edge, metal ferrule and suspension ring.
     Cat. No. 6453.

    ## 6 Foot Trumpet

    STORMPROOF Bell 30 inches round.
    STORMPROOF MODEL. Equipped with metal beaded edge, cast aluminum throat and 4 inch
    suspension ring. For outdoor use in all climates suspension ring. For outdoor use in all climates and weathers. Single unit horn pounds.
    Cat. No. 6454
    \$38.22
    REGULAR MODEL. Equipped with metal hicaded edge, cast aluminum throat, and + inch suspension ring. For indoor use only in all
    climates. Weight 17 pounds.
    Cat. No. $6455 . . . . . . . . . . . . . . . . . . . . .$.
    $\mathbf{\$ 2 4}$
    Cat. No. 6455.

    Racon Dual Unit 6 Ft. Trumpet
    Bell 30 in. round. Length overall 64 in . IS $\quad \begin{aligned} & \text { REGGULAR TYPE. } \\ & \text { For indoor work only. } \\ & \text { Veight } 19 \text { pounds. }\end{aligned}$ STORMPROOFED, metal beaded edge. Cast aluminum throat section. Demountable, Loose couplings for units. Equipped to operate with 2 Ciant Units. A powerful Public Address Horn. where great projection is desired. Weight 23
    pounds. Cat. No. 6457.
    $\$ 44.10$
    4 UNIT HORN. Weipht 30 pounds. Ideal for acroplanes-or long range P. A. soun Demountable.
    \$79.32

    Racon Electro-Dynamic Horn Unit Field Exciters
    Furnishes 6 wolts D.C.
    fueld excitation. Hum-
    less! Will not heat up
    -perforated casing.
    For One Racon Unit

    Racon Dynamic Cone Flared Baffle Horn
    For Outdoor Use, A Protection Chamber Can Be Built Around the Baffe Mounting Board.
    

    Equipped with mounting block ior the cone and patented seli-supporting frame Any size dynamic speaker can be mounted to this
    over-size baffle board. Particularly designed to make a more directional speaker of this particular type, and at the same tine increasing the efficiency, together with giving better distribution by loading the diaphragm.
    Cat. No.
    $6459 . \quad$ Bell 18 in.
    30 in. Depth 10 in.
    6460. Bell 27 in. $\times 27$ in. Depth 24 in. $\quad \$ 7.06$
    6461. Well 36 in. $x 36 \mathrm{in}$. Depth $24 \mathrm{in}$.
    $\begin{array}{llll}\text { 6462. Bell } 41 \text { in. } x+1 \text { in. Depth } 15 \text { in. } & 23.52 \\ 6463 . & B e l l & 4 t \text { in. } x+4 \text { in. Depth } 24 \text { in. } & 26.46\end{array}$
    Racon Triple Horn Connector
    Permits the use of tirree horns from one Racon elec. tro-dyamic unit. Distribequally through each, without choking or reducing the out choking or reducing the
    efficiency. Dispersion angle, 105 degrees.
    Connector only, \$11.76
    Dual Connector: $\mathbf{\$ 8 . 8 2}$
    Cat. No. 6465.
    \$8.82
    

    R_ACON Electro-Dynamic Unit-Triple Connector and Three $31 / 2$ Foot Trumpets.
    As Illustrated. Complete
    Cat. No. 6466.
    $\$ 72.03$
    Mayo Attenuator Control
    

    Amaintable to use as a control. Supplied in control. Supplied in 200 and 500 Ohms, the 200 and 500 Ohms, the control being a T-Pad. is desired, same can be is desired, same can be
    furnished upon request furnished upon request. Different impedances can also be supplied on on of this control is $3 \mathrm{~L} / 2$ innum wattage dissipation of this control is $3 \mathrm{I} / 2$ watts, (although they can be supplied on order up to and including 50 watts). The resistance clement is wire wound of the finest Nichrome Enameled Wire, supplied standard with a lefthand taper and all terminals of the control are insulated from the crystalized steel case it is mounted in. Both the plate and the control can be removed from the case for panel mounting, or can be furnished with the case off if so desired. Aluminum scale, black background, case finished in cither brown or black crystal.
    Cat No. 1866
    $\$ 7.20$

    ## Mayo Fader Control

    Has been designed especially for the fading of two lines of alike impedances, either one or the cther noiselessly, Supplied standard in a font and 400 ohm impedance, enabling the mixing of two 100 ohm lines. or two 200 ohm lines. Supplied in either impedance upon request. $\$ 5.41$
    Cat. No. $7187 . . . . . . . . . . . . . . . . .4$

    Four Racon Speaker Dry Rectifier
    Consists of four rectifiers as illus. trated. mounted within one rentilated case. Furnishes nerfect $D$. $C$. to one to four 6 volt $D$, C. fields,
    FROM $A X^{\prime} Y 110$ volt. 50 to 60
    cycle. A. C. line!
    Cat. No. 7483 . Complete. $\$ 16.51$

    JENSEN 1933 DESIGN AUDITORIUM MODEL A.C. and D.C. 30 WATT PEAK LOAD CAPACITY ELECTRO-

    View of Hooded Terminal Block. This Speaker Weighs 45 lbs.
    These Dynamic Reproducers Are a Flattering Tribute 10 Jensen's Former Spealser Achievements: Four years of constant research and impruvement in previous Jensen Auditorium Series Elec-
    tro-Dynamic Speakers has led to the introduc-tro-Dynamic Speakers has led to the introduc-
    tion of these two new Jensen Auditoriun Models. Their introduction marks the most progressive step ever made in electro-dynamic cone speaker design. Higher in efficiency, more ruggedty con-
    strueted, capable of handling extreme power instrueted, capable of handing extreme power in-
    puts, and amazing fidelity of reproduction, places puts, and amazing fidelity of reproduction, places
    these two new speakers at the head of all previous achievements in electro-dynamic cone speaker designs. Highly recommended for all
    outdoor or indoor Public Address Amplifiers, outdoor or indoor Public Address Amplifers,
    being superior to air column horn units, due to their ability to handle greater amplifer output loads plus the fact that their installation behind
    a baffle will give a wider sound distribution than a bafte will give a wider sound distribution than
    directional air column horns and trumpets.

