

with RAYTHEON 4 PILLAR TUBES NROPEAN URES SECEPTION We Repair ESTEC ALL MAKES and MODELS RADIO SETS PUBLIC ADDRESS SYSTEMS

Prepare for Your **Biggest Radio** -Season-PROFIT WITH RADOLEK'S LOWEST WHOLESALE PRICES!

W. RANDOLPH ST. CHICAGO



Dealers-here is a line of Receivers that we especially recommend. They are far above the average in workmanship and performance; and their striking modernistic designs will quickly commend themselves to vour customers.

For a limited time we are giving you an extra discount of almost 20% on the ARKAY Models, just to introduce them By all means take advantage of these prices immediately. The sooner you introduce them to your customers, the greater your sales will be.

ARKAY CONDITIONED "RADIO

MODEL RKC-4 (AC-DC)

A superb 4-Tube R.F. series filament AC-DC Receiver in an unusually attractive cabinet size 5x101½ inches wide. Modernistic design, richly finished in two-tone walnut with gleaming chrome trimmings. Brings in police calls . . . Full-flux Quam Dynamic Speaker walnut with gleaming chrome trimmings. Brings in police calls . . Full-flux Quam Dynamic Speaker . . Ball bearing Tuning Condenser . . Polymet Filter Condenser . . Self-contained flexible Aerial which may be run under the rug for locals or out of the window for distance, Series heater line cord prevents overheating inside cabinet. Following Tungsol Tubes used and furnished: 1-2525, 1-43, 1-606, 1-616.

Just the Set for those who favor the striking new modernistic designs, and a marvelous bargain. Made to sell to the Trade at \$14.63; you get an extra discount of about 19% at our price. 110-120 volt A.C.-D.C.

14E10977-List Price, \$22.95.

YOUR PRICE \$**11**95





ARKAY MODEL RK50

- 5-Tube Superheterodyne
- Broadcasts and Police Calls
- Illuminated Vernier Dial Kilocycle Calibration
- Delayed Automatic Volume Control
- Latest Type Tubes

When we say that the ARKAY Model RK 50 is the best looking, best performing, most salable 5-Tube Table forming, most salable 5-Tube Table Model Superheterodyne we have ever listed, we express but part of our enthusiasm for this remarkable little Set. At the regular Dealer's price of \$1.13 it is a bargain... At our present Low Price of only \$15.95 you save another 30% which allows you just that much more profit on every sale. Its 5-Tube Superheterodyne circuit, Tone Control, Delayed Automatic Volume Control, Illuminated, vernier driven Dial graduated in kilocycles, 6½ inch licensed Dynamic

- Dust-proof Chassis All Parts Concealed
- Surging Volume
- · Beautiful Tone
- · Good Sensitivity
- Keen Selectivity
- . Beautiful Cabinet

Speaker and beautiful modernistic cabinet finished in maple and ebony with chrome grill and escutcheon distinguishes it among all other Sets of this type. Covers regular broadcast band and police calls, 550 to 1850 K.C. Following latest types tubes used and supplied: 1-55, 1-57, 1-57, 1-58, 1-2A5, 1-80. Overali size 6x8x12 inches high. For 110-120 volt 50/60 cycle AC.

14E10978-Arkay Model RK50 5-Tube A.C. Complete with tubes.

List Price, \$29.50. YOUR SPECIAL

\$1595

ARKAY MODEL RK60

- Superheterodyne Circuit Automatic Volume Con-
- trol Illuminated Vernier Dial Kilocycle Calibration Licensed Dynamic
- Speaker Latest Type Bakelite Moulded Sockets

The Arkay Model RK 60 is somewhat larger than the RK 50 and provides the better tone quality and improvement in overall performance which is to be expected from its larger Speaker, increased baffle area, additional tube, and slightly greater cost. It employs a six-tube Superheterodyne circuit of the nost advanced design and an 8 inch Utah Dynamic Speaker. of the most advanced design and an 8 inch Utah Dynamic Speaker. Four tuned 115 K.C. IP stages and three-gang Tuning Condenser provide adequate selectivity for any locality. An extra heavy Power Transformer and over size Condensers insure years of trouble-free service. Push-pull 45s are used in the output stage to provide a richness of tone that is equalled in none except the finest

- **Dust-proof** and Safety Chassis
- Equipped with Latest Tubes
- Beautiful, hand-rubbed finished Cabinet
 Covers Broadcast Band
- and Police Calls
- Chrome Trimmings

console type Receivers. The illuminated Dial is vernier driven and is graduated in kilocycles. Tone Control and delayed Automatic Volume Control are incorporated. Housed in a beautiful modernistic, Housed in a beautiful modernistic, two-tone walnut finished cabinet with chrome ring in grill, chrome escutcheon and chrome trimmed knobs. Size 114x88x15 inches high. Tubes used and supplied: 1-57, 1-58, 1-55, 2-45s, and 1-80. (Tungsol). Covers regular broad-next band and nalice earls 550 vast pand and police calls, 550 to 1650 K.C. For 110-120 volt 50/60 cycle K.C.

14E10979—Arkay Model RK60 6-Tube A.C. Complete with tubes.
List Price, \$39.50.

YOUR SPECIAL



RADOLEK'S **Determined Policy Is** WHOLESALE ONLY

You men who are servicing and maintaining these obsolete You men who are servicing and maintaining these obsolete Sets for their owners have at your finger-tips the hottest and livest prospective Radio Set Buyers in the world. Your custamers have a high regard for your technical skill Your customers have a high regard for your technical ski and knowledge--they will listen to your recommendations with sincere respect. You can and should cash in on the biggest Radio Set year since 1929.

are presenting in this catalog the most We are presenting in this catalog the most complete selection of Radio Receivers to fill this expanding demand for Sets. You will find models to fit every requirement of your customers and a refer which will not work cubesnetis) profits.

to the every requirement of your customers and at prices which will not you substantial profits. You occupy an enviable position in the Trade and rou occupy an enviable position in the Trade and
I am confident that you will do a very large
share of the Radio Set volume this year. Let us Smare of the Andre Set votume this year, Let us belp you cash-in on this season's big Set market.

Yours very truly.

W. C. BRAUN, President.

Sea rice Facilities Radolek is Restricted Catalog We exerorganized to handle your orders speedily and yet with intelligent personal attention. Our facilities include the attention. Our facilities include the most modern equipment. Our personnel is trained to the business and has a keen understanding of your need for accurate and prompt shipment of your

Largest Complete Stock

The most comprehensive stock of Radio and the country has again been amplified to include practically every conceivable item that you will require. Over 8000 separate items consisting of Repair Parts and Material, Test of Repair Parts and Material, Test Equipment and Instruments, National Brands of Radio Tubes, Public Ad-dress Amplifiers and Systems, and a complete selection of Radio Receivers. Never before have such extensive listings of Replacement Transformers, Condensers, Resistors and Volume Controls been assembled under one cover and stocked complete by one organization dedicated to your service.

Lowest Net Prices In the very face of rising costs, Radolek's prices are consistently lower. Our buyers have been far-sighted—we have made large purchases and heavy commitments for merchandise and materials. ments for merchandise and materials. In keeping with the intent of the National Recovery Act we shall protect you against increased prices for as long as is reasonably possible. We must reserve the right to change prices without notice. We pledge ourselves not to profiteer—we will not raise prices unnecessarily. But where prices are advanced and as our stocks beare advanced and as our stocks become exhausted we will be obliged to make adjustments. We hope no increase in prices quoted in this book will be necessary but there may inevitably be some adjustments.

cise pains-taking vigilance to restrict the mailing of our catalog exclusively to those who are legitimately entitled to receive wholesale prices. We don't want your customers to have access to your net prices and we urge your co-operation that we may confine our customer list exclusively to the Trade.

customer list exclusively to the Trade. By these means and a constant checking on the activity of our accounts we are able to eliminate from our mailings the names of those who are not properly entitled to wholesale prices.

We advertise only in Trade publications and accept applications for our catalog only after careful examination or investigation. It has been our experience that we are compelled to reject over 50% of such applications as they do not qualify under our rules.

Quality Merchandise Fresh, Clean Stocks. We steadfastly avoid offering our customers "job-lot" or questionable merchandise regardless how attractive the price may seem. Our great buying power and excellent factory connections enable us to offer current production material of highest standard and unquestionable quality at prices which in many cases are as low as you might pay for "shoddy" goods from unreliable sources. "Your Prices" quoted through this catalog is the net wholesale price with all Trade and Cash Discounts deducted. You will find no ambiguous "quantity Prices" featured in large type to mislead you. All large display prices represent your net single or unit cost. Wherever we are able to offer an additional savings on quantity unit cost. Wherever we are able to offer an additional savings on quantity purchases the Lot Price is plainly "List Prices" given are either Manu-facturer's List Prices or are intended by us as a suggested Retail Price. HLEF MORE RADOLEK An Open Letter to Radolek Customers: Have you planned to make the most of your sales opportunities during the coming year? Radio Set sales are definitely on the up-grade, while Radio Set sales are definitely on the up-grode, while 18,000,000 Sets are estimated in use, fully 60% of them (over 10,000,000 Receivers) are obsolete.

It is our affirmed purpose to solicit orders only from those commercially and actively engaged in the radio industry, and from a few other trade units which are recognized as entitled to receive wholesale prices. Radolek ognized as entitled to receive wholesale prices. Radolek is primarily a Service Supply House catering to the Radio Merchant, Service Technician, Design and Research Engineer, Industrial and Institutional Laboratories, Public Utilities, Schools, Colleges, and those recognized as engaged in developing the Art of Radio. We also solicit and accept orders from the United States Government, Federal Institutions, State, County, Municipal and other governmental bodies and institutions.

How "Laboratory Control" at Radolek Protects You

try maintain a laboratory for the purpose of testing the merits of new apparatus. This is a most commendable procedure—and we have practiced it consistantly at Radolek.

But we have quietly introduced a new plan about which we now feel free to tell you.

A new test procedure has been adopted, which pro-A new test procedure has been adopted, which provides for testing incoming merchandise and materials before it is placed in stock. Our experience has shown us that even the most careful manufacturers sometimes make mistakes. Our "Laboratory Control" on all new merchandise provides a definite check upon possible mis-marked merchandise, improper values or over-rated materials.

The Radolek Exchange Policy

We are most liberal in our Policy of rectifying We are most liberal in our Policy of rectifying any possible errors on your orders or in replacing defective merchandise. We observe a most fair and square unequivocal attitude on these points. You may depend on it, we will take care of any proper adjustments promptly and in a manner that will please you. However with the exception of errors on order filling, defective items or items sent in for repair we must insist that before returning any other goards to us that you first obtain our permission to repair we must insist that before returning any other goods to us that you first obtain our permission to do so. Simply write us, stating what you want to return, the reason for the return, the date of purchase, condition of goods etc. We will answer you promptly giving you any necessary instructions.

Visit Our New Display Room

Our Display Room

Our Display Room has been remodeled to serve you more efficiently. A new sound insulated demonstration room for Public Address Amplifiers and Equipment will aid you to compare and choose the most appropriate system for your installations.

An enlarged Radio Set section will help you to make a selection of the models most suitable for your trade. Our City trade and our visiting Out-of-Town Customers will appreciate the prompt and courteous service that we are organized to extend in the City Sales Division.

We are located just 5 minutes from the center of the downtown "Loop" business district on the corner of Randolph and Jefferson Streets—no parking restrictions.

restrictions.

NEW ITEMS Up-To-The-Minute Merchandise

You can rely upon Radolek to have all of the new important items—even those which are announced after our catalog goes to press. New items which are introduced after this book is published will be stocked or we will make every effort to obtain them

for you on your order.

Radolek pioneers many new items of practical application in the service field. Dozens of items listed exclusively in this catalog are developed and manufactured by us to serve a definite need not adequately covered by other products.

THE RADOLEK GUARANTEE

We guarantee every piece of radio apparatus we supply to operate in the manner and for the purpose for which it was designed and intended. We guarantee all merchandise sold by us against defects in material and workmanship. Examine aerects in material and workmanship. Examine the goods we ship you. Any article which does not meet this guarantee, if returned at once, will be repaired or replaced. We are able to make this guarantee only because we handle the best grade of carefully tested merchandise.

RADOLEK IS DOING ITS PART

Member NRA

Operating Under the Radio Wholesalers Code







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SEND NO MONEY Fastest Delivery We Will Ship C.O.D.

We are constantly striving to "cut-time" and to set new speed records on our excellent Shipping Schedule. Last year nearly 18% of all orders were shipped the same day they were re-ceived. You cannot afford unreason-able delay. Radolek ervice means delivery right to your door of the exact merchandise you want quickly and exactly as ordered.

Equipped For Service

The most modern stock and shipping equiomest—a hustling organization and an experienced and eapable man-agement—all combine to give your orders the individual attention that tas u

Sou ward.

Speed is just one part of Radolek
Service. Our merchandise denartment
is constantly scouring the market to
bring yos hetter quality goods at lower
price. We maritain a modern fully
equipped Laboratory for the examination and analysis of new equipment and
to maintain a high standard of quality on all merchandise that we stock.
For your information and assistance in
the selection of special apparatus we
place at your disposal the free advice
of skilled Technical Experts.

We Will Ship C.O.D.

You need not send a remittance with your order unless you wish to do so. We will ship C.O.D. any merchandise shown in our catalog, but we request that new customers on their first orders, or orders for heavy merchandise to be shipped to distant points be accompanied by a 25% deposit if to be shipped C.O.D. Most of our customers prefer to send cash with order, thereby eliminating delay and unnecessary expense of C.O.D. collection. You may remit by post office or express money-order, bank draft or personal check, as you prefer. If you send currency be sure to register the letter for we cannot be responsible for eash lost in the mails.

orders.

them rapidly.

Prices Quoted are TAX PAID

Prices Quoted are TAX FAID

All quotations in this book include Federal Excise Tax
in accordance with Act of June, 1932 and based upon
Treasury Department, interpretations as of our press date,
We reserve the right to add any taxes arising from new
acts (Federal or State) or changed interpretations. On
sales in the State of Illinois we reserve the right to increase our prices, to the extent of any increase in cost
of doing Duishess, that may be occasioned by the Illinois
State Occupation (Sales) Tax Act
Our quoted prices are subject to change without notice.
We have large stocks on hand of practically every item
quoted and have made contracts in such a manner that we
expect to be able to supply all items available from manufacturers at the prices shown for the life of this catalox.
In creat of market changes it will be our object to meet

In event of market changes it will be our object to meet or better all competitive prices, adjo history

FREIGHT ALLOWANCE

collect only when you complete and deliver a job. We ap-

preciate your need for quick service and our entire organiza-

tion is geared up to fill your orders accurately and to ship

est possible speed for our stocks are very complete and we aim to maintain our Same Day Shipping Schedule on all

Within a radius of 500 miles of Chicago Radolek is consistantly rendering overnight service—but wherever you are located we are equipped to deliver your order with the fast-

On Orders of \$25.00 or Over

We will allow freight charges up to a maximum of \$2.00 per hundred pounds on orders We will allow freight charges up to a maximum of \$2.00 per hundred pounds on orders amounting to \$25.00 or more. This offer applies to all merchandise listed in our catalog with the exception of "A" and "B" Batteries. Wire and Aerial Insulators. This meneysaxing offer will usually cover freight charges to all states except the few distant ones: Utah, New Mexico, Colorado, Wyoming, Montana, Arizona, Idaho, Oregon, California, Texas. Washington and the New England states Even in these states our freight allowance pays a substantial part of the transportation cost. Orders that fall within this Special Offer will be shipped charges collect—we will refund the freight charges up to the maximum allowance upon receipt of your paid freight bill. If you prefer your erder shipped by Express of Parcel Uest, we will allow the equivelant of what the freight charges would be.

We Ship Subject to Inspection

We will ship any merchandise ordered, subject to your inspection if shipment is to go forward by express. In this manner, you may see the merchandise at the express office before you accept shipment, if you so prefer. If you desire inspection privileges, be sure to so state plainly on your order.

TUBES PHILCO Balanced Tone

Stock Number

3E626 3E627 3E628 3E629 3E593 3E630

3E631 3E632 3E633 3E634 3E594 3E595

3F 596

3E636 3E637 3E638 3E639 3E640

3E641 3E642 3E643 3E644 3E645

3E597 3E646 3E625 3E647 3E648 3E649 3E650

3E651

3E652 3E653 3E654 3E655

3E656 3E657 3E658 3E659 3E660

3E666 3E667 3E669 3E670

3E671 3E672 3E673 3E674

3E676

3E677

3E678 3E679 3E680

3E681 3E682 3E683 3E684 3E685 3E686

3E687

3E688 3E689 3E690 3E691

3E692 3E693 3E694 3E695 3E699

Type Number

\$0.32 .93 1.16

.93 .85 .85

.95 2.65

.69 1.11

1.19 1.51 .79 1.45

1.59 1.06

\$0.60

 $\frac{1.75}{2.10}$

1.10

1.60 1.60 2.20 2.00 1.75

1.75 1.60 1.60 1.50

1.60 25

2.00

1.80 5.00

1.30 2.10 1.20

2.25 2.85 1.50 2.75 1.50 3.00

2.00

1.20 2.00 .65 .70 1.30

30 2.10 2.15 1.30

1.50 1.20 1.45 1.50 1.60

 $\frac{1.60}{2.50}$.75 1.55 1.30

3.00

1.60

1.20

2.00

1.60 1.80 1.80 1.80 2.60

.70 3.50 1.20 1.55 1.75

1,60

01 A 1A6 1C6 1V

2 2A3

2A5 2A6 2A7 2B7

5Z3

6A7 6B7

6F7 10 12A 12A5 12Z3

24A 25Z5

46 47

56

85

89 V99

35/51

6A4/LA 6C6 6D6



r

Nationally Advertised By Philco for Replacement in All Radio Sets

Your Discount 40-10% Less 20% for Cash

Extensive advertising has made PHILCO aponular name in Radio, People know that PHILCO stands for quality and BALANCED TOKE in Tubes as well as Sets and Parts. Capitalize on this by having PHILCO TUBES in stock ready for those who prefer them.

MAJESTIC Types

S Indicates	Spray	Shield
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Stock Number	Type Number	List Price	Your
3E598	2A78		
3E599	2878	2.30 2.10	1.22
3E600	28/48	2.10	1.40
3E601	2Z2/G84	$\frac{2.65}{1.85}$.98
3 E 6 0 2	6178	2.30	1.22
3E603	6B78	2.10	1.11
3E604	6C7	1.90	1.00
3E605	6107	1.75	.93
3E606	6 E-7	1.75	.93
3E607	6F78	1.90	1.00
3E608	6Y5	1.90	1.00
		me as Pl	
3E609	6Z5/12Z5	1.90	1.00
3E 610	248	1.30 3.70	.69
3E611	25/258	3.70	1.96
3E612	278	.80	.42
3E613	358/518	1.40	.74
3E614	46 A 1	1.10	.58
3E615	46B1	1.10	.58
3E 616	558	1.70	.90
3E617	56AS	1.30	.69
3E618	568	1.30	69
3E619	578	1.75	.93
3E620	57AS	1.75	.93
3E621	588	1.75	.93
3E622	58 A S	1.75	.93
3E 623	75S	1.70	.90
3E624	85 A S	1.70	.90

SPARTON Types

3E696	182B	1.65	.87
3E697	183	1.65	.87
3E698	485	1.45	.77

ARCTURUS

Improved Performance



The exclusive Arcturus Unitary Structure is a decided advance and is a real improvement in tube manufacture, assuring uniform characteristics. This sturdy construction insures precise spacing and grips every element firmly in position making all elements inter-dependent. This entire assembly, exceptionally rigid, is safe against distortion of elements and nulnimizes microphonism. Rated as the most rurged tube construction on the market, this is another reason why Arcturus Tubes insure efficient and dependable performance and improved reception.

Precision In Manufacture Guarded by 137 Tests and Checks

The average diameter of the filament used in Arcturus Tubes is .006 inches. Yet the precise construction of the elements in Arcturus Tubes is held less than one-tenth of this dimension. This precision in manufacture plus the tugged construction of Arcturus Tubes also insures uniformity of characteristics and performance in even the most critical circuits. Gourding Arcturus quality are 137 tests and checks which each tube receives before it is shipped. Such fine workmanship and care have gained for Arcturus Tubes a world-wide acceptance for Quality.

10% Discount in Lots of 25 Assorted

1.06	Ex	tra 10%	o Disc	ount in
.69	Stock Number	Type Number	List Price	Your Price
.69 1.00 1.11 1.14 .69	3E700 3E701 3E702 3E703 3E704	01 A 1 A 6 2 A 3 2 A 5 2 A 6	\$0.60 1.75 2.25 1.60 1.60	\$0.32 .93 1.19 .85 .85
.63 .77 .79 .85	3E705 3E706 3E707 3E708 3E709	2A7 2B6 2B7 5Z3 6A7	2.20 2.50 2.00 1.50 2.20	1.16 1.32 1.06 .79 1.16
.40 .82 .69 1.59 .90 2.12	3E762 3E710 3E711 3E712 3E713 3E714	6B6 6B7 6C6 6D6 6F7	2.50 2.00 1.25 1.25 1.80 5.00	1.16 1.32 1.06 .66 .95 2.65
.95 .85 .63 .87	3E715 3E716 3E717 3E719	12A 12Z3 12Z5 24	1.30 1.20 1.50 1.20	.69 .63 .79 .63
.85 .63 .95	3E720 3E721 3E722 3E723 3E724	25Z5 26 27 30 31	2.00 .65 .70 1.30 1.30	1.06 .34 .37 .69
1.37 .37 1.85	3E725 3E726 3E727	32 33 34	1.90 2.10 2.15	1.00 1.11 1.14
.63 .82 .93 .85 .95 1.19 .79 3.57	3E728 3E729 3E730 3E731 3E732 3E733 3E734 3E735	36A 37A 38A 39-44 41 42 43 45	1.50 1.20 1.45 1.50 1.60 1.60 2.50 .75	.79 .63 .77 .79 .85 .85 .85

Stock Number	Type Number	List Price	Your Price
3E736 3E737 3E738 3E739	46 50 51 53	1.55 4.00 1.30 1.80	.82 2.12 .69
3E740 3E741 3E742 3E743 3E744	55 56 57 58 59	1.60 1.20 1.65 1.65 2.00	.85 .63 .87 .87
3E745 3E746 3E747 3E748 3E749	71A 75 77 78 79	.75 1.60 1.80 1.80 2.60	.40 .85 .95 .95
3E750 3E751 3E752 3E753 3E754 3E755	80 81 82 83 84 85	.70 3.50 1.20 1.55 1.75 1.60	.37 1.85 .63 .82 .93
3E756 3E757 3E758 3E759 3E760 3E761	89 99UX AF AG GA PZ(47)	1.80 1.50 1.80 2.05 2.75 1.30	.95 .79 .95 1.08 1.45

ARCTURUS 2B6 Tube Power Amplifier

A super triode tube with higher power output, greater sensitivity, and lower power consumption. Six watts power may be obtained from a single tube or sixteen from a pair in push-pull. 3EFO6—List, \$2.50. \$1.32

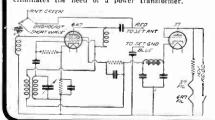
YOUR PRICE

A. C.—D. C. SHORT WAVE SCOUT

Latest Style Circuit

Latest Style Circuit

USES THE NEW 6A7 ELECTRON COUPLED detector-modulator tube in a new highly efficient frequency converter superheterodyne circuit. Two colls are supplied to cover the Important short wave paramisishon bands. This converter is designed to perate satisfactorily with any type of broadcast receiver and when so used employs the essential principles of the superheterodyne system to secure amazing distance and power—limited only by atmospheric conditions, the amplification of the receiver used and the skill of the operator. Close observation of the circuit shown below will explain the electrical action of this instrument. A 37 tube with grid and plate tied together supplies rectified direct plate current for the 6A7, thus placing no added strain on your receiver supply. A series filament supply eliminates the need of a power transformer.



Tunes 20-200 Meters on Any Broadcast Receiver

The Short Wave Scout will modernize your present radio. Easy to install—only three simple connections and plug-in cord to 110 volt A.C. or D.C. supply line. Fascinating to operate. A quick selling item for servicemen and radio dealers. Tuning range covers American Police calls, Plane and Amateur waves between 69 and 200 meters; with the substitution of an extra coll provided with the receiver, the Short Wave Scout receives signals from 20 to 60 meters. This includes the transmission channels of most European, South American, and American Relay station.

You Can Step-Up Your Sales with This New Short Wave Adapter

This New Short Wave Adapter

Do your customers know how simple it is to adapt their broadcast radios for short wave reception—and how moderate the cost?

You can turn over a substantial profit each month on Short Wave Scout sales. You have the inside track—you have the confidence of your track—they look to you for technical endorsement of any device of this nature. You can make momey on this business and there's a lot of it. The field has been pioneered for you. National advertising has planted the seed of desire for short wave reception in the minds of every radio owner and most people get a big lick out of it. Cash in on this business—it can bring you a mighty good profit.



Attractive Small Cabinet
Genuine Walnut Veneer Cablnet, 8½"x6½"x
4½". Tuning dial, power switch and change
over switch for choice of broadcast or short
wave reception. Highest quality workmanship and
parts used throughout. This attractive little converter will make any good power broadcast receiver into a world-wide multi-wave radio equal
to some of the highest priced "All-Wave" radios
on the market.

to some of the misness prices on the market.

Short Wave Scout 20-200 meters when used with any broadcast receiver. Self Powered.

Operates from 110 volts A.C. or D.C. on any aerial suitable for short wave reception.

4D10945—Complete with RCA-Cunningham Tubes. List Price \$17.50.

YOUR PRICE





ONE HUNDRED MILLION Radio Tubes will be replaced this year. Your share of this business will probably account for 50% of your sales. The question of wholesale Tube Prices is, therefore, a very important one to YOU. ANY difference in your cost of each Tube will make a BIG difference in your

Many brands of Tubes are now available on consignment only—a system of distribution which, because it is expensive to main-

tain, compels the manufacturer to charge you more for his Tubes than you

you more for his Tubes than you would pay were you to buy Tubes of equal quality for CASH.

Raytheon tubes are the best on the market. Each one is fully guaranteed for six months, subject to the usual exceptions of burnouts and breakage.

Raytheon 4-pillar Tubes ARE sold for cash. Raytheon 4-pillar Tubes ARE sold for cash. As a Raytheon Dealer you get FULL profit You actually make from 10 to 15 percent more on every Tube you sell because nothing is added to your cost by the manufacturer to offset his bad-account losses, elaborate check-up expense, etc., that are unavoidable wherever Tubes are consigned.

Perhaps you, like thousands of other prudent Radiomen, prefer to buy your tubes outright and pocket this extra 10 to 15 per-

outright and pocket this extra 10 to 15 percent profit. Do you?

Then Raytheon 4-pillar Tubes are the answer. They have every feature that a fast-selling, profit-producing Tube must have, including: Quality, Selection, Distinction, National Advertising and BIG TRADE DISCOUNT.

COUNT.

Build confidence in your firm by selling these outstanding high quality tubes.

The High Quality Line with

1A6 Pentagrid Converter 3E765— List, \$1.75. YOUR PRICE .. 93¢ 2A3 Triode Power Amplifier 3E766— \$1.19 2A5 Pentode Power Amplifier
3E767—
List, \$1.60. YOUR PRICE .. 85¢ 2A6 Diode Det. Triode Amp.

3E768—
List, \$1.60. YOUR PRICE... 84¢ 2A7 Detector-Oscillator 3E769— List. \$2.20. YOUR PRICE \$1.16 2B7 Diode Det. Pentode Amp.
3E770— \$1.06 523 Full Wave Rectifier 3E771—
List, \$1.50. YOUR PRICE .. 79¢ 6A4 Pentode Power Amplifier 3E772— List, \$1.60. YOUR PRICE .. 85¢ 6A7 Detector and Oscillator 3E773— \$1.16 6B7 Diode Det., Pentode Amp. 3E774— \$1.06 6C6 Pentode Det. or Amp. 3E775—
List, \$1.25. YOUR PRICE ... 66¢ 6D6 Pentode Det. or Amp. 3E776— 66¢ 6F7 Triode Pent. Det. & Osc. 3E777— List. \$1.80. YOUR PRICE .. 95¢ 12A5 Pentode Power Amplifier 3E778— \$1.11 12Z3 Half Wave Rectifier 3E779— List. \$1,20. YOUR PRICE.. 63¢ 25Z5 Voltage Doubling Rect. 3E780—\$1.06 OOA Triode Det. or Amplifier
3E781— \$2.12
List, \$4.00, YOUR PRICE \$2.12 O1A Triode Detector or Amplifier List. 60c. YOUR PRICE 32¢ 1-V Half Wave Rectifier 3E783—
List. \$1.25. YOUR PRICE... 66¢

10 10 3E784-List, \$5.00. YOUR PRICE \$2.65 WD11 Triode Detector 3E785— \$1.59 WX12 Triode Detector 3E786— \$1.59 12A Triode Det. or Amp. 3E787— 69¢ Twin Class B Triode Amp. 3E788— 79¢ Triode Power Amplifier 3E789— \$1.59 22 Screen Grid Det. or Amp. 3E790 \$1.06 24A Screen Grid Det. or Amp. 3E791— YOUR PRICE .. 63¢ 26 Triode Amplifier 3E792— List, 65c. YOUR PRICE ... 34¢ 27 Triode Det. or Amplifier 3E793— 37¢ Triode Det. or Amplifier 3E794— 69¢ Triode Power Amplifier 3E795—
List, \$1.30. YOUR PRICE .. 69¢

Screen Grid Det. or Amp. 32 3E796-List, \$1.90. YOUR PRICE \$1.00 75 Pentode Power Amplifier 3E797— \$1.11 74 Variable Mu Pentode Amp. 3E798— \$1.14

35 Variable Mu Amplifier 3E799— List, \$1.30, YOUR PRICE .. 69¢ 36 Screen Grid Det. or Amp. 3E800--- 79¢

37 Triode Det. or Amplifier. 3E801— 63¢

Pentode Power Amplifier.
3E802— 776
List \$1.45. YOUR PRICE

39 Variable Mu Pentode Amp. 3E803— 79¢

Triode Det. or Amulfier 3E804— \$1.06 Pentode Power Amplifier 3E805— 84¢

42 Pentode Power Amplifier 3E806— B4¢

Pentode Power Amplifier
3E807—
List \$2.50. YOUR PRICE \$1.32 44 Variable Mu Pent. Amp. 3E808— 79¢

Triode Power Amplifier
3E809—
List. 75c. YOUR PRICE.... 40¢

Dual Purpose Power Amp. 3E810— 82¢

Pentode Power Amplifier 3E811— 69¢

48 Power Amplifier 3E812— \$1.59 49 Dual Purpose Power Amp. 3E813— 90¢

50 Triode Power Amplifier 3E814— \$2.12

Variable Mu Amplifier 3E799—
List \$1.30. YOUR PRICE .. 69¢ Dual Purpose Power Amp.

52 3E816— 84¢ Twin Class B Triode Amp. 3E817— List \$1.80. YOUR PRICE .. 95¢

55 Diode Det. & Triode Amp. 3E818— 84¢

Triode Det. or Amplifier 3E819— List \$1.20. YOUR PRICE .. 63¢

Pentode Det. or Amplifier 3E820— 87¢

59 Universal Power Amp. 3E822— \$1.06

71A Triode Power Amplifier 3E823— 40¢ 75 Dlode Det. & Triode Amp. 3E824— List \$1.60. YOUR PRICE .. 84¢

76 Triode Det. or Amplifier 3E825— List \$1.20. YOUR PRICE .. 63¢

77 Pentode Det. or Amp.
3E826—
1.1st \$1.80. YOUR PRICE ... 95¢
78 Var. Mu Pent. Det. or Amp.
3E827—
1.1st \$1.80. YOUR PRICE ... 95¢

79 Twin B Triode Power Amp. 3E828—
List \$2.60. YOUR PRICE \$1.37

80 Full Wave Rectifier 3E829— List, 70c. YOUR PRICE.... 37¢

81 Half Wave Rectifier 3E830 State \$1.85

82 Full Wave Mercury Rect. 3E831— List \$1.20. YOUR PRICE ... 63¢

83V Full Wave Rectifier 3E832— 82¢ Full Wave Rectifier

84 3E833— 93¢ 85 Diode Det. & Triode Amp. 35 3E834-List \$1.60. YOUR PRICE .. 84¢

89 Universal Power Amp. 3E835— List \$1.80. YOUR PRICE ..

V99 Triode Det. or Amplifier 3E836— \$1.19

X99 Triode Det. or Amplifier 3E837— YOUR PRICE ... 79¢

BA Full Wave Gaseous Rect. 3E838— \$3:97 List \$7.50, YOUR PRICE \$3:97

BH Full Wave Gaseous Rect. 3E839— \$2.46 List \$4.65. YOUR PRICE

58 Variable Mu Pentode Amp. 3E821—
List \$1.65. YOUR PRICE ... 87¢ BR Half Wave Gaseous Rect.
List \$2.75. YOUR PRICE \$1.45

Nationally Advertised

It will never be necessary for you to "sell" a customer Raytheon 4-pillar Tubes—The millions of advertising dollars that have, and are, being spent to impress the public with this exclusive patented feature, have firmly established Raytheons in the minds of Set owners as the standard of quality by which other Tubes are judged. With such tremendous nation-wide publicity and universal public acceptance behind them, Raytheon 4-pillar Tubes will sell themselves.

Complete Selection

Raytheon 4-pillar Tubes are made in all types-including spray-shield—to fit any Set. With this line you have a Tube for every customer-no lost sales.

Make 10% to 15% Bigger Profits

There are at least five good reasons why it will pay you to handle Raytheon Tubes exclusively. Here they are:

- You can buy them outright—and save 10% to 15% by paying cash.
- Their quality is of the best-perfect performance with long life.
- Nationally Advertised— easiest sold because best known.
- Complete Selection-Tube for every Set.
- 4-pillar Construction— the only Tube having this patented exclusive Raytheon feature.

(2)

The Big Dealer Discount

Special Spray Shield Types for MAJESTICS

(SS Indicates Spray Shield)

245 Screen Grid Det-Amp. (SS) List, \$1.30. YOUR PRICE 69¢

275 Triode Det-Amp. (SS) 3E842— List, \$0.80. YOUR PRICE 420

355 Vari Mu S-G Amp. (SS)

List. \$1.40. YOUR PRICE 74¢ (Same as 51S)

55S Dlode Det.-Triode Amp. (SS) List, \$1.70. YOUR PRICE 90¢

565 Triode Det-Amplifier (SS) List. \$1.30. YOUR PRICE 69¢

575 Pentode Dot-Amplifier (SS) 3E846— 93¢

57AS Detector-Amplifier List, \$1.75. YOUR PRICE 936

585 Vari Mu Pentode Amp. (SS) 3E848— List. \$1.75. YOUR PRICE 936

85AS Super Con. R.F. Amp. 3E849— Idst. \$1.75. YOUR PRICE 93¢

855 Diode Det-Triode Amp. (SS) 3E850-List. \$1.70. YOUR PRICE 90¢

Detector-Oscillator (SS)
3E851— \$1.22
YOUR PRICE ... 2A7S List. \$2.30.

Detector Oscillator (SS) 6A7S List. \$2.30. YOUR PRICE .. \$1.22

Diode Det-Pentode Amp. 3E853-**6B7S** 3E853- \$1.11 List, \$2.10.

Triode Pent. Det-Osc. (SS) 6F7S List. \$1.90. YOUR PRICE .. \$1.00

6C7 Duo-Diode-Triode 3E855-List, \$1.90. YOUR PRICE .. \$1.00

617 R. F. Amplifter 3E856-List. \$1.75. YOUR PRICE 93¢

6E7 Super Cont. R.F. Amp. 3E857—

List, \$1.75. YOUR PRICE 93¢

6Y5 Futl-Wave M-V Rectifier 3E858-List. \$1.90. YOUR PRICE .. \$1.00

Raytheon Multi-Adapter

Special Offer with Order for 25 Assorted Raytheon Tubes

\$625

Brings your Tube Tester up-to-date. No individual adapters needed. Supplies all filament voltages not available on your old Tube Tester and allows for testing any number of new tubes that may be brought out in

number of new tubes that may be brought out in the future. It is so flexible that every possible connection of interelement arrangement of plate, grids, screen, cathode can be quickly made. Etched panel makes additional charts unnecessary. In leather case, size 7x0½x114 inches.

(If purchased on Tube Deal.) ..

Raytheon Tool Kit **\$2.17**

This is the ideal 001 Kit Radio Service-men. Made by men. Made by

Consists of a University Blades, 5 Socket one of the country's leading tool makers. Consists of a Universal Cnuck Handle, 3 Serew-driver Blades, 5 Socket Wrenches and 3-ln-1 Bakelite Balancing Wrench, Fitted with neat leatherette roll type case. Fits conveniently into Raytheon carrying case. \$2.59 (With an order for 10 Raytheon Tubes... \$2.17)



Raytheon Carrying Case

\$1.06

very substantually made. ed case measuring wide and 7½ inches deep. full set of tubes and tools.

19 inches long, 9 inches wide and 7½ inches deep. Large enough to hold a full set of tubes and tools. A very handy item for Service calls. Finished in hlack with brass fittings. \$1.35 3E861-Each

(With Order for 5 Raythean Tubes \$1.06)

Raytheon Rider's Manuals

Here's your chance to get these famous services data books at big savings. See page 100 for complete description. 3E862—YeLUME! \$4.99
YOUR PRICE

YOUR PRICE 940-73 (With order for 15 Raytheons)

3E863-VOLUME 11\$4.32 YOUR PRICE 94.2 (With order for 15 Raytheons) 3E864-VOLUME III

\$4.99 PRICE (With order for 15 Raytheons)
NOTE: You may seeure all three Volumes for \$14.30
with an order for 35 Raytheon Adverdio History

Why Raytheon 4-Pillar **Construction is Best**

are more than thirty elements in every Radio Tube, no matter what the make tiny pieces of wire and delicate bits of metal. When the Tube is made, these fragile elements are properly adjusted at the plant, placed in just the right position to provide the clear, sweet-tone reception that the Radio Set was made to give. Any change in the spacing of these elements changes the characteristics of the Tube. Unless the original adjustment of these elements is maintained to the thousandths of an inch the Set cannot perform the way it should.

Jolts, jars and vibrations affect ord-inary two-support Tubes and you can never be sure that their original factory adjustment will be retained through the bumps of shipment and handling, to say nothing of vibrations while the set is being used.

Raytheon 4-pillar Tubes on the other

hand come to you exactly as they leave the laboratory. Four strong pillars keep the elements in place, maintaining the hair-line accuracy with which they were assembled. And because of their unique construction. they will stay that way throughout their they will stay that way throughout their the Dynamic Speaker, knocks and bumps incident to store-handling—the slight mishaps that impair and even ruin ordinary Tubes leave Raytheons unaffected.

Who Uses Raytheons

In huge planes of the great continental transport companies, alert police cars on watch throughout the country, in automobile Radios and for all other purposes where the hardest usage must be withstood with unfailing dependability, Raytheon 4-pillar Tubes are extensively used. It is the one Tube that defies abuse . the one Tube that outlasts all others.

Therefore when a Set owner comes to you for new Tubes you can recommend with confidence Raytheons, making not only a satisfied customer, but also a 10% to 15% greater profit for yourself!

Things to Heip You Sell Raytheons

Many arresting window displays, window streamers, display stands, consumer leaflets, data charts, etc., are being issued from time to time to tie up with the Raytheon advertising campaigns being earried on in the country's leading Radio periodicals. If you can use this material please advise us when placing your order for Raytheons and we will place your name on the list to receive all advertising assistance available.

The Standard Comparison

Genuine-

Cunningham Radiotron

Merchandising Aids and Service Helps Successful Servicemen Advertise-

More profit, greater volume, satisfied customers. Advertising builds confidence, as well as more business. Tie your firm name in with Cunningham and profit by the millions of dollars Cunningham spends on national advertising. You merchandisc. The advertising pieces on this page have been selected herause of successful results obtained on tests by leading servicemen. This is the most economical profit-producing publicity you can buy.

Other Advertising Material Free

To our customers who are prepared to carry a reasonable stock of Cunningham Tubes and display advertising helps, we will, upon your request, advise E. T. Cunningham Advertising Department of your tube sales, and recommend through should be supplied free with the material they have available for larger

Tube Stickers

Every time you test a tube, put on a Cunning-ham Tube Test Sticker. Sew up the renewal sale. Makes every tube a selling agent for you. The cost is negligible, the value great. Has space for date sold, date tested, satisfactory, doubtful and unsatisfactory indications. Im-printed with 3-lines (Your name, address and city). Print name plainly.

D996—Roll of 2000 Tube Stickers. \$1.00 YOUR PRICE



Carolin

Service Billheads

It pays to look the part of a profitable efficient, up-to-date service organization. If the Serviceman's billhead is a sloppy make-shift affair it is liable to counteract an otherwise impressive service legout. This neat form costs no more than many inferior billheads. Imprinted with your name, address, city, and teleplone number.

D997.			 \$1.00
linprinted.	500	for	 31.00

Not-At-Home Cards

number. D998



6**B**7

CE918 - Cunningham 6 RE918 - Radiotron 6B7

LIST PRICE

998. er 100 imprinted	25¢
00A CE925 Cunningham 00A RE925 Radiotron 00A LIST PRICE \$4.00	2A6 CE902—Cunningham 2A6 RE902—Radiotron 2A6 LIST PRICE
CE926—Cunningham 01A RE926—Radiotron 01A LIST PRICE	2A7 CE903—Cunningham 2A7 RE903—Radiotron 2A7 LIST PRICE
1A6 CE904—Cunningham 1A6 RE904—Radiotron 1A6 LIST PRICE	287 CE915—Cunningham 2B7 RE915—Radiotron 2B7 LIST PRICE
CE927—Cunningham 1 RE927—Radiotron 1 LIST PRICE	5Z3 CE920 - Cunningham 5Z3 RE920 - Radiotron 5Z3 LIST PRICE
CE931—Cunningham 1-V RE931—Radiotron 1-V LIST PRICE	6A4 CE907—Cunningham 6A4 RE907—Radiotron 6A4 LIST PRICE
2A3 CE900—Cunningham 2A3 RE900—Radiotron 2A3 LIST PRICE	6A7 CE911—Cunningham 6A7 RE911—Radiotron 6A7 LIST PRICE \$2.20

RCA Cunningham Radiotron

RCA Cunningham Radiotron Tubes are now available to servicemen and dealers on consignment only. No distributor is permitted to sell these tubes for cash except at full list prices. You pay for the merchandise only after you sell it. Discounts range from 37-5% to 41-5%. If you are interested we will send you full details upon request. In the event the RCA Radiotron Company, Inc., approves your contract we will establish you as an RCA Cunningham Radiotron dealer and you will be able to obtain an adequate stock of these tubes from us.

Consignment Exceptions

Consignment Exceptions

The Radolek Company is authorized to sell for eash or on any other basis it elects to Theaters, Schools. Broadcasters, Engineering Laboratories, Research and Manufacturing companies, United States Government, State Governments, County and Municipal Governments, and all governments and public institutions, at a 40% discount from current list prices. It must, however, be agreed to in a contract provided by us that tubes so purchased will be used only for installation or use in radie apparatus, equipment or devices either owned, controlled or used by the purchaser; or in radio apparatus, equipment or devices (except receiving apparatus) manufactured by the purchaser for resale. If you can classify under any of the exceptions write us for a contract and other details.

of the exceptions write us for a con-	ract and other decans.
6C6 CE905—Cunningham 6C6 RE905—Radiotron 6C6 LIST PRICE	27 CE937—Cunningham 27 RE937—Radiotron 27 LIST PRICE
CE906 Cunningham 6D6 RE906—Radiotron 6D6 LIST PRICE	CE938—Cunningham 30 RE938—Radiotron 30 LIST PRICE
6F7 CE908—Cunningham 6F7 RE908—Radiotron 6F7 LIST PRICE	CE939—Cunningham 31 RE939—Radiotron 31 LIST PRICE
CE928—Cunningham 10 RE928—Indiction 10 LIST PRICE	32 CE940—Cunningham 32 RE940—Radiotron 32 LIST PRICE
CE929 Cunninghain 11 RE929—Radiotron 11 LIST PRICE	33 CE941—Cunningham 33 RE941—Radiotron 33 LIST PRICE
CE930—Cunningham 12 RE930—Radiotron 12 LIST PRICE	34 CE942—Cunningham 34 RE942—Radiotron 3i LIST PRICE
12Z3 CE922—Cunningham 12Z3 RE922—Radiotron 12Z3 LIST PRICE	35 CE943—Cunningham 35 RE943—Radiotron 35 LIST PRICE
CE909—Cunningham 19 RE909—Radiotron 19 LIST PRICE	36 CE944—Cunningham 36 RE944—Radiotron 36 LIST PRICE
CE933—Cunningham 20 RE933—Radiotron 20 LIST PRICE \$3.00	CE945 — Cunningham 37 RE945 — Radlotron 37 LIST PPICE
CE934—Cunningham 22 RE934—Radiotron 22 LIST PRICE	33 CE946 - Cunningham 38 RE946 - Badlotron 38 LIST PRICE
CE935—Cunningham 24A RE935—Radiotron 24A LIST PRICE	39-44 CE947—Cunningham 39-44 RE947—Radiotron 39-44 LIST PRICE
25Z5 CE921—Cunningham 25Z5 RE921—Radiotron 25Z5 LIST PRICE	CE948—Cunningham 40 RE948—Radiotron 40 LIST PRICE \$2.00
26 CE936—Cunningham 26 RE936—Itadiotron 26 LIST PRICE	CE949 Cunningham 41 RE949 Itadiotron 41 LIST PRICE

2A5

LIST PRICE \$1.60

CE901—Cunningham 2 RE901—Radiotron 2A5

\$2.00

Fresh Stock and RCA Radiotrons UBES

Tube Agency Consignment Plan
The Radolek Company will be glad to co-operate with all
Radio Servicemen or Radio Service Organizations so as to
enable them to qualify for the RCA Tube Agency. If you
have an established RCA Cunningham Radio ron clientele
we want you to write us for your contract.

Only List Prices Specified

We have specified the current list prices on RCA Cunningham and Radiotron tubes. The discount varies according to
the quantity of tubes you are able to use over a period of
one year.

one year. Cabadula of Discounts

	Senedule of	Discounts	
Qualification Basis Annual Sales in Units	Basic Rate	For Prompt Payment	Equivalent
Under 1.000	37 %	5%	40.15
1,000-2,500	38% 394 o	5% 5%	41.1 42.05
5,000-10.000	40%	5%	43.
Over 10,000	41%	5 °c	43.95

Your contract must be approved before any of these discounts are applicable. All contracts start on the 37% Basic Rate and are adjusted to high Basic Rate when sales so justify.

CE951—Cunningham 42 RE951—Radlotron 42 LIST PRICE \$1.60	58 CE966Cunningham 58 RE966Radintron 58 LIST PRICE
CE953—Cunningham 43 RE953—Itadiotron 43 LIST PRICE	CE967—Cunningham 59 RE967—Itadiotron 59 LIST PRICE \$2.00
CE954 - Cunningham 44-39 RE954 - Radiotron 44-39 LIST PRICE	CE972—Cunningham 71A RE972—Radiotron ?1A LIST PRICE
CE955—Cunningham 45 RE955—Radiotron 45 LIST PRICE	CE974 - Cunningham 75 RE974 - Radiotrop 75 LIST PRICE
CE956—Cunningham 46 RE956—Radiotron 46 LIST PRICE	76 CE975—Cunningham 76 RE975—Radiotron 78 LIST PRICE \$1.20
CE957—Cunningham 47 RE957—Radiotron 47 LIST PRICE	77 CE976—Cunningham 7" RE976—Radiotron 77 LIST PRICE \$1.80
CE958—Cunningham 48 RE958—Itadiotron 48 LIST PRICE	78 CE977—Cunninghan 78 RE977—Itadiotron 78 LIST PRICE \$1.80
CE958—Cunningham 49 RE959—Radiotron 49 LIST PRICE	79 CE978—Cunningham 79 RE978—Radforre 79 LIST PRICE \$2.60
50 CE960—Cunningham 50 RE960—Itadiotron 50 LIST PRICE	80 CE979 —Cunningbam 80 RE979 —Radiotron 80 LIST PRICE
53 CE962—Cunningham 53 RE962—Radiotron 53 LIST PRICE \$1.80	81 81 81 81 81 81 81 81
55 CE963—Cunningham 55 RE963—Radiotron 55 LICT PRICE	82 CE981 Cunnirgham 82 RE981 Radiofron 82 LIST PRICE
56 CE96—Cunningham 56 RE964—Radiotron 56 LIST PRICE \$1.20	83 CE982—Cunning tham. 83 RE982—Radiofron 83 LIST PRICE
57 CE965—Cunningham 57 RE965—Radiotron 57 LIST PRICE	84 CE983 - Cuminghan 84 RE983 - Radiotron % \$1.75 LIST PRICE \$1.75

Dependable and Long Lived

Radio Tube Manual

The Manual contains note than 80 pages of data, including 20 pages of general descriptive matter on radio tubes. Each tube type is 11-lustrated and is followed by a description of characteristics and a discussion of installation and application. Also contains a characteristics chart, a socket connection chart and from one to four curves for most tube types.

D991-One copy Free to Camingham Tube Purchasers on Payment 10¢

Additional copies, Each 25 c



Socket Layout Guide

This booklet shows the types of tubes and the number of each used in practically every standard make and model of Radio Receiver now in use. Contains data on all important Sets made since 1920. An indispensable reference book for every Radio Tube Counter.

D992-One copy FREE to Cunningham Tube Furchasers on pay- 10¢

Additional copies, Each..... 50c

Service Order Form

This form comes in triplicate, 50 sets to a pad, with two sheets of carbon paper. Has space for information to be filled out when the call for service comes in. The original and duplicate are turned over to the Serviceman making the call. The triplicate is filed as a record. The Serviceman fills out the remainder of the form after he has finished the joh, and secures the customer's signature. Second copy is given to customer and original is returned to office for making up bills and entering information on permanent service record.







99 X

Cunningham 99X

RE988 Radiotron 99X

LIST PRICE

Prospect Sales and Service Record Form

Two ply cardboard cards 4x6 in., printed two sides. On the "prospect of a sales information pertaining to Tubes, Radio Sets and Electrical Appliances. Cards of customers who possess radio sets are turned around in the file so that the complete record faces forward. D994-

40¢ Per 100 cards

886

CE985 -Cunningham 8 RE985 -Radiotron 886

LIST PRICE

PRICE REFERENCE CAROS showing latest list prices on all types of tubes; size 13x6 In., will be sent FREE on request to Cunningham Tube Purchasers.

CE984 Cunningham 85 RE984 Radiotron 85 LIST PRICE	CE932—Cunningham 112A RE932—Radiotron 112A LIST PRICE \$1.30
89 CE986Cunningham 89 RE986Radiotron 89 LIST PRICE	RE973—Cunningham 874 RE973—Radiotron 874 LIST PRICE \$4.90
99V CE987—Cunningham 99V RE987 Hadiotron 99V LIST PRICE	2.25 876

\$1.50

\$6.75



Many of the Net Prices Quoted Figure as Low as 60 and 10% Discount!

GOLD SEAL
Majestic Type Tubes
These tubes are equipped with special shields, and assure a satisfactory replacement in all Majestic receivers using the types listed below.
245 3E500—List. \$1.30. 59¢
275 36501-List, 80c, 36¢
35/515 3E 502-List, \$1.40. 63¢
55S 3E503 List, \$1.70 76¢
56S 3E504-List, \$1.30 59¢
575 3E505—List, \$1.75. 79¢
57AS 3E506—List.\$1.75. 79¢
585 3E507 -List, \$1.75. 79¢
58AS 3E508—List, \$1.75. 79¢
85AS 3E509—List. \$1.70. 76¢
2A7S 3E510-List, \$2.30. \$1.03
6A7S 3E511—List, \$2.30. \$1.03
6B7S 3E512-List, \$2.10. 94¢
6D7 3E513—List, \$1.75. 79¢
6E7 3E514—List, \$1.75. 79¢
6F7S 3E5 5-List, \$1.90. 85¢

OOA 3E520-List, \$4.00. \$1.14	6C6 3E535-List. \$1.25. 56¢
01A 3E521—List, \$0.60. 27¢	6D6 3E536—List, \$1.25.
1V 3E522—List, \$1.50.	6F7 3E537—List, \$1.80. 81¢
1A6 3E523—List, \$1.75. 68¢	10 3E538-List, \$5.00. \$1.79
1C6 3E524—List, \$2.20. 89¢	WD11 3E539—List, \$3.06. 93¢
2A3 3E525—List, \$2.25. \$1.01	12A 3E540 List, \$1.30. 49¢
2A5 3E526—List, \$1.60.	12Z3 3E541—List. \$1.20. 51¢
2A6 3E527—List. \$1.60. 69¢	19 3E542—List. \$1.50. YOUR PRICE
2A7 3E528-List, \$2.20. 89¢	20 3E543—List. \$3.00. \$1.35
2B6 3E529—List, \$2.50. \$1.13	22 3E544—List. \$2.00. 85¢
2B7 3E530 List, \$2.00. 79¢	24A 3E545—List, \$1.20. 51¢
523 3E531-List, \$1.50. 64¢	25Z5 3E546—List, \$2.00. 79¢
6A4/LA 3E532—List, \$1.60. 69¢	26 3E547—List, \$0.65.
6A7 3E533—List, \$2.20 88¢	27 3E548—List. \$0.70.
6B7 3E534—List. \$2.00. 79¢	30 3E549—List. \$1.30. 49¢

GOLD SEAL Zanted

TUBES

			77 3E578—List, \$1.60.
31	3E550-List, \$1.30.	49¢ 46 3E564—List, \$1.51	
32	3E551—List, \$1.98. YOUR PRICE	71¢ 47 3E565—List. \$1.30	79 3E580—List, \$2.60.
33	3E552—List, \$2.10.	704 49 3E566—List, \$3.00	80 3E581—List, \$0.70.
34	3E553—List, \$2.15.	954 40 3E567—List, \$1.70	81 3E582—List, \$3.50. \$1.1
25	751 3E554—List, \$1.30	. EAA En 3E568—List. \$4.00	- 3E583-List, \$1.20.
	3E555—List, \$1.50.		- 83 3E584 List, \$1.55.
36	3E556—List, \$1.20.	61¢ 53 3E569—List, \$1.80 YOUR PRICE	- 84 3E585-List, \$1.75. 74
37	YOUR PRICE	445 >> YOUR PRICE	85 3E585 List, \$1.60.
38	YOUR PRICE	YOUR PRICE	89 3E587—List, \$1.80.
39,	3E558—Lfst, \$1.50. YOUR PRICE	YOUR PRICE	V99 3E588—List. \$2.25. \$1.0
40	3E559—List, \$2.00. YOUR PRICE	76¢ 58 3E573—List, \$1.65	- 69¢ - X99 3E589—List, \$1.50. 68
41	3E560—List, \$1.60. YOUR PRICE	63¢ 59 3E574—List, \$2.00	· 7841
42	3E561—List, \$1.60. YOUR PRICE	65¢ 71A 3E575—List, 5	
43	3E562—List, \$2.50. YOUR PRICE	79¢ 75 3E576—List. \$1.60.	
45	3E563—List. \$0.75.	346 76 3E577—List, \$1.20	476 485 3E592—List, \$1.45.

See Explana	atory Note, f	Bottomi	of Pa	ge VI	Filament Voits	Filament Amps.	60 M	Plate Milliamps	Screen Volts Max.	Screen Militampe	. Grid V.	Recommended Ohms Bias Resistor	Amplification Factor	Recommended Ohms Plate Load	Power Output Milliwatts	Total Power Consumption In Watta
View of Sockets	Circuit Diagram	Туре	List	Purpose	Filar	Filar	Plate Volts	Plat	Scree	Scre	Neg. Blas	Reec Ohr Resi	Amt	Rect Ohr Load	Pow	Cont.
	6	00A	\$4.00	Detector Only	5 D. C.	0.25	45	1.5			5		20			1.3
	<i>c</i> ⊕	01A	.60	General Purpose Triode	D. C.	0.25	135	3			- 9	3000 1 Watt	8			1.4
	<i>-</i>	10	5.00	Power Amplifier Oscillator	7.5 A. C.	1.25	425	18			-39	2170 2 Watt	8	10000	1600	11
	<i>-</i> €	12A	1.30	Amplifier Detector	ъ. с.	.25	180	7.7			-13.5	760 ½ Watt	8.5	10000	260	1.5
SC CO	5 SC	14	2.25	Philco Special DetAmp.	14 D. C.	0.3	180	4	90	1.7	- 3	525 14 Watt	400			4.4
SC C	2 20	15	2.85	Mixer-Osc. Sub. 1A6	D. C.	.205	135	1.85	67.5	0.6	- 1.5	610 1% Watt	530			0.6
مرزي بي) مر م		17	1.50	Philco Special Det,-Amp.	D. C.	0.3	135	4.5			- 9	2000 ½ Watt	9			4.7
5°(2,3)K	c	18	2.75	Philco Power Pentode	D. C.	0.3	250	34	250	7.5	-16.5	400 4 Watt	220	9000	3000	7.2
G. (1, 2) A	GI - G2	19	1.50	Class "B" Output	D. C.	0.26	135	25			0			10000	2100	2.6
	c ()	20	3.00	Early Batt. Triode	3.3 D. C.	0.132	135	6.5			-22.5	Batt.	8.3	6500	110	.55
	c (sc	22	2.00	Early Batt. Tetrode	3.3 D. C.	0.132	135	3.7	67.5	1.3	- 1.5	Batt.	160			.45
SC C C	€ SC	24A	1.20	Screen-Grid DetAmp.	2.5 D. C.	1.75	250	4	90	1.7	- 3	525 14 Watt	630			5
	()	26	.65	R. F. or A. F. Amplifier	1.5 A. C.	1.05	180	6.2			-14.5	2320 1 Watt				2.6
P(13) X		27	.70	General Purpose Triode	2.5 A. C.	1.75	250	5.2			-21	4100 1.5 Watt	9			5.8
	200	29		High Mu Detector	2.5 A. C. D. C.	1	180	4.5			- 3	6675 1% Watt	30			2.7
	c (5)	30	1.30	General Purpose Triode	D, C.	0.06	135	3			- 9	3000 ½ Watt	9.3			1.7
	c ()	305		Spec. Triad S-W Tube	D, C,	0.06	135	3			- 9	3000 ½ Watt	9.3			1.7
	6 (A)	31	1.30	Pwr. Amp. Triode	D, C,	0.13	135	8			-22.5	2800 or "C" Batt.	3.8	7000	185	.35
	c (sc	32	1,90	R. F. Amp. Tetrode	D, C.	0.06	135	1.7	67.5	0.4	- 3	1425 or ' C'' Batt.	610			1.5
P(3, 5) SG	c sc	33	2.10	Pwr. Output Pentode	D, C.	0.26	135	14.5	135	3	-13.5	770 or "C" Batt.	70	7000	700	1.2
	c 350	34	2.15	Var. Mu. R. F. Amp.	D, C.	0.06	135	2.8	67.5	1	- 3	800 or "C" Batt.	360			.2



CONFIDENCE Tube Tester

Four Simple Operations-Four Straight Sockets

We guarantee that the operation of this tester is so simple, the instructions so clear that your customer can accurately test his own tubes after you guide him in testing the first tube.

Let your wife or clerk sell tubes for you. With the Confidence Straight Four Tube Tester, they can serve your customers just as well on tube testing as you can. How many sales can be made while you are out on calls?—How many tube scale wors lost because the tester, in your be made while you are out on calls?—How many tube sales were lost because the tester in your store was too complicated for anyone besides yourself to operate? Every tube in the Radolek Tube Chart may be tested without adapters in this instrument. After adjusting the line voltage with slider 4, observe the three numbers opposite the tube type on the table in the lid of the tester. Adjust the three sliders to their correct positions and insert the tube in the socket it fits. The meter indicates G00D or BAD. A cathode heater leakage test is made while the tube is hot. Other shorts indicate on the ruby jewel adjacent to the meter.

Adapters are not necessary with the Confidence Straight Four Tube Tester. Every tube employed in standard radio receivers for the past six years can be tested quickly and accurately on this modern up to date tube tester. A feature of Confidence Tube Testers Incorporated in this model is the 01A tube used as a half-wave rectifier for the meter when measuring A. C. line voltage on the D. C. 1 mil, 3½ in D'Arsonval meter. The tube is in service only when the line voltage button is pressed. Two sockets are provided for testing 2½ and 6 volt pilot lights. A six volt bulb may be left in the 2½ volt socket as a pilot for the tester. Provision is made under the panel for wiring for about 30 different circuits which might someday be necessary if new tubes are announced. Size of case 10"x15"x6½" with slip hings cover. hings cover.

1E2540—C on fi dence
Straight Four Tube Tester.

\$43

YOUR PRICE

See Explai	natory Note, E	ottom	of Pa	age VI	<u>,</u>	<u></u>		80	BX.	5	멸	ended	ation	ended	utput	wer
Bottom View of Sockets	Tube Circuit Diagram	Туре	List	Purpose	Filament Volts	Filament Amps.	Plate Volts	Plate Milliamps	Screen Volts Max.	Screen	Neg. Grid Bias V.	Recommended ()hms Blas Resistor	Amplification Factor	Recommended Ohms Plate Load	Power Output Milliwatts	Total Power Consumntion
S C C C	g: \$50	35	\$1.30	Var. Mu_ Same as 51	2.5 A. C.	1 75	250	6.5	90	2.5	- 3	333 Min.	420			4.8
5 C C C	i 50	36	1.50	Gen. Pur. Tetrode Same as 64A.	6.3 A. C. D. C.	0.3	180	3.1	90	1	- 3	750 3's Watt	525			2.9
P (3) X	£	37	1.20	Triode Same as 67A	6.3 A. C. D. C.	0.3	180	4.3		-	-13.5	3150 1 Watt	9.2			2.8
S C C C	5 SG	38	1.45	Pentode Same as 68A	6.3 A. C. D. C.	0.3	180	14	180	2.4	-18	1100 2 Watt	120	11600	1000	3
sa Gora	csc	39	1.50	Var-Mu Pentode Same as 44 and 65A	6.3 A. C. D. C.	0.3	250	5.8	90	1.4	- 3 Min.	417 ½ Watt	1050			2.1
(2)	c ()	40	2.00	Early Hi-Mu Triode	ъ. с.	.25	135	0.2			- 1.5		30			1.3
(2) C (3) 40	g	40 SOI	6.00	Arcturus-Dia. T. Sonora Spec.	15 A. C.	0.35	180	21			-40.5	Batt.	3	4000		6
SG (1) C	c sc	41	1.60	Pwr. Output Pentode	6.3 A. C. D. C.	0.4	180	18.5	180	3	-13.5	627 2 Watt	150	9000	1500	4
5 C 7 6 5 C	5 50	42	1.60	Pwr. Output Pentode	6.3 A. C. D. C.	0.7	250	34	250	6.5	-16.5	407 4 Watt	220	7000	3000	7.5
SG ST SK	G SG	43	2.50	AC-DC Pwr. Output Pentode	25 A. C. D. C.	0.3	100 135	20 34	100 135	4 7	-15 -20	625 488 3 Watt	90 80	4500 4000	900 2000	9.5
SC C	csc	(39-44)	1.50	Vari-Mu or R. F. Det.	6,3 A. C. D. C.	0.3	90	5.6	90	1.6	- 3	417 ½ Watt	360			2
	g-	45	.75	Pwr. Output Triode	2.5 A. C.	1.5	250	34			-50	1470 3 Watt	3.5	3900	1600	3.7
00000	56	46	1.55	Dual Grid Class "B"	2.5 A. C.	1.75	250	22			-33		5.6	6400	1250	22
					A. C.		300			Cla	ass "B"			5800	20000	
p (3) SG	G 56	47	1.30	Pentode Output Same as PZ	2.5 A. C.	1.75	250	31	250	6	~16.5	446 4 Watt	150	7000	2700	5
S C C C C C C C C C C C C C C C C C C C	gsc	48	3.00	AC-DC Pentode Output	30 A. C. D. C.	0.4	95	47	95	9	-20	357 4 Watt	28	2000	1600	14
	<i>c</i> —	48 RAI	4.50	Arcturus-Dia, T. Sonora Spec.	15 A. C.	0.35	90	4.5			- 4.5	Batt.	10.9	18000		6
P(3 3) SC	c 56	49	1.70	Dual-Grid Pwr. Output	D. C.	0.12	135	5.7			-20	3500	4.5	11000	170	3.75
••	1 0	50	4.00				180			CI	ass "E'	· 		12000	3500	
	<i>c</i>		4.00	Extra Heavy Powr. Output	7.5 A. C.	1.25	400	55			-70	1275 10 Watt	3.8	3670	3400	12.7
POST	g sc	51	1.30	Var. Mu R. F. (Substitute Type 35)	2.5 A. C.	1.75	180	6.3	90	2.5	- 3	410 Min. ½ Watt	305			4.8
SC SUP C	SUP SG	52	1.60	Tetrode Class "B" (Substitute Type 89)	6,3 A. C. D. C.	0.3	100	42			Class	"B" only a	s a Dou	ble Grid.		
P2 (013, 50) P1	G1 P2 G2	53	1.80	Twin Triode Class "B"	2.5 A. C.	2	300			CI	hss "B"			10000	10000	15

A. C. Tube Short Checker Kit-"Build-it Yourself"



Build the complete Short Checker as a separate piece of test equipment for your service bench. Each numbered wire in the diagram connects to the corresponding numbers on the tube sockets. For 110-120 Volts 25-60 cycles A.C.

Essential Parts Kit

Parts supplied: 1-Tapped Choke, 1-Special Variable Resistor, 1-Neon Bulb, 1-4, 5, 6 Hole Tube Socket, 1-Dual 7 Hole Socket, 1-Neon Bulb Socket, and Plans for building. No Panel or Cabinet Included. 3E2520-YOUR PRICE

Principle of Operation
Filament or heater completes circuit
through 3 and 4 in the diagram when tube
is inserted in one of the sockets. With
115 volt A.C. 60 cycle supply,
this momentarily flashes the neon
bulb. Any trace of leakage in
the tube elements places a
"load" across the sections of the
tapped choke changing its innedance from approximately 0.1
megohm to a negligible quantity.
Practically the full A.C. line
voltage is then applied to the
neon bulb. An onen filament does
not cause the initial flash. Complete instructions included.

Principle of Operation

Complete Parts with Case

This Kit consists of Essential Parts Kit and a neatly finished walnut case, size 7"434" "334" high bakelite panel (cut to size but not drilled) hookup wire, 40" heavy rubber covered connecting cord 3E2521-YOUR PRICE



Radolek TUBE CHART With Bias Resistor Date and Total Power Con-Page III sumption of all standard American Made Radio Receiving Set Tubes.