    ## Most Superior Reproducers of Speech and Music!

    These new, models are available in two types,
    Series "M," designed for general use, and Series
    "V," "V,", designed for use where the seproduction of voice is the chief requirement, although this model too can be truqy considered as ideal for
    general use also ${ }^{\text {The }}$ Series " $M$ " Spakers general use alsot The Series " $M$ " Speakers
    offer a uniform high frequency response and an ofrer a uniform high frequency response and an
    unusual hish efficiency in the low frequency range. Series, "M", speakers are particularly recommended when the reproduction of music is the
    chief requirement. although voice reproduction
     sheakers have a rise in efficiency. in the normal high frequency range and the adjustment of the
    
    large excursions of the cone structure. They are particularly desirable in theatre and public adIress systems. Speakers are at least $400 \%$ more efficient than the conventional type of electro-dynamic cone speaker! For example, adding one of these speakers to any amplifier is the comparable equivalent of using type 250 tubes instead of
    type 245 , or, the equivalent of using type 845 type 245 , or, the equivalent of using type 885
    tubes in place, of type $250{ }^{\circ}$ s 1 The addition of
    these speakers, therefore, to any amplifier system these speakers, therefore, to any amplifier system is an economical means of greatly increasing the power of the systetn WITHOUT ADDING TO
    THE COST SFTHE AMPLIFIER ITSELFI
    WE SINCERELY RECOMMEND THEIR WE SINCERELY RECOMMEND THEIR PUBLIC ADDRESS AMPLIFIERI The moving system is critically damped so that the reproduction of spurious transients are reduced
    to a minimum. Bass response is unusually good without any 'boom"' effect. The cone is sufficiently large to give good radiation, and the In the interest of introducing a minimum of dis. tortion it is wise to take advantage of the remarkably high efficiency of these new speakers inputs. However, the speakers are fully capable of continuously handling 15 watts of energy, but the sound output from 15 watts celectrical input
    

    ## No Other Dynamic Speaker Made Can Compare with This Amazing Engineering

    ## Triumph

    ACTUALLY HANDLE PEAK LOADS OF 30 WATTS ELECTRICAL INPUT 1 Where sound output is not sufficient to cover a desired area, two or more speakers should be used rather speaker. For good low frequency a single speafle area the equivalent of a six foot square baffle area the equivalent of a six foot square
    should be used. For dual operation, two speaksers should be mounted on the same baffle. Oppoers should be mounted on the same baffle. Oppo-
    site directional distribution will be obtained by site directional distribution will be obtained site directions. Short horn type baffles may be site directions. Short horn type bafles may be
    used with good results for directional distribution. 110 Volt, $50-60$ Cycle A. C. operated models use the new type 82 Mercury Rectifier Tube. The filter system is so designed that the hum is un-
    usually low, even considering the high efficiency usually low, even considering the high efficiency
    of the speaker. Tlis has been accomplished
    Equipped With Jensen TYM-FLEX ONE PIECE CONE
    acellent for Use With All Class 'st's and Class 'fis' Sound Truck and Auditorium Public Address Amplifiers

    Front Viext
    of D.C.
    Operated ModelNote the $21 / 2$
    Inch Diam-- eter Voice Coil and Imposing Appearance Suggesting Ability to Reproduce Enormous Volume!
    without any suppression of the speakers low freQuency response characteristics. Approved by the Underwriters Laboratories
    In the past, speakers for heavy duty use have generally been deficient, particularly in the low and middle frequency ranges. The uniform high
    efficiency of the new Jensen Auditorium Speaters efficiency of the new Jensen Auditorium Speakers makes it unnecessary for the amplifier and associated equipment to have excessive gain in the
    middle and low frequency ranges ind middle and low frequency ranges in order to make up for this deficiency in the loud speakers. Both Series "M" and "V" Speakers are operated to the best advantage from an amplifier with pick-up or microphone combination having AIL Moflels Ate Farmisfed with Voice Coil Impedance Matching Transformers
    
     dance: Type "Mo," 8 ohms; Type "V," 10 ohns. The field coils consume 36.3 watts. The 110 volt D.C. model, for use on 110 volt D.C. Public Utility current, is 160 ohms. The 110 volt $\mathbf{D}, \mathrm{C}$.
    Model, obtaining its necessary 350 volts $\mathbf{D . C}$. from the power pack in a Public Address Antplifier, is rated at 3000 ohms, 110 mils All connections, ficld, A.C. Line or to push-pull output transformer) are made behind a sheathed terminal bloch. The over-all dimensions are as follows: $13 \mathrm{23/32}$ in. tall, $135 / 16$
    in. wide, $853 / 64$ in. deep-requires $2 \quad 12 \mathrm{in}$. in. Wide, 8 diameter baffle $3 / 64$ in.

    ## D. C. Models

    \section*{Cat No 6958. 6-110-320 Volt <br> | D.c. |
    | :--- |
    | $\mathbf{2 7 . 0 0}$ |}

    ## A. C. Operated Models Require 82 Mercury Vapor <br> Rectifier Tube

    Cat. No. 6959. 110 or 220 Volts,
    $50-60$ Cycles A. c................. $\mathbf{\$ 4 0}$
    
    
    Cycles A. A. C. Models Consume 50 Watts
    A.

    ## WRIGEIT-DECOSTME"COAST-TO-COASTM D.C. ANDA.C. SERIES DYNAMIC SPEAKERS <br> Marmfactured Specially for the House of "Coast-to-Coast" by Wright-De Coster, Inc.