See Explan	atory Note, I	Botton	of Pa	ge VI	pt	nt		прв	Max.	edu	.Grid V.	Recommended Ohms Bias Resistor	Amplification Factor	Recommended Ohms Plate . Load	Power Output Milliwatts	Total Power Consumption In Watts
Bottom View of Sockets	Tube Circuit Diagram	Туре	List	Purpose	Filament Voits	Filament Amps.	Plate Volts	Plate Milliamps	Screen Volts Max.	Screen	Neg. (Blass V	Recorn Ohms Resiste	Ampli	Recom Ohms Load	Power	Total Consul In We
P N C		55	\$1.60	Diode Lo-Mu Triode	2.5 A. C.	1	250	8			-20	2500 ½ Watt	8.3	20000	350	2.9
~ ()×	; 🖨	56	1.20	Improved Triode	2.5 A. C.	1	250	5			-13.5	2700 1 Watt	13.8			3.5
S CONTROL CO	SUP SG	57	1.65	HI-Mu, Det. R. F. and Osc.	2.5 A. C.	1	250	2	100	0.5	- 3	1200 1 Watt	1500			3.5
S C SUP G	SUP SG	58	1.65	VarMu R. F. Amp.	2.5 A. C.	1	250	8.2	100	2	- 3	294 14 Watt	1280			2.75
	sua +5	59	2.00	3 Grid Triode	2.5 A. C.	2	250	35	250	9	-18	408	100	6000	3000	
5 G (4.5. SUP) X	SG SG			Pentode			250 400	26	As T	riode lass "E	-28	1150	6	5000 6000	1250 20000	2.5
SG C	csc	64	1.70	Nat. Un. Tetrode Substitute type 36 In Parallel	6.3 A. C.	0.4	135	3	67.5	3	-1.5	250 ¼ Watt	370			2.8
SC CONTRACTOR	50	65	1.60	A. F. Amp. Substitute type 36 in Parallel	6.3 A. C. D. C.	0.4	135	3.5			- 9	2570 ½ Watt	9			3
- () ×	: (1)	67	1.30	Det,-Amp. Substitute type 37 In Parallel	6.3 A. C. D. C.	0.4	135	. 5	67.5	3	-15	1870 14 Watt	320			2.7
5 G G	g \$ 50	68	1.55	Output Pentode Substitute type 38 In Parallel	6.3 A. C. D. C.	0.4	135	14	135	3	-13.5	795 1 Watt	90	7500	650	3.14
	6 5 C	69		Spec. HI-Mu. Detector	6.3 A. C. D. C.	0.3	180	4.5			- 3	666 % Watt	30			2.1
	<i>-</i>	71A	.75	PwrAmp. Triode	5 A. C. D. C.	.25	180	20			-43	2150 2 Watt	3	4800	790	2.3
P C C C C C C C C C C C C C C C C C C C	S X	75	1.60	Double Diode Hi-Mu Triede	6.3 A. C. D. C.	0.3	250	0.8			-2.	2500 ¼ Watt	100			2.1
SG SUP G	SUP S C	77	1.80	Hi-Mu R. F. Pentode	6.3 A. C. D. C.	0.3	250	2.3	100	0.6	- 3	1035 14 Watt	1500			2.1
SG SIP G	SUP SG	78	1.80	Var. Mu. R. F. Pentode	6.3 A. C. D. C.	0.3	250	7	100	2	- 3	334 ½ Watt	1160			2.4
G () C ()	6 61	79	2.60	Class "B" Twin Triode	6.3 A. C. D. C.	0.6	180	7.5			Class '	·B''		7000	5500	9.3
7 3 × C		85	1.60	AVC Diede Triede	6.3 A. C. D. C.	0.3	250	8			-20	2500 l Watt	8.3	20000	350	2.1
S C SUP C	SUP SG	87	1.65	R. F. Pentode Same as 57A	6.3 A. C. D. C.	0.4	250	2	100	1	- 3	1000 14 Watt	1250			2.8
SG SUP G	SUP SG	88	1.65	Var. Mu. R. F. Pentode Same as 58A	6.3 A. C. D. C.	0.4	250	8.2	100	3	- 3	270 1/2 Watt	1280			3
30 SUD G	SUP SG	89	1.80	-As a Triode er Pentode	6.3 A. C. D. C.	0.4	250 250	32 32	250	5.5	-31 -25	970 666 1 Watt	4.7 125	5500 6750	350 340	3
S G SUP G	SUP SG	89	1.80	-As a Class "B" Amplifier	6.3 A. C. D. C.	0.4	180				0			9400	3500	6
T T	<i>-</i>	UV99 UX99	2.25 1.50	Gen. Purpose Same as 299	3.3 D. C.	0.06	90	2.5			-4.5	"C" Batt.	6.6			5.3



TUBE PERFORMANCE METER

Performs Six Basic Functions with One Instrument

Universal Tube Performance Meter, Signal Generator and Output Meter. Neutralizing and Balancing Unit-Comparative Set Efficiency Tester.

Easy to Use—Many Uses

Shielded transmission cable couples output of modulated oscillator to set under test. Output meter connects to power tube plate prong. No change in connections for all following uses: As Balancing oscillator; permits matching of R.F. and I.F. trimmer condensers. As Comparison Efficiency Tester: similar sets can actually be compared to detect difference in gain. As Neutralizer: the well modulated signal permits excellent neutralization. Blakes location of loose connections easy by observing output as each wire is wigsled. Checks efficiency of A.V.C. circuits. Also compares new and old tubes in actual service by difference in total gain.

Universal Tube Performance Meter

Has ability to test any tube em-ployed in a radio set. The Perform-ance Meter generates a modulated signal at radio-frequency, thus testing signal at radio-frequency, thus testing a receiver under actual operating conditions. By substituting one new tube at a time in the radio under test, the increased reading on the output meter is proof of the need for new tubes. No special scales—No mathematical computations—No difficulty in explaining action to your customer. No complicated tube socket adapters required. When used with a volt-ohmmeter, radio troubles can be located. The rectifier types—condition

coupled output meter with a variable shunt control may be employed separately.

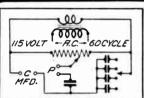
SPECIFICATIONS: 100% shielded cast aluminum case finished in durable contains crackle-lacquer, contains batteries, tube, output meter, coils, and control potentiometers. Lithographed panel. Non-removable binding posts. Instructions for operation and location of plate prongs on all types of power tubes included. Accessories required for operation. 1 Type RCA-Cunningham 30 tube, 1 Burgess No. 5126, 22½ volt battery. 2 No. 222 Burgess two cell flashlight batteries. Back plate may be removed for installation of batteries. crackle-lacquer. batteries. batteries.



Bargain Price!

1E2545—List, less tube and batteries, \$40.00.
YOUR PRICE \$15.95

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	atory Note, B	Totton	or Pa	E VI	ent	ent .	•	8d ta	Max.	edu:	Grid V.	men Bias or	ficati	imen Plate	Out	Powe mptic
Bottom View of Sockets	Tube Circuit Diagram	Туре	List	Purpose	Filament Voits	Filament Amps.	Plate Volts	Plate Milliamps	Screen Volts Max.	Screen Milliamps	Neg. (Blas V	Recommended Ohms Blas Resistor	Amplification Factor	Recommended Ohms Plate Load	Power Output Milliwatts	Total Power Consumption In Watts
~ () ~	g	181	\$1.90	Sparton Power Tube Top Heater	3 A. C.	1.75	180	20			-32	1600 2 Watt	5	7000	1500	7
62 (19) Cas	61 025	1A6	1,25	MixerOsc. Same as 15	D. C.	0.06	180	1.3	67.5 Anode 135	2.4 Grid #2 2.3	- 3	1037 1037 Watt				1.5
	c 💮	2A3	2.25	Multi. Filament Class "A"	2.5 A. C.	2.5	250 300	60 40	Push-P With 1	ull ndepend	-45 -62 lent Fixe	750 10 Watt d Bias. P-P	4.2 4.2 Output	2500 5000 3000	3500 10000 15000	10
CZ GO CO	61 62	1C6	2.20	Heptode Converter	D, C.	.13	180	2.8	67.5	0.1	- 3					
SG GOX	sc sc	2A5	1.60	Pentode Output Same as 95 and PZH	2.5 A. C.	1.75	250	34	250	6.5	-16.5	407 4 Watt	220	7000	3000	5
P C C	P. A	2A6	1.60	Oouble Diode Hi-Mu Triode	2.5 A. C. D. C.	0.8	250	0.8			- 2	2500 % Watt	50			4.5
G3 5 (3) (6) P (2) (5) K C	G3 C3-5 G1 C2	2A7	2.20	Mixer. Osc. Converter	2.5 A. C. D. C.	0.8	250	3.5	100 Anode 200	2.2 Grld #2 4	- 3	300 35 Watt				3
P2 (1705) K1662	GI PIL PZ	2B6	2.50	Doube A-F Amp. Values for Output Sec.	2.5 A, C.	2.25	250	40			-24 +2.5	8000 540 1/4/5 W.	18	5000	4000	10
SG (175) P2 P (25) K	SG 250	2B7	2.00	AVC Oue-diode Pentode	2.5 A. C. D. C.	0.8	250	9	126	2.3	- 3	266 34 Watt	730			2.5
P (S K	2-2	2\$	2.65	Majestic Ouo-Diode	2.5 A. C.	1.75	20	11	With	Special .	Adapter	Substitute			-	4.4
P (1) 50 K	1 × × 1	45	2.65	Majestic Ouodiode	2.5 A. C.	1	20	11	Diode	Portion	ı of Typ	e 55.				
5 (3 4) NE	6-000	6A4	1.60	Pentode Pwr. Output Same as LA	6.3 A. C. D. C.	0.3	180	22	180	3.9	-12	463 2 Watt	100	8000	1400	3.3
CJ-5 (1) CJ CJ-5 (1) CJ CJ CJ CJ CJ CJ CJ CJ CJ CJ CJ CJ CJ C	C4 C25	6A7	2.20	Mixer Oscillator	6.3 A. C. D. C.	0.3	250	3.5	100 Anode 200	2.2 Grid #2	- 3	525 }{Watt				3
SG (3,0) P3 P (21:50) K	50	6B7	2.00	Diode Pentode	6.3 A. C. D. C.	0.3	250	9	125	2.3	- 3	265 1⁄4 Watt	730			2.5
SC SUP C	SUP SG	6C6	1.25	Var-Mu R. F. Pentode	6.3 A. C. D. C.	0.3	250	2.3	100	1	- 3	910 14Watt	1500			2.5
SC P. P.2	50	6C7	1.90	AVC Diode Triode	6.3 A. C. D. C.	0.3	250	5.5			- 9	1635 ½Watt	20		-	2.7
S C SUP C	SUP SC	606	1.25	Var. Mu R. F. Pentode	6.3 A. C. D. C.	0.3	250	7.5	100	1.75	- 3	324 ½Watt	1160			2.7
56 07.055 p 22.055	SUP SG	607	1.75	R. F. Pentode	6.3 A. C. D. C.	0.3	250	2.3	100	1	- 3	910 %Watt	1500			2.2
SG SUP SS PK	SUP SG SS	SE7	1.75	R. F. Pentode	6.3 A. C. D. C.	0.3	250	7.5	100	1.75	- 3	324 ½Watt	1160			2.4
SG CAROLS	C SG	6F7	1.90	Mixer, Osc. Triode Pentode	6.3 A. C. D. C.	0.3	250	6.5	100	1.5	- 3	375 ½Watt	900			2.4
SG SON N PC SON NCT		12A5	2.10	Double Heater Pentode	12.6 A. C. D. C.	0.3	180	40	180	9	-27	551 5 Watt		4500	2800	8.7



Universal Condenser

Tester_Measures All Type Condensers Electrolytic-Paper-Mica

From .0001 to 30 Mid.

From .0001 to 30 Mid.

A Capacity Bridge For Quickly and accurate low priced capacity measuring the capacity of all types of cendensers. Mica. paper or electrolytic type condensers—all tags useful as your ohnmeter. For capacity without excessive leakage may be balanced against a resistance-capacity net work in the Potter Condenser Tester. Uses any frequency—goundernmine the exact zero hum position of the Potter Condenser Tester bridge. The Baldwin does not detering the exact zero hum position of the Potter Condenser Test bridge. The Baldwin does not detering the exact zero hum position of the Potter Condenser Test bridge. The Baldwin does not detering the exact zero hum position of the Potter Condenser Test bridge. The Baldwin does not detering the diagram.) When measuring a condenser, the range and potentiometer in the bridge circuit. ("P" in the diagram.) When measuring appear on the large outer range scale where they are easy to read. 100% of the saintification of the position of a galvanometer appear on the large outer range scale where they are easy to read. 100% of the saintification of the saintifi



3E5298-List, \$17.00. YOUR

PRICE With Baldwin Phone and cord. 3E5299—List \$22.00 \$11.65

See Explan	story Note, E	ottom	of Pa	ge VI	٠,	L.		S.C	ax.	80	pi	ended	ation	ended	utput	wer
Bottom View of Sockets	Tube Circuit Diagram	Туре	1.ist	Purpose	Fliament Volts	Filament Amps.	Plate Volts	Plate Millamps	Screen Volts Max.	Screen	Neg. Grid Blas V.	Recommended Ohms Blas Resistor	Amplification Factor	Recommended Ohms Plate Load	Power Output Milliwatts	Total Power Consumption In Watts
	2	401 and 373	\$4.00	Kellog O'v'rhead Heater Triode	3 A. C.	1	180	6			-13.5	2250 ½ Watt	8.7	14000		4
	(()	482B	1.65	Sparton P-P A. F. Triode	5 A. C.	1.25	250	18			-32.5	1805 4 Watt	5	4500	1400	9.5
	<i>c</i> ()	483	1.65	Sparton P-P A. F. Triode	A . C.	1.35	250	25.3			-40.5	1580 2 Watt	3.3	3900	1600	10
مرابع المرابع	*	485	1.45	Sparton Triode Quick Heater Replacing 484	3 A. C.	1.25	90	5			- 3	600 34 Watt	12.5			4
, () ×		486	4.10	Sparton Special Triode	D. C.	.25	90	3			- 3	1000 3 Watt	12.5			1.5
	c - (**)	586	4.00	Sparton Pwr. Output Same as 50	7.5 A. C.	1.25	450	55			-80	1450 10 Watt	3.8	4350	4600	14
	e 💮	864	2.10	For Portable Oscillator and Preamplifiers	1.1 D. C.	.25	135	3.5			- 9	2575 or "C" Batt.	8.2			.3
S.C. Dx	c sc	AE		Tetrode Hi-Mu Output	12.6 A. C. D. C.	0.3	100	8.5	100	1.75	-13.5	1330 1 Watt	20	13500	400	4.5
p (Fines	c 50	GA	2.75	Arcturus Special Pentode	A. C. D. C.	.25	180	25	180	7.5	-10	307 1 Watt	60	7000	800	5.5
p (3.1) S G	c \$\frac{1}{2} \sigma c \cdot \frac{1}{2} \sigma	KR5		Kenrad Pwr. Output Pentode	6.3 A. C. D. C.	0.3	165	17	165	3.5	-11	537 2 Watt	100	8000	1200	2.4
		KR20	3.00	AVC Detector	2.5 A. C.	1	250	3.5					14	.1 Meg		3
	Pro A	KR22	2.00	AVC Detector	6.3 A. C. D. C.	0.4	250	3.5					14	.1 Meg		3
S C SUP	GSG	KR25		Pentode Output	2.5 A. C.	1.75	250	34	250	6.5	-16.5	407 4 Watt	220	9000	3000	7.8
P (3) SC	c' Sc	LA	2.75	Pwr. Pentode Substitute 6A4	6.3 A. C. D. C.	0.3	165	17	165	3.5	-11	470 2 Watt	100	8000	1200	3
P (3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	csc	PZ	1.30	Arcturus Number for Type 47	2.5 A. C.	1.5	250	32.5	250	7.2	-16.5	410 4 Watt	95	7000	3000	7
S CONTRACTOR OF THE SECOND SEC	G SG	PZH	1.60	Arcturus Number for Type 2A5	2.5 A. C. D. C.	2	250	33.5	250	8	-16.5	400 5 Watt	100	7000	3500	8.5
		WDII	3.00	Early Batt. Sets	D. C.	.25	135	3			- 9	Batt.	6.5			.3
	c —	WX12	3.00	Gen. Purpose Triode Sub, 864	D. C.	.25	135	3			- 9	Batt.	6.6			.3
c Fr	c C	WUN	3.00	Twin Grid AVC. Det.	2.5 A. C. D. C.	1	250	7			-16.5	236 14 Watt	9.25	i		3
°€.	G - G	WUNA	3.00	For Auto Sets	6.3 A. C. D. C.	0.4	250	7			-16.5	35 Watt	9.25			2.5



A Genuine NEON Sign "Radio Service"

14E10734—
YOUR
PRICE, ONLY
S1500

PRICE. ONLY

In Brilliant Red Neon! Words perfectly formed in glass tubing which is protected by an artistic steel case 20" wide. 8" high, and 5½" deep. Neon transformer housed within the case. DOES NOT INTERFERE WITH RADIO RECEPTION! Operates on A.C. 110 to 120 volts, 60 cycle only. Low power factor of Neon tubing makes the cost of operation of this sign very slight. Costs no more to operate than a 60 watt bulb.

An Unprecedented Offer
Fully guaranteed for one year. This guarantee

Fully guaranteed for one year. This guarantee does not cover breakage of the tubing which can only be injuried by actual physical violence. Tubing is floated on rubber and inconspicuously braced at 10 points. Shipments are made only by Express. We guarantee delivery of sign in perfect condition. ready to plug-in.

Auxiliary Tube Tester

300 98888 98888

66666

3

1

æ

Used with Any Style Tube Tester 1E8075-YOUR SPECIAL PRICE

\$14.70

Contains 30 sockets, includ-ing pre-heaters

Ing pre-heaters for new tubes, special A.C. transformer for 2, 2.5, 5, 6.3, 12.6, 14, 25, 30 and 10 volts. Permits testing of the following tubes in old A.C. testers that have a circuit for '24A tube'—1, 1-V, 15, 18, 19, 29, 33, 36, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48, 49, 52, 55, 57, 58, 59, 64, 65, 67, 68, 69, 75, 77, 78, 79, 80, 82, 83, 84, 85, 87-F, 88-F, 89, 90, 92, 95, 95, 484, 485, 245, 246, 247, 644, 647, 286, 287, 617, 627, 273, 675, 523, 1223, 624, 525, AD, AF, AG, AH, G-2, G-4, KR-1, KR96-31, KR98-23, LA, PZ, PZH, RE-1, Wund £PR, Wund £PR, Compared to the 24A socket of your regular tester, and to 115v. A.C. Panel size 10"712". Depth of walnut cabinet 3% World Radio History

1000 Hour Guarantee **Electric Soldering Iron**



At an amazingly lew price. Wel Well made. tip.

3E4776-YOUR PRICE **Easy Starting Screw Driver**



Stock	Dia. Length	Screw	Your
Number		Size	Price
3E 4637	14 'x434'	2 to 6	9¢
3E 4638	54 'x7'	6 to 12	12¢
3E 4639	14 'x834'	2 to 8	15¢

For TOOLS You need in Radio Servicing, See Pages 100 to 105.

Radolek Tube Chart [Rectifier Tubes]

						1 *		1 1		Г
Bottom View of Sockets	Tube Circuit Diagram	Туре	1.ist	Ригроне	Filament Volts	Fllament Amps.	A. C. Plate Voits	Max. D-C. Output in Milliampe	Total Power Consumption In Watts	
	*	A	\$1.25	Half Wave M-V Rect.	6.3	0.3	350	50	1.89	
(L)	x (5)	I-V	1.50	Half Wave HI-Vac Rectifier	6.3	0.3	350	50	1.89	
	p	83	.70	Full Wave Rectifier	5	2	350	125	11	4
	p-()-p	80M	1.55	Kenrad F. W. M. V. Rect. Sub. 83	5	2	425	125	10	6
	\bigcirc	81	3.50	Haif Wave Rectifier	7.5	1.25	700	85	10	1
		81M		Kenrad M.V. Half Wave Rectifier	7.5	1.25	750	85	9.4	
	p-(1)-p	82	1.20	Full-Wave M-V Rect.	2.5	3	500	125	7.5	
	p	83	1.55	Full-Wave M-V Rect.	5	3	500	250	15	N.
المرقبة المراقبة المر	*	84	1.75	Full-Wave M-V Rect.	6.3	.5	225	50	3.2	-
	p-()-p	5 Z 3	1.50	Full-Wave Rectifier	5	3	500	250	15	ľ
(I)	*	6 Z 3	1.25	Full-Wave Rectifier	6.3	0.3	350	50	1.89	
rico	x (1)	6 Z 5	1.90	Double Fil. Full-Wave Rectifier	6.3	0.8	230	60	5.04	
(j. j. x	x (5)	12 Z 3	1.20	Half Wave Rectifier	12.6	0.3	230	60	3.78	
F. (1) P2	12 1 PI	1275	1.90	Full-Wave Rectifier	12.6	0.3	225	60		ľ
NI (10) P2	P2 P1 K1	25 Z 5	2.00	Full-Wave Rectifier	2.5	0.3	125	100		
(%) ,		866	9.00	Half-Wave Rectifier	2.5	5	7500	600	12.5	
P (3 5)x	**************************************	986	1.65	Full-Wave M.V. Rectifier	5	0.5	500	200	2.5	ŧ
	x-(5)	AD	1.50	Rectifier For Auto Sets	6.3	0.3	350	50	1.89	۱
	P	AF	1.80	Spec. Arcturus Rectifier Substitute 82	2.5	3	500	125	7.5	-
1	p	AG	2.05	Arcturus Type 83	2.5	3	500	250	7.5	1
LINE	A - (1) - K	874	4.90	Voltage Regulator	Operating Operating	ng Voltage Voltage ng Curre	ge nt	.90 Volts 125 Volts 10-50 M	3. 3. A.	
	F - 0 0 F.	ВА	7.50	Full Wave Rectifier	Has no Fil'mnt	Max. A Volts Max. D Max. D	.C. Volt per pla .C. Out .C. Out	s (RMS) te. put 350 l put 300 l	350 M.A. Volts.	
	1000	вн	4.65	Full Wave Rectifier	Harry.	May 4	Cl. Mole	s (RMS) te. put 125 l put 300	250	

Elkon 5,000 Hour "B" Rectifier



Replaces rectifier tube in "B" Eliminator. Dry, solid, rugged self healing.
Just replace the fragile 1,000 hour tube with this sturdy 5,000 hour Elkon EBH and the change is made. Not affected with this sturgy of the change is made. Not affected by accidental surges or overloads. No

Raytheon BH Tube. YOUR SPECIAL PRICE ..



Genuine Raytheon Rectifier Tubes

Long Life. No Filament.

Greater economy and reserve power; enough to run a 10-tube Uninterrupted service. No liquids. Utilizes both halves of the alternating current for rectification, except in BR half wave model.

Type Mils. List Num 3E840 BR 50 \$2.75 \$1.45 BH 125 4.65 2,46 3E839 BA 350 7.50 3.97 3E838

Genuine KELLOGG A. C. Tubes



The original top connection radio tube designed to operate on alternating current. Operates directly from house lighting current with step down transformer. Quiet opera-Operates directly No hum nor microphonics. tion. No hum nor interophonics. Has excellent tone quality. Extremely rugged construction insures long life and satisfactory service. Shpg. wt., each about 1 lbs.

3E875-Type 401. List, \$4.00. YOUR PRICE \$2.33 3E876-Type 403.

List, \$5.00. YOUR PRICE \$2.94



Kellogg McCoullough Type Tubes

Same type as used in many Sparton, Kellogg and other sets. quality and a real value. 3E877 Type 401 Tubes.

List Price. \$4.00. PRICE



BARGAIN **Power Tubes**

Excellent quality guaranteed tubes. Excellent quality guaranteed tubes. Wonderful values at our prices. You will find them very satisfactory for all work.

3E880—Type 210. 3E881—Type 250. 3E882—Type 281.

PRICE. EACH IN LOTS OF TEN. EACH\$1.05

EXPLANATORY NOTE for Radolek Tube Charts

l

Watt rating recommended for bias resistor values is high enough to carry the A.C. component of the plate circuit. All bias resistors should be bypassed by sufficient capacity to handle 75% of the A.C. component.

Approximate total power consumption of tubes is given to aid Servicemen in selecting the proper replacement power transformer according to the load the transformer must handle. Usually 15% extra is allowed for power consumed by voltage divider bleeder circuits. Radolek Transformers are rated in safe load capacities.

Universal Speaker Tester



Cones

Co Cones

Without type 80 tube.



Sub-Panel Tube Sockets



With Tube Locating Ring

Used as standard equipment by many of the largest set manufacturers. Strong, sturdy, durable laminated construction. Top entirely insulated with positive locating ring. Tubes easily and quickly inserted. New floating contacts eliminate all strain on the bakelite, preventing warping and loss of tension. Contacts self-aligning, assuring a firm positive contact on each tube prong, at all times.

Midget Size Midget 5126 a mounting holes 1½ inch centers. Overall length 1%". Width ters. 1%". Standard Size

With mounting holes 1 % inch ceners. Overall length 2 1 ". Width

					1 1	Stock		Mark-l	Stock		Mark
Stock		Mark-	Stock		Mark-	Num.	P'gs		Num.	P'gs	ings
Num.	P'gs		Num	P'gs	ings	444441.	- 63	11163		-	
Aug.	. 85	41163		- 1917		3D6245	4	None	3D6268	5 5	238
3 C6210	4	None	3 C 6229	5	239	3D6261	5	None	3 D 6 2 6 9	5	239
3 C6221	5	None	3 C 6230	- 6	4i	3D6279	6	None	3D6270	- 6	'41
3 C 6238	6	None	-			3D6282	7	None	3D6271	6	'42
3D8100	7	None	3 C6231	6	42	(Large-	.850	' pin	3D6272	5	43
(Small-	750	oin	3 C6232	5	43	circle)			3 D 8133	5	'44
circle)		'	3D8112	5	44	3D8125	7	None	3 D 6254	5 4 5	245
3D8101	4	2A3	3 C6216	4	245	(Small-	.750	pin	3 D 6273	5	'46
3D8102	6	2A5	3 C 6233	5	46	circle)	1.1		3D 6274	5	247
							-	134.0	3 D 6275	6	'48
3D8103	6	2A6	3 C6234	5	247	3D8126	4	2A3	20000	-	'49
3D8104	7	2A7	3 C6235	6	48	8 D8127	6	2A5	3D8135	5	53
3D8105	6	6A4	3D8113	5	49	3D8128	6	2A6	3D8136	7 4	250
3D8106	7 7	6A7	3D8114		53	3D8129	7	2A7 2B7	3D6255	- 2	551
3D8107	1 7	2B7	3 D6236	6	55	3D8130	7	2137	3 D6276	5	'55
3D8108	7	6B7	200007	5	7.0	3D8131	4	523	3D6277	0	00
200400		O.	3 C 6237 3 C 6239	6	56 57	3 D 8 1 3 2		2525	3D6278	5	'56
3D8109	4	C1	3C6240	6	58	3 D 6 2 4 6		201A	3D6280	6	'57
3D8110	6	5Z3 25Z5	3 C6242	7	59	3 D 6 2 4 7		210	3D6281	6	'58
3D8111	4			4	171A	3 D 6 2 4 8		112A	3D6283	7	'59
3C6211		112A	3 C 6217	*	11/3A_	300240	7	112.4	3 D6256	4	171A
3 C 6222 3 C 6223	5	224	3D8115	6	75	3 D 6 2 6 2	- 5	224	300230	_	
3 6 6 2 2 3	1 0	227	3D8115	6	77	3D6249		226	3D8137	6	'75
3C6212	4	230	3D8117	6	78	3 D 6 2 6 3	1 7	227	3D8138	6	777
3C6212	1 4	230	3D8118	6	49	3 D 6 2 5 0	4	230	3D8139	6	'78
3C6214	4	232	3 C6218	4	280	3D6251	4	231	3D8140	6	'79
3C6224	ŝ	233	3 6 6210	-	200	300132	-	201	3D6257	4	280
3C6215	4	234	3 C 6219	4	82	3 D6 252	4	232	35020.		
3 C6225	3	235	3 C6220	4	63	3 D 6 2 6 4	5	233	3D6258	4	281
3 6 6 2 2 3	1_3	200	3D8119	5	84	3D6253		234	3D6259	4	'82
3 C6226	F-	236	3D8120		85	3 D 6 2 6 5	5	235	3D6260	4	'83
3 C6227		237	3D8121	l ă	89	3 D 6266	Š	236	3D8141	5	'84
3C6228	5	238	1100221	ı۳	1 00				3D8142	6	'85
300440	<u> </u>	200				3D6267	5	237	3D8143	6	'89
	(;	Prong	Each	1	Per 10			Prong	Each	P	er 10
	-	4		_				4 5	60		55c
Your Price		4 5 6	7¢	;	65c	Your Price			00		
	-			- -	74c			6 7 78	7e	1.	55c
		7 78	8c				1	78	1		

Analyzer Multiple Tube Sockets With Moulded Ears



Excellent quality moulded sockets used in many factory built analyzers and tube checkers. Widely used to rebuilt analyzers and tube checkers. Widely used to re-place obsolete sockets having the same mounting dimen-sions. Sares space. Each socket has many different pos-sible applications. Mounts above or below panel.

tacts.

3D6730. Na.Ald 456; requires 14" panel hole. Mounting boles 19" centers. Receives all 4, 5 and 6 prong tubes. Flament circuits comall other isolated-9 contracts.

306731. Na-Ald 456E; same as above but requires 1%" panel hole. Mounting holes 1th" centers.

47 - 59
3D6732. Na-Ald 457: Receives

3D6732. Na-Ald 457; Receives type '47, 5 prong pentode. Cathode of '59 is isolated from screen grid of '47. Has eight contacts. Requires 1\(\frac{1}{6}\)" man hole. Mounting centers 1\(\frac{1}{6}\)" above but requires 1\(\frac{1}{6}\)" above but requires 1\(\frac{1}{6}\)" and hole. Mounting centers. List Price, 50c.

YOUR PRICE, EACH

With Plug-in Binding Post

Compact Sockets Moulded black bakelite.
Guiding groove for tube prongs. Tubes can be quickly inserted. Perfect contact on each prong. Center hole for screw mounting. 14 inch diametry fits inside standard tube lineh high. Solder lugs pronward for wiring below base.

Stock	Na-ald		Price	Ten
Number	Code		Each	for
3D6705 3D6706 3D6707 3D6708* 3D6709†	424 425 426 427 427A	5 6 7 7	15c	51.40

(*) Medium base, .85' pin circle.
''/) Small base, .75' pin circle.

Laboratory Sockets

3D6734. Na-Ald 567A. Receives all 5, 6 and small 7 prong (.75" pin circle) tubes. Has seven contacts. Requires 148" centers. Seven contacts.

3D6735. Na-Ald 567EA. Same as above but requires 1%" panel hole. Mounting hole 1%" centers.

3D6736. Na-Aid 477. Receives 7 prong larse (.85" pin circle) and 7 prong small (.75" pin circle). Recuires 1 ½" centers. Has seven con-

3D6737. Na:Ald 477E, above but requires 1%" par Mounting holes 1\(\frac{1}{12}\)" centers.

Jacks Each terminal has convenient jack-top binding post for plugconvenies binding post for pulling in connections or binding wire under knurled nut. Handy solder terminals at

panel hole.

solder terminals at each contact. Each contact has new standard R.M.A. numbering. Molded Bakelite.

Stock Number	Code No.	Prongs	
3E6745 3E6746 3E6747 3E6748 3E6749	484 485 486 487 487A	4 5 6 7 large 7 small	Your Price 290 Each

Multiposition Bakelite Sockets

Made of moided Bakelite with tube locating groove. Mounts without screws or rivets; held to chassis with ring of spring steel. Requires less space than the tube base. Mounts in $1.52^{\prime\prime\prime}$ hole (large size 7 prong in $1.52^{\prime\prime\prime}$ hole). Very easy to mount. For use in material not ove $\frac{1}{12}8^{\prime\prime\prime}$ thick.

Stock	Number	Your Price	Ten
Number	of Prongs	Each	For
3E6719	4	5c	45c
3E6720	5	5c	45c
3E6721	6	6¢	55¢
3E6722	7 small	6¢	55¢
3E6723	7 large	6¢	57¢



Universal Adapter Plate I



Replacing Any Size Wafer Socket

Socket
Steel plate with
correct size
hole for the
Multi-position socket. Slotted mounting hole centers from 1½" to 2".
Socket can be rotated in adapter base wiring

3E6725—Adapter plate only ¢ EACH . TEN FOR 15c

Tube Shield Base



The flange on the top of the socket securely binds the shield base

binds the shield base to the chassis without the use of any rivets or screws. Turning is prevented by a small lug projection on the shield base which its into a slot in the side of the socket. Made of a cadmium plated rust proof metal. Fits all standard size shields.

3E6724-Shield base only. YOUR PRICE, EACH TEN FOR 18c

General Use Sockets





Screws Down Moulded black bakelite. Guiding groove for prongs. Long wiping contacts. Supplied with binding posts for connections. Screws can be reversed for sub-panel connections. Two mounting holes with 1%" centers. Overall diameter. 14%".

Stock Number	Na-ald Code	Prongs	Price Each	Ten for
3D6710 3D6711 3D6712 3D6713* 3D6714†	481 X 481 Y 486 487 487 A	5 6 7	12c	\$1.15
(*) Med (†) Smal	um bas I base,	e, .85' pin	pin cirele eircle.	в.

Multiple Compact Sockets



Ideal where space is at a premium. Can be used for below panel connecting and making adapters. Il ole in center for No. 6 screw. connecting and making and making and making and some some for No. 6 screen socket diam. is 1 3 and 3 and 3 high.

4 - 5 - 6 3E6738—Receives 4, 5 and 6 prong tubes. Na-Ald No. 456B.

5-6-7
3E6739—Receives 5, 6 and small slze 7 prong tubes. Na-Ald No. 567BA List Price, 50c. YOUR PRICE

EBY Isolantite Sockets



Isolantite is a moulded crushed quartz material of very high inaulating qualities. It is especially Isolantite is

aulating quali-ties. It is especially effec-tive at high frequencies. Positive contacts. Mount-ing holes have lad inch centers.

Stock Number	Prongs	Price Each	Ten for
3D6125 3D6126 3D6127 3D6128	4 5 6 7L	25¢ 27¢ 30¢ 32¢	\$2.40 2.55 2.80 3.00 3.00
3 D 6128	7L 7S	32¢ 32¢	

Hammarlund Isolantite Sockets



Lower leakage. Fits any stand-ard coil forms or tubes. Mount Mounting hole centers Two 1/2" long, 14" bushings with fiber

drilled diam. washers included. 3E7210-4 pin 3E7211-5 pin 3E7212-6 pin 3E7213-7 pin large

List, 60c Your Price 35¢

Bakelite Sockets

Moulded black bakelite. Have guide for tube prongs. Tubes quickly and easily inserted. Perfect contact. Easy to



mount above panel or below panel of any material and not over % inch thick. Mounting holes have 13%" any mai thick. centers.

toek	Prongs	Price	Ten
umber		Each	for
C6120	4	16¢	\$1.50
C6121	5	17¢	1.60
C6122	6	19¢	1.80
D6123*	5-6	22¢	2.10
D6124†	7-78		2.10

Compact Sockets

Moulded bakelite mounting. Base separate laminated bakelite plate which rests beneath sub-panel.



Stock Prongs Number 3E6750 3E6751 3E6752 3E6753 \$1.15 1.25 1.32 6 7 small 7 large

Small Space Panel Mount Sockets



Ears

hakelite. Body fits 145" hole. Projects 3" above mounting surface and 4" below top of mounting surface. Solder lugs project through bottom

With Moulded

With 13" Mounting Ctrs.

Stock Number	Na-ald Code	Con-	Price Each	Ten for
		4 5 6 7	150	\$1.40
Witl	118"	Mour	ting	Ctrs.

3D6740* 437E 7 15c \$1.45

(*) Large base, .85" pin circle (†) Small base, .75" pin circle

Tube Bases



Moulded, polished black bakelite. Standard size. Hollow brass prongs, polished nickel finish. East to solder leads on inside of prongs. Overall diam. 13%. Cavity size—1 \(\frac{1}{2} \) " deep. YOUR

E60884		1	
E6089		1	
E 6090—-6		- }	
	prong small	- 1	

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Rubber Handle Plugs

Handles are made of strong. dur Handles are made of strong durable, molded rubber. Pilable and unbreakable. Bakelite molded Dlugs are of exceptionally strong, construction and are securely gripped by the rubber handle. Farticularly designed for public address equipment. Are shockproof and will withstand all seather conditions. Long rubber and restricted to the conditions. Long rubber and restricted for the conditions of the conditions o

Male Plugs Long Handle

Stock Number	Number of Prongs	Your Price
3D7130 3D7131 3D7132	5 }	15c
3D713 <u>3</u>	7 Small)	Your
Stock Number 3D7 34	Number of Prongs	Price
3D7 35 3D7 36	5 6	17c

Female Plugs Long Handle Price of Holes

7 Small Medium Handle Your Stock Number 3D7 | 42 3D7 | 43 3D7 | 44 3D7 | 45 of Holes

26c

Bakelite Cable Plugs

7 Small



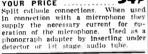
easily removed. Mike and Phono Adapters

5-6 and 7 Prongs

3E6180-5 Prong 3E6181-6 Prong 3E6182-7 Prong

small 3E6183-7 Prong

large List Price, \$1.00. YOUR PRICE



Wafer Adapters

With Lug Taps



With Lug Taps

Two discs of bakelike riveted together.
like prongs. In each
bole is a metal conlug inserted between tilses and is led
to and projects from edge of adapters.
Permits tapping into any circuit of
tube for testing or obtaining current.
Leads not used can be cut off.

3C6|45-4 prong. | List Each 50c. 3C6|46-5 prong. | YOUR PRICE 2C6|47-6 prong. | Each |2C | 10 for \$1.05

Analyzer Plugs and Adapters



907 WLCAP Kit
The 907 WLCAP Kit is the
latest development in an
analyzer accessory. The special 8 prong cable plug and
socket eliminate the necessity
of making any additional connections. Use this kit in the construction of your own an-alyzer or for modernizing an old one

old one.

3E8082—Kit consists of a
7 prong analyzer plus. 5 ft.
8 wire cable. 8 prong cable
plug. 8 prong panel socket.
4 adapters. All parts assembled and wired.
List Price, \$6.50.

Molded Bakelite 8 Hole Socket

3E6755—With lugs as shown in above llsocket with 8th contact in center VOUR

8 Prong Cable Terminal Plug

For use with analyzers or on test bench ror use with analyzers or on test bench.
Seven contacts on circle and eighth
eintact in center. Moulded bakelite.
3E6171—9888 Prongs on .85"
(large size) circle.
List Price, 50c.

29¢ YOUR PRICE

6 Prong for 7

locking adapters prong receivers using

88¢

OUR \$1.32 PRICE

3E6076-967DS.-To fit plug to 7 Large size) sockets.

" Small size) sockets
75c. 3E6077-967DSA,-To fit plug to 7 hole (.75" Small size) sockets. hole (.7)

All parts assembled and urirod

List. \$5.50. YOUR PRICE .. \$3.23

907 WLA KIT

3E8084—Kit consists of a prong analyzer plug with 4 adapters. No cable included. List. \$4.50. List, \$4.50. YOUR PRICE . \$2.65

3E8014-7 prong analyzer plug. List, \$1.50. YOUR PRICE 88¢

3E8015—7 prong analyzer plug with 5 ft. of 8 wire cable attached. eable attached.

Associate Adapters

Associate Adapters
For Latch Type 7 Prong Plugs
3E 80 | 8-9740 SA.—7 to 4.
3E 80 | 6-9760 SA.—7 to 5.
3E 80 | 6-9760 SA.—7 to 6.
3E 80 | 9-9770 SA.—7 to 7 large.
List, 75e Each. 44¢ YOUR PRICE .

Alden Analyzer Plug 906WL



PRICE 3E6073—With 5 ft. seven wire cable. No adapters. List Price \$2.25.

Associate Adapters
For 906WL—6 Prong Plugs
3E6074—965DS.—To fit plug to 5

3E6075-9640S. To fit plug to 4

Readrite Analyzer Plug



YOUR PRICES1.03 Associate Adapters

3D8026 167L Adapter for size 7-prong socket. Has center to engage latch in above plug.

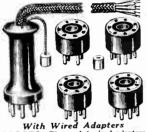
3D8027-1671.8 Adapter. Same, for small 7-prong socket.

3D8028 63L Adapter. Same, for socket.

3D8029-64L Adapter. Same, for Price ...44¢

Analyzer Plug and Adapter Kits

Molded Bakelite Bodies



3D8070-Plug and 4 wired adapters (bodies 34" high may be attached 3D8070—Plug and 4 wite (bodies Ha" high may be attached to plug with 34" 432 serew. Complete No cable

PRICES REDUCED!

with screen grid connecter, included. List, \$2.85. \$1.69 YOUR PRICE

Consists of seven-prong (large) Bake-lite analyzer plug with detachable threaded handle and four adapters to permit use of plug in 4, 5, 6, or small 7 prong radio receiver socket. Used for replacement of old adapter plugs in obsolete set analyzers and in assembly of new point to point or set analyzer test instruments.

With Unwired Adapters

3E8071—Plug and 4 unwired adapters (bodies 114" high). Consists of two sections bolted together, that can be sepa-rated and wiring changed if desired. Complete with screen grid connector. No cable included.
List Price, \$2.35.

YOUR PRICE

Quotations on this Page are the Lowest Ever Offered on this quality Line!

\$1.39

Speaker and Analyzer Plugs

Finger Grip Type



Bakelite body and cap. Finger grlp cap covers connections, and unscrews from body.

Male Plugs Without Cords

Male Plugs Without (
3C6059—1 prong.
3C6060—5 prong.
3C6061—6 prong.
3D8030—7 prong (Medlu
3D8031—7 prong (Small)
List, 25c.
YOUR PRICE (Medium) 15¢

Male Plugs With 36" Cords

Male Plugs With 36"
3C6062 | prong.
3C6064 | 6 prong.
3D8032 | 7 prong (Mediur
3D8033 | 7 prong (Small)
List, \$1.25.
YOUR PRICE (Medlum)

73¢

List 40c. 24¢ YOUR PRICE

Flat Speaker Plugs



Take up minimum space. Bakelite hody. Cable leads solder into hollow

Standard Male Speaker Plugs



3C6053—4 prong. 3C6054—5 prong. 3C6055—6 prong. 3C6055—6 prong. 3D8036—7 prong (small)

12¢ FACH

TEN FOR...\$1.10

Bakelite cap and hase screw apart.
Connections easily made by soldering in hollow prongs of base and are covered by cap.

Cable Connector Plugs

3C6110 Four Hole 3C6111 Five Hole 3C6112 Six Hole 3D8037 Seven Hole

3F8038-Seven H ole

EACH TEN FOR \$2.20

Bakelite receptacle. Screw cap covers connections. Fits standard male plugs.

Speaker Cord Test Set



Bakelite Male fitting one end, female Bakelite Male fitting one end, female fitting opposite end. 5 foot cable. Chassis may be tested out of cabine. Chassis may be tested out of cabinet. 3C6 141-4 prong. 4 conductor. 3C6 142-5 prong. 5 conductor. 3E6 143-6 prong. 6 conductor. 3E6 144-7S prong. 7 conductor. YOUR of cabinet

EACH PRICE.

Cable Connectors



Buitable for test sets, cord connections, connecting cords to sockets, temporary wiring-in of tubes, etc. temporary moulded balelite shell, very connections. Sturdy moulded bakelite shell, very roomy, making for easy connections. Standard socket and tube arrangement

of holes and prongs.
Prices for two piece connector:

3D6092 4 circuit. | Each

19¢ 3D6093 5 eircuit. Each 8D6094 6 eircuit. Ten for ...\$1.75

New Tube Adapters

Composite Adapter 9C7

Top receives all 4, 5 and 6 prong tubes. Bottom is large size 7 prong. For revamping small

Is larke size 7 prons,
For revamping small
space analyzers like the
Jewell No. 199 and Supreme Diagnometers. Use a combination large and
small 7 prong socket in analyzer panel d then with this adapter you will able to test all types of tubes in

3E8040 -List. 60c. _____35¢ YOUR PRICE

Alden 975DW Adapters For Testing Type '59 Tube in Type 24 Analyzer Sockets



Enables any analyzer which can test type '24 tube circuits to test 7 prong tube circuits. Twin adapters connected with 60° cord. One adapter has five with 60° cord. One adapter has five hole top and 7 prong base (59 type -85° circle) and 5 prong base. List, \$2.40. \$1.41

Alden 975DSW Adapters Same as 975 DW Adapters except for

with analyzer plugs having latch tener. List, \$2.40. \$1.41 3E6034-Your Price

For Testing Type'33,'46,'47 PZ Tubes in 4 prong sockets



5 Hole Top 4 Prong Base Test '46-'47 and

Test 46-47 and
PZ in 245 socket.
Test 33 in 226 socket.
Current for extra grld is supplied
from plate prong.
Grld, plate and
through.

3C6000 — Alden 954KPC — Jewell J11385. List \$1.00.

For Testing Type '33,'46,'47, PZ Tubes in 5 prong—227 UY socket

5 Hole Top-5 Prong Base

Cathode prong dead. Plate prong supplies current for extra grid. 3C6001—Alden 975; Weston No. D. 19625. List \$1.00, YOUR PRICE 59¢



419X UX199 to UV201A

Adapts UX199 tubes to UV 201A sockets, Adds UV 201A sockets. Adds to diameter of 954DS adapter, providing a bay-onet pin to connect to old

UV sockets. 3C6025-List 35e 19¢ YOUR PRICE

UY to UX



Universal Output Meter Adapter

Contacts plate prong of 4, 5, 6 or 1 prong tubes a finishiated for use in new shielded sockets, 5 foot lead with cord tip, 3D802!—Na-Ald 9 Pl List Price 35c. 21¢

Small 7 Pin **Tube Adapter**

Tests 2A7 and 2B7 in 24 checker socket and 2A7, 6E7, 6D7, 6E7 and 6F7 in 36 checker socket. List. 60c. 3E804 1—Alden 975AB7 YOUR PRICE ..

Twin Adapter

For Testing Six Prong '57 and '58 Tubes in Set Analyzers Also tests '29-'41-'42-'55-'57-'58-69-Also tests '29-'41-'42-'55-'57-'58-69-'85-'89-PA-PZH-Wunderlich-6 prong. power tubes.
One 5 Hole Top—6 Prong Base
One 6 Hole Top—5 Prong Base



For analyzing 6 prong tube circuits with any 5 prong test plug. Designed for older style Analyzer plugs which do not have the lately lock. 5 ft. insulated wire connects suppression grid circuit.

3E6013-Alden 965DW; Jewell-Weston. D70161. List, \$1.90.

S1.12

For Testing
7 Prong Tubes in Set Analyzers
To be used with Alden 906 Latch
lock Analyzer Plug. Adapter with center stud goes on Analyzer Plug and
fits into seven prong socket of sets.
Adapter with seven hole top is connected by lead to suppressor grid contact and fits into six hole socket of
analyzer. List, \$1.90.
3E6014—Alden 967GL.976CG.
YOUR
PRICE

\$1.12 PRICE

Type '57-'58 Test Adapter

6 Hole Top—5 Prong Base
For testing '57 and '58 tubes in set analyzers having a five prong
type '21 receptacle.' Tho suppressor and cathode are connected together and brought down All the cathode prong. All other contarts are connected straight through.

3C6010—Alden 965KS; Jewell 57; Weston D70157.

List Price 65c. YOUR PRICE

For Testing'41-'42 PA-PZH



10/11 side of this adapter. All ther connections through.

3C6009-Alden 965CG - Jewell D-70142. List, 75c. YOUR PRICE.... .44¢

7 to 7 308007-Na-Ald

977MS.
Prongs fit small (.75"
pin circle) 7 prong socket, top socket takes
large (.85" pin circle) 3E8042-Na-Ald

977SM. Prong fits large (.85" 7 prong socket, top socket takes small (.75" pin circle) 7 prong.
List Price 60c,

29¢ YOUR PRICE



Fits all type Tube Testers. Switch gives readings for each plate. Internal resistance for limiting plate current. 3D6006—Alden No. 82: Jewell No. 82: Weston No. D-70182. List \$3.00 982; Weston No. PRICE



NA-ALI Multi-Adapter Type 950XYLA

Enables Your Tube Checker to test over 80 New Tubes

3D8001-NA-ALD 950XYLA Universal Tube

Checking Adapter. List Price \$5.00. YOUR PRICE



This new No. 950XYL Universal Tube Checking Adapter enables any standard A.C. tube checker to test the following tubes: 1, 1A6, 1C6, 1V, 2A3, 2A5, 2A6, 2A7, 2B7, 6A4, 6A7, 6B7, 6C6, 8D6, 6F7, 5Z3, 14, 15, 18, 19, 29, 33, 36, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48, 49, 52, 55 diodes, 55 triode, 56, 57, 58, 58A, 59, 64, 65, 67, 68, 69, 70, 75, 67, 68, 68, 89, 90, 92, 95, 96, 98, 291, 293, 295, 985, 986, AD, AE, AF, AG, C2, C4, ERI, G2, G4, GA, HZ-50, KR-1, KR-5, KR-20, KR-22, KR-25, KR-28, LA, PA, PZ, PZH, T-1 Wunderlich "A" and Auto Tubes.

If your tube checker has no filament voltage control switch, the 954 SGL adapter must be used on the base of the 950XYLA.
3B8002—NA-ALD 9548GL UY top UX bottom. Has grid lead. List Price 75c.
446C

No lead—no wires—no jacks and only one toggle switch for all tests. Has the proper resistance network to protect all tubes and meters. Complete self-contained unit with simple directions for use on underside.

Na-Ald Multi-Adapter Type 950 TR

For use in checking tubes of higher voltage than your present tube checker will supply. To test tubes having filament voltage requirements of 10. 12.6, 14, 15, 25 and 30 volts, such as types 1223, 2525, 43, 48, etc., insert Na-Ald Multi-Adapter 950 TR in the position in your A.C. tube tester

1. The position in the position of the

Tube Adapter Forms





Moulded bakelie socket top. Moulded hase with hollow prones. The two sections are nearly and securely held together with center screw. Any desired connections from up to bose can be easily made. Insulated or hare leads can be brought through prongs from top and when top and hottom are assembled, slack in leads is pulled up. of a so arranged are soldered and extra length of the produced at great savings in cost. We inch hole in side of base permits taps from any circuit to be brought out. Body slze: thanker, 13%; height, 1%.

Number	Bottom	Top	Number	Bottom	Top
3E8050	4 prong	4 hole	3E8079	6 prong	4 hole
3E8052	4 prong	5 hole	3E8054	6 prong	5 hole
3E8057	4 prong	6 hole	3E8959	6 prong	6 hole
3E8077	4 prong	7 small	3E8066	6 prong	7 small
3E8078	4 prong	7 large	3E8063	6 prong	7 large
3 E 8 0 5 1	5 prong	4 hole	3E8080	7 small	4 hole
3 E 8 0 5 3	5 prong	5 hole	3E8056	7 small	5 hole
3 E 8 0 5 8	5 prong	6 hole	3E8061	7 small	6 hole
3 E 8 0 6 5	5 prong	7 small	3E8081	7 small	7 small
3 E 8 0 6 2	5 prong	7 large	3E8064	7 small	7 large

YOUR PRICE. EACH

TEN FOR .. \$1.75

22¢

YOUR PRICE. EACH

TEN FOR .. \$1.85

List Price \$2.00 YOUR PRICE \$1.18

23¢

Note: Price includes top and bottom and screw for assembling.

Make Your Own ADAPTER KIT 3D8076







Contains: Five base sections, one each, 4, 5, 6, 7 and 7 small, prongs. Five socket sections, one each, 4, 5, 6, 7 and 7 small, contact. Five assembly screws. One Dozen assorted extension solder and connection terminals. Two phone tip connectors. Five phone tip terminals. Five control grid caps. With this outfit you can make 25 different assembly combinations. There are

hundreds of possible wiring combinations.

Balancing Adapters

3C6042-Alden 944GP for UX 4 prong tubes. 3C6043-Alden 955GP for UY 5 prong tubes.

List, 90c. YOUR PRICE 53¢

For listening in on R. F. stages. Breaks grid circuit so grid leak Enables you

Listening-In Adapters

3C6044—Alden 944PT. For UX 4 prong tubes. 3C6045—Alden 955PT. For 5 prong tubes or 5 prong tubes.
3C6046 — Alden
9661 T. For 6 prong
tubes.
List Price 75c.
YOUR PRICE

51.35 For listening in on detector or audio frequency stages. Plate circuit is broken and leads are brought to cord tip terminals.

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Radolek Condenser Box

0.0001 to Over 15 Mfd!

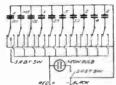
A device for quickly substituting capacity values in a circuit suspected of having an open condenser.

Contains a calibrated straight line variable condenser of 0.001 Mrd. maximum eapacity and the following non-polarized 450 volt condensers: 0.001; 0.01; 0.25; 0.5; 1; Mrd. Three electrolytic tilter condensers rated for 450 volt circuits: 2, 4, and 8 Mrd. respectively. Any of these capacities may be combined in parallel to secure a net value, the sum of the individual capacities. Each condenser is controlled by a SPDT toggle switch. This switch automatically discharges its individual condenser when not not use. Switches are plainly marked and thoroughly insulated. NEON POLARITY INDICATOR! May be switched across the test circuit to indicate polarity of circuit or genuine walnut with interlocking joints assuring riskdity. Size 58; 7888 x 343, deep. Supplied with pain of 24, test cords with banana spring tip plongs and alligator spring clips. This is the best value on the market in a Condenser Test Box.



YOUR SPECIAL PRICE ...





Meter Repair Service



Guaranteed Precision Meter Repair Service for burned out or mechani-cally damaged meters. Erratic move-ments corrected. Any make, any range of A.C. or D.C. movement may be repaired in our special in-strument Laboratory. Typical rates given below, on special sizes send meter for quote. Send Prepaid. Wo return Collect. return Collect.



REFORE

Burned out or open armatures of ndard 301 type 3½" meters, inding polishing of Jewels, position rection, three point calibration. cluding \$3.75

2. Repair of Sluggish or Erratic movement of A.C. or D.C. meter where armature is not burned or shorted, includes cleaning and calibration. \$2.95 COST

3. Replacement of cracked or broken Glass in addition to any of the other services, add to cost of other 90¢ services. services

4. Checking and calibration of an A.C. or D.C. instruments rated by the manufacturer between 1% an 2% with retunching of case or buffin of bakelite. Individual report wit of bakelite. Individual report we certification of calibration supplied

BULLE Electro-Magnetic Clock Movement Universal Adaptability of Bulle



Movements These movements are particularly desirable in localities where 110 volt, 60 cycle, current is not available. Not depending on any outside source of supply for power, they are especially useful in localities where electric service suffers frequent interruptions. Many electric clocks that plug into A.C. Lines become nolsy and faulty fin operation after only a few months use. The Bulle movement will run continuously for years without any attention. attention

Installation

Can be used to convert spring wound or un-satisfactory A.C. electric clocks into accurate and dependable time pieces. Will fit into a 5% // hole and extends less than 245 // back of panel. Equipped with 8" insulated leads with universal mounting and connection brackets for battery.

Appearance and Construction

Appearance and Construction

A 6" attractively finished dial is enclosed in a
heautiful bevelled bronze outer case. The minute
and hour hands are gracefully designed and can
be reset from the front. The bevelled edge frame
houses a convex crystal lens and is fitted with
hinges for opening. Brackets and screws for
mounting movement are included.

Trilke other electric clocks, this modern invention does not depend upon synchronized current
for its areuracy. It provides electric time with
all its advantages in accuracy and convenience for
all localities—and at low cost.



No Winding-No Care

No Winding—No Care
The Bulle Electric Clock is operated by an ingenius mechanism which at once commands admiration for its simplicity, and surprise at its rigid strength. More than 85% of the electrical energy needed for its operation is actually generated by its own Electro-Magnetic Motor. Less than 15% of additional energy is drawn from a small single cell 1½ volt flashlight battery which is conveniently concealed in the clock. The total current consumption of the movement is only 1.2 watts per year. No winding. No outside wires or connections. Power only 1.2 watts per year. No winding. No outside wires or connections. Power is self-contained.



4D10496 - Movement complete with 114 volt battery.

YOUR

Accurate-Noiseless

Accurate—Noiseless
Accurate Noiseless
Accurate is insured in every Bulle
movement. Very casily adjusted.
Weight on pendulum of clock is adjustable and can be raised or lowered
merely by a turn of the hand. Once
it is properly set it will remain constant for years. Because triction is
synchically administed in these werestant for years. Because triction is practically eliminated in these move-ments no tubrication is needed and novement will always remain noiseless. movement will always remain noiseless. Starts itself when batters is attached and restarts itself immediately after being stopped by accident or design, so long as it remains in an upright position. Will run continuously for years without attention.

Tube Adapters

For Substituting New Type Tubes in Place of Older Types

Use 2A5 in place of 45 or 47 Use 47 in place of 45, 71A or 12A

For Replacing 245 with 47 Increase Volume and Tone Single or Push Pull Of Midget Radio Receivers



3C6029-List Price \$1.00. Your Price, Each 37¢

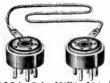
Ten for ... \$3.55
5 hole, 4 prong adapter.
Current for screen is
brought frum plate. Has
iron core chuke between
plate and screen ferminal of 247 tube

For Replacing Single 171A with 47

3C6030 Code 954 KPF, List \$1.25. KPF, List St. Your Price, Each

Ten for ... \$5.90
5 hole, I prong adapScreen hole connected to prong. Other connections through at Illament which has resistance eries for reducing voltage from except in series for reducing v 5V to 2½V for 217 tubes.

For Replacing Push Pull 171A with 47



-Code 95 954FS. List 306031for Twin Set, \$1.20. 70¢

Filaments of 247 are connected in series by means of 12 inch flexible cord between adapters. Screen holes connected to plate prongs; other connections through.

For Replacing 224's and 35's with '57 or '58



3C6010-Code 9 58. List Price 50c. YOUR PRICE

For using a '57 type tube in place of a '24

typo tube and '58 type tube in place of a '35 ot 551 tube. Has a six prong receptacle connected to a five prong plug. The suppressor and cathode are plug. The suppressor and cathode are connected together and brought down to the cathode prong. All of the other contacts are connected straight through the adapter.

Adapters for Replacing Kellogg



Overhead Heater Type Tubes 401 with 485's 401 with 56's It is now possible to replace all the old type

expensive Kellogg tubes with the latest types of more efficient and lower priced tubes. It is less expensive to buy these adapters and new type adapters an tubes than to replace with old style Kellogg

Ten for 35 c

To Replace 401 with 485 3E6131—Na-Ald 954K27. List, 90c. PRICE .

To Replace 401 with 56 3E6132-Na-Ald 954-101, List, 90c PRICE

Benjamin Sub-Panel Mounting Shock-Proof Sockets 3E6726 -4 Prong Only YOUR PRICE 5¢

Replace Single tubes with 2 Mu Pentodes. Mu addition Here is an

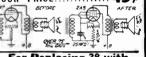
Of Midget Radio Receivers
Replace Single type 47
tubes with 2A5 high Over Mu additional gain.
Here is an item that
is easy to earry and
not only can it be
demonstrated quickly
but, it sells an extra
tube for you every time

you make a good demonstration. Adapter has a six hole top for typo 2A5 tubes and a five prong base fits socket of 47 tube. A tilament center-tapped resistance connects the 2A5 cathode to the bias circuit of the 47 tube.

For best results the grid bias resistor of the 47 is changed to 400 olms for the 2A5. Connect a 25 Mfd.

onns for the 2a3. Connect a 25 Mill. 25 V. Electrolytic Condenser between the chassis and the centertap of the resistor on the adapter, the rich deep tone you will then be able to hear will be a revelation in midget quality. Wiring diagram shows "become and control of the con appearance of fore' and "after" airoult.





For Replacing 38 with 41 or 42 3E6016-YOUR PRICE 44¢

Double the gain of 6 volt receivers using 38 type tubes. (Do not make this

substitution in series heater effectives. Type 41 and 42 tubes have twice the amplification mu of 38 tubes. Change grid blas resistor to 600 olms for 41 tube or 400 ohms for 42's. In Push-Pull circuits, half these values

For Replacing G2, G4, With 55



A six hole, five prong adapter with heater and cathode circuits com-mon, but with diodo plates of the 55 con-nected to the plate prongs of the G-2, G-4

adapter. The triode portion of the 55 is not connected. When replacing adapter. The triode portion of the 55 is not connected. When replacing G-28 or G-48 tubes employ Goat shields or tie the top grid of the 55 to ground and in case of oscillation, wrap tube in metal foil which should be consulted.

For Replacing 45 Tube



List. 75c.

With New 2A5 For using new 6-prong 2A5 Pentode Power Tube in place of 45. Requires spe-cial resistance for "C" bias. Alden Type. 964KSPR. 3E8043-

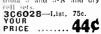
YOUR PRICE 44¢

999 UX to UV199

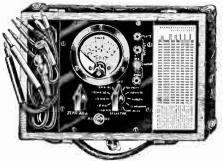


PRICE

421X UX to WD11
Adapts I'X tube to WD11 socket. Suited for Radiola 3 and 3-A and dry



Page 21



With output adapter, test leads, batteries, etc. Complete operating instructions. #E2577—List Price, \$30.00.

PRICE

Universal RIPLET A.C.-D.C.

MODEL 1125 VOLT - OHM - MILLIAMMETER

A Modern Portable Test Instrument
The Triplett Model 1125 Universal testing
meter consists of a sensitive microammeter
mounted in the panel of a convenient carrying case with a switching arrangement to
secure different ranges on the meter. The
range selector switch is a 12 point positive
action rotary type. A toggle switch shifts the
meter from D.C. to A.C. ranges. This arrangement permits the use of only 4 pin
jacks for external connections.

Quadruple Scale Meter

Quadruple Scale Meter
The lower scale, printed in red, for A.C. has
75 divisions marked 0-15. The middle scale
is likewise divided with the characters printed
in black. The upper scale is graduated from
right to left with 15 major calibrations in
ohms. The last two ciphers of each are printed in red, giving the effect of two scales
of ohm values. The selector knob position
indicates the interpretation of the meter scales.

14 Different Measuring Ranges

Maximum scale readings of A.C. Volts: 750, 150, 15. Maximum scale readings of D.C. Volts: 750, 150, 15. D.C. Milliamperes, 150, 15, 1.5. A.C. Mils. 150, 15. Three resistance ranges, 0 to 1500 ohms, 0 to 1.5 megohms, 0 to 3 megohms, 0 to 2ero adjustment for the ohmmeter is provided on the panel.)

Every Radio Measurement Possible In addition to the fundamental ranges listed above, the A.C. volt ranges may be used for output measurements. A special circuit (see diagram on the adjacent page) permits accurate capacity measurements.

The size of the Model 1125 case is 111%"x 7½"x4½". Shipping weight 11 lbs. The cover is removable.

Your cost is less than the meter and resistors alone would cost!

TRIPLETT ALL WAVE OSCILLATOR

For Modern All Wave Service New Triplett No. 1151 Hand Calibrated All-For Modern All Wave Service
The New Triplett No. 1151 Hand Calibrated All.
Wave oscillator meets the latest requirements of
radio service. Four Wave Bands. Ranges available through the four point selector switch:—
A-110 to 500 K.C; B-500 to 3,500 K.C; C-2,000
to 6,000 K.C; B-6,000 to 18,000 K.C; (Uses
fundamentals and 2nd and 3rd harmonles.)
Smooth exact adjustment between each frequency
limit. With this new Triplett oscillator you can
accurately align and test the latest model receivers and all early model radios.

Uses "Dummy Antenna" Output

Uses "Dummy Antenna" Output
The pin jacks marked Min, and Gnd, when connected to a receiver have the characteristics of
a broadcast receiver antenna circuit. Type 30
tube used as oscillator. Three 1½ volt fiashlight
cells light the tube and a standard 22½ Volt
Midget "O" battery supplies the plate potential.
The batterles are under the calibration chart.

Modulated or Unmodulated Signals Modulated or Unmodulated Signals You can make the signals from the Triplett Oscillator audible in the output of the radio under test or cause a high frequency wave to beat against an incoming signal to produce the familiar "canary whistle" beat note. Size 11½"x 7½"x4½". Weight 15 lbs. With Calibration Graph and Attenuator. Complete with Batteries. Simplified Control Panel

- 1—Positive action, Four-range Switch,
 2—Complete Attenuation Control; 0 to full power,
 3—Modulation control Switch for Mod. or Unmod.
- Signals.
 Easily read Dial with bar-knob pointer; 100

Safety Battery Switch—Lid will not close switch is on.

Triplett New All Wave Oscillator

Model 1151

1E2578-List. \$35.00. YOUR PRICE



1151

Triplett Auxiliary Set Tester Model 1166 Complete with seven prong plug cable, Four adapter plugs, and directions. Neat oak case matches above instruments. I E2579—List Price, \$16.00 with Case.

PRICE

YOUR

1E2581--Less Case. YOUR PRICE

TRIPLETT Auxiliary Set Tester Combines Point to Point With Set Analysis

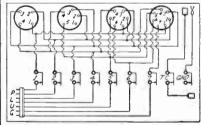
For Point To Point Testing
Extreme Flexibility For Service Analysis.
All the circuits which connect to the prongs of any type tube in any type radio may be reached through the handy pin jacks. The row of red jacks automatically open the circuit when a pin type plug is inserted. Upon plaeing another plug in the adjacent black pin jack, current measurements can be made in series with any circuit, to any tube clement. Using the black pin jacks, voltage and resistance tests may be made between any portions of the circuit. Examination of the diagram will disclose a large number of additional features which will facilitate the use of this equipment in analyzing the exact point of trouble in a receiver.

For Standard Analysis

the exact point of trouble in a receiver. For Standard Analysis
The 'old timer' in the service business accustomed to conventional analytical methods of service will find the Triplett 1166 bits most useful accessory. By connecting a milliammeter in series with the plate circuit and opening the grid circuit for insertion of a "O" battery, a change in tidace current will be observed. This is a dependable method of checking tubes under operating conditions as the change in plate current will indicate the mutual conductance of the tube.

Chart of Tube Prong Circuits

Chart of Tube Prong Circuits
A simplified chart of Tube Prong Circuits plus the complete chart of all modern tubes published in the Radolek 1934 Catalog will permit accurate analysis of any receiving tube circuit. Careful study of the accompanying diagram of the internal wiring circuit of the 1166 Triplett Austiliary Tester will disclose many applications of this excellent unit. Voltages from any tube element to ground may be quickly obtained, with the 1166. All instructions included. Size of the case, 111%"x71½"x41½". Shpg. Wt. 7 lbs.



Circuit Diagram Model 1166 Triplett 51/4" Giant Meters

Triplett 31/2 Inch Universal A. C.-D. C. Meter



Copper—Oxide Type
Accuracy within 2% on D.C.—5% on A.C. Scale
matches the Standard Scale supplied on the Triplett Models 1125. 1180, 1181. Meter movement
requires 1 milliampere for full sale deflection.
Primarily designed as a Universal Foundation Meter,
supplied with 50 ohms internal resistance, (50 millivoit drop). No multiplier shunts or resistors included. Scale marking as follows: Lower scale, 0-15 with 75 divisions for the 15, 150, 750, volt A.C. range. Same scale is used for A.C. Mils. Middle scale, same markings for D.C. vange. Top ohn scale 0-1500 ohms.

Triplett Universal Meter IE2580-List, \$15.00. *9 50

75 Division Scale

A.C. scale reads 0 to 15 in red.
D.C. scale reads 0 to 15 in black.
The ohm scale has the significent figures in black and the last two clohers in red to facilitate reading on PRICE
The copper oxide rectifier unit is housed with the proper compensating shunt for the 0-1 millianmeter in a separate case suitable for panel mounting. A DPIDT toggle switch is included in the assembly for quickly Changing the circuit from A.C. to D.C. Air dumped movement. Jewelled sapphire bearings, Chrome steel magnets.



Special Scale 3E8388—For 1E9585 Has same markings as universal and 1E9586 YOUR PRICE

Giant Panel Test Instruments Flush Mounting in 4%" hole requires 2%" to 3" clearance Knife Edge Pointers. Mirror back scales. All ranges available. Most popular sizes are listed below. A.C. models employ repulsion type movable fron vane action. D.C. models use standard d'Arsonval jewelled bearing movements with chrome steel permanent magnets.

meter.\$1.00 Model 521 D. C. Model 531 A. C. Stock Your Stock Price Number Resist. Resist Number Rance Range in ohms in ohms 1E9585 1E9586 1E9587 1E9588 5 9.80 11.11 12.42 9.15 12.08 1E9591 1E9592 1E9593 1E9594 1E9595 10 M.A. 250 M.A. 3 Amps, 10 volts 150 volts $\frac{1950}{1.2}$ \$ 9.80 9.15 9.15 1 M.A. C.5 M.A. 0.2 M.A. 10 Amp. 300 Volts $\frac{1}{02}$ hole 1E9589 151,500

permanent magnets.