    The International Reputation rightfully enjoyed by Wright-De Coster Co., due to the outstanding merits and superiority of their reproducers, was instrumental in causing us to enter into negotia-
    tions with them to produce to our rigid specifications with them to produce to our rigid specifica-
    tions this special series of Dynamic Reproducers, to meet the severe requirements of "COAST.TO" COAST" Public Address Amplifiers good name by recommending these our own good name by recommending these reproducers as standard drnamic speaker equipment with our
    amplifiers, unless they performed $100 \%$ satisfactorly to meet our amplifiers' unusual requirefactorly to meet our amplifiers' unusual require-
    ments!

    ## Enjoys a Continuous Pover Handing

    Capacity of 6 to 8 Watts-Will Handle Peak Load Capacities of Up to 15 Watts!Due to their genarous design, over-size field
    coil and diaphragm, these dynatnic speakers will coil and diaphragm, these dynarnic speakers will produce huge volume free of blasting and rattling,
    with an unusually excellent degree of realism that is amazingly the lling! It is of course advisable to use several of these speakers, to handle continuous loads greater than its con-
    servatively rated normal operating capacity. For instance. for continuous loads of 12.9 watts to
    units, and with 25 watts continuous loads, developed hy a Class " $B$ " amplifier, at least four units should be employed. Naturally, the use of multi-speakers offers a distinct a vantage of great value, that of wide sound distribution over great areas.
    suitable LINE to VOICE COIL this catalog
    transformers that will permit the use of clusters of these that will permit the use of clusters of these
    units, when situated more than 50 feet away units, when situated more than
    from the amplifier feeding them.
    Distinctive and Highly Valuable Features
    The mechanical design itself surgests the inert ability of this remarkable reproducer to withstand terrific volumes in a pleasing manner. The rugged metal frame work is handsomely cad. mium plated and measures $121 / 8$ in. over-all edge has four baffle mount holes. and the lhusky size IMPEDANCE MATCHING OUTPUT
    TRANSFORMER is attached to the metal frame, with its leads extending over to a 5 terminal Bakelite insulated terminal strib. located con-
    veniently for readv access. The neriphery of the veniently for ready access. The neriphery of the
    cone is firmly glued to a flexible ribhed disc, the voice coil being perfectly veitered and so supported that it will never go mut of adjustment! The actual net weight of this remarkahle speaker is fully 15 nounds-certainly proof positive of its

    Furnished With Impedance Matching Transformers to Suit Potver Tubes Please definitely mention the quanpower tubes power plific -if or receiver tion is not furnished tis, we will spipaker a dynamic speaker equipped
    with a voice impedance ing push-pull output transformer
    for $2-250$ tubes.
    Please note Please note we
    can also furnish
    transforniers transformiers a nd speakers for Class
    B" Amplifiersmerely mention
    
    D. C. Operated Models Cat. No. 6955 . 6, 12 or 32 Volts $\$ 16.50$
    D.C. Use. Mention type Desired. $\$ 1.010$. D.C. Use. 3 Iention type Desired.
    Cat. No. 6956 . 1000 or 2500 Ohms $\$ 14.50$
    Field ( 90 to 140 Volts D.C.) ......

    ## 110 Volt A. C. Operated Models

    Cat. No. 6957. For 25 to 60 cycles
    use, 82 Rectifier
    $\mathbf{T u b e}$ Irinciple....
    $\mathbf{2 0}$

    Jensen "Concert" $111 / 2$ Inch 110 Volt A.C. Dynamic Speakers
    Equipped With Tym-Flex Diaphragm
    

    Uses Either a 280 or Full Wave Mer. cury Rectifier Tube! Any further praise
    we could add here
    to the quality of
    reproduction af-
    forded by this
    Jensen Dynamic
    Speaker would be
    superfuous it
    is universally acclaimed for its natchless fidelity of tone, coupled with an ability blasting or any rattling, even though it may be plifier using $2-250$ 's! To assure maxinium perplifier using 2 ornance and satisfaction, a large size diameter voice coil is used, and, therefore, the iron core that governs the movenent of that voice coil is also of generous size! The diaphragm itself is made of $n$ m-resonance. It is impervious to moisture-nou-resonance. It is impervious to moisturewill never lose its shape, or voice coil assembly is equipped with a rugged voice coil assembly is equipped with a rusced cone excursion. The dianieter of this speaker is concert size. It is now universath conceded that a 280 tube rectifier far exceeds the efficiency of the rectifier disc arrangements. An 8 mfd. electrolytic condenser assures that
    A. C. hum is entirely eliminated.
    Furnished With Voice Coil Impedance Matching Output Transformer
    Please definitely state the trpe and number of power tubes employed, so that we can furnigh OUTPUT TRANSFORMER.
    Mounted on a Sturdy Cadmium Plated Chassis
    This chassis permits mounting of this speaker on a shelf, or, yout can bolt it to a baffle board, around the outer edge of the speaker frame. 13 in. long, $51 / 2$ in. wide, $133 / 4$ in. tall. sired. For 110 volt, $50-60$ ( $\mathbf{~ N 1 1 . 7 5}$
    