Dool

MODEL RIPLET 1181 Combines 3 Great Testing Systems Point-to-Point, Standard Analysis, and Overall Performance with One Triplett All-Purpose Instrument Here is the Secret of Successful Servicemen! Here is how the 'oldtimers'

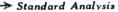
Here is the Secret of Successful Servicemen! Here is how the oldstimers in radio fix sets that dely the best efforts of beginners. The best features of the above three great general systems of servicing are combined. Triplett has perfected the one complete instrument which handles all three systems

Experienced servicemen with that fine Instinct developed by conscientlous workinanship, can usually tell from the customers' complaint which method to use first. You also can equal their work! With the assistance of a modern up-to-date Instrument designed to service both long and short wave receivers, you can do better and more satisfactory radio service than the most skillful 'oldtimer' puttering away

with obsolete equipment.



Use point-to-point testing when the signals are mushy or distorted; when hum distortion is present or when the standard analysis discloses wrong voltages. In this system the Auxiliary Set Tester plays the most important part, permitting the receiver to be left in its cabinet while the circuit of each tune is brought down to the test panel of the auxilliary tester. Here conveniently and quickly, you may use the ohimmeter or capacity of the convenient of the Triversal Velticolim-Output-Milliammeter to identify the defective portion within the chassis, a temporary repair can usually be made until the exact part may be duplicated.

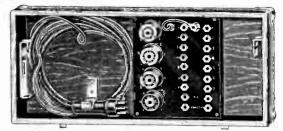


> Standard Analysis

The old favorite method which is still used extensively by smart servicemen who know when to best apply it effectively. This is usually the fastest method of arriving at the cause of trouble when there is no signal audible through the radio. Inserting the plug of the Auxilliarry Tester, first in the rectifier tube sockets and successively in the audio sockets, detector, I. F. and R.F. stages, will permit you to make current and voltage measurements at the same time testing the tubes by connecting a "C" battery in the cathode or grid lead to give a mutual conductance test. Wrong voltages or absence of voltage indicates that you should change to Point-to-Point testing.

→ Overall Performance

The one sure system of locating the cause of Intermittant reception. Also used for overall performance tests when replacing tubes and for alignment of trimmer condensers. The stability of the All-Wave Oscillator and the accurate indications of the A.C. meter used as an output indicator through the Auxilliary tester make overall performance testing interesting and easy.





Triplett Perpetual All-Wave Tester 1181

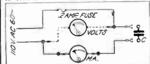
Combines the Auxilliary tester and all associate plugs, adapters, test leads and instructions with the Universal Vult-Ohm-Output-Milliammeter supplied with a special scale on a separate chart to permit capacity measurements, and the new All Wave Oscillator, 110 to 18,000 KC. (2727 meters to 16.5 meters). Complete in quarter-sawed oak (16% "x7¼ "x5½") carrying case with batteries, oscillator tube.

1E2575-Model 1481, Lis. Price. \$57.00.

Capacity Tests

Capacity rests

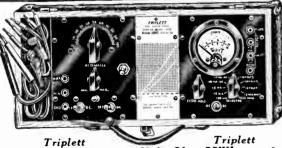
Capacity measurements of paper dielectric condensers can be made with the A.C. Milliammeter of the Perpetual Tester, employing the electric lighting circuit as the source of A.C. The range of capacity on 115 V 60 cycle is 0.0025 to 3.5 Mel. Diagram below.



Four Range Oscillator

16.5 to 2727 Meters

Be Up-to-Date with this latest all wave oscillator! Radolek is the first to offer this superior equipment. Hand calibrated tuning chart with four conord frequency curves making exact sciencial of desired signal very execution. colored frequency curves conord frequency curves making exact selection of desired simml very simple. Oscillator is adjusted to cover entire range with fundamentals and 1st and 2nd harmonies of fundamental frequencles. An additional feature of the new oscillator is the entiput circuit which is coupled through a fixed capacity, which prevents danger of short circuit.



All-Wave Oscillator — Volt Ohm Milliammeter

For Overall Performance and General Testing

Model 1180

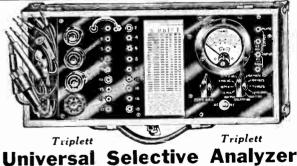
Offered in one unit—the two most essential instruments for radio service. Universal All Wave Oscillator with self contained power supply, and the Triplett Multi-range A.C.-D.C. Volt. Ohm. Milliammeter. All in portable Ohm. Milliammeter. All in portable form. Ready for bench or home radio service. This unit is particularly suited for the serviceman who has a selective circuit analyzer.

Oscillator Ranges

Oscillator Ranges
Range A: 110 to 500 K.C. Ranne B:
540 to 3500 K.C. Range C: 2000 to
6000 K.C. Range D: 6000 to 18000
Fundamentals and 2nd and 3rd harmonics are used to cover this extensive
frequency spread. All siznals may be
modulated at approximately 300 cycles
for texts employing a standard output
meter. Unmodulated signals may be
employed for beat-frequency calibration of receivers.

measures all voltages encountered in modern radio receivers. 0-15-150-750 volts A.C. or D.C. at 1000 ohms per volt. Measures all plate currents. 0-1.5, 15, 150, M. A. D. C. Two A.C. Milliampere ranges for capacity and power output tests, 0-15-150 M.A. Resistance ranges, 0-1500 ohms, 0-15-3 megohns. A.C. volt scales may be employed for output indications. Symplical in ask case. 11½ "736" x be employed for output indirections. Supplied in oak case, 1114 x732 x 142 With slip hinged cover.

The Best Value Service



For Point-To-Point and

Standard Analysis Mudel 1167

Model 1167

Excellent for the service shop equipped with a good oscillator. This is the modern type of equipment for "hot" or "celi" chassis testing, employing all the good dependable tentures of the old type analyzer plus the modern point-to-point resistance style of locating troube. The Selevice of locating troube. The Selevice of locating troubers analysis for Supplied in oak case. 114"x712"x
412". With slip hinsed cover.

The Best Value Service
Equipment
1E2644—Model 1180 in Oak case.
Complete with Test Leads. List.
\$45.00.

YOUR PRICE

\$29.40

1E2642—Model 1177 in Leatherette case with dual frequency oscillator covering 110 to 1500 K.C. List.
\$36.00.

YOUR PRICE

\$23.52

\$23.52

The modern point-to-point resistance style of locating trouble. The Schwist Analyzer portion contains four sockets for all standard base tubes. It plants, and a modern show the style of locating trouble. The Schwist Analyzer portion contains four sockets for all standard radio base tubes. It plants, and a modern show the style of locating trouble. The Schwist Analyzer portion contains four sockets for all standard base tubes. It plants and the same sockets. Extra wires adjacent to the calle are for ground and top grid adapters. Voltage tests are made between the black plantacks. Inserting the tip jack in the red plantack opens the particular circuit to permit current measurements.

Multi-Range Volt-Ohm-

Milliammeter

Employs the Triplett Universal meter. Three A.C.-D.C. voltagranges are provided, 0-15-150-750 at 1000 ohms per volt. Three D.C. milliamper ranges are available for all current tests in plate circuits and powerjack circuits, of 0-1.5, 15, 150 M.A. Two A.C. Milliampere ranges are employed in capacity and induction measurement. 0-15-150 M.A. One low ohm scales. 0-1.50-0 ohms, and two megohm scales. 0-1.5-3, megohms. Ommeter batteries are inclosed. A zero adjuter compensates for battery deterioration. A selector switch power of the province possibility of damage to meter. 1 E2576—Model 1167. Complete with test leads, batteries, and all instructions. Milliammeter structions.

YOUR PRICE



The Selector Switch

- Grid or Screen Grid to Cathode. 1. Grid of Screen Grid to Cathago. Grid volts and Heater type 3 element tubes. Screen Grid volts on Screen Grid type tubes.
- 2. Measures grid volts on triole and Direct Heater Pentodes. Serven Grid volts on Direct Heater Screen Grid tubes.
- 3. Measures Cathode volts on Cath-ode type tubes, and Screen volts on output Pentodes.
- 4. Measures Plate volts on Cathode type amplifier and output tubes.
- 5. Measures Plate volts on Direct Heater amplifier and output tubes. 6. Measures the Control Grid volts

6. Measures the Control Grid voits of tubes having top cap. 7. Measures the voltage from Sup-pressor Grid to Cathode on tubes having suppressor grids, and Plate

Has 12 positions arranged to make volts on double plate output tubes, the following tests:

such as 79.

- 8. Measures voltage from Control Grid to Cathode on Heater type out-Control put l'entodes.
- Measures voltage from Plate to Cathode of double plate output tubes, such as 79.
- 10. Measures the voltage from Control Grid to Cathode of double plate output tubes, such as 79.
- 11. Measures the voltage between the second Control Grid and Cathode on Gouble plate output tubes, such

as 79.

12. Measures the voltage between the Conventional Plate contact and the Conventional Screen contact. The toggle switch marked positive and negative reverses the polarity of the D.C. volt meter. This switch will indicate polarity of the circuit tested.

SET Readrite TESTERS

Models 710 and 712

Simply turn the selector switch—each position is recorded on the handy chart on the panel—and read directly on the meter the exact condition of every part of the circuits. Cheek the continuity and resistance of the A.V.C. diode resistance coupling, phase shifting, automatic tone control. R.F., I.P., detector, oscillator, A.F., filter and similar circuits. In the same check filter, bipass and coupling condensers for shorts and opens, soldered joints for resistance hook-up wires, bias resistance and bleeder resistances for shorts and opens, condended to the condition of the power transformer, primary and secondary for balance. Cheek the pine voltage, with the use of the receiving set wiring diagram the serviceman can easily and quickly locate every

kind of trouble without removing the chassis from the eabinet. Has self-contained battery for continuity testing of transformers, chokes, etc. Capacity and resistance charts are furnished for use in testing condensers and measuring resistances up to 100,000 ohms. The 9 scale readings of the meters may be used separately with the jack terminals provided. Scale readings are 0.20.60-300-600 D.C. volts; 0.10-140-700 A.C. volts and 0.15-150 milliamperes. D.C. volts and 0.15-150 milliamperes. D.C. volts are resistance 300 ohms per volt. Has new small sized plug with latch for the four adapters furnished for accommodating all 4, 5, 6 and 7 prong sockets now in use. Substantial leatherette covered case size 10%x3½x8 inches. Removable cover.

Has Sockets for all newer 4, 5, 6 and 7 prong tubes.
Makes all voltage, current, capacity and continuity
tests required for any set and for the tubes in the
set, regardless of current used—whether A.C. or
any type battery current.
READRITE MODEL 710. As described above
with standard Readrite Meters. All meters accuracy guaranteed within 5%. Complete with
Test Leads, Battery, Adapters, Charts and Instructions. Has Sockets for all newer 4, 5, 6 and 7 prong tubes.

3D2606—List Price \$27,50.



Readrite Model 712

Readrite Model 712

The Model 712 differs from the Model 710 only in that it is equipped with the new Triplett D'Arsonval Voltmeter having 1,000 ohms per volt resistance. The reading is 0-15-60-300-600 volts, which covers a complete range for testing control grids, screen grids, cathode and plate voltages. The use of this precision indicating meter leaves little to be desired in the way of a fine testing instrument. No matter how many testers you have you can afford to put the ±712 on your payroll, because it will enable you to do a quicker, better and more accurate testing job. (2% accuracy.)
3D2590—List Price \$41.25

\$24.25 PRICE

Readrite Model 1000 Resistance—Continuity and Capacity Tester "For Cold Chassis" Point-to-Point Testing 3E2622-

YOUR
PRICE
New and Different! Permits testing of any receiver without the tubes in the receiver and without the power turned on the set. Uses two plug-in cables one to the retiffer socket and the other to each tube socket in turn. A master selector switch nermits resistance and capacity tests between all important circuits. Triplett 3½" Meter is employed for the resistance and any voltage or current measurements desired. A 2" A. C. meter, used with a 60 cxcle A. C. 110 to 120 volt line is employed for capacity measurements. The precision D. C. meter has a 60 division volt-inil scale which permits reading 0 to 30, to 300, to 600 volts, also 0 to 20, to 30, milliamperes. Resistance measurements may be made on the ohm scale, 0 to 50.0, to 50.000 to 3 megratical colors. An extra 225 volt battery and .9 meg resister will extend the ohm rauge to 6 megolius. With adapters, in fabricold case, size 13½"x½½"x 24ge 24

Portable Tube Testers

Test All Tubes without Adapters Including All New Types



Readrite Model 410

3E2600-\$1617 YOUR PRICE

A new and improved tube tester for checking standard base rectifier and radio tubes. Employs the grid shift method of changing the plate current reading which is a case approximation of the fautual conductance of the tube under test. A Readrite Miliammeter with an illuminated dial indirects the change in plate current. Filament control provides; 1½, 2, 2½, 3, 5, 6, 3, 7½, 12, 6 and 25 voits for all tubes. Both plates of rectifier tubes are tested. Complete instructions and standard values for good tubes are attached to the lid of ite case. Leatherette case with slinning lid. Size 11"x74"x44" deep. Shipping weight 11 lbs. For connection to 105-125 volts 60 cycle A. C. A new and improved tube tester for

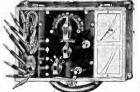


Readrite Model 416

With Triplett Moving Coil Precision Meter

3E2631-YOUR

For testing tubes with a creater degree of precision than is possible with the Model 410. A sensitive Triplett d'Arsonval type meter in the 416 tester employs a longer scale which permits very accurate reading of tube values. For house to house canvasing



Readrite All Wave

Oscillator 3E2597—Model 531 without output \$1 64 YOUR PRICE

YOUR PRICE ...

A New Graph Calibrated Self Modulated Service Oscillator. Meets requirments of latest model receivers with short wave and I. F. circuits. Four frequency ranges: 110 to 500 K. C. 500 to 3000 K. C.; 2000 to 6000 K. C. 16½ to 327 meters.) Desired range must be selected with a four point switch. The exact frequency is secured by adjustment of a tuning knob over a calibrated scale. This onerates a new design semi-precision type condenser which is accurately calibrated on the Graph supplied with each instrument. This oscillator may be employed to align short wave and broadcast R. F. tuning sections, to peak I. F. transformers, to adjust oscillator trimmers, compare gain in tubes, to test sensitivity of receivers and locate cause of intermittant reception. A "Dummy Antenna" output matches all sandard recievers. 100% Attenuator Leatherette covered cause. 12"x6"x with slip-hinge lid. Batteries for the type 30 tube are self contained. 100% Attenuator same as above with Readritus. A New Graph Calibrated Self Modulat-

3E2598-Model 553 All Wave O cillator same as above with Readrite YOUR PRICE \$20.58

YOUR

TRIPLETT PRECISION METERS

Guaranteed Accuracy Within 2% at 72° F.

Genuine d'Arsonval Moving Coll Type

Moving Coll Type
Rugged dependable meters for radio service, experimental, and educational use. Standard in size, range and appearance. Clear white enameled dials. Balanced aluminum indicating pointer. Zero adjustment. Genuthe polished sapphire jewelled bearings. Bakelite or Metal dustproof cases with glossy black finish classes should not be removed. Triplett meters offer the greatest value in the low price instrument field, having many features heretofore restricted to the higher priced meter lines. fures heretofore restricted to the prize mere lines.

Model 321 D.C. Flush Type, wide flange.

3½" dlameter.

Model 331 A.C. Flush Type, wide flange.

Scale length 2¾". Mtg. hole Ctrs., 2". Very satisfied diameter.

Scale length 2¾". Mtg. factory for a ver a g e and the ctrs. 3".

Scale length 2¾". Mtg. factory for a ver a g e and the ctrs. 3".



223 D.C.—233 A.C.



3 1/2	INCH	Models	321-331
	(Flus	h Mount	ing)

31/2"	Model 3	321 2"	Model	223
Stock Numbe	Your Price	RANGE	Stock Number	Your Price
-	D. C. M	ILLIAMN	ETER	S
3E9610 3E9611 3E9612	SA EE	0-1 Mils. 0-1.5 0-3	3E9654 3E9655 3E9656	\$3.75
3E9613 3E9614 3E9615 3E9616	3.75	0-5 0-10 0-15 0-25	3E9657 3E9658 3E9659 3E9660	2.94
3E9618 3E9618 3E9618 3E9620	3.75	0-50 0-75 0-100 0-200	3E9661 3E9662 3E9663 3E9664	2.94
3E9622 3E9622 3E9623 3E9624 3E9625	3.75	0-250 0-300 0-500 0-750 0-1000	3E9665 3E9666 3E9667 3E9668 3E9669	2.94
3E9620 3E9620 3E9620 3E9630 3E9630 3E9630	3.75 6.86 6.86 6.86 6.05	.5-05 100-0-100 0-1-10 0-1-25 0-15-150 0-25-250	3E9670 3E9671 3E9672 3E9673 3E9674 3E9675	\$ 4.24 2.94 5.71 5.71 5.06 5.06
	D. C	. AMMET	rers	
3E967 3E967 3E967 3E967 3E968	\$3.75	0-1Amps. 0-3 0-5 0-10 0-25	3E9700 3E9701 3E9702 3E9703 3E9704	\$2.94
3E968	2)	1-0-1	3E9706	

3E9676	0-1 Amps.	3E9700	\$2.94
3E9677	0-3	3E9701	
3E9678	0-5	3E9702	
3E9679	0-10	3E9703	
3E9680	0-25	3E9704	
3E9682	1-0-1	3E9706	2.94
3E9683	5-0-5	3E9707	
3E9684	10-0-10	3E9708	
3E9685	20-0-20	3E9709	
3E9686	30-0-30	3E9710	
D. C. M	ICROAM	METER	ls

3E9811 5 6.05 0-500 M.A. 3E9815 5 5.0 3E9812 7.84 0-200 3E9816 6.8 0-200 3E9816 5 5.0 0-200 3E9816 5 5.0 0-200 6.8 0-200		D. C. A	IICROAM	IMELEK	
D. C. RESISTANCE METERS	3E9811 3E9812	\$ 6.05 7.84	0-500M.A	3E9815 3E9816	\$ 5.00 6.80
	D.	C. RE	SISTANC	E METE	RS

FOR	3—Type	321.	0/1.5	volts. 0	1000 ohms.
OUR"	PRICE				\$4.55

YOUR PRICE				\$4.55
3E9824-Type List, \$8.25.	321.	0/4.5	volts.	0/50,000 ohms
MALLE DRICE				371.7

	rs E 233
NGE Stock	Your Price
	Type Meter 2" TYP Stock Number

	A. C. M	ILLIAMM	EIER	•
3E9825 3E9826 3E9827 3E9828	\$3.75	0-15Mils. 0-25 0-50 0-250	3 E9830 3 E9831 3 E9832 3 E9833	\$2.94
3E9829	A C	0-500 AMMET	3E9834	
			3E9842	
3E9835 3E9836 3E9837 3E9838 3E9839	3.75	0-1Amps. 0-2 0-3 0-5 0-10	3E9843 3E9844 3E9845 3E9846	2.94
3E9840	5 4.47	0-25	3E9847	\$ 3.75
	A, C,	VOLTME	TERS	
3E9849 3E9850 3E9851 3E9852	\$3.75	0-1 Volts 0-3 0-5 0-10	3E9864 3E9865 3E9866 3E9867	\$2.94
3E9853 3E9854 3E9855	3.75	0-15 0-25 0-50 0-100	3E9868 3E9869 3E9870 3E9871	2.94
3E9856				
3E9857 3E9858	\$ 4.55 5.39 7.18	0-150 0-300 0-500	3E9872 3E9873 3E9874	\$ 3.75 4.68 6.47
3E9857		0-150 0-300	3E9872 3E9873	4.68

Model 321 | 2" 31/2" Model 223 Stock Number | Your Price RANGE Stock D. C. VOLTMETERS 125 Ohms Per Volt 0-1Volts 0-3 0-5 3E9750 3E9751 3E9752 3E9712 3E9713 3E9714 \$3.75 \$2.94 3E9715 0-10 3E9753 3E9716 3E9717 3E9718 3E9719 3E9720 0-15 0-25 0-50 0-100 0-150 3E9754 3E9755 3E9756 3E9757 3.75 2.94 3E9758 3E9721 3E9722 3E9723 3E9724 \$ 4.55 4.55 5.39 6.05 7.18 0-200 0-250 0-300 0-500 3E9759 3E9760 3E9761 3E9762 \$ 3.75 3.75 4.24 5.06 6.05 0-750 9.31 11.43 3.75 3.75 3.75 0-1000 0-2000 3-0-3 50-0-50 150-0-150 8.33 10.45 2.94 2.94 3E9726 3E9727 3E9728 3E9764 3E9765 3E9766 3E9767 3E9768 3E9730 D. C. VOLTMETERS 1000 Ohms Per Volt 3E9769 3E9770 3E9771 0-5Volts 0-10 3E9797 3E9798 3E9799 3E9800 \$5.39 \$4.24 0-25 3E9772 0-100 0-150 0-300 0-500 0-15-150 0-250-750 0-15-60-300-600 3E9773 3E9774 3E9775 3E9776 3E9780 5.71 5.71 6.53 7.18 7.18 10.88 10.29 3E9801 3E9802 3E9803 3E9804 \$ 5.06 5.06 5.71 6.53

6.53 9.63 9.14 D. C. MILLIVOLTMETERS

	3E9817 3E9818	5	3.75 3.75	0-50 M.V. 0-150	3E9821 3E9822	5	2.9 2.9
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3 F 9808

3E9809 3E9810

Portable Meter Cases

For 2 Inch Readrite & Triplet-Meters

A good selection of Portable Meters is indispensable in a properly equipped Radio lab-cretary or renair shop. These oratory or repair shop. These Cases are 3 inches in diameter. Cases are 3 inches in diameter, made of heavy gauge brass, durably finished in polished nickel. Nickeled bezel. Supplied with two 30 inch plutipped leads and necessary accessories for mounting

3D2798—List, \$1.75. YOUR PRICE

\$1,03

Readrite Model 65 Flange To Fit Model 55 Meters



Wide flange 2% inches diameter. Fits over any type of model 55 meter, converting it into a flange mounting model. Three screw holes. Three & T

302799-List, Each 15c. YOUR PRICE

Readrite Model 55 A. C. Meters

Readrite Model 55

50 to 100 evele Commercial
A.C. circuits. Accurate
within 10⁴. Renuires 2½"
mounting hole. Clamp maintains meter rigidly against
panel from position in the
rear. Readrite 55 A.C.
meters are satisfactory for
checking line voltage, amplifer tube filament current and
voltage, current drain of
radio sets, and refrigeration
service work.



Voltmeters Ammeters Stock Scale Your Stock Scale

Number	Volts	Price	Number	Amps.	Price
3C2778 3C2779 3C2780		.62	3C2792 3C2793 3C2794 3C2795	0-1 0-3 0-5 0-10	\$1.62
3C2781	0-15)		3C2796	0-50	\$1.91
3C2782 3C2783 3C2784	0-150 0-300 0-600	\$2.65 3.23 3.82	Milli Stock Number	amn Scale M.A.	neters Your Price
3C2785 3C2786	0-750 0-10-140	4.56 2.65	3C2787 3C2788	$0-25 \\ 0.50$	\$1.62

Filament Meter

Oxidized Bronze Finish, flanged cases 2% in. diam. Mount 2-in. hale

3C2698-0-10 volts D.C. YOUR PRICE 39¢



3E9781 3E9782

Readrite D.C. Panel Meters Model 55

Instruments. Guaranteed accuracy Good serviceable Good serviceable Instruments, Guaranteed accuracy within 5% in both types. Suitable for practically all purposes except precision engineering. Require 2-5/64" mounting hole. White dial, black lettering, metal shell. Clamp Included to hold meter tight against panel. Screw connections with binding nuts in rear. ZERO ADJUSTMENT TYPE has serve mounted on face which controls idle position of meter.



Without Adjustr	nent L	D. C. V	oltmete	rs Adju	n Zero stment	Without Adjustn	nent			rs Adjus	
Stock Num.	Your Price	Scale Volts		Stock Num.	Your Price	Stock Number	Your Price	M. A.	Ohms Resist.	Stock Number	Pri
3C2735)			30 175	3 D7735		3 C 2766 3 C 2767	\$1.32 1.18	0-5 0-10	2,160 700	3 D 7 7 6 6 3 D 7 7 6 7	\$1. 1.
C 2736 C 2737 C 2738	59C	0-6	550	3D7737 3D7738	73¢	3 C 2 7 6 8 3 C 2 7 6 9		0-15 0-25	295 85	3 D7768 3 D7769	73
C2739)	500	0-10	1,475	3D7739 3D7740		3C2770 3C2771		0-50	5.5	3D7770 3D7771	
C 2741 C 2742 C 2743			2,914 550 1,625	3D7741 3D7742 3D7743	750		-	0-150 0-200 0-300	3,3 1.9 .8 .5	3 D77772 3 D77773 3 D77774	73
3C2744 3C2745 3C2746		0-25 0-50 0-50	7,720 3,250 15,440	3 D7744 3 D7745 3 D7746	.73	3C2775 3C2776 3C2777		0-400 0-20-100 0-15-150	175/30	3 D7775	1
3C2747		0-100	6,500	3 D 7 7 4 7		1.00	_		mmet		
3 C 2748 3 C 2749 3 C 2750 3 C 2751	1.03	0-100 0-150 0-150 0-300	30,888 9,750 46,320 92,640	3 D 7 7 4 8 3 D 7 7 4 9 3 D 7 7 5 0 3 D 7 7 5 1		Stock Number	You	rl S	cale nps.	Stock Number	Pr
3C2752 3C2753 3C2754	2.65	0-500 0-60-300 0-750	154,400 92,640 231,600 850/16,200	3 D 7 7 5 2 3 D 7 7 5 3 3 D 7 7 5 4	2.79 3.38	3D2758 3D2759 3D2760	590	و آما	3	3D7758 3D7759 3D7760	73
3 C 2755 3 C 2756		0-8-160 0-20-60 300-600		3D7756		3 D2761 3 D2762 3 D2763 3 D2764 3 D2764		6-6 10)-1)-3)-6 -0-10 -0-20	3D7761 3D7762 3D7763 3D7764 3D7765	73



For Point-to-Point analysis and "hot" circuit testing of any type radio receiver. Complete in Fabrikold carrying case 111/2"x111/2"x4/2", with all

New Macklyn Testers 😿

New Model 101 New Model 80 Analyzer

Latest model test instrument for locating trouble in radio receiver. Com-bines the advantages of Point-to-Point 'cold' chassis testing with standard voltage and current analysis. Uses selective analysis method. Aceurately measures the voltage between any tube prongs, the current in any D.C. circuit, and the resistance between any circuits supplying the tube tween any circuits supplying the tube sorkets. Uses four sockets, and 8 mairs of pin-jacks with two meters. Measuring ranges are: D.C. Volts, 0-13-130-600, at 1000 ohms per volt and 0-15-150 milliamperes. Resistance 0-500,000 ohms, A.C. volts 0-8-150-750. Capacity chart permits measurements between 0.01 and 5.8 Mfd. An 8 wire cable with a seven prong plug and four adapters are supplied. A top grid connection is located in the side of the plug. plied. A top grid connection cated on the side of the plug.

Tube Tester

True Tube Performance! Tests all tubes in the Radolek Tube Data Charts. Actually determines the merit a tube just as if it were within a radio receiver. Simple and fast for tube testing. A row of pin-jacks connect to all the individual tube socket nect to all the individual tube socket pins. Another row of pin-jacks supply all the Voltages necessary to operate the tube with the correct voltage on each element. A chart gives the proper inter-jack connections for every tube. A filament selector switch provides 15; 2, 29; 3, 3, 5, 3, 75, 14, 25, and 30 volts for all tubes. Automatic later element short cheek and 14, 25, and 30 volts for all tubes, Automatic Inter-element short check and gas check included. Engraved bake-fite panel, Fabrikoid case, 334," meter, sockets for 4, 5, 6, and large and small 7 prong tubes, Voltages of 10, 22, 45, 67, 99, 135, 180 and 250 available for tube tests. Complete instructions included.



E2537—Model 89.5 PRICE

Complete with pin tip insulated plug cords, and A.C. Line cord. We recommend this splendld tube tester because of the accuracy of its tests and because of its fine construction.

READRITE Tuning Meters



Code TM 121



Code TM 101





Code TM 103

For Accurate Visual Tuning Rear illuminat- Front or bottom | Mounting Shad-

Dlal C	'ode	Type ('ode	ow Illum tion C TM	Code	
Stock Number 8E2654 8E2655 8E2656 8E2657	Max. M.A. 5 7 10 15	Stock Number 3E2650 3E2651 3E2652 3E2653	Max, M.A. 5 7 10 15	Stock Number 3E2658 3E2659 3E2660 3E2661	Max. M.A. 5 7 10 15	
Shad	low G	raph Ty	pe:	Stock	Max.	

Code TM121

A solid shadow spreads over the translucent dial. Shadow becomes 3E2667 narrow as resonance is indicated. 3E2668 Complete with 2.5 volt lamp. 3E2669 Escutcheon Prices

Tuning Meter Prices
Choice of above types without Escutcheon.

\$1.50.**88**c PRICE

3E2663—
For TM101-3.
3E2664—For TM108
3E2665—For TM121
JJst Price 30c.
YOUR PRICE Visual Meter Tuning: Combine visible indication of exact station tuning with the andible tone to secure best results with modern radio. A.V.C. sets "hang onto" a station signal over a wider expanse of dial than older types of receivers. Failure to tune exactly is often the cause of other signals blurring and distorting the station you desire. Accurate tuning with a meter assures you of the best adjustment of the tuning dial for resonance with the station you want. Only by precise tuning can you secure the full range of tone a radio is capable of producing. Easy to Sell. Mount a tuning meter in a small box attached with two wires to a pair of pin-tips. Use NaAld 5 or 6 prong "distenling in" adapters listed on page 20 to couple the meter into I.F. stages of receivers with A.V.C. Demonstrate to your customer how easy it is to tune with a "metered" receiver. The standard price most servicemen quote for installation of a tuning meter is \$4.85 for the complete job! You can make these sales and this hand-some profit. Complete instructions furnished.

D'Arsonval Meters BEEDE Beede Meters are equipped with zero adjuster, sapphire bearings, aluminum pointer, printed seale, and black ensured metal cases. Despite the low price of these instruments quality has not been sactified. 15 years experience making meters has fully qualified the Beede Company.

Accurate small instruments intended for panel test assemblies and as foundation units in multi-purpose meters. dation units in multi-purpose meters. perature and where not subjected to severe vibration these meters are as satisfactory for radio service as the most expensive types.

Features: Easy to open in inspection of movement or for special calibration of dial. Ideal for use with rectifier or thermocouple for measurements. For Features: Easy to open for A.C. mensurements. For toost radio service requirements, these meters are as satisfactory as the more expensive precision meters.



Model 701, 3¼" Flush Model 411, 2¼" metal case, 1½" deep, 11¼" deep, 1¼" deep, 2½ Mt

Model 701 0-1 Milliammeter

with eustom-built radio test-iratus, 50 ohns resistance, divisions, 98% accuracy, ing apparatus 50 scale divisions. 98% acc

PRICE

1-0-1 Mil. Galvanometer
For Wheatstone Bridge circuits and
Bridge Balanced Vacuum Tube Voltmeter indicators. Zero position of
pointer in middle of scale. 50
scale divisions.

I E9601-1-0-1 Galvanometer PRICE

0-2000 Ohmmeter

Fills the need for an accurate low range channeter with 1½ volt supply. Reads 190 ohms at half scale position. Excellent for bench test panel.

\$3.24 PRICE

Model 411

1E9603-0-1 Milliammeter, 50 ohms resistance. 50 scale divisions, YOUR PRICE \$2.94 3E9604-0-25 Milliammeter (For checking microphone

button current.) Price.... \$2.20 1E9605-0-150 Milliammeter (P.A. Amplifier plate current indicator.) Price. \$2.20

1E9606—0-5 Volts at 125 ohms per volt. (For checking filament sup-ply of D.C. Tubes.)

YOUR PRICE \$2.20 1E9607-1-0-1 Mil. Galvanometer. (For Wheatstone Bridge Measurements.) ments.)
YOUR PRICE \$2.94

Portable Volt Ohmmeter



Pocket Size 3E2503-YOUR \$2.32 Convenient as

pocket watch. 3" Diameter. 1½" deep with 24" test leads. Range 0-10,000 olms, 0-300 D.C. volts. Self-contained flash light cells.

Resistance Meter

Readrite Model 501

3E2685-YOUR \$1.62



Direct reading voit ohommeter, 0-4½ volts, 0-10,000 ohms. 2" flange type meter. Requires three small flash-light cells which with resistance to be measured are connected in series with the meter. Accuracy within 10% with fresh batteries.

Readrite Selector Switches



Rotating single contact non-shorting selector switches for custom-built analyzers, set testers, etc. Mount in a single 38" hole, 4" threaded bushing. Complete with knob and mounting nut.

3E2672-Triple pole 2 | 3E2673-Double pole

3 tooltions.
3E2674—Double pole
12 positions, twin con-YOUR

3E2670—Double pole 6 positions, twin contacts. 3E2671 - Ningle pole 13 positions, 1 contact in each position.

YOUR PRICE, Each. . 59¢

READRITE Tube Tester

Models 421-422 Emission Type

1E2602 421 Counter type without 1E2602—421 Connect Sp.
1Id and carrying strap.
YOUR PRICE
1E2604—422 Portable type with slip blinged iid and earrying strap.