    Sonochorde 110 Volt D. C. Dynamic Speakers
    

    Jensen Concert Model 1,000 or 2,500 Ohm, 90-120 Volt D. C. Dynamic Speaker
    "TYM-FLEX" Cone Assures Maximum Volume with Absolute Fidelity Reproduction:
    $111 / 2$ Inch Diameter Requires $101 / 2$ Inch Baffe Hole! All Models Are Equipped With Voice Coil Impedance Matching Transtormers (For Single or PushPull Output Tubes!)
    Fansed all over the Woild for its the chassis is 5 inches deep overFanazing reproducing ability to withstand dous outputs of suier-power 250 ublic address amplitiers without istortion or ratting! These sieat ers are now used and highis recommany other nationally rshall, and manufacturers! nationally known set cleverly construeted mery sturdy and and mounting bracket metal chassis eature. The voice coil is fulle protected from dust coil is fully onseless and unimpaired reeeptions Note that this chassis may bo mounted against a baffe or on a shelf or platform. The entire rim 101/g in. The diaphragm all. Available in any fleld coil resistance, from 650 ohms to 5,000 ohms-the inost popular sizes being
    1.000 and 2.500 ohms otherwise suecifed, we will ship a 2,500 ohm nodel. Do not judge the quellity of this andazing speaker price. seeminsly ridiculous low
    volume volume sales hare enabled the Jensen factories to make possible the purchase of a Super-Quality Dynamic Speaker within the range
    of the most frugal. And. were jensen to charge 50 if more for these speakers, they Fould still Farrant your immediate purchase $s$. $101 / 2$ inches in diameter, and and exclusive adontion
    

    These Speakers Are Conservatively Rated to Handle CONTINLOUSLY 5 .o 7 Fatts of Undistorted Audio Output. . . Hovever, They Can Easily Handle PEAK मFATTAGES of from 15 to 20 II.ATTS. Iany Sound Equipment Engineers Prefer to Employ Two of These Speakers utih 12.9 to 16 Hat The Standard 90 to 140 Volt D. C. Stock Models are the 1000 and 2500 Ohm Models-Please Specify Resistance Value Desired and also State number of and type of OUTPUT TUBES used so that we can furnish a MATCHED IMPEDANCE OUTPUT TRANSFORMER!
    Cat. No. 7177. 90 to 140
    $\$ 7.95$
    Cat ${ }^{\text {Cat }}$
    $\$ 8.90$
    Cat No. 7179. Special OUTPUT PUSH-PULL TRANSFORMER-Matches Voice Coil $\operatorname{Im}$
     State which. Only Required for MULTI-SPEAKER P. A. Installations

    90-140 Volt, 1000 or 2500 Ohm Jensen or Rola 9 In. Diam. D. C. Dynamic Speakers
     Volume e galore!
    blasting!
    No
    distorblasting! No distor-
    tion! Just perfect sat-
    isfaction! isfaction! 9 inches
    over-all diameter-5 over-all diameter-5
    inches deep. Requires 8-in. hole in baffle.
    Burtex cloth diaphragm. Complete With out-put trans. coil impedance matching transformer. 90 140 volt $D . C$ field.
    Designed for operation with radio sets with either large or small outputs. It is widely used on current morde!
    of multitube superheterodyne receivers witl push-pull audio stages
    Please be sure to mention type and number of power tubes emploved so that we can furnish a TRItable
    Above speakers are available with either 2500 or 1000 ohm fields-unless you specify ohnage. we will ship a 2500 ohm nodel. A 4 or 5 prong plug, will be furnished for 25 c additional OTE: We can also furnish the above speake in an 1800 ohn model, tapped at 300
    ohms! Cat. No. 3342 ................ $\$ 3.5$

    90-110 Volt D. C. 2,500 Ohm Field Jensen or Rola Concert Junior Dynamic Speakers Overall Diameter Only 61/2 InchesDepth $35 / 8$ in.?

    ## Equipped with ${ }^{\text {a }}$

    ## Diaphragm

    Remarkably Compact! Affords thrilling realism and life-like reproduction
    and produces more than
     as small a baffle hole opening as 5 inches! Here is a good suggestion: Remove any magnetic place same with this Jensen chassis plus a spe place same with this Jensen chassis plus a speDybe : Syour then possess a 110 volt A. Dynamic Slleaker these speakers are equipped with an OUTPUT transformer, with a secondary PEDANCE. Please definitely state the type and number of output tubes employed, so that we can furnish a matched impedance out- $\mathbf{\$ 3 . 6 5}$

    Transformer Corporation of America 110 Volt A.C. or D.C. 2500 Ohm Dynamic Speakers
     Equipped With a Perfectly Centered BURTEX CLOTH DIAPHRAGM

    Unusually well<br>signed and strongly constructed, on heavy gauge cadmium plated metal Crame. The Burtex is perfectly balA.C. Model Cat. No. 6292 ance of is capexcursion movement due to a series of ridges along the periphery: The baffle mounting surface is covered with a ${ }^{1 / 3}$ in. thick felt edge. Four mounting holes are provided along the outer holes in the sturdy as well as Modr metal bracket stand The output transfornie is enclosed within the stand. A unique means dust and dirt from reaching the voice foil assuring trouble free nerfornange. satisfactory sions of D. C. model:

    $91 / 2 \mathrm{in}$. overall diameter
    
    baffle hole required); 934 in . tall, 7 in. deep. Cat. No. 6291. 110 Volt D. C. 2500 Ohm Field we can can furnish a suitable MATCIED
     FORMERI)

    Crosley 14 Volt, 70 Ohm 250 Mil. D.C.

    ## Dynamic Speaker

    Ideal for use as a dynamic speaker and filter choke ( 250 mils.) in 110 volt $D$. C. sets, thereby giving you two vital instruments for the price of one! Or, the be volt ( 70 ohm ) field may D.C. tube filaments. Can also be used with a stepand Elkon rectifier thereby making an $A$ C operated Dynamic Speakerl Complete with an outhut push-pull transformer. (Can also be usedwith single output power tubes.) Cat. No. 3378.

    MACY PUBLIC ADDRESS SOUND DISTRIBUTION EQUIPMENT.

    ## Giant Electro-Dynamic Horn Unit

    

    Normal Operating W'attage 10-Will Handle Peak Loads Lp to 30 Watts!
    Available with 6 Volt 32 Volt-110 Volt and 220 Volt D. C. Fields. The 110 Volt D. C.
    Field Excitation Can Be Supplied from A Power Amplifier!
    Actual weight 19 Ibs! Equipped with standard thread nipple. Audio frequency response: 50 to 8,000 cycles. The 6 volt D. C. model requires a field supply of 1.6 amperes at 6 volts 1 . C The source of supply may either be a 6 volt storage battery or a rectifier that will give 6.8 voice coil. impen 110 volts A . C. The standard power pack field excitation, we suggest a 2500 ohm field coil which will draw only approxiohm field coil
    mately 45 mils.
    Cat. No. 6293. 6 Volt D.C. Model.
    Cat. No. 6294110 Volt D. C. Choice
    of $1000-2500-3000 \mathrm{Ohm}$ Field Niodcl
    $\$ 29.40$

    ## Junior Model

    Operates on an output of 7 to 10 watts. Actual weight-10 lbs. Standard nipple thread coupling. Frequency response 50 to 8,000 cycles. Requires ${ }^{6}$ vat. No. 629 Sis. $^{\text {at }} 6 \mathrm{~V}$ Volt D. Dinps . C . Model Cat. No. 6296 . 110 Volt. Choice of 1000, 2500, 3000 Ohm D. C.
    $\$ 22.35$ Model in oiner D. $\begin{aligned} & \text { c. Voltag } \\ & \text { definitely state so.) }\end{aligned}$
    Special 110 Volt A. C. Operated Horn Unit Type

    ## Dynamic Units

    GIANT MODEI
    Employs a unit quite sinilar to Cat. No. 6293 and 6294 above described. Normal wattage operating capacity: 10 WATTS! Furnished to 60 cy'cle (please specify) A. C. Socket. 25 Cat. No. 7170. 110 Volt A. C. Giant. Horn Type Dynamic Speaker Unit
    $\$ 38.50$ Cat. No. ${ }^{2} 171 . \mathrm{i} 10$ Volt A. c . JÜNIOR TYPE (See Cat. No. 6295 and 6298 above)
    DYNAMIC SPEAKER UNIT $\mathbf{\$ 1 . 5 0}$

    ## 6 Volt D. C. Exciter

    For Direct Current Charging of the Magnetic Fields in Above Volt Units
    

    This EXCITER overcomes storage battery troubles and furnishes 3 amperes of direct current, at 8 volts, without audible alternating current hum, from $110 \mathrm{v}-120 \mathrm{v}$. 60 cycle power supPly Enclosed in a perforated metal cased unit Cat No 6299 over-keat.
    
    Cat. No. 6300 Model for Exciting $\$ 20.58$
    Two 6 Volt Units.................... Two 6 Volt Units
    $\$ 35.28$ Fcur 6 Volt Units.
    ............ \$35.28
    Single, Dual, Triple Unit Horn Distribution Coupling Adapters
     For more diversified distribution of sound over a employ two to three exponential horns. This coupler permits the use of one speaker unit for of one sjeaker unit for
    just this purpose. Dis. persion angle of dual unit 75 degrees." The quality of reproduction is not
    affected by its use.


    ## 6 Foot Exponental Air Column Suspension Horn

    

    Especially adapted for: Medium Size Theatres, Fe Skating Rinks, Dance Halls, Small Auditoriums, Churches, etc.
    Designed primarily to reinforce the voice reproduction in theatres. It has found ficture installations, centralized radio systems, tor sales conventions, schools, etc. Its compact size, carrying and tonal qualities are startling in realisnı
    Air Column.. 6 feet
    eet
    Depth
    .263/4 inches
    Weight $\quad .{ }^{\text {W. }}{ }^{2}$
    Cat. No.
    Less Unit
    \$32.35
    10 Foot Air Column Horn One of the Finest Sound Reproducers Ever Developed for Talking Pictures For all standard makes of Dynamic Air Column Units. Reproduction 50 Cycles to 8,000 Recommended for: Large Size Motion Picture Theatres, Dance Hails, . Ice Skating Rinks, Churches, Large Auditoriums.
    Air-column 10 Feet
    Weight 58 Pounds
    Cat. No. 6305
    Depth 36 Inches
    Less Unit
    Bell $45 \times 45$ Inches
    $\$ 66.15$

    ## Trumpet Horns

    ## Equipped Fith Standard Threaded Coupling Sleeve

    Fispecially recommended for: Conventions, Open dir Assemblies, Political Gatherings, Hotels, R. R. Stations, Race 1racks. Athletic' Fields, Stadiums, and all indoor applications.

    ## 31/2 Ft. Trumpet <br> 22 Inch Round Bell <br> De Luxe Model: Rh Round Bell

    hroat, beaded edge, and suspension aluminum interior use and temporary exterior $\$ 11.76$
    use. Cat. No. 6306

    Storm-proof Meavy Duty: Equipped with demountable throat, beaded edge and suspension ing, coupling for dynamic units. Will stand up in any climate, and during the four seasons.
    Cat. No. 6307
    $\$ 18.23$

    ## 6 Ft. Model <br> 30 In. Round Bell

    De Luxe Model: Equipped with metal beaded celge, cast aluminum ihriat, and suspension ring.
     Cat. Nol 6308 $\qquad$
    Stornl-Proof Model. Heavy Duty, equipped
    with demountable with demountable aluminum throat, one inch mietal bealled edge, suspension ring, finish
    French Gray. French Gray.
    Cat. No. 6309
    \$32.35
    R.C.A. "Photophone" Dynamic Speaker Unit
    Can Be Used With Any Exponential Theatre Horn or Trumpet Horn
    

    ## Square Flare Trumpets

    Ideal for All

    ## Installations

    -Fully
    Weather-
    Proof!
    Esppecially designed for sound truck use! All joints are metal re-iniorced. Aluminum tone
    arins. All alunnium finish. Furnished with standard threaded nipples.