PRICE \$24.99

Latest Model Readrite Simplified Tube
Seller. Easy to operate, cannot be harmed
by incorrect manipulation. Large
Triplett meter with shaded pink
and green portions which quickly
indentify low emmission tubes,
12 Sockets are employed. Circuit
converts all tubes to simple diodes or triodes for the emmission test. Meter is equipped with a shunt-Meter is equipped with a south selector switch as a range multi-plier. Line voltage control is se-ment through a rheostat in the cured through a rheostat in the primary circuit of the power transprimary elreuit of the power transformer. An A.C. line meter constantly checks the voltage. Cathode-heater shorts, checked white tube 1s hot. Grid shorts and serond plate rectifier tests, made with push buttons. Quarter-sawed oak case, 94 % 10 ½ " counter space, 5" high with cover in place. W 9 1bs. oak case, 9¼"x1 space, 5" high v place. Wt. 9 lbs.

> This tester is recommended for the non-technical dealer selling tubes.

Triumph Signal Generator A New All Wave Oscillator

Generates Fundamental Modulated and Unmodulated Frequencies Between 100 K.C. and 10,000 K.C. Also 350 Cycle Audio Frequency. Electron Coupled. All Electric Four Range Attenuator. Complete Shielding. Filtered A.C. Line. Harmonic Range 10 megcycles to 50 M.C.

Range 10 megcycles to 50 M.C.

Four Tuning Ranges
Four separate tuning coils. Range 1.
produces all I.F. between 100 and
350 K.C. Range 2 covers 1.F. and
Broadcast between 350 and 1080
K.C. Range 3 lies between 1050 and
3250 K.C. Range 4 is for testing
the most advanced type of Short
Wave Receivers between 3200 and
10,000 K.C. Harmonies of this
last range are available as high
as 50,000 cycles giving a total coverage of 6 meters to 3000 meters.

Audio Frequency

erage of 6 meters to sow interests

• Audio Frequency

A fifth position on the frequency selector switch ents out the radio rrequency oscillator and generates a powerful 350 cycle audio note (of Amphither testing, speaker adjusting audio and audi ment, bridge measurements, and audio gain tests.

Pront panel 7"xth\(\frac{1}{2}\)". Depth of case
Front panel 7"xth\(\frac{1}{2}\)". Depth of case
for Black Crackle lacquer finish on
metal. The case forms an electromagnetic shield about the entire unit.
Individual coils are electro-statically shielded.

Electron Coupled

Assuring the greatest stability of calibration and freedom from strays or birdies. The use of the new 77 Pentode tube makes this signal gen-erator the most up-to-date unit of its type.

· All Electric

• All Electric
Operates on 105 to 120 volts 60 cycle
A.C. A 97 acts as a diode rectifier
for "B" voltage. Line circuit is
filtered with twin bypass condensers
preceding the transformer primary.
No signal is radiated through the
A.C. Line.



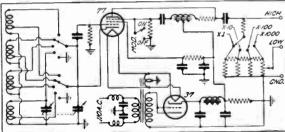
-Complete. \$3 PRICE

· Calibrated Attenuator

And Modulation Control. Ladder type And Modulation Control. Ladder type power output control maintains seniconstant impedance for all output
levels. The relative gain of different
receivers adjusted to the same output
level may be approximated from the
position of the attenuator knobs. The position of the attenuator knobs. The accuracy of these tests Is exceeded only by Signal Generators costing hundreds of dollars. Switch controls modulation circuit, permitting selection of the pure carrier wave for the modulation creative the modulated signal for receiver performance tests. Reversable output jack gives choice of full or attenuated output.

· Profitable

• Prontable
The Triumph Signal Generator will
quickly earn back its cost for the
radio serviceman who employs it on
every service job. The improved tone
of a radio which has been accurately
aligned and balanced with this oscilaligned and balanced with this oscillator will permit maximum service fees and complete customer satisfaction. The feature of having an audiotesting signal will prove of greatest assistance in locating causes of intermittant reception through the audio amplifier portion of a receiver.



A.C. D.C. Type—With Beede 1 Milli. D.C. Movement and Copper Oxide Rectifier



\$694

Consists of a Standard 3½" Beede d'Arsonval nucter with matched individually calibrated copper-oxide rectifier, and a special
"foundation" style scale. D.C. meter requires 1 M.A. for full scale deflection. 50
ohms internal resistance. Separate D.C.
binding posts on the rear. A.C. circuit
produces full scale deflection with 1 M.A. 5
volts A.C. will cause full scale deflection. The
special scale is printed with 20 divisions
of 20 divisions each for the A.C. range, matked 0-100 and 0-5. The upper scale is calibrated in ohms for use with a 3 to 4½ volt
battery intended to check resistance to 100,000
ohms.

RCA Victor Midget Phono Motor and Electric Pickup

For Portable Combination Radio Phonographs

May be used for demonstrating amplifiers and testing audio stages of radio receivers.

May be used for demonstrating amplifiers and testing audio stages of radio receivers.

May be used for demonstrating amplifiers and testing audio stages of radio receivers.

Synchronous Motor requiring manual starting. Regular 78 R.P.M. on 105 to 120 volt 60 eveles. Electric Pickun has 634" tone arm.



176kup has 6%" tone arin, 2500 ohms impedance. For 10" records. This assembly fits the Radolek Walnut case on page 35, 3E2962—RCA Motor, YOUR \$4.70 PRICE 3E2963-RCA Pickup PRICE

3E2964-Assembly Hardware PRICE

Radolek-Hickok

Giant Precision Volt-Ohm Foundation

Meter Built by Hickok
The Front is 8 % Inches Diameter

Mr. Serviceman: Build test panel around this it is one of the finest, Mr. Serviceman: Build your lest panel around this meter. It is one of the finest, most accurate meters made. Replaces the five most popular meters employed in service work. In the one large, easy reading meter the following ranges are obtainable at 1000 ohms per volt, 0 to 100 volts, 0 Build VOLLE

OFIMA

HIGHA

OHMS-

REAR VIEW TOP +1000 +1000V EXTERNAL RES O +4\$ VBATT HOVO



This meter can also be used in circuit diagrams number 1A, 1B and 6B shown on page 36. In these circuits, additional voltage ranges and millianthere ranges may be provided by using shunts and resistors specified.

Specifications: Front of Panel Type. Front Rim of Black Bakellte, diameter 85%". Base diameter 9½". Side and base of steel in black enamel fin 1s h. Depth 3¾ inches. Six completely threaded connecting bolts of diameter ¼ inch, project 2 in c he s beyond base. Double strength glass crystal. Matte white bristol board mirror backed scale with hand calibrated characters in clear contrasting black. Front zero adjuster. K nife eige pointer 415 inches long. Resistors shown in Diagram below are built in and included except external 900,000 ohm resistor, which is not included. No hatterles, switch or potentionieter included. 102501—Giant Precision Volt-Ohm Meter.
List Price \$60.00.

J.	YOUR \$3750	
+10	REAR VIEW TUP 300MA DOV- EXTERNAL RES -+100K	
OHA SCAL 4 & V.	55000 30MA Q +10V	
Ţ.		

Westinghouse Precision Meters

+10V +100V + 1000V



Flange 244", 24th mounting hole. Moldarta case. Mounts flush with clamp from rear. Specially designed for Photo-electric cells, Piezo cially design

Cobalt Magnet 2" Type MX A.C. Meters Scale Resistance 1E9883 0-100 Milliamperes Thermocouple \$12.37 1E9884 0-250 Milliamperes Thermocouple 12.37 1E9885 0-0.5 Milliamperes Rectox (A.F.) 13.31 1E9886 0-1 Milliamperes Rectox (A.F.) 10.15

Tungsten and Cobalt Magnet D.C. Meters



Universal A.C.-D.C. Rectox

Foundation Meter. 3½" Flance Size. Moldarta
case Knife Edge Pointer. 100 ohms resistance
in the D.C. circuit. 5000 ohms in A.C. circuit.
D.C. scale has 20 divisions calibrated 0 to 100.
Middle A.C. Scale has a double set of graduations for low and high A.C. ranges. Upper
scale is marked in abbreviated values of ohms.
External resistors are required above 1 Ma. D.C.
and above 5 volts A.C.

IE9880—
\$14.25

_\$14.2**5** YOUR PRICE

Westinghouse 3½" Type NX 3½" flange, mounts in 2¾" hole. Mol (A special form of bakelite) case. Acc Moldarta within 2% For D. C. or Rectified A. C. Scale Resistance

1E9891 0-1 Milliampere 110 ohms 5 7.50 1E9892 0-100 Microamperes 71 ohms 15.75 1E9893 90 Volt Ohnmeter 9 megohn 11.25



MODEL 661 TUBE CHECKER

Ultra Modern Design

ID9432-List Price \$50.00. \$36.75

ID9433—Less Carrying Case.
List Price, \$45.00,
DEALERS PRICE\$33.07

DEALERS PRICE \$33.07

Tests all 4, 5, 6 and 7 (large or small) prong filament and heater type tubes listed in Radolek's official tube data sheets. Easily learned system of operation. No memory work or compileated reference charts are necessary. Has line voltage regulator and filament voltage selector. Meter is a model 301 type with a 60 division scale indicates in direct reacting comparative rating of tube. Accurate and reliable. Protective metal housing. Unit supplied in individual leatherette covered carrying case. Case size 8 wixels inches. Power line cord. Matches other 660 series on this page. Employs zero reset grid shift system of mutual conductance measurement. Shipping weight, 7 lbs.



MODEL 663 VOLT-OHMMETER

1D9436-List \$65.00. DEALERS COST \$47.77 1 D9437—Less Carrying Case. List Price \$60.00. DEALERS COST\$44.10

Provides the videst range of resistance readings ever afforded by an ohmmeter: 0.1 ohm to 10 merohms. This wide range made possible through use of an especially sensitive 60 micrompere instrument and selector switch. Energy for Ohmmeter supplied by self-contained battery of 15 volt mounted in back of case. Adjustment provided to compensate battery variations. Available ranges: 0-5-250-25.00-25.000-250.000 ohms center scale; 0-200-1.000-10.000-100.000-10.000 ohms full scale; 0-25-510-100-250-500-1.000 ohms self-scale; 0-200-1.000 ohms per volt; 0-1-5-25-100 milliamperes full scale. An ideal instrument for resistance analysis and point to point testing. Complete with leatherette case, battery and accessories.



Model 665 Type 1 Selective ANALYZER

1E9442—List, \$70.00 less case.

\$51.45 PRICE
Consists of a multi-range A.C.-D.C. Volt-Ohm-Output-Millianmeter with a twenty-four point range selection switch. A.C. and D.C. Volts. 1000. 500, 250, 100, 50, 25, 10, 5, 25, and 1 at 1000 ohms per volt. D.C. Milliampere ranges 500. 250, 100, 50, 25, and 1 milliampere. Four resistance ranges accurately measuring all values between 1 and 1.000.000 ohms. The Model 665 is designed primarily to be used with the Type 1-A Socket Selector described below for point-to-point and straight analytical radio testing. The A.C. portion consisting of a Weston full wave copper oxide type bridge rectifier and compensated circuit is suitable for all output voltage measurements. measurements

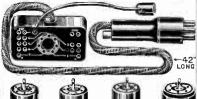
measurements. Self locking push-buttons control the choice of the A.C. or D.C. circuit. An ohmmeter adjusting rheostat compensates for 20% deterioration of the battery supply. Panel size 5½ "x8¼". Depth of case 3", made of pressed steel, attractively finished in black. That leads included. Leatherette case supplied scharate, at \$5,00 extra.

Model 665 Type 2 Selective ANALYZER



Consists of the same mere and ranges as Type 1, but uses piniacks in stead of the Selector Switch, to choose the current, voltage or resistance range desired. Each pin-jack plainly marked. Especially designed to be used with the Weston Socket Selector Type 1A. Panel size 5½ "XS%".

Depth 2". Pressed steel black finished container matches the other units on this page. Test leads included. A leatherette carrying case may be purchased separately for \$5.00.





Weston Model 666-1A SOCKET SELECTOR

A device to permit individual circuit measurements through the tube sockets of a radio receiver with Models 663, 661, or either type of the 665 meters. Models 663, 661, or either type of the 665 meters. The Socket Selector consists of a rectangular bake-lite box equilipped with two pins spaced to fit the jacks located immediately above the meter in the four models of test apparatus mentioned. The top of the box contains a seven prong socket and a number of pin jacks by which measurements may be made between the seven prongs or in series with the circuit of six connections to the tube under test. An 8 wire cable connects the box to a small seven prong plug which may be inserted in a receiver under test. Four double adapters are provided to permit tests of 4, 5, 6, and large 7 prong tubes.

#E9444-Weston 666-1A Socket Scienter. List, \$15.00.



MODEL 694 **NEW OSCILLATOR**

1.5st \$60.00 ID9434-DEALERS PRICE \$44.10

DEALERS PRICE

A standardized unit with four bands having fon-damental range of 100 to 3,000 K.C. and ranges up to 6,000 K.C. and higher available on harmonics. Allows for peaking I.F. stages for greatest sensitivity or for "flat topidng" for maximum quality in all modern Superheterodynes. Also provide. for correct adjustment of condenser gang of T.R.F. Sets as well as R.F. stages of Superheterodynes. For these purposes a smoothly modulated. The provided in intensity and frequency is produced. The frequency ranges are divided in astimum to extreme flow antinum in each band. Has flament rheestat to control voltage for its 32 tube. Perfect shielding insures complete control over signal. Fitted with durable leatherette rovered case, necessary accessories, battery and type '32 tube.



MODEL 664 CAPACITY METER

For Electrolytic or Paper Cendensers.

For Electrolytic or Paper Cendensers.

Covers a wide range of all types of capacity and A.C. voltage measurements. Indicates Microfarads: 10-200, 1-20, 1-2, 001-2, 0001-02; volts 4-8-10-400-800 A.C., 1,000 ohms per volts. An instrument that will never become obsolete. Operated much the same as a volt-ohmmeter. Power supply is from a self-contained transformer operating from any 105-130 volt 60 cycle line through a voltage adjustor. Indicates short circuited and open condensers as well as measuring capacities of those in good condition. In an individual carrying case, leather-tie covered. Size 88, vivil 4 in. Shipped complete with test leads and full instructions for operation. operation.

WESTON PANEL METERS

Weston Instruments Are Standard
"Is It as good as a Weston?" Weston Instruments are the established standards of comparison.
They are made by the combined Weston and Jewell
companies with the benefit of their experience of
over 30 years of meter manufacturing behind each
instrument. So exact is the construction of Weston Instruments that any two meters of the same
type—even though made years apart—are identical
electrically and mechanically. You can depend on
Weston meters.

Every Meter You Need In Radio Service Radolek carries a complete assortment of Weston Meters in the Models 301, 506, 517, 425, 476, and 600, ready for innaediate shipment. Only the most popular Weston Instruments are listed here. You may depend upon prompt shipment and the lowest wholesale prices when you order your complete Weston testing equipment from Radolek, Weston meters may be employed in all special circuits prepared by Radolek for "Build It Yourself Kits"

Weston Meters Have Superior Features Weston Meters Have Superior Features "Position Balance"—Threaded counterwights exactly halance the movement to read the same in horizontal, 45°, or vertical position. "Non-Fatigue Springs"—The sensitivity controlled partly by spring tension remains constant in a Weston Meter. Accurate at any temperature. "Jewelled Bearings"—Tool steel pivot points in diamond cut sapphire Jewell bearings permit Weston meters to withstand terrifle vibration.

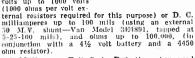
Volt-Ohm-Milliampere Foundation Meter

Weston Model 301 —For Custom Built Testers

309409. List Price, \$10.00. YOUR PRICE

\$7.35

Designed expressly for with ith external reeistore. up a multi-range build D. C. meter to read volts up to 1000 volts



1 Milliampere Full Scale Deflection when used without external resistors or shunts. Internal resistance of meter, 50 ohms (50 Millivolts).

Habelito case, zero adjuster, etched metal dial with black figures on silver background. 50 scale divisions with figures at each 10 divisions. Figures at full scale are 50-250-1000, for use on roll ranges. Divide by 10 for use on milliamper ranges. Top oim scale graduated in 100 oim steps to 20,000, 500 ohm steps to 10,000, 1000 ohm steps to 20,000, 500 ohm steps to 60,000, the next to 20,000, 5000 ohm steps to 10,000, 10 divisions being 100,000 and infinity.

Black bakelite ease has front flange 3%" diameter. Case body diameter 2%". Case depth back of flange, 1", with serews 1%". Only two binding posts with proper polarity marking.

osts with proper polarity marking.

Mr. Serviceman: Build your own analyzer or est panel with this precision multi-range foundation meter. Using the proper resistors and funts additional ranges may be added for greater exibility and adaptation to your particular test shunts auditexibility an irements.

Weston Model 301 DC



31/4 Inch Case A high grade matched line of meters to cover a wide of meters to cover a wide variety of electrical measure-ment requirements. Stand-ard throughout the world in the Radio and Electrical In-dustries. Excellent for gen-eral Radio use. Supplied in flush or surface type and in metal or bakelite cases, all Flush type metal case sent

at the same prices unless otherwise specified.

Universal A. C.—D. C. Foundation



0-1 Milliampere Meter 3D2532 List Price \$19.00. YOUR \$12

YOUR \$13.97

PRICE Designed particularly for use with external resistors and shunts, to build up full-transport for use with external resistors and shunts, to build up full-transport for read A. C. volts up to 1,000 volts; D. C. milliamps up to 500 mills, and ohms up to 100,000 ohms.

Scale Defiction when used without External Resistors or Shunts.

D. C. Total Meter Resistance (with attached shunt in circuit) 500 ohms. A. C. Total Meter Resistance (with self contained rectifier in circuit) 5,000 ohms.

Bakelite Case. Knife Edge Pointer Resistance for the contained rectifier in circuit) 5,000 ohms. \$13.97

Bakelite Case. Knife Edge Pointer. Front Zera Adjuster. Etched metal dial—with black figures on silver background. Three sets of scale readings. Lower D. C. Scale with 50 divisions having figures at each 10th division. This scale is for D. C. Wolts (when external shunts are used) at 1000 ohms per volt. Middle A. C. Scale with triple set of graduations having figures at each indicated 10th division. For A. C. voltage readings of 5 roits (1,000 ohms per volt, without external resistors); 10 volts; 50 volts and upward. Practically any voltage reading desired up to 1000 volts can be handled with the use of proper value external resistors. resistors

resistors.

Top ohm Scale for reading ohms 0 to 100,000. This arrangement requires in circuit, a 9 voit battery and 8,950 ohm resistor.

Dull black finish bakelite case, with front lange 3%" diameter. Case body diameter 2%". Case depth, back of lange 1" overall with serews 14". Four binding post connections, 2 for A. C., 2 for b. C. Externally mounted shunt provided for connecting in when D. C.



Model 301 D. C. Microammeters

Article Number 3E9363 3E9364 for use in	Range Microamps. 200† 500† horizontal or	Ohtos Res. 55 55 450	List Price \$14.25 \$11.25 position.	9000 Price \$10.48 \$10.48
			204 1	4:0

Weston AC Model 301 Rectifler Milliammeters

Article Number	Milli-	Ohms Res.	List Price	Your Price
3E9379 3E9380	0.5	2000 2000	\$19,25 \$15,00	\$14.15
363300	-			

Weston Model 301 D.C. 1000 ohm per Volt-Ohmmeters

Stock Number 3E9420 3E9422 3E9400 3E9401	Volts -1.5 -4.5 -4.5 -1590	Ohm Scale 0-1,000 { 0-10,000 } 0-100,000 0-500,000 0-2,000,000	YOUR PRICE \$7.72 9.92 9.92
3E9424	90.	0-2,000,000	11.02
363424			

Weston Model 506 D.C.



309210

List Price, \$8.50.

2 Inch Cases 1½" deep
Miniature flush type panel instruments with characteristics simillar to the larger Weston 3½ Inch
line. Supplied with wide or narrow flange metal cases or wide
flange bakelite cases. Narrow
flange metal cases sent unless
otherwise specified.

Model 506 D.C. Milliammeters

Article	Milli-	Approx.	Article		Approx.
Number	amps.	Resist.	Number	amps.	Resist
3C9214	5	8.5	3C9219	100	.5
3C9215	10	3.2	3 C9220	150	.37
3C9216	1š	1.5	3C9221	200	.25
3C9218	50	ī	3C9222	300	.16
303210	••	-	3C9223	500	.1
List Pric	e, \$7.50			Ċ.	5.51
VOUR F				? :	J•J•

YOUR PRICE \$6.27 Permanent magnet, moving coil type. Accurate within 2%

3C9211

1.5

19

3C9169

Price

Model 506 Voltmeters

Approximate resistance: 3 to 150 volts, 125 ohms per volt; 200 volts, 200 ohms per volt. Dimensions; nody diameter 2 %"; overall 2 %". Scale Article Article

3C9183	3	30	3 C9187	10	20
3C9184	5	25	3C91F8	15	30
3C9186	8	40	3C9189	50	25
List Price	. \$7.50.			0	5.51
YOUR P	RICE			.	フ・フェ
Article			Scale	List	Your
Number	Volts	1	Division	Price	Price
3E9190	100	_	20	\$8.50	\$6.24
3 F. S 191	150		30	9.75	7.16
7E9192	200		40	11.50	8.35

Weston Model 517 A. C. Voltmeter 150 Volt; 15,750 ohms total resistance. Approximate 10 mils, full scale, 2" diam. 214" deep. 3E9245—List, \$9.75. 3E9245—List, \$9.75. YOUR PRICE \$7.16

Model 476 A. C. Instruments

Movable iron type. Accurate within 2%. Dimensions—bakelite case; body diameter 234"; overall diameter to outside of flange 33%"—Metal case; flange 33%"—Metal case; body diameter, 2; overall diameter 34".

Model 476 Weston repulsion from vane instruments

are not to be employed on frequencies exceeding 200 cycles. When used on D.C. reverse polarity to observe average deflection of indicator.

Model 476 A.C. Voltmeters

		Approx. Res.			Approx. Res.
Article	Range	Ohm s	Artiele	Range	Ohm#
Number	Volts	Per Volt	Number	Volts	Per Volt
3C9141	1.5	3	3C9147	15	14
3C9142	2	4	3C9148	20	26.3
3C9143	3	6	3C9150	30	26.3
3C9144	5	10	3C9151	50	52
3C9145	Ř	10.5	3C9152	100	105
3C9146	10	14			
	ee, \$9.0	ю.		Ċ	661
VALID	PRICE			0	10.01

3E9153 Range 0-150 volts; Resistance ohms per volt. List Price, \$11.25. 105 \$8.27

A. C. Milliammeters—Ammeters

Article Number 3C9176 3C9177 3C9178 1.lst l'rh YOUR	Milli- amp. 15 25 50 ce, \$9.00.	Approx. Resist. 2000 690 175	Article Number 3C9179 3C9180 3C9181	Milli- amps. 100 250 500	Approx. Resist. 28 4.7 1.1 6.61
Article Number 3C9166 3C9167	Amps. 1 1.5	Approx. Resist. .2030 .082	Article Number 3C9170 3C9171	Amps. 5 10	Approx. Resist010 .0058

3C9173

.00162

\$6.61



Weston Model 425 -Galvanometer

Thermocouple Galvanometer for use on A.C. current only. Very efficient high grade instrument—may be used on any frequency without impairing its accuracy. Approximate weight 6 ounces.

Accuracy: Within two scale dimensions, peres. 5.2 ohms. List Price, \$18.00. Milliamperes. YOUR \$13.23

Weston Model 425—Milliammeters

Article Number	Milli- amps.	Safe Carryit Capacity	Res. Ohns
309396 309397 309398	250 500	600 100 0	2.52 1.18
Article Number 3C9396 3C9397 3C9398 List Price, \$18.00 YOUR PRICE.	Each	\$	13.23



Weston Model 600 **High Sensitivity** Instruments

Most sensitive line of rugged anian instruments made. Similar in appearance to Model 301. Flange dlam, 3.5". Body diam, 2.8". Accuracy 2% on D.C., 5% with rectifier on A.C. Bakelite Case. small instruments made. Similar

	D. C.	Micro-	amperes	
Stock Number	Range	Res.	list Price	Net Price
3E9410 3E9411 3E9412 3E9413	30 50 75 100	2000 2000 1750 1300	\$26.00 23.50 23.50 21.00	\$19.11 17.30 17.30 15,43
Stock	A. C. A	Micro-e Res. Ohms	Imperes List Price	Net Price

2500 2300

Volta

.024

YOUR PRICE

\$9.00.

SUPREME

Price and Terms

B Model 333 Complete with Leads 1E2556-Supreme and operating Instructions

Dealers' net cash wholesale price Time Payment Terms: \$15.00 down, five monthly payments of \$5.65 each. Write for contract.

Resistance Ranges Provided

Resistance Ranges Provided
Resistance measurements between any points in a
tube circuit! Measure any resistance up to 0.1
megohin on one of the three resistance scales which
operate from the self contained a battery.
The range can be increased ten times,—to a million
ohins,—with the addition of an external 45 voit
buttery. The self contained battery performs a dual
function. In addition to energizing the ohimmeter,
it may be quickly connected into the control grid
circuit for mutual conductance tests. The advantage
of making resistance and mutual conductance tests
appeals to experienced servicemen.

MODEL NEW

EW SUPREME

ANALYZER

Build your reputation with Supreme. The new Model 333 will simplify and speed up your service work. The fine appearance of the 333 identifies you as a professional serviceman. Know the pleasure of working with a precision

Make More Money Servicing With This New Instrument

instrument. The publicity resulting from the excellent work you can do with the 333 will win you many new customers. Order your Model 333 Supreme now! Advertise that you own the best testing equipment available.

Measure Resistance Over 4 Resistance Ranges:—0 to 1000, to 10,000, to 10,000, on the Current

Check Current Six milliampere ranges:—0 to 5, to 25, to 125, to 125, to 250, to 500, to 1250 Ma. Determine Voltage Six D.C. volt ranges:—0 to 5, to 25, to 125, to 250, to 500, to 1250 V.

Quick Point to Point Tests
The Supreme 333 Analyzer makes point to
point testing easy. Resistance, voltage and
current analysis can be made through the current analysis can be made through the 8 wire analyzer cable plugged into any radio tube socket. Supreme plu jacks on the Analyzer panel permit use of headphones, loudspeakers, or microphones in the circuit under test without removing the radio chassis from its cabinet. Tube testing is accomplished with a grid-shift battery and plate current reading.

Over 3 Capacity ranges:—0.0025 to 0.125; 0.025 to 1.25; 0.25 to 12.5 Mtd.

Fine Precision Meter

Full Size d'Arsonvai 3½" meter with a compensated crystalline rectifier for A.C. measurements. Both A.C. and D.C. readings appear on the same uniformly divided scale. (A patented Supreme feature.) A capacity block prevents D.C. from recording on the A.C. circuit. The high resistance and lack of a rectifier in the D.C. circuit prevents A.C. from registering through D.C. pin jacks. Capacity measurements appear on the uniformly divided scale. Output tests made direct.

Measure Any Voltage

Measure Any Voltage

Up to 1250 volts A.C. or D.C. between any two
points in any radio circuit! Four sockets take care
of all standard 4, 5, 6, and large or small 7 prong
tubes. All the socket terminals and the top-cap
connection are wired through an 8 wire analyzer
cable. For making current measurement tests, push
buttons are provided on the panel to open any
circuit (except the filament) and permit the pinjacks above the button to be connected to the mitliammeter circuit. Short leads are provided for
this purpose, and to couple the meter range tip
jacks to permit analytical tests.

Perpetual Tester

Perpetual Tester

No matter what circuit changes are made, the Supreme Model 333 remains up to date. All the meter ranges are fundamental and independent of the analytical portion of the tester. The Supreme 333 will serve your needs for years to come. Measures capacity between 0.0025 and 12.5 Mfd. The 60 cycle A.C. supply is used with the capacity measurements. All voltage, current, and capacity, readings appear on one simple scale—no zigzag or offset A.C. scales to confuse the eye. This coordination of the A.C. and D.C. scale is a patented Supreme feature.

SUPREME MODEL 5-UNIT RADIO TESTER



The Model 441 incorporates new FREE REFER-ENCE POINT SYSTEM OF ANALYSIS with all circuits of radio tube sockets extended through Analyzer cable to four moulded sockets and to convenient terminals to which any range of the meter may be applied for current, voltage, and resistance measurements.

The ANALYZER CIRCUITS of the Model 441 are virtually a duplicate of those described under the Model 333 Analyzer: Same voltage, current, resistance, and capacity ranges. (See Table above). Also the same system of analyzing is used.

The TUBE TESTING functions employ a combination of the features of the Models 45 and 55 Tube Testers. A Gas Test is provided by inserting a high resistance in the circuit so that gas current will cause a change in plate current which can readily be observed on the plate millimmeter. Provision is also made for testing individually the elements of new type tubes having more than one tube in a single envelope, such as the type 55, 286 t.c. A Short Cheeker of advanced design is included. is included.

Combines in one instrument the features of Analyzer, Tube Tester. Deciliator, Ohmmeter, and Capacity Checker. If you will add up the cost of the Model 333 Analyzer, a Model 45 Tube Tester and a Model 60 Oscillator you will find that this combination instrument, (which includes these 3 units), offers a saving in first cost and, in addition, is much more convenient to carry on the job than three separate instruments—all of which are needed on service calls.

IE2564 SUPREME MODEL 444 Five Unit Radio Tester. Dealers'

TIME PAYMENT TERMS:—\$30.00
Down and Five Monthly Payments -\$30.00 of \$13.65 Each.

Improved Oscillator

Improved Oscillator
The OSCILLATOR CIRCUITS of the Model 444
are tuned by a tap switch arrangement so that
calibration charts are not required, the frequency
values being marked on the panel. Eleven fundamental frequencles between 130 and 1875 kilocycles are provided with a tuning signal in each
of the 20, 40, and 80 meter short-wave bands.
Oscillator may be operated with either 110 Volt
A.C. or D.C. power supply, and is completely
shielded with a variable output attenuator. When
operated with A.C. power supply 100% modulation
is automatically provided.

operated with A.C. power supply 100% modulation is automatically provided.
All of the controls and parts of this tester are symmetrically arranged on a bakelite panel which is mounted in a beautifully finished hardwood carrying case, size 291% long x 111% wide x 63% deep, with detachable cover. A commolious compartment is provided for the accessories which as company the Tester. Operating instructions furn-

Supreme Model 35 Tube Tester



1E2565-Supreme Model 35 Tube Tester

YOUR

-\$10.00 down

TIME PAYMENT TERMS:and 5 monthly payments of \$4.60.

The latest Supreme achievement. A low priced, easy operated, tube tester built on the same general circuit design of the Model 85 and differing only in physical appearance and in not having the short checker employed in the 85. Four sockets, three simple operations, and you accurately test all the standard tubes.

all the standard tubes.

No mathematical computations to determine tube quality necessary—Three color zones on the meter dial indicate GOOD, DOUBTFUL, or BAD, where your customer can plainly see the result of the tests. It is impossible to harm the instrument by incorrect.

tests, It is impossible to harm the instrument by incorrect operation.

Tapped Primary Power Transformer. Steady voltage regardless of the power drain of the tube under test is possible with the tapped primary voltage regulation. Ten taps ranging from 95 to 125 volts assures you of always getting the same test indication on a given tube. A self contained 201A tube acts as a linear rectifier for the 3½ "d'Arsonval D.C. meter when the A.C. Line test button is pushed.

The instrument panel is genuine bakelite with silver lettering. A sturdy white oak quarter-sawed natural finished case size 11" long x 93" wide x 54" high makes the Model 35 an impressive and confidence inspiring tube tester,

Easy Terms

You may use a "Supreme" Instrument while you are paying for it, if you wish— They are available on Time Payments to responsible Dealers and Servicemen. you wish to purchase one of these write us for time payment contracts and application blanks. Fill them out and return them to us with the down payment as shown in this catalog. However we wish to point out that you make a substantial saving when buying for cash.

Free Trial

You can try any Supreme Instrument at no risk. Send us your order. If you are not thoroughly pleased with its per-formance return the instrument to us in formance return the instrument to us in its original good condition within five days after you received it and if you desire, your money will be cheerfully and promptly refunded. No greater recommendation for this line of fine instruments can be given—We know that once you have had the opportunity to use one, you will not went to not with its you will not want to part with it.

STRUMEI 45 Tube Tester

Can you test ALL the new tubes? Can you Can you test ALL the new tubes? Can you test the more common types such as 24s, 27s, 45s, etc. and really determine the difference between a "good" tube and one that is only "Fair"? If you are not equipped to do this, think how many sales you are losting and how much money is slipping away from you just because you are not showing your customers that new tubes are needed, eventhough those in the set still play.

Simplified Modern Tester

The Supreme Model 45 is a Tube Tester for the Radio Serviceman. It employs the point-to-point method of making circuit connections similiar to those utilized in the new Supreme Analyzers. Each element in the tube is connected to the contact arm of an individual selector switch so that the proper circuit connections can be made to each element REGARDLESS OF 1TS TER-MINAL CONNECTIONS AT THE TUBE-BASE OR TOP-CAP. . . a 100% obsolescence-proof Tester for all tubes using seven prongs or less.

All socket holes are numbered in accordance with R.M.A. standards. There is a rotary switch for each of these socket terminals bearing a corresponding number. The contact arm of this switch is directly connected to the socket terminal hasing the same number. By rotating the contact arm of the switch, the tube element located at the particular number corresponding to the switch can be connected to any part of the element at the has a plate, for example, where the cathode is usually located, the plate element at the cathod coation can be connected to a suitable plate voltage instead of to the B minus position in the circuit to which the cathode is ordinarily connected. A COMPLETE CHANGE IN THE LOCATION OF THE TUBE ELEMENTS MAKES NO DIFFERENCE TO THE SUPREME MODEL 45.

PREME MODEL 45.
Has a highly insulated bakelite panel heautifully lettered in silver. The entire assembly is enclosed in a handsome quartered white oak carrying case which includes a compartment in the back for the line voltage cord and other accessories. Size II' L x 9½" W x 5" high. A chart showing the switch settings and tube readings for all the tubes on the market today is placed on the inside of the cover. As new tubes are announced new charts will be supplied.



1E:2563-Supreme Model 45 Portable Type Tube Tester.
DEALERS NET CASH PRICE

Time payment terms: \$10.00 down, Five monthly payments of \$4.49 each. Write for time payment contract



Supreme Model 85 Tube Tester

1E2555-Supreme Model 85 Tube

Tester \$39.15

YOUR PRICE

Time Payment Terms—\$15.00

Down and Five Monthly Payments
of \$5.85 Each

A tube tester that sells tubes! d'Arsonval 3½"
meter shows tubes to be either Good or Bad. Neon
Lamp short and leakage indicator for all tube elements. Only three simple operations to test a
tube. Only four sockets. Emission type test. Tapped transformer type line adjustment, for 98 to
125 Volt 60 cycle service. Supplied in a quarter
sawed oak carrying case. Tests all tubes listed in
the Radolek Tube Chart.



YOUR PRICE

Covers 100 K.C. to 4 Megacycies. Uses fundamental and harmonic signals. Precision type tuning dial laboratory calibrated. 100% modulation at frequency of A.C. line supply. Fixed attenuation assures positive frequency stability and full output at all times. Completely shielded with aluminm. Housed in a hardwood case with a bakelite panel attractively marked. Portable, with leather strap. Power supply is isolated from the A.C. line with a transformer, permitting direct connection of the oscillator to A.C.-D.C. sets without danger of shorting. Supplied with a type 31 tube, and a shielded antenna-ground cable. For use with 110-120 voit 60 cycle, A.C. A hand calibrated chart is supplied with each oscillator.

New SUPREME STANDARD DIAGNOMETER

The Finest Test Instrument You Could Desire

Dominant Features

Point to Point Analysis GOOD-BAD Tube Test Line Voltage Regulator Test Dial

Line Voltage Regulator Mutual Conductance Te Protected Tube Meter Adapters Not Necessary For 1½ to 30 Fil. V Tube Short Checker Modulated Oscillator Completely Shielded Stabilized Circuit

Volta

10. Completely Shielded
11. Stabilized Circuit
12. No Frequency Drift
13. Capactor Leakage Tests
14. No D.C. Register on A.C.
15. No A.C. Register on D.C.
16. d'Arsonval 315" Meters
17. Simplified Tube Tester
18. Oversize Transformer
19. Analyzer Ground Circuit
20. Plexible For Future Use
21. Ohm Battery Compensator
22. Uniform A.C. Scale
23. Complete Instructions
24. Capacity Measurements
Triple Range 0.0025—0.125, 0.025—1.25, 0.25—124 Mfd. Capacity.
25. Triple Range Ohmmeter, with Self Contained
Batteries, Range 0.1000-10000—100,040 ohms
26. Six A.C. Voltage Ranges: 0.5-25-125-250-5001250 volts. (Also for Output Tests.)
27. Six D.C. Voltage Ranges: 0.5-25-125-250-5001250 volts.
28. Six D.C. Milliampere Ranges: 0.5-25-125-250500-1250, Mils.

The Supreme Multimeter is an exclusive patented

The Supreme Multimeter is an exclusive patented feature with all A.C. and D.C. readings on the same uniform scale.

The Precision Calibrated Oscillator provides Fundamentals over the lower frequency ranges and powerful harmonies over the high frequency ranges, 60 cycle modulation, perfect attenuation at any volume level. Complete with all instructions.



(O. O.

1E2566—Supreme Standard Diagnometer, for 110 A.C. Dealers Net Wholesale PRICE

PRICE
The New Supreme Standard Diagnometer designed especially for the professional radio serviceman—it is the most complete piece of testing equipment offered under \$100. It combines in one instrument, a complete Analyzer, Tube Tester, Oscillator, Ohmmeter, Mexohommeter, Output meter,

ment offered under \$100. It combines in one instrument, a complete Analyzer, Tube Tester, Oscillator, Ohnmeter, Megohmmeter, Output meter, Voltmeter, Milliameter and Canacity Checker. With it Point-to-Foint, direct analysis or overall performance test may be made, in addition to testing tubes for quality and internal shorts, up to 90,000 ohms. Case size 18%" L. x 11¼" W. x 6%" High.

SUPREME Precision Multiwave Signal Generator Model 180

Portable Oscillator, Electron Coupled. Battery (self-contained) operated.

Accurate Modern Test Instrument for Precision Radio Service.

10 Superior Features

Circuit. Electron coupled circuit with seven sets of coils with seven fundamental ranges.

Carrier Frequency Range of 90 K.C. to 22 Megacycles.

Modulation. Separate modulator stage that modulates the carrier frequency approximately 50% at 400 cycles.

Frequency Calibration. Each Signal Generator is individually calibrated at all frequencies with a guaranteed accuracy of ½ of 1%.

curacy of ½ of 1%.
Stability. The calibration of the Signal Generator is independent of moderate variations of plate potential and external loads.

Double Peaks. No misleading double peaks, this is accomplished by proper design of inducand amount of feed-back.

Tubes. Two tubes, one type '32 utilized as an oscillator and one type '30 as a modulator.

Supply. Four Power batteries are required, two 4½ voit filament batteries and two 22½ volt "B" batteries.

Power Consumption. A total power consumption of 0.315 watts, insures long battery life.

Stray Fields. The Sig-mal Generator and pow-er supply are complete-ly shielded, eliminating stray fields.



Size 19 lbs. 113% "x814" x55% 1%"x81/2"x55%". Shpg. wt . Beautiful Oak Cabinet. Bakelite Panel clearly engraved.

1E2550-Model 180, with tubes and batteries. YOUR

PRICE Write for time payment price

Improved Model RCA Oscillator



Lower Price Extended Range

Type TMV-97-B, Range 90 to 25,000 K.C.

NET PRICE

Less Batteries

A Full Range Test Oscillator!

Specifications

A plate modulated tuned grid circuit using two type 30 tubes is employed. The A.F. modulator tube produces a 400 eyele note, modulating the R.F. oscillator 50°2. Two binding posts are employed for the output circuit which is attenuated by a smooth control of the potentiometer type. But teries required are: 1 22½ volt "B" battery and 1 standard size 4½ volt "C" battery which provides current for the two type 30 tubes in series further oscillator and battery equipment enclosed in a black finished aluminum case provided with a leather earrying handle. Weight only 5 lbs. Including batteries. Size of base, 100 tubes 1 Specifications atuminum case provided with a leather carrying handle. Weight only 5 lbs. including batterles. Size of base, 9%" wide, 4½" deep and heighth overall 8½".

VSCIIIator:

Produces 8 fundamental frequency ranges as follows: 90 to 150 K.C.—
150 to 330 K.C.—330 to 720 K.C.—
-20 to 1400 K.C.—1460 to 3050 K.C.—3050 to 7100 K.C.—7400 to 14300 K.C.—1460 to 25000 K.C.
Range selector switch is located on the front panel and plainly marked.
Variable range tuning dial is an adjustable vernier type callbrated in frequency to an accuracy of 3% plus or minus. No special charts required.

IE2505-With tubes. less hat teries.
YOUR PRICE \$29.50 1E2506-Complete with hat-YOUR PRICE \$30.71

Philco Signal Generator

Portable Model 024

Complete with Batteries and Type 30 Philco Tube

YOUR PRICE.....

\$17

For Intermediate and Broadcast Frequencies 110 K.C. to 2000 K.C. Convenient Size

Convenient Size

A portable self contained oscillator at a price within the reach of every service man. This is the smallest and most rugged signal generator for general service work we have seen. Stands only 7" high, 5" wide and 5" deep. Contains a 22½ volt "B" battery, firmly anchored in place, and uses a single No. 2 Flashlight cell to supply the type 30 tube. The low voltage of the Flashlight cell assures maximum life from the tube. The cell may be a side porthole, without opening the oscillator case. Co with etched brass panel and convenient carrying handle.

cel, may be replaced through

Technical Features

Dual tuning range: Range "A" pro- value. A outling range: Range "A" pro-vides fundamental frequencies between 110 and 250 K.C. and strong fourth harmonies from 440 to 1000 K.C. Range "B" provides fundamental fre-quencies between 220 and 500 K.C. fourth harmonics between 880 and 2000 K.C. Self modulated to a pleasing audio tone of indeterminate

Accuracy of frequency selecvalue. Accuracy of frequency selection within 10% of scale designation. Well within the tolerance limits of commercial broadcast receivers. Potentionmeter type output attenuator. Shielded Antenna lead with universal clip for commection to receiver. Permits aligning any broadcast superheterodyne or R.F. type radio set.

Weston Selective Set Servicer Model 698

Modern Field Analysis Equipment!

Servicer supplied Slip hinge removable

YOUR PRICE.....

ONFIDENCE

Wheatstone Bridge Model X \$1**Q**85 New Only

Less Batteries

Less Batteries genuine Wheatstone Bridge for your "Lab" over offered. Designed to A genuine Wheatstone Bridge for your "Lab" at the lowest price ever offered. Designed to use your own sensitive millianmeter or a single head-phone to indicate a balanced condition of the bridge. Will accurately measure any resistance between 0.1 ohm and 10 megohms! No mathematics or formula to work out—read resistance directly on the big precision calibrated dal. 3200 possible readings of exact resistance compared to 300 exact readings on the ordinary voltage, within 1% at all times. The Wheatstone Bridge system of resistance measurement is the only method approved by leading collegand selectific laboratories! Supplied in a 5"x 9" case, 4" high with space for 2 "C" batteries.

1E2541—Complete, less battery, Model X PRICE \$19.85



Wheatstone Bridge

With Galvanometer

Model Z



Supplied as ille illustrated, less 2236

1E2542-Model Z\$2995

Confidence Wheatstone Bridge with a sensitive d'Arsonval galvanometer and a larger case which has space for a 221% volt 'C' battery. This increased hattery voltage makes the second volt C' battery. This inreased hattery voltage makes the selection of the exact balance point for
high resistance measurements more
precise than with Model X. You
need a Wheatstone Bridge for exact
resistance measurement. Correction of
hias resistor values as given in the
Radolek Tube Chart, with the Confidence Wheatstone Bridge will often
double the efficiency of a radio receiver. Intermittant recention due to
contact resistance or shorting I.F.
cells can be quickly located. A buslness promotion plan envolving the use
of the Confidence Wheatstone Bridge
is offered to each purchaser. Details
supplied on request. You can increase your earnings with a Confidence crease your earnings with a Confidence Wheatstone Bridge.

A Master Tube Seller "Confidence Special"

"Four simple steps and you've tested a tube on the Confidence Special!"

"Four simple steps and you we tested a tube on the Confidence Special!"

1. Adjust for correct line voltage.
2. Point selector to proper position.
3. Put tube in the proper socket.
4. Read the tube condition on meter.
Tests over 130 different types of tubes including special Arcturus, Keliogg, Kenrad, Majestle, Sparton, and Wunderlich types—all of which are arranged numerically on a complete tube chart furnished in lid. Accurate tests involving overy element of every tube indicate true tube performance. The clearly understood "Good"— "Bad" marking on the dial will be appreciated by your customers.

Red pilot lamp indicates shorts from plate or screen grid to any other ele-

Red pilot lamp indicates shorts from plate or screen grid to any other element. Special Cathode to Heater hot element short test included.
Panel of attractive Veri-chrome fin-lamb lack leatherette case with sliphinged lid, size 14"x9"x5" deep. Designed for 100 to 130 volts, 60 cycle, A.C.

YOUR PRICE



Weston Jewell Model 540 Sylvania Tube Seller

Sylvania Tube Seller

at a and 5 prong tubes. Simple adapters listed elsewhere in this catalog permit tests of all other type tubes on this high quality instrument. Uses Jewell, "Index of Merit" 3%," meter, (20 Mil. movement). Has line voltage adjuster, interelement short checker, and tube voltage selector. Filament voltages of 1½, 2, 2½, 3, 33, 5, 6, 63, and 7.5 volts are available. Case is of dark green leatherette with removable lid. Size 12"x 9½, "x5½", 416 ft, A.C. Cord. This instrument makes an excellent foundation for hullding up a special panel tube tester. The meters alone are well worth the exceptionally low price we ask.

3E9445-\$1750 YOUR PRICE.....

Page 32

New Clough-Brengle All-Wave Model OA

Electron Coupled Oscillator



140 Fundamental Frequencies Over 860 Strong Harmonic Waves Harmonic Waves

Harmonics of the fundamental frequencies extend the range of the oscillator over practically all the frequencies used in commercial receiving sets. The advantage of this type of oscillator over the ordinary variable type is the accuracy of the crystal calibrated frequency bands and the stability of each range. The following list gives the furtamental frequencies in each of the 20-KC. bands and the harmonics which may be obtained with ample strength for test purposes.

nurmoses

Fundamental Ranges in K.C.

and Available Harmonics
120 to 130, First 5 harmonies: 165
to 185, First 4 harmonies: 252½ to
212½, Fundamental only; 446 to 466,
2nd, and 5th only; 590 to 610, 181
to 10th, 15, 20th; 990 to 1010, 181
to 21st harmonies; 1390 to 1410, 1st

or shelded independently so as to pre-vent strays or transiem oscillations escaping from the steel case which houses the entire instrument. The case is finished with black crystal onamel. Size 10½"x1"x54" deep. Ample length connecting cord and test leads are furnished. Equipment in-cludes 2-37 tubes and 1-36 tube. Ask Yourself These Questions

ASR rourseit i nese Questions
When Buying An Oscillator
Compare the answers with those given
for the new Clough-Brengle Model OA.
1. Is it electron coupled The OA is.
2. Has it a separate modulator?
The O.A. employs a separate 37 tube.
3. Is its fraguancy culturation as-

3. Is its frequency calibration ac-curate? The OA is Crystal Calibrated. 4. Can it be compensated for fre-quency drift? The OA has 7 band

scillations

6th, 10, 15th.

Completely Shielded Each individual coll and R. F. circuit within the oscillator is arranged or shielded independently so as to pre-

Intermediate

- **Broadcast and**
- Short-Wave

A Modern Up-to-Date New Service Test Oscillator

This is the 1935 model oscillator with a new AC line filter, sharp peak tuning colis, 100% attenuator, 400 cycle modulation. Just the oscillator you need for servicing the new sets. It was a stable entired the set of the

age or frequency

Easy To Read Accurately
Simplified controls permit accurate
selection of any of the fundamentals
and easy identification of the major
harmonic signals. The modulator control (upper center in the Illustration)
gives a wide range of output from zero
to maximum signal strength.
Self contained power pack for A.C.
or D.C. line supply eliminates the
heavy expensive batterics employed in
most oscillators and assures a steady

heavy expensive batteries employed in most oscillators and assures a steady output signal of constant intensity. A 36 tube acts as a rectifier.

400 Cycle audio modulation is clear and pleasant to work with. It is the correct frequency with which to adjust the dynamic speaker cone. Any rectifier or thermo-coupled output meter will give accurate reading on the 400 cycle tone.

Expertly Engineered

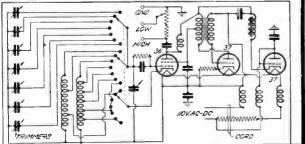
Expertly Engineered

Expertly Engineered
The interior l'Eustration and diagram
below show clearly the superior features
of this modern service instrument. The
triple set of choke colls in the line circult effectively block radiation of unwanted harmonis into the power supply
system. Capacity insulation to chassis
ground prevents danger of shock or short
circuits. For 110 to 120 Volts, A. C.
or D. C.



Clough-Brengle Madel "OA" Test Oscillator complete with

3E2572-List \$54.50. YOUR PRICE



Famous Analytical Tester

Consists of the Famous "88" and "77" (See description below) in one case with space for the adapters, plugs and test leads. Case is of durable black fabricoid with a salin blugged cover beather. ers, pings and test leads. Case is of durable black fabricoid with a slip hinged cover. leather carrying strap and satchet type latch. The two individual units are not fastened in place and may be quickly lifted out for included use. This type service equipment is particularly suited for tracing trouble in automobile radios. Its professional appearance makes a good impression upon customers when servicing radios in their home. This Analytical Tester with a good costillator will permit you to locate trouble and make repairs on more than 98% of all radio sets. Size 9% "x10½" x1" deep.

\$32.34 YOUR



Famous "88" Circuit Checker For "Selective Analysis" Testing

A compact circuit analyzer with ping, adapters, and circuit opening push-buttons. Has five individual sockets besides one small seven hole socket for the 5 ft. Analyzer cable and plug. Four adapters match the small seven prong latch type ping to any tube socket, and ton-grid connection. Eight circuits pass through doubtle pointerion. Eight electric pass infound during pin-jakes on the panel. Small red pusi-buttons between each pair of pin-jacks may be pressed to open any clicuit for current measurements may will be pressed to the property of the property o

IE2523—Complete YOUR PRICE, ONLY





Famous "77" AC-DC Unitmeter

A multirange voit-ohm-milliammeter for both A. C. and D. C. voits and mils. Uniformly spaced pin-jacks and a durable set of test prods with bakelite insulated connector to fit the pin-jacks make this the handlest insurance of its type on the market. Genuin 3%" d'Arsonval meter with hand calibrated wound shunts and multiplier resistance A.C.-D.C. Volt ranges. 0 to 5, 100, 200, 500, and 1000 volts. A.C.-D.C. Current ranges. 0 to 10, 25 and 100 Mils. 0 to 1 Mil. D.C. Only. Resistance ranges 0 to 1000 olims, to 10,000, to 100,000 ohms. Size of case 4"x1"x33%" deep.

1E2524—Complete PRICE

\$23.23



Vacuum Tube Volt Meter

0.1 to 3 Volts A. C. Of Any Frequency!

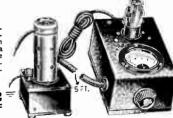
The Clough Brengle VTVM consists of a power pack, micro-ammeter, and movable vacuum tube signal collector, in a stable modern circuit for the use of advanced servicemen. design engineers, and universi-

1E2574—Complete

PRICE



Specifications
Range 0.1 to 3 volts without drawing current from the circuit being measured. Up to 30 volts at 33.333 ohms per volt may be accurately determined. Meter is calibrated against Bureau of Standards tested Precision Standards on 60 cycle line. Frequency error less than ½ of 1% under 2000 K. C. Rheestat adjusts plate circuit bucking current for changes in line voltage and zero adjustment of meter. 5 ft. flexible cable between units permits location of voltmeter close to the circuit under test Supplied compose with 1-606 tube, 1-84 tube, 1 grid lead. 1 ground lead, and tube shield. Diagram below.



Applications

1. Locating intermittant circuit breaks; The VTVM measures the carrier wave of an incoming signal at any point in the circuit where the carrier is amplified to 0.1 volt. Thus by touching the 6C6 grid circuit to successive Ff grids, the break can be located quickly.

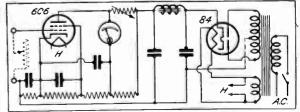
located quickly.

2. Accurately measures R.F. or A.F. gain; efficiency of AVC circuits, etc.

3. Locates broad tuning stages, in compunction with an oscillator.

4. May be employed to measure inductive reactance at any frequency. Determines impedance in ohms.

Complete instructions furnished.

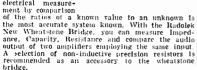


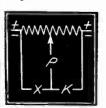
Radolek's New Wheatstone Bridge

3E2544-YOUR \$ 195

Consists of a 1000 ohm potentlometer mounted in a moulded bakelite case. A special scale etched on aluminum indicates minum indicates proportional ratios between known and unknown electrical values. Operates on A.C. or hand-in-terupted D.C. Requires a sensitive headphone to indi-cate electrical bal-







Specifications Moulded Brown bakelite case, 5"x2%"x24". 1 Watt wire wound 1000 ohm precision potentiometer. Scale accurately divided. Four pin-jacks for phones and current circult. Two pair of flexible leads for con-nection to the known and unknown values are supplied.

Fabrikoid Tester Cases



These substantially constructed and durably covered cases are ideal for housing Testing Apparatus of one's own construction. Also often required to replace cases of Readrite Standard Testers which have become damaged through wear or accident. Model numbers indicate Readrite Testers they fit. Available in three sizes to meet a wide variety of needs. Fabrikoid cover with reinforced leather corners, carrying strap and nickeled snap catch.

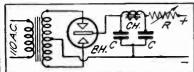
3E2609-Model 610-C. Size 141/2x7x71/2"
List Price, \$6.60.

3E2635-Model 410-C. Size 10%x6%x444".

3E2636-Model 1000-C. Size 13½x9¼x4½ List Price. \$6.60. YOUR PRICE........\$3.88

Speaker Field Supply Kit

Kit consists of the essential parts with which to build a 30 watt 300 volt Dynamic Speaker Field supply to operate from 110-125 volt, 60 cycle A. Line. Flinished unit will supply up to 100 milliamperes to a load of 3000 ohms or less. The power Rhestat (R in the diagram) permits adjustment (or speaker fields of lower resistance. As many as 6-500 ohm speaker fields may be supplied



100 M.A. each (5 watts per field). Small portable earrying ease supplied with the kit permits the most convenient arrangement of this compact A.C. operated D.C. speaker Field Supply Kit A 5000 hour Elkon dry disc retiller provides D.C. 3E3921-Complete Kit of Essential parts.

YOUR SPECIAL

Modernize Your **Tube Tester**

Substitute a Modern Tube Tester Filament Transformer in your present tube checker! Employ a ten point non-shorting selector switch (Cat. Num. YC1640, S1.82 net) with the Tube Tester Filament Transformer (3E3929, \$1.25 net) and you can rebuild your present equipment, or design a new tester to suit your own requirements.

Tube Tester Filament Trans. 1½, 2, 2½, 3.3, 5, 6.3, 7½, 15, 25, 30 volts; at 2 amps.



YOUR \$1.25

or 60 cycles

2 amps.
For construction of tube testers or replacement in standard testers. Supplies the correct voltages for all types of tubes including the oldest types and all those just recently announced and a diagram is included which the supplies all the conservations. Dimensions: 234 high, 3" wide, 234" deep. Mounting Primary 115 volts at 50 centers 21/2x1 18". Primary 115 volts at 50

Bakelite Bar Knobs



EACH .. 9¢

Tapered Pointer Type for Test Instruments

Beplace old style round knobs. Have standard 4" hole with set screw. White pin line indicator. Furnished in screw. White pin line indicator. Furnished in black or brown bakelite. They add a factory appearance to home bullt instruments. 3E6817-214" Black. 3E6818-214" Brown.

YOUR PRICE, EACH 10¢

Rectifier Assembly



3E6816-114" Brown.

YOUR

PRICE

For 1 M.A. Meters 3E2510 — For Weston 301 or 267 meters. With 301 Dial Scale.

List Price, \$5.00. YOUR

PRICE..... \$3.25

A compensated rectifier for I MA d'Arsonval meters with internal resistance of less than 50 ohms. Rectifier and compensator cause a minimum range of 5 volts A.C. Higher ranges of A.C. rolts may be secured with external resistors of 1000 ohms per volt. Rectifier is "sandwiched" between nicarta discs equipped with soldering lugs and connections for mounting on the studs of a meter. The D.C. range of the meter is not effected and may be employed in the normal manner while the rectifier is in position.

Full Wave Copper Oxide Rectifier



Miniature copper oxide rectifier. Guaranteed the rectifier. Guaranteed the finest made. For converting D. C. instruments struments. Insulated blainly marked. Cross section 2 square. Mountail 304855—Your Bulger. \$2.15

3D4855-YOUR PRICE



Type B 20 Milliampere Capacity
Size %" round discs. 3/" long.

Size %" long.

Size

YOUR PRICE Type C 40 Milliampere Capacity 4" round disks, overall size 11/8"x1"

Size 34" round disks, overall size 116"21"

Copper oxide rectifier for A.C. circuits of less than 5000 cycles frequency and not to exceed 40 milliamperes D.C. current. Excelent for rectification of 110 cyclestoff of 250 to 3000 ohm field.

Not recommended on circuits exceeding 600 ovits Mylbard, Exide or Philos 'B Ellminators' within 40 mill. limits. Only servicemen familiar with copper oxide rectifier principles should attempt this replacement.

Littelfuses For Test Instruments



T 100

struments. May be used on 250 voits D.C. of A.C. the smaller sizes have been used without arching up to 1500 volts D.C. on a 2kW supply. Illustration is actual size. Length 1 inch. Diameter 44 inch. Average Regist

Mar

	Rating	Load	on 5		
Num.	Amps.	M. A.	Mil, Lo	ad Each	Dozen
3C6925	1/100	5	138 o	hms 20c	\$1.40
3C6926	1/32	15	65 0	hms 20c	1.40
3C6927	272	65	21 0	hms 20c	1.40
3C6928	1/8	100	3.5 0	hms 20c	1.05
3C6929	1/8	100	26 o	hms 15c	
3C6930	1/4	200	6.2 0	hms 15c	1.05
3C6931	3/8	300	3.0 0	hms 15c	1.05
3E6932	1,6	400		bms 15c	1.05
3C6933	34	600		nm 15c	1.05
3C6934	1	1000	.36 o		.70
3C6935	2	2000	.14 0	nms 10c	.70

For Radio Receivers and Amplifiers

Type 3AG for use in the 105-120 voil primary line of the power supply. Tested and approved by the Underwriters Laboratories II tion is actual size 1½" long, ½" diameter.

Stock Num. 3C6936 3C6937 3C6938 3C6938	1 1/2	Volts 250 250 250 250 250	For Max. Load 60 watts 80 watts 150 watts 200 watts	List Price Each 10c	YOUR PRICE 70c per dozen \$4.50 per C.
3C694C 3C6941 3C6942 3C6943	1/4	500 500 500 500	75 mils, 150 mils, 300 mils, 500 mils.	15c	\$1.05 per dozen

Littelfuse Mountings

Tinned shakeproof terminals and extra quality phosphor bronze, nickel-plated fuse clips. Molded bakelite base 1½x5/x7/6



3C6945—For Instrument Littelfuse. YOUR PRICE. EACH

15¢ Per Dozen.....\$1.05

Littelfuse Panel Type Mounting

For use where concealed wir-ing is required. Bakelite base, Clips as above. Studs 1 inch long, threaded %2 full length. Nuts and washers included. For 1x14 fuses only.

3C6946-List each, 20c.

YOUR PRICE \$1.40



Littelfuse Lug Connector



Designed for temporary hook-ups. experimental set-ups, etc., in the laboratory or classroom where time is valuable. Made of nickel plated spring brass, the connectors slip on the fuse caps with a snug fit. The large hole, & inches in diameter will fit the binding posts of most instruments.

3C6947—List Price per pair, 15c.

YOUR PRICE

Standard Radio Fuses

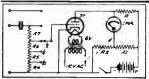
Fuse element enclosed in glass tube with brass caps on ends. Size 1½"x½". Will blow at a 50% overload. Type 3A.G.

Per Box of 5 15¢ YOUR PRICE Per Hundred\$2.75 Stock Number Amps. Number Amps. 3C6915 3C6916 3C6917 3C6919 3C6920 3C6921 3C6922

Special Radolek Circuits

These circuit diagrams and parts lists elsew were developed by the Radolek Engin-print eering Department specifically for full eering Department specifically for Radolek Servicemen and Dealers. The have never been published

elsewhere, however they may be re-printed in Radio publications where full credit is given the Radolek Com-pany for development.



Vacuum Tube Voltmeter Kit of Essential Parts

of Essential Parts
Six volt filament lighting transformer
for 110 volts A.C. Two 10.000 ohm
precision resistors. 15,000 ohm potentiometer. Five Prong Sucket. Pive
point shorting type switch.
selected carbon resistors. DIPST toggle switch. Mica Condenser. Three
Tip Jacks. 51½ 7x8½ bakelite panel
and Portable Walnut Instrument
case.

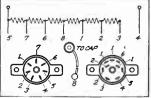
3E2450 Essentials Kit. YOUR PRICE

Radolek V. T. V.M.

Radolek V.T. V.M.

Bridge type Vacuum Tube Volt.
Meter! A balanced bridge type
clrcuit that is exceptionally stable
and easy to calibrate. Resistance
R and RI must be wire wound preclsion type 10,000 ohm resistors.
R2 is 15,000 ohms, wire wound.
Initial adjustment requires setting
R2 to equal plate circuit resistance
of the 37 tube, indicated by "0" reading on the 0-1 Milliammeter. Presence of a signal across the grid circuit changes the internal resistance of
the tube and causes current to flow
through the meter. Normal range
with 45 volts "B" supply 0.01 to 1
volt. A series of tapped resistors in
the grid circuit permits multiplying
this range approximately 10 times.
The essential parts are listed in the
adjacent column. Any make of type
37 tube or any 0-1 milliammeter
listed in this catalog may be employed in this circuit. 45 to 90 volts
"B" may be used.

Radolek Portable Tube Short Checker Kit



A simplified tube short checker for use with any ohumeter which will distinguish between 11.000 ohus and 12.000 ohus. Will detect cathode heater shorts up to 132,000 ohus.

Any interelement short will instantly be indicated by a reading on an ohumeter of less than 12,000 ohus.

An open filament prevents any reading on the meter. Six 2000 ohus resistors are connected between the numbered terminals, "Hot tube tests may be made by connecting an A.C. supply to terminals 3-4.



3E2451—Kit of parts to make tube short-checker in compact style as lilustrated. Complete instructions.

YOUR PRICE



3E2452-Kit of Parts. YOUR PRICE

Neon Leakage Tester Kit
Consists of a neon bulb mounted in a bakelite case
with protective resistors. With flexible A.C. cord in
110 to 120 volt line, standard "bannan" pin tip
test leads may be plugged into the insulated tip
jacks and continuity tests may be made through
resistors as high as 2 megohms. Without the
A.C. line connected, the neon bulb forms a
splendid polarity indicator on circuits carrying
over 100 volts. Also excellent for locating high
frequency ignition leaks in auto-radio installations. Uses three 25,000 ohm carbon resistors.

41) 7EST mm *******

Radolek Police Call Alarm

For Use On Any Radio Within 10 Miles of a Police Trans-mitter. Does Not Prevent Normal Broadcast Reception!

Normal Broadcast Reception!
Radolek supplies complete parts to build this auxiliary detector for use with any radio to pickup local Police Calls while the regular Broadcast programs are being received.
Essentially this device is a one tube receiver, deriving all its power from a standard radio set and using the audio ampilifier of the standard set for producing loudspeaker volume. It should be tuned to the frequency of the local police radio station to bring in local police calls while listening to reguar broadcast stations. reguar broadcast stations

Sales Possibillities

Sales Possibilities

Every city official, fire station, police station, newspaper office, and thrill seeking radio owner are prospects for this Police Call Alarm attachment on their radio. Easy to build—Easy to demonstrate. Doubles the usefullness of standard broadcast radio receivers. No competition. As this device is not available in finished form, only radio servicemen capable of wiring the parts will be able to supply it.

No profit-eating trade-ins. You make both the manufacturer's profit and your regular retail profit. Order your complete Kit Now. Supplied with a neat walnut box. Tube is not included. Use a 56 on 2½ volt sets or a 37 tube on 6.3 volt receivers. Coil supplied for 1800-001000 KC, tuning range, on the conference of case 5½ "x8½" x 4½". Complete plans and instructions included.

HOWES

entra entra

instructions included.

3E2453—Police Alarm Kit. Recommended resale \$17.50.

YOUR PRICE



4E10445-Walnut Analyzer \$245 YOUR PRICE Panels listed on Page 93.

1/4 Watt Midget Precision Multiplier Resistors



Only %" diameter, 1/4" wide. May be stacked on a 6-32 threaded stud as illustrated. These are the smallest orecision resistors. Accurate within the We particularly recommend pre-Only 5%" illustrated. cision resistors in the lower ranges

Stock Number	Resist.	Volts at 1MA	YOUR
3E8400 3E8401	1450* 2950*	3 }	41c
3E8402 3E8403	4000		7
3E8404 3E8405 3E8406	4950* 5000	4 1/2 5 5	
3E8407 3E8408	5500 5950*	51/2 6 6	440
3E8409 3E8410	7000 7450*	7,34	
3E8411 3E8412	8500 8950*	836	45.
3E8413 3E8414	9950* 10000	10 10	450
3E8415	90000	90	59c

Resistors matched to 50 ohm meters having 1 M. A. full scale deflection.

Bakelite Test Case



3E2455-With too panel.

PRICE 95¢

Polished brown bakelite with beveled bakelite mounting with two insulated screws.

rews. Size of Inside depth ase 4%"x2%" "x158". between 2¾" between inside panel Supplied with six ¾" holes I pin jacks, or wires. This ideal size small instrument supports. Supports of water of supports of small pin jacks, or wites for small instrument is the lifeal size small instrument case for short checkers, neon test circuits standard resistors, standard supports.

Reflector Type

Panel Light 3E6769-Ruth YOUR PRICE 30¢

Takes standard tubular pilot lights. Illuninates meters on a test panel without glare. Saves your eyes. Mounts in a ½" hole in & " panels. without glare. Saves your eyes. Mounts in a ½" hole in &" panels. (Genuine Mazda pilot lights listed

Walnut Analyzer **Instrument Case**

A professional type genuine walnut carrying case for your portable instruments. Takes standard 7"x14"x36" bakelite panel. Partition for panel support provides room for analyzer cable, test leads, etc. Inside dimensions 8½"x14"x3½" deep. Sili-hinged cover has 1½" inside clearance above panel. Metal handle, suit-case latch type catch. Lacquer finish without stain leaves the rich walnut grain with its natural appearance. This handly size case enhances the appearance of your custom built test equipment. Impress your customers by the professional appearance of your instruments.

Rotary Tap Switches

For Test Instruments

Requires 34"
hole, in 14" or
thinner panel.
Single deck
type extends type back 1" back or panel with 3%" for each extra deck. Insulated knob shaft. 1%"

tleck. Insulated knob shaft. 4," diam. 4,2" long. Double wipling spring contacts. Ball bearing pressure spring Insures positive stop on each position. Low contact resistance permits use of this switch in circuits controlling milliammeter shunts and volt-ohmmeter circuits. Built very rugged mechanically. Supplied in Non-Shorting and Shorting types.

Ten Active Contacts Per Deck.