    ## 31/2 Ft. Model <br> Bell 24 In. by 24 In.

    $\$ 17.65$
    Cat. No. 6310
    
    $\qquad$
    6 Ft. Model
    Bell 30 In. by 30 In
    \$32.90
    Cone Type Dynamic Speaker Baffle Trumpets

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    ## 4 Ft. Long Trumpet <br> Bell $30^{\prime \prime} \times 22$

    Special all weather material. All joints are metal reinlorce
    $\$ 17.64$
    6 Ft. Long Trumpet
    $\$ 21.15$
    Auditorium or Sound Truck Super-Power Dynamic Cone Speaker Baffle Horn
    This Is the Ideal Baffle Arrangement to Use in Conjunction with the new 30 Watt Jensen Dynamic Speaker Chassis Metal Re-inforced
    throughout - built to withstand every possible rough usage! Aluninum finished. Depth of Horn, 36 in . The Bell neasures
     $60^{\prime \prime} \times 60^{\prime \prime}$. The dynamic speaker chamber is fully protected froin weather, and measures $15^{\prime \prime} \times 15^{\prime \prime}$ ter jole baftle can be furnished with any diam Cat. No. 6314
    $\$ 58.80$
    10 Mile Range-Six UnitExponential Horn
    

    Length of Air Column: 8 Ft. Size of Bell: 63 in. $x 41$ in. Weight of Horn LessUnits: 68 lbs. Provided with six standard threaded giant unit couplings.
    The sum total of vol. ume furnished by these units is so tremendous that it beggars description! Is made of special acoustic material and is of superior construction. Will with stand all climatic conditions. It is recommiended life paving gatherings, athletic games, airports distant communication is essential. Cat. No. 6315
    Less Units
    $\$ 102.90$

    General Electric
    Phonograph
    Induction Motor
    Equipped with a 12. Inch Turntable and Automatic Speed Control.
    Absolutely noiseless in operation, and will not cause any electrical disturbance, even while the radio is phase, and compound wound induc tion coils, actuating a perfectly balanced armature disc. A speed control governor is included-it is controlled by an automatic principle Quick starting-pownercial usc Compactly constructed: $41 / 4 \mathrm{in}$. decp behind mounting platiorm, $7 \frac{1}{4}$ in. long. For 110 volt, 60
    cycle A. C. Cat. No. $2957 \$ 7.95$ Cat. No. $2957-\mathrm{A}$ For $\$ 10.95$
    110 Volt. 25 Crcle A.C. $\$ 10.3$

    Nathaniel Baldwin Unit Contains an unusually
    shoe magnet, and neavily ribbed allThe neck is threaded, and is 7/6 in. in dimension Over-all dimensions: $31 / 2$ in.
     distort. Cat Notle o

    ## "Upco" Chromatic

    Professional Pick-Up
     Equipped $\begin{gathered}\text { with } \\ \text { Built-in Volume }\end{gathered}$ Control Control improved pivot balance leverage, needle distribution and control o Address sye in Theatres and Public ferred, by those "in the
    \$6.95
    Special 400 Ohm Low Impedance Model Professionals prefer low intpedance pick-ups. This model is particularly noted for its unusual sensitivity, and abil. ity to produce huge volume!
    Cat. No. 7146
    $\$ 8.95$
    Cat. No. 7147 Special 400 Ohm
    Matched Impedance
    Phono. Input Transf
    \$2.75
    Pacent Combination
    33 1/3 and 78 R.P.M.
    "Phonovox" Pick-Up
    

    Eliminates the possibility of jumping grooves. Fitted with a Micro Weight adjusting screw. By the mere tuist of the thumb needle pressure weiglit of the new Pacent Phonovox may readily bc adjusted from zero to five ounces
    The pickup, therefore, can be readil adjusted to proper weight for eithe new long playing records or stand ard records and further compensa. table heights which have much to do with increasing or decreasing needle

    Cat. No. 7470.
    For Dual Speed Operation. $\$ 7 / 24$ Cat. No. 7471 . Same as Theatre Record Tone $\$\} .10$

    RCA Auditorium and Public Address $i 10$ Volt D. C. and A. C. Dynamic Speakers
    

    Ideal for Use in the
    Home, Theatre, and for All Indoor or Outdoor Public Address System Inställations Available If Desired with Heavy Cast Iron Baffle Excellent For Use With All Class "A" and Class "B" Public Address
    

    Reor View of Amplifier Installations!

    Conservatively rated for continuous use handling approximately four
    watts, these speakers can be safely watts, these speakers can be safely
    employed to handle peak load caemployed to handle peak load catherefore suggested to employ at least two of these speakers in con-
    junction with an amplifier system junction with an amplifier system producing 12 to 15 watts, and at tems, for life-long service. Inasmuch as these specilications are ultra-conservatively computed, you can employ one-half the quantity speakers suggested, with possibly equal satisfaction.
    The frame measures 2 ft . square by
    thick in. Wide-the iron itself is $\frac{1}{t}$ in. 1000 ohuns, and requires from 80 to 130 volts D. C to actuate it, fronn 80 to 130 mils. The resistance and impedence value of the voice coil is 15 ohns. The voice coil is actually $11 / 2$ in. in diameter, the largest known "pot" coil is used-fully $51 / 2$
    in. diameter by $51 / 2$ in. long resultant ${ }^{2}$ ing in. long. The is really tremendous. The Cone itself is 12 in. in diameter, and the diameter across the iron ring mounting frame disc is 15 in dust-proof cover is set in the back Cat. No. 2993. 110 VOLT D. C. MODEL
    Less Baffle and Output Transiormer
    $\$ 6.95$
    
    Cat. No. 2994AA. Same as Cat. No. 2994 , but equippod with
    2.280 Tubes AND
    A DUAL TUBE
    SELF-RECTIFIER....
    Cat. No. 7148
    \$1.95
    Cat. No. 7149. Matched Output Impedance
    Transformer-for 1-250
    \$1.75
     $\$ 4.75$
    Transformer, for 1-2-4-8-16, Multi-Speaker Installation
    Cat. No. 7151. Same as Cat. No. 7150, but for 2-46
    Class "B" Push-Push Tubes
    $\$ 6.75$
     use with a 6 or 12 Volt Auto
    Storage Battery
    $\$ 15.00$
    New-Improved R.C.A. 15 Watt Continuous Duty D. C. and A. C. Auditorium Speakers

    ## Availhble only. Iess baffle. Ideal for heary duty amplifiers, such as 20

    to WATTS! 12 in. diameter overall. Furnished with IMPEDANCE MATCHING TRANSFORMERS. 10 in. deep.Choice of 1000 or 2500 Ohm D. C. Models-State Which! For 1 or 2-250 Tubes
    Cat. No. 7152.
    D. C. Model
    \$19.50
    Cat. No. 7153. 110 Voit A. c. Model.
    Complete with 1-280 (or 82) Tube
    $\$ 24.50$

    ## Cat. No. 7154. <br> D. C. Model Cat. No. 7155 . <br> For 2-46 Class "B" Tubes <br>  <br> Fulton-Simpson Magnetic Speaker Chassis

    Actuated by a Stromberg-Carlson Heavy DutyGiant Size Unit
    The reproductive qualities will amaze
    you with its sheer reality you with its sheer reality . few
    dynamic speakers can boast of as equally periect rendition! will not blast, chatter or rattle. An idenl
    chassis to employ in automobile in. stallations, with portable sets. and as a General Replacement Chassis due to its unusual compactness
    85 in. diameter, 434 in. deep.
    The entire operating mechanism of
     The entire operating mechanism of
    Cat. No. 2951 dust thin a bakelite, dust-proof case, assuring permanent and $100 \%$ efficient
    Ideal for use in conjunction with multispeaker public address installation systems. General All-Purpose Model
    Cat. No. 2951.
    SQUARE FRONT BAFFLE MODEL
    Cat. No. 2952 . Mounted within a square front metal
    self baffling effect!), $9 \$ / 8 \mathrm{in}$. x $9 I / 8 \mathrm{in} . \times 43 / 4 \mathrm{in}$. deep
    $\$ 2.20$
    \$3.35

    Two Speed ( $331 / 3$ or
    78 R.P.M.) Governor Controlled Electric Induction Phonograph Motor
    

    The shift from one speed to the other is accomplished by simply moving a lever. All gears are comSletely enclosed and run in oil Silent spiral-cut gears made from
    laminated Bakelite. Long oversize laminated Bakelite. Long oversize self-lubricating bearings. Absolute uniformity of speed under severe variation of voltage and record drag. Will not overheat in closed cases and cabinets. Furnished with the following valuable accessories $10^{\prime \prime}$ or $12^{\prime \prime}$ turntable (Felt or Vel veteen covered). Dial and Pointer Speed Regulator. Speed Change Pointer. Speed Change Escutcheon Plate. Hardware in Nickel, Oxidized, Brass, Gold Lacquer, or Statuary Bronze finish. (Automatic Stops are optional.) For 110 volts A.C., 60 Cycles. (For any other voltage or frequency, add $25 \%$ ). Cat. No. 5422.10 In.
    $\$ 9.75$
     In Turtable
    

    Stromberg:Carlson Magnetic Speaker Unit
     Famed for its ability to faithfully reproduce throughout the tonal register, and not rattle under any aver
    age load! Excellent for general re ake lacement nurposes !
    placement purposes!
    $\$ 1.25$
    Universal Magnetic Speaker Replacement Chassis
    Ideal for Installation in 100 B and 103 Magnetic BURTEX CLOTH diaphragm. The armature is accurately centered, and
    will never waiver from its permanent adjustment. THE TUNGSTEN STEEL, MAG-n-in.
    in.
    Cat. No. 3346
    $\$ 2.45$
    "Coast to Ceast" Compact Magnetic Speaker Ideal for General Replace ment Purposes, Portable and Auto. Receivers Unit-A new devel construction and ex tremely efficient magnet of "Chrome" stcel. Cone 6 in .
    diameter, made from moisture proof fabric formed into our specially designed
    shape. Mounting-non-netallic bracket requiring a max imum span at its widest point of $63 / 2$ in. Quality-This Magnetic Speake is highy efficient and covers the iactory manner. Tone excellent.
    Cat. No. 5008
    \$1.50

    ## General Electric Co. <br> "Feather Balance" Phono. Pick-Up

    

    In the Hall of Fame of Radio, posisibly the Internationally renowned and respected name of
    GENERAL ELECTRIC CO. rightfully occupies first position . . . and this product is indeed a further achievenient of their laboratory. So ingeniously designed and constructed, the actual weight riding on the surface of the record is reduced to almost that of a "feather touch," greatly reducing needle scratch and considerably conserving the life of records it plays. Extremely sensitive over the entire musical register-produces enormous volume. Handsome bronze finish -tastefully embossed design. Standard low impedance rating.
    Cat No. 633, 6 .E Pick. .up Only $\$ 12.95$
    
    General Electric-RCA Universal Phono. Pick Up Tapped Impedance Matching Transformer
     Can Also Be Used as a Variable Impedance Audio Choke of 30 Henries Inductance Tapped at 15, 6 and 3.
    Enclosed in an attractive case, measuring 5 in. long, $21 / 4$ in. wide, 258 in. tall. Complete with adjustment knob, escutcheon plate and two heavily insulated silk covered dual conductor cables. Any phono. pick-up, to the primary side cable. By rotating the to the primary side cable. By rotating the SWitch, you match the impedance of this coupl-
    ing unit to the pick-up being used. Employing, ing unit to the pick-up being used. Employing, as it does, a step-up transformer, this unit virtually serves as a Booster Amplife
    four impedance values Cat. No. 6363.
    $\$ 3.95$

    ## "Carryola" Electric Phono. Pick-

    Up and Spring-Wound MotorIdeal and Invaluable for Use in Sound Trucks or Autos-Obviates Necessity for Electric Current to Rotate Turn-Tables.
    IHandsomely enclosed in an un-
     usually sturdy leather covered case, measuring 14 in . long. $111 / 2 \mathrm{in}$. wide, 6 in . ing, weighing only 10 ibs. The mechanism wind handee is carried within the case, when not
    in use. The plush covered turn-table revolves free of wobble and will accommolate 10 or 12 in. diameter records. A spring clasp holds the electric pick-up in position, when not in use. A
    speed governor is included and all metal parts are neatly nickel plated. The output terminals
    firme output embedded within the case two tip jacks, firmly embedded within the case, yet accessible Radio socket connections, is included. \$4.75
    Cat. No. 5716............... Phono-Radio Switching Coupler
     Consists of a Detector Tube 5 -prong cathode separated and leads coming from it going to the secondary of the matched impedance phono pick-up. Coupling Transformer and a loggle Switch. Ideal for use with any set. Pick•up feeds into primary of
    transformer, stepping up voltage. Toggle switch provides instant change from radio to phonograph and vice versa, as switch is in ground side cannot cause oscillation. 4 foot lead wires furnislied.
    Cat. No. 6355. 5 Prong Adapter, Automatic
    Phono-Radio Switch, and Phono. In- S2, ut Transforme

    Transformer
    $\$ 1.4$

    The Ideal Combination $331 / 3$ and 78 R.P.M. Phono. Team
    "Coast - to - Coast" Heavy - Duty Combination Dual Speed $331 / 3$ and 78 R.P.M. Governor Controlled Electric Motor.
     master do its ers-represents the very last thought in mechanical and
    electrical perfection! Incorporates every improvement and valuable feature, such as: In78 R.P.M. operation; autonatic stop; hum free and sturdy induction motor; 12 in. Velveteen covered turn table; completely enclosed oil sprayed gears, spiral cut from silent operation laminated Bakelite; automatic heat dissipation: self-lubricating oversize bearings; constancy of speed of turn-table R.P.M. despite voltage variations or "record drag," etc. Complete with all speed regulator, speed change pointer pointer cutcheon plate, etc. FULLY GUARANTEFD <br> <br> $\$ 14.75$

[^6]:    Cat. No. 6161. 500-1000 ohms. $\$ 3.92$
    Low Impedance Pick. Cips. $43 \cdot 92$
    Cat. No. 6162 . 2,000-3,000, 4,000
    Hick-Ups. $\$ 3.92$

[^7]:    Tdentical to Cat. No. 5356, but possesses 21260 volt rinding instead of 1120 rolts. Ideal for transmittera. high mesistance fliter circult P. A. amplifiers, $\mathbf{\$ 6 . 4 0}$
    Cat. No. 5526 -
    
    
     any of the above transformers.
    Price
    90 C

[^8]:    For 43, 45, 47 and 53 Sets
    Contains Five Filter Condensers. Remove presnt defective condenser assembly, and merely
     Cat. No. 2916.

[^9]:    Stromberg Carlson 641-642-652.654

[^10]:    6485
    Per Dozen, $\$ 1.00$

[^11]:    Coast-to-Coast" 10 to 200 Meter Plug-In SuperHeterodyne Short Wave Coils

    需Covers the Entire ShortWave Band: 10 to 20 Meters, 20 to 40 Meters, 40 to 80 Meters and 80 to 200 Meters!
    Ideal for thilding your wown
    Super-Heterod Mine Short-Wave Super-Heterolyne Shor-Wave
    Converters and Receivers. Are wound on Bakelite Tuling. Both silk covered and aplro. priately spaced enlaneled wire are employed, orecision wound. 0 De
    sived for
    sise
    with
    2 sikned yor use with ${ }^{2}$ gand .onect
    mid. variable condensers. All connections from the coils are brought down to six pronss. "lich ovin be incerted into any SIX PROYG Socker. Individual Shielding of these coils is
     ${ }^{\text {Woor }}$, Radio ${ }^{\text {and }}$ Amateur and experi menter will al wass ireier the time considerably greater efficiency ard fewer losses are assured by their use. Cat. No. 6931. 10 to 20 Meters 95 c Cat. No 6932. 20 to 40 Meters 95c Cat. No. 6933. 40 to 80 Meters 97c Cat. No. FYOUR COILS $\$ 3.45$ Cat. No. 6935

    ## Litz Wire Bank-Wound

    -Ultra Efficient and Compact Antenna and R. F. CoilsDesigned for All Tubes-
    
    
    
    
    
    
    
    
    
    
    
    
    
    
    
    
    
    
     condenser. Ideal for use where snace is at a premium. Only $11 / 4 \mathrm{in}$. snace is at a premium. Iong!

    For either An
     ,

    ## in

[^12]:    Cat. No. 6023. Four Prong
    17c
    18c
    23c

[^13]:    Carbon Back-Plates
    (Microphone Buttons)
    $3 / 4$ in. diameter, .195 in. thick
    Cat. No. 2969
    40 C

[^14]:    Cat. No. 7142. Less Elec. Motor, Pick-Up Receiver or Sneaker. Plain
    $\$ 19.50$

[^15]:    Requires, 12 No. $611 / 2$-volt Dry Cells, $3221 / 2$ volt " $B$ " Batteries, and 245 -volt " $B$ " Batteries. Complete with all batteries and
    $\$ 21.51$