Decks
2

Beede A. C. Voltmeter

A.C. Volts Flush Туро

Vane type A. C. meter with

15.000 resistohm s



Smallest Wire Wound Potentiometers Made

ideal for instruments s or ohm-

meters. Diameter less than a half dollar, only 1½". Extends 5." back of panel. %" mounting hole, %" threaded shank, %" shaft, %" beyond shank. Furnished with black lite knob and etched scale. Linear resistance. Used in Dayrad and Weston.

Stock Number	Res. Ohms	Max. Mils	Your Price
3E3425 3E3426 3E3427 3E3428	200 400 1,000 1,500	100 } 70 } 45 30	59c 73e 73e
3E3429 3E3430 3E3431 3E3432 3E3433	3,000 5,000 6,000 10,000 15,000	25 20 18 14 11	73¢ 88¢ 88¢ 88¢



Selective Analyzer Kit

Build Your Own Point-to-Point Selective An-Bulld Your Own Point-to-Point Selective Analyzer! Make current and voltage tests simultaneously. Kit consists of a plain 5½"xi" bakelite panel, wainut instrument case, seven prong Alden 8 wire test plug cable, four adapters, four tube sockets, one pair pin-jacks, 8 double circuit openine, Yakley Jacks, two rotary ten point selector switches. Insulated grid clip and grounding wire. Hookup wire and circuit diagrams, with suggested layout included.
3E2526—Kit not assembled.

YOUR PRICE

\$1065

TO ANT OF RADIO

Dial Scales for Use with 1 Milliampere Movement Meters On Fine White Bristol Board with Black Figures; Brass Meter Plate

RECTIFIER TYPE

OHL.

150 30



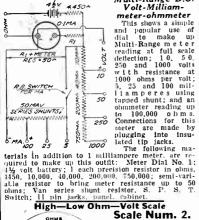
Scale Num. 1.

For Use on 1 Milliampere Move-ment Meters

Upper scale calibrated Upper scale calibrated for use with 4½ voltohm battery 50 divisions marked 50, 250, and 1000 for D.C. Volt. Milliampere R anges. Exactly replaces or 150 columns of the col Exactly replaces original dial

YOUR PRICE 3E8380—For Weston Model 301. 3E8381—For Jewell Type 88. 3E8382—For Trinlett Model 321. 3E8333—For Beede 3¼" model 325. 3E8430—For Hoxt Model 557. 3E8431—For Jewell Type 54.

Diagram Number 1A.



RADOLEK

YOUR

Multi-Range D.C. Volt-Milliammeter-ohmmeter

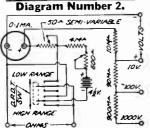
This shows a simple and popular use of dial to make up Multi-Range meter

Scale Num. 2. THE ! VOLTS



3E8432—For Jewell Model 88. 3E8388—For Weston Model 301. 3E8433—For Beede 31," 0-1 1 3E8435—For Triplett 54," 321. 3E8435—For Triplett 54," 321. 3E8435—For Triplett 54," 321.

Triplett meter equipped with Scale 2)



HIGH-LOW Ohmmeter and Triple
Range D. C. Voltmeter
A high range ohnmeter reading to 100,000
ohms and a low range ohnmeter reading up to
500 ohms, combined with 3 range voltmeter readling 10, 100, and 1000 volts. Switch provided for
either low to high ohn readings. Provides for
an instrument of maximum utility. Easy to assemble and calibrate regardless of type 0-1 milliampere meter employed.
The following materials in addition to the 1
mil. meter are required to make up this outfit.
Meter Dial No. 2, D.P.D.T. Yasley jack switch;
Electrad 600 ohm potentiometer, 4½ volt battery;
50 ohm semi-variable resistor; 4,000 ohm wire
wound resistor; 500,000 ohm carbon resistor;
10,000 and 90,000 ohm clettrad precision re-

an ohm semi-variable testion, 2000 ohm semi-variable, 10,000 ohm carbon resistor; 900,000 ohm Electrad precision resistors; 6 insulated pin jacks; panel; cablent a 3D8390—All of above materials supplied in akt with hook-up wire, but without meter, panel of

YOUR PRICE \$8.25

BPOLE DTSN 3500 5 MA 250V DROMA 500V

For | Milliampere Universal Meter

For I Milliampere Universal Meter
Provides A.C.-D.C. Multi-Range Voltmeter-D.C.
Milliatmeter-Ohemeter.
This arrangement provides for A.C.-D.C. Voltmeter-Seven ranges on full scale deflection of 5.
10. 50, 100, 250, 500 and 10000 volts. D.C.
Milliammeter: Stx ranges, 1, 5, 10, 50, 100, 500 milliamperes; Ohnmeter: Three ranges, 1,000; 10,000, 100,000 ohns. Selector switch for type readings desired. A.C.-D.C. Shifting switch. Individual ranges selected on insulated tip jacks,
The following materials in addition to the meter are required to make up the outil. Meter Dial No. 4; Yaxley 3 pole, double throw switch; Yaxley three deck. 8 contact rotary switch; S.P.S.T. Switch; 800 ohn tapered Potentiometer; 44% volt battery; 4 insulated tip jacks; one cach Precision Multinliers 4,930, 5,000, 40,000, 50,000, 150,000, 250,000, 500,000 ohns; one each shunts, 5, 10, 50, 100, 500 mils; one each Precision Resisters, 30, 400, 3,500 ohns; panel; cabinet.

Diagram Number 6

Circuit of a Universal A.C.—D.C. linear Voit—ohnmeter. Volt ranges are accurate on all frequencies including radio. Use of a quick heating 99 tube as a half wave rectifier for the 1 M. A. circuit eliminates the characteristic errors of the copper oxide meter rectifiers. A.C. range may be calibrated on D.C. Resistor R3 is adjusted to equal the internal resistance of the 99 tube. R1 is then adjusted to permit 10 volts full scale reading on the 10 volt scale. R3, R4, and R2, are 1500 ohm wire wound Midget Yaxley potentioneters. R5 is a non-critical 8500 to 9000 ohm resistor. R6 is 90.000 ohm 2% resistor. R1 is 1000 ohms. Capacity of 0.01 Mfd. is shunted across the meter to protect the winding on A.C. ranges.

Scale Number 3.

For Meters Equipped With Copper Oxide Rectifiers

For Weston Rectifier type 301 Milliammeters. Due to the variation in rectifiers on other rectifiers on other meters, special resistance pads may be required with this scale

on other meters.
-List Price, Each 75c. 3D8392 YOUR PRICE ...

Two voltage scales are provided to permit use of the meter in output circuits as across the volce coll of a speaker or using the high voltage scale, across the primary of the output transformer. Used as a ligh range ohmmeter in series with 110-120 volts A. C. and as a capacity meter in series with 110-120 volts A. C.

Scale Num. 4.

For use with Weston Universal A.C.-D.C. Universal A.C.-D.C. Meter or equivalant 1 MH. meters equipped with copper oxide rectifiers. Offset scale permits reading A.C. calbrated Range. 50 scale divisions marked 50. 250. 1000. volts or Milliamperes according red. Top Scale for 4½

to external circuit employed.

Diagram Number 4

Volt ohm battery.
3E8395—For Beede 34".
3E8396—For Weston 301.
3E8397—For Triplett 321. YOUR PRICE, EACH

PE 301 0-1 MA. ne

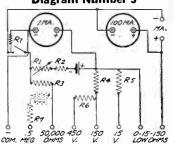
9 18 279 16 RADOLEK any 1 MA meter it is inhance the value of sacile and circuit is an exclusive Radoke develop-

Scale Num. 5

Special top ohm scale dry-cell, reads 1500 ohm smidscale and 50,000 ohms maximum. Lower scale has 30 divisions with ranges marked 15 ranges marked, 15, 150, 450, With the

3E8436 For Beede 3¼". 3E8437—For Hoyt 557. 3E8438—For Jewell 88. 3E8439—For Triplet 321. 3E8440—For Weston 301. YOUR PRICE, EACH

Diagram Number 5



Com. MEG Owns V. V. V. Downers

Use any standard 1 MA meter, preferably with 50 ohns internal resistance. Any 100 to 150 MA Meter will serve in the current circuit. Low resistances may be accurately measured by closing the switch circuit and adjusting R1 until exactly 100 MA is flowing through the unknown resistance. The unknown resistance in ohms 1s then equal to the reading on the 0-15 linear scale. When R1 is adjusted to permit 10 MA to flow through the unknown resistance in ohms. The top ohm scale calibrated for use with a 1½ volt dry cell, may be extended from its printed maximum to read 500,000 ohms with a suitable battery and resistor as indicated by dotted lines in the diagram. Volt ranges of 15, 150, 450 at 1000 ohms ner volt extend the usefulness of this type test coulpment.

In the diagram, R1 is 1500 ohms variable, (See Yaxley midget Potentiometers page 36). R2 is 150 ohm carbon non-precision. R3 is 1000 ohms my precision resistor. R3 is 1300,000 ohms precision type resistance. R7 is 1450, ohms precision were wound. A push button switch is recommended.



Scale Num. 6

For Use on 1 Milliampere Movement Meters

Upper scale is marked in ohms for use with a 4½ volt battery. Lower scale has 50 divisions and ten sub-divisions without ac-companying figures to permit hand calibration

for any particular scale desired.

3E8441—For Beede 3%".

3E8443—For Triplett 581.

3E8444—For Triplett 581.

3E8445—For Jewell 58.

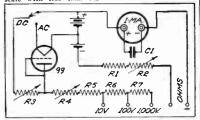
3E8445—For Jewell 88.

3E8445—For Jewell 88.

3E8447—For Weston 301 with 75 divisions.

YOUR PRICE.

Accurate Linear Scale A.C. Measurements Use scale number 1,2 or 6, with resistors suitable for securing the desired ranges at 1000 ohms per volt. A.C. readings will appear on the D.C. scale with less than 5% variation.



Professional Type INSTRUMENT CASES

Genuine Walnut

Genuine Walnut
Attractive high quality walnut cases. Natural finish, unstained, hand rubbed and lacquered. Especially designed for custom built test equipment. They give to your equipment that professional laboratory appearance. Exceptionally strong and sturdy. Rugged but graceful, Interlocking corner joints. Rounded corners. Sizes are arranged to accommodate standard sizes of "C" batteries and for resistors, switches, etc.

Standard Model—Less Cover



Genuine Walnut 4E10441 — For Panel 43,"x7". In-side size: 4" wide, 64" long, 31/2" deep.

YOUR PRICE, \$1.50

4E 10442 — For Panel 5½"x8½". Inside size; 4¾" wide, 7¾" long, 4½" deep.

YOUR PRICE,

\$1.75

With Cover Portable Model-



Genuine Walnut Cover allows 112" inside clearance above panel. Panel fits flush inside lower section. Cover detachable. 4E10443 — For Panel 484"x7". Inside size: 484" wide, 7" long. 3½" deep. YOUR

PRICE, \$1.90 4E 10444 — For Panel 5½"x8½". Inside size: 5½" wide. 8½" long, 4½" deep. YOUR

PRICE, PRICE. \$2.25

Portable Case With Cover Imitation Leather



Covered
Body built of thin but very strong wood.
Covered outside and top rim with finest quality black leatherette. Attractively grained. This case grained. This case will stand years of hard service. Takes any 5½x8½" panel. any 5½x8½" panel. Leather handle. De-tachable cover with clasp lock. Height 6¼ inches.

614 inches. 4E 10440— 1.1st Price. \$3.50. YOUR \$1.6 YOUR \$1.69

Circuit Opening Twin Tip Jacks



Clreuit opens when both pin tips are in place. Closed while either one alone is in position. Used in Selective Analyzers for opening eircuits for current measurement or for voltage measurements between elements without opening circuit.

Mounts above or below panel with standard %2 screw. 35" holes required with %%" centers for use under panels less than 76" thick. 0. 432.

3E6419-No. 432. YOUR PRICE, Each

Jewelled Pilot Light Brackets



Used as short indicators, signal light on test panels. Makes excellent soldering iron pilot when connected across 2 ohm resistance in series with a 100 watt fron. (2½v. bulb required.) Bracket takes standard sized pilot light bulbs. Mounts in \(\frac{1}{2} \) with the bulbs. Mounts in \(\frac{1}{2} \) with the bulbs. Hed Jewel included.

3E6765 29¢ YOUR PRICE, Each

Jewels For Pilot Light

Colored jewel on threaded shank with mounting nut. Require "" hale in panel not over 3.". Very attractive when used in front of small neon or Require %" hole in panel not over \(\frac{1}{16}\)". Very strative when used in front of small neon or flament pilot lights.

3E6766—Red 3E6768—Green.

3E6767—Amber YOUR PRICE, EA.

Radolek-Triplett 0-1 MA Foundation Meter



3E8389-YOUR PRICE

31/2" Black Bakelite Case d'Arsonval Movement

Designed particularly for use with external rcsistors and shunts to build up a multi-range D.C. voltmeter and a dual scale ohumeter em-D.C. voltineter and a dual scale obinimeter employing the same wiring diagram as given for Rudolek Dial Scale No. 2 on page 36. Meter has 50 chms internal resistance and requires 1 milliampere for till scale deflection. Resistors for voltage ranges are calculated at 1000 obins per volt allowing the 50 obins of internal resistance as sufficient for 50 millimited to the control of the second page 100 per volt. The meter may be made to read current by use of standard shunts for 50 obin meter resistance or by use of bond callbrated management. by use of standard shunts for 50 ohm meter resistance or by use of hand calibrated manganin wire shunts. Special Ohm

Special Ohm Scale: The low ohm scale as-sumes a current of I M.A. flow-ing through the meter and full scale deflection of pointer.



the pointer.

Shunting the meter with an unknown resistance causes a lower scale reading. (50 ohms appears at midscale.) The high ohm scale is the

pears at midscale.) The high ohm scale is the standard type requiring a 4150 ohm resistance in series with a 4½ volt battery. This scale indicates 4500 ohms at midscale and 100,000 ohms at the highest ohm marking.

Bakelite case: Flange diameter 3½", body diameter, 2½". Depth back of panel to clear binding posts, 1%". White enamel dial with clear black figures.

Knife Edge Pointer: Assists in the consected partions of the ohmic scale in determining the exact resistance value. A front zero adjuster assures a constant zero return of mointer. Dust-proof construction. Tungsten steel magnet and genuine sapphire jewelled bearings.

Servicemen-A Quality 0-1 Milliammeter at a Price!



Hoyt Model 557 0-1 D.C. Milliammeter 3C2549 YOUR SPECIAL LOW PRICE

50 Ohms Resistance

Used by many leading manufacturers of high grade test equipment. With the use of proper grade test equipment. With the use of proper shunts and resistors can be converted into a high resistance voltmeter or higher range milliammeter.

Moving coil type D'Arsonal Movement. Ac-curacy within 2%. Case Diameter 2½ inches. Flange Diameter 3¼ inches. Metal case.

WESTON 0-1 Milliammeter



D. C. Model 301 3D9340- Metal 3D9339- Bake-List Price. \$10.00. YOUR \$7.35

Accepted as the standard for Elec-trical and Radio Measurements, Latest new with 1.7 improved

model. Metal scale with black figures etched on silver background. Calibrated b to I with 50 equal graduations. Zero adjuster on front. Very uniform meter resistance of 70 ohms. Dull black enameled thish metal case. Flange 34.7 diameter with 2.76 diameter body, 17 deep back of flange. Black bakelite case, flange 34.57 diameter with 22.77 diameter body, 187 deep back of flange.

Black Bakelite Test Panels

Polished Bakelite to fit Professional Type Instrument Cases. Supplied square. Corners strument Cases. Supplied square, Corners must be filed round to fit exactly on the stand-

3E7487-4"x14"x7" 3E7488-&"x14"x7" 3E7489-&"x54"x84" 3E7490-&"x54"x84" Net Each Net Each Fach

Make Your Own Shunts with Manganin Resistance Wire

Standardize your milliammeters by making all have the same internal resistance! As 50 ohms is the standard value usually employed, we suggest adding insulated Mangarin wire in series with the movement to seeure the total of 50 ohms. Employ 20 the 30 gauge for all series multiplier purposes. The 26 gauge is suitable for shunts earrying less than 50 MA. Employ 22 gauge for shunts of less than 1000 milliamperes. This round wire is suitable for use as shunt and multiplier resistance for all styles of meters, wheatstone bridge etc. Temperature co-efficient 0.000025 ohms per CC. Practically no thermal co-efficient in contact with copper.

tact with eopper.
22 Gauge B&S. 0.452 ohms per foot.
100 foot spool, Double Slik Covered. \$1.10 3D4840-YOUR PRICE ...

26 Gauge B&S, 1.147 olums per foot, 200 foot spool, Double Silk Covered, 3D4841-YOUR PRICE

30 Gauge B&S, 2.899 ohms per foot. 300 foot spool, Double Silk Covered. \$1.15 3D4842-YOUR PRICE

Bare Resistance Wire

For use at extreme high temperatures in heater elements, of ranges, radiant heaters, toasters, rheostats, bleeder resistances, etc. Temperature co-efficient 0.00012 ohms per °C up to 500° (1022° F.) and there remains fairly constant to 1000° C (1832° F.). Non-oxidizing in air. Non-magnetic, Bright finish, Round, Supplied with-oxidization insulation

22 Gauge B&S, 1.015 ohms per foot. 100 foot spool, bare wire.

3D4843-YOUR PRICE \$1.05 32 Gauge B&S, 10.15 ohms per foot. 500 foot spool, bare wire. 3D4844—YOUR PRICE **S1.00**

"VAN" SHUNTS

Very small and compact. Size about 1%" long, %" wide. Resistance elements of non-corrosivo alloy wire with temperature co-efficient of practically nil. These shunts are intended for use in converting 0-1 milliampere movement meters for reading higher range currents with maximum milliamps specified.

Multiple Shunts



Stock

Stock

For 1. Mil. Weston
D. C. Mod. 301
27 Ohms Meter
Resistance
List \$1.50.

S1.20

88¢ YOUR PRICE .. Stock Number 3D4878 3D4879 3D4880 D. C. Milliamps Milliamps 100

Number 3D4875 3D4876 3D4877 25 For Triplett Model 321 and 324 Meter Resistance

30 ohms M Each \$1.50. List Price. 88¢ YOUR PRICE. Stock D C

D. C. Milliamps Stock Number Milliamps Number 3D4862 3D4863 3D4864 10

For Beede and Jewell 54
35 Ohms Meter Resistance
15. C. Stock Stock Number Milliamps

D. C. Number 3D4865 3D4866 3D4867 Milliamps 3D4868 3D4869 3D4870 50 100 500 Price Each \$1.50. 88¢ YOUR PRICE

D C

Single Range Shu for 50 Ohm, 1 Mil. Shunts List \$1.50. YOUR PRICE...88c

50 100

Stock Number 3D4881 3D4882 3D4883 5 10 Stock Number 3D4884 3D4885 3D4886 D. C. Milliamps

Series Tapped Shunts

3D4890—For 1 mil.
D. C. Weston 301.
27 ohms Meter Resistance. Tapped for

27 ohms Meter Resistance. Tapped for 5-25-100 mils.
List \$3.00. YOUR PRICE.

Series Tapped Shunt
For Beede, Host, Triplett, and Weston 1 milliampere meters having 50 ohms Internal resistance or with meters of lower resistance having an external series resistance of manganin whre to secure a net 50 ohms. Tapped for 10 and 100 milliamperes, 3E4892—For 50 ohm, 1 Mil. meters \$1.47

Trimm Featherweight Head Set





3C2350-List Price Set \$10.00. PRICE

\$5.88

Smallest, lightest weight headset made. Highly efficient. Total weight of complete set only four cunves. Ideal for Aircraft, Hard-of-hearing and Raddo Amateurs, or anyone required to wear headphones for any extended time. Extremely sensitive. Will respond to signals over 100 D.R. down. Precision made of finest materials. Will give unexcelled service for many years. Complete with strong, adjustable spring steel head band and five foot cord. Total resistance 4.000 chms.



Head **Phone** Cords

For connecting two headphone units to output of dio receiver or other apparatus. Two double con-For connecting two headphone units to output of radio receiver or other apparatus. Two double conductor cords are jointed together in series connection with one double conductor cord. Fine quality durable mercerized braid covering. Lgth. 5 ft. 3C2305—With pin tips on both ends. 3C2306—With a pade tips on phone unit end, pin tips on other end.

Two Conductor Cords

For Speakers or Single Unit Headphones
Finest quality glossy mercerized covering. Lgth. 5 ft.
3C2308—Pin tips one end, spade tips other.
3C2307—Pin tips both ends.
PRICE EACH
TEN FOR 76c



"Tweeter" **Loud Speaker Horns**

Complete with Baldwin Phono Unit. Horn is scientifically moulded of polished hard rubber to give best acoustic results. Very satisfactory for some types auto sets and P.A. systems as high frequency reproducers. Also as monitor horn on sound recording systems. Height 9" overall, opening 31/4" diam. 3D2369 PRICE EACH ... \$1.74

ROLA Permanent Magnet Dynamic Speaker



Model PM-6 Overall. 4E10620 YOUR PRICE **\$5**75

Model PM-8 Overall. 4E10621

YOUR YOUR .. \$6.75

Output transformers are included. Spe-

Output transformers are included. Specify on your order type of output tubes used and how they are connected.

Requires no field current. Especially designed for use in public address installations where it is impractical to apply energy for the field coll, for battery receivers or for remote use with a home radio or as a monitor speaker. Sensitivity and tone fidelity are comparable to that of the finest dynamic speakers. The magnetic air-gap and the voice coil of these speakers are shielded against the entrance of metallic particles and dust by a domed center cap fastened in the anex of the cune and a new dirt proof accoustic filter. An entirely new construction of the magnetic core gives greatly increased flux density and greater power handling capacity. Highest quality steel used in the construction of the electro-magnet assures retention of full magnetic strength. The termanent arrangement of all parts is assured in the modern are welded construction which is used throughout.

Physical Specifications

used throughout.

Physical Specifications

Model PM-6-6%" cone flange diameter, 7%"
magnet width, 3%" maximum depth.

Model PM-8-8." cone flange diameter, 8%"
magnet width, 4%" maximum depth.

FROST FONES



Frost Fones satisfy the exacting demands of those wishing to obtain extremely wishing to obtain easies, sensitive instruments. Light in weight, comfortable to wear and easily adjustable. All materials used are of the very highest quality, and these phones are made by careful scientific workby careful scientific work-men. For testing radio parts or complete sets—for lining up condenser—for peaking intermediate transformers or any similar uses these phones may be depended upon to give perfect satis-feation. faction 3C2357—Frost No. 2000 ohm headset. A Alumi-

num shell. List. \$3.08. YOUR PRICE

3C2358-Frost No. 175, 3000 ohm headset. **S1.67** Idst, \$3.50. YOUR PRICE

FROST DX Special Fones 20,000 ohms Impedance

Designed especially for amateurs and DX fans. Extremely sensitive to faintest signal. Same general construction as above model Frost Forces. Specially selected materials give greatly increased sensitivity. The high impedance of 20,000 ohms at 1000 cycles make these phones especially suited for A.C. Bridge work.

3D2356—List Price, Set \$5.00.

\$2.50 \$2.50

YOUR PRICE

Junior Headphones



The headphones listed here are thoroughly reliable and responsive to weak signals. Adjustable woren web covered headbands. Complete with cords. Aluminum shells, aluminum unbreakable caps that are more sanitary and will not dirty the ears even in warm weather. Total resistance 2800 ohms. Very light and comfortable to wear.

Acme Headphones

Exceptional value. Suitable for use in multiple installations of hospitals, hotels etc. Plan on 50 milliwatts per set for best results. Well made. Durable. Spring steel adjustable head band. Light tension. 4½ foot braid covered cord. All black finish. black finish.

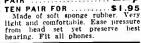
4,000 ohms. Single Lots,

TEN SETS FOR \$12.50 3D2374

Total resistance 2,000 ohms. PER SET

3D2351-Total resistance \$1.25 TEN SETS FOR \$9.40

Ear Phone Cushions 302371-YOUR PRICE 22C PAIR



Special Balanced Armsture Type Unit

A good quality aluminum diaphragm unit with a hardened steel magnet, constructed for rough hard usage. Suitable for use on 500 milliwatt output; usage. Suitable for use on 500 milliwatt output; should be used with an output transformer if more than 20 milliamperes of D.C. is liable to flow through its windings. Diameter of threaded portion %". Supplied with a long double tipped phone cord. Former list \$5.00. 3C2370—YOUR NET PRICE ONLY TEN FOR \$3.48

Genuine **Nathaniel Baldwin**

Phones Type C
3D2360—
ur Very Special
Price Set

\$2.89

Ten Pairs fo \$27.50 Vorld famous World many years because of their extreme sen-

of their extreme sensitivity and great efficiency. Balanced armature units accurately matched and carefully tested. Used extensively by U. S. Signal Corps, Navy, and by professional operators. Moulded bakelite cases enclose units. While very sensitive they are very rugged and will stand up under hard usage. Complete with adjustable headband and connecting cord. Fitted with MICA disabrams.



New Stock—Guaranteed Perfect

Wonderful bargains at our prices. All are of the Wonderful bargains at our prices. All are of the highly efficient Baldwin balanced armature type. Very sensitive and carry great volume without distortion. Very rugged. Excellent for battery type radio receivers and for use on Public Address horn speakers. Maximum undistorted power limit, 500 M.W.

Baldwin Concert

Generally known as the best. Each unit hand made, carefully adjusted and tested. Precision made at every step. Widely imitated, but not excelled for its faithful. consistent reproduction. Threaded to fit all standard speakers and horns. Concentric corrugated diaphragms to handle strong signals without blasting. 5-foot cord with tips. Shipping wt.,

3C2362—Baldwin Concert Unit Not Shielded. NET

\$2.95

Baldwin Rival



2 lbs

Ideal for all console and morning glory type horns. Handles enormous volume with rare faithfulness of reproduction. Shipping wt., 1 lb.

3C2364 Without Shield 45¢

Baldwin Lyric

An especially desirable unit for outdoor use. Fully encased. No parts exposed. Very sensitive yet sturdy and strong. Concentric corrugated diaphrams to handle strong signals without blasting. Slightly larger than the Concert or Rival. 3C2365-List, \$6.00

\$1.25 YOUR SPECIAL PRICE

Phono Pedestal Speaker

For attacking to tone arm of any phonograph. Equipped with extra long cord and phone tips. Has dur-able imitation leather finish. Very sensitive magnets. Specify make of phonograph and we will supply cor-rect adults. m of and ith extra Has dur-ish. Very make of phonograph are rect adapter.

C2366-Former Lis 5.00 YOUR PRICE



Standard Phono Unit

Exactly the same as above unit except supplied thout pedestal. Unusually compact, 2 ½" diam. without pedestal. 85¢

3C2367 YOUR PRICE

Utah Units The finest UTAH unit.

Incorporates patented tri-pod construction. Gives faithful reproduction over a wide range and successfully handles 21/2 watts. 1000 o h m s Impedance. Finished in nickel. Diameter 3". Five foot cord.

\$3.75

3D2377-List Price \$6.25.

Utah Big Chief

Same dimensions as above unit but does not incorporate tripod construction.
3D2378—List Price \$5.25. \$2.45 YOUR PRICE

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A. C. MODELS



OUTPUT TRANSFORMERS

In ordering Speaker with Output Transformers, specify type of output tubes used and whether single or push-pull.

Abbreviations Used
Pdf.: Power dissipation of field. out tubes used pull.

5 Inch

Model

5-D

Power bandling capacity of coil.

Voice coil-im-pedance at 400 Imp.: cycles.

Voice coil resistance at 72° Fahr. Res .

Olam.: Diameter of Voice Coil.

6 Inch

Model

62-J

These fine speakers are capable of handling enormous volume with exceptional fidelity. Substantially constructed of pressed steel, polished cadminm tinish. Uses type '80 rectifier tube (not included) operated at

175 volts, 70 M.A. Speakers handle 10 watts continuously or 16 watts peak load. Supplied with output transformer. Be sure to specify types of tubes used and how they are connected. For 105-120 volt 50-60 cycle A.C.



8, 10 and 12 Inch Speakers Model "A". Have extra large field nots v Model "A". Have extra large field pots which bring out the utmost in the diaphragms and provides marvelous fidelity of tone at high as well as low volume. Cadmium finished steel frames. Moulded ribbed diaphragms of special impregnated composition. Pdf., 9 watts. Volce coil diam. 1". Imp., 6 ohms. Pwr., 10 watts (8" Spkr. 8 watts), Res., 4.7 ohms.

8 Inch Speaker
Diameter 8". Overall Depth 448".

Model 8A. Diameter 8". Overall Depth 4 %".

Less Output Transformer

4E 10250—2500 ohm field 4E 10251—1500 ohm field 4E 10252—1000 ohm field PRICE \$3.95

10 Inch Speaker

With Output Transformer 4E10250T—2500 ohm field PRICE \$4.35

4E 102621—3000 ohm field 4E 102631—2500 ohm field 4E 102641—2000 ohm field 4E 102641—2000 ohm field

5 Inch Speaker

Model 5D. Diameter 5", Overall Depth 2\%".
Pdf., 5 watts. Volce coil diam. \%", Imp., 5 ohms.
Pwr. 3 watts. Res. 2.7 ohms.
Less Output Transformer

4E10262—3000 ohm field 4E10263—2500 ohm field 4E10264—2000 ohm field PRICE \$2.29

With Output Transformer

6 Inch Speaker

Model 62J. Dlameter 6". Overall Depth 3". Pdf., 7 watts. Voice coil diam. 3", 1mp., 3.8 ohms. Pwr. 6 watts. Res. 3.1 ohms. Less Output Transformer

4E | 0275—2500 ohm field | 1.1st Price, \$8.00 | 4E | 0276—500 ohm field | 4E | 0277—1000 ohm field | PRICE \$2.75

Model 10A. Diameter 10". Overall Depth 4%".

Less Output Transformer Less Output Transformer
4E | 0253—2500 ohm field | List Price. \$14.00 |
4E | 0254—1500 ohm field | PRICE | \$4.81 |

With Output Transformer
4E | 0253T—2500 ohm field | Your | 4E | 0254T—1500 ohm field | PRICE | \$5.40 |

4E | 0255T—1000 ohm field | PRICE | \$5.40 |

4E | 0255T—1000 ohm field | PRICE | \$5.40 |

With Output Transformer

4E10275T-2500 ohm field 4E10276T-1500 ohm field 4E10276T-1500 ohm field PRICE \$3.25

12 Inch Speaker

Model 12A. Diameter 12". Overall Depth 6".

Less Output Transformer

Less Output Transformer

4E | 0256 - 2500 ohm field | List 1 rice, \$15.50
4E | 0257 - 1500 ohm field | YOUR | PRICE | \$5.42

With Output Transformer

4E | 0256T - 2500 ohm field | YOUR | 4E | 0257T - 1500 ohm field | YOUR | \$6.19

4E | 0258T - 1000 ohm field | YOUR | \$6.19

UTAH 12" STADIUM SPEAKER Model 12B (20 Watts)

List Price, \$17.50, YOUR PRICE \$7.95 With Universal Output Transformer

Transformer
Especially: suitable
for DeLaixe Console
and Public Address
in stallations.
Hangles 15 to 20
watts input without
overloading, with 10
to 12 watts in the
field. Cadmium finsished steel frame.
Improved moulded
diaphragm. Large
stee universal transsize universal trans-former, tapped to

size universal transformer, tapped to overall height 12½", overall depth 6½". Fleid Res., 2500 ohms, Pdf., 15 watts. Voice coll diam. 1½". Imp., 1.1 ohms. Pwr. 15 watts, Res., 8 ohm. For D.C. Fleid Power. 14E 10259—2500 fleid YOUR \$7.95 With Universal 500 ohm. 1/2".

With Universal 500 ohm Line to Voice Coil Transformer (Permits use of 1 to 6 speakers on 500 ohm line). 14E 102591—2500 field YOUR 14E 102617—1500 field PRICE \$7.95

UTAH AGNETIC

Rich Clear Tone. Utah quality through-Ottal quality throughout! Cadmium finished steel frames.
Impedance approx.
9,500 ohms at 1000
cycles. Resistance
1000 ohms. 2 Watts

canacity 4D10269. Diameter 5 inch. Ship. Wt. 1½ lbs. List Price \$4.50. Depth 218" \$1.78 YOUR PRICE

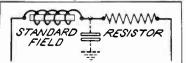
4D10270. Diameter 6 inches. Ship. wt. 2 lbs. List Price \$5.00. Depth 31/4" \$2.02 YOUR PRICE

4D10271. Diameter 8 inches. Ship. wt. 2½ lbs. List Price \$6.00. Depth 312" ° \$2.85 YOUR PRICE

Special Resistance Speaker Fields

Special Resistance Speaker Fields
Radolek Dynamic Speakers listed can be adapted for use in circuits requiring field coll resistances of values other than our stock sizes. For use in such circuits, select a speaker with resistance nearest to that required but lower in value. Place in series with the speaker a 10 watt resistor of value which added to value of speaker itled coil will give total resistance required in circuit. Improved hum filtration may be secured by connecting a 2 Mfd. condenser from the ground to the junction of the field coil and the resistor.

Diagram Below



8, 10 and 12 Inch A. C. Speakers

Model 8A-AC. Diameter 8", overall height 8 kg", width 10". Fleid Res., 2500 ohms, Pdf., 10 watts. Voice coll diam., 1", 1mp., 6 ohms, 1 wr., 8 watts. Res., 4.7 ohms. Shug, Wt., 10 lbs. List Price \$19.00.

4E10265. YOUR PRICE \$11.17

Model 10A-AC. Diameter 10", overall height 10%", width 10". Field Res., 2500 ohms, Pdf., 10 watts, Voice cell diam., 1", Imp., 6 ohms. Pwr., 10 watts, Res., 4.7 ohms. Ship. Wt., 12 lbs.

List Price \$22.00. 14E10266. YOUR PRICE ... \$12.94

Model 12B-AC. Diameter 12", overall height 121/4", width 10". Ffeld Res., 2500 ohms. Pdf., 12 watts Voice coll diam., 14", Imp., 1.1 ohms. Pwr. 15 watts, Res., .8 ohms. Ship, Wt., 15 lbs.

List Price \$25.00. 14E10267. YOUR PRICE \$14.70

Utah "P. M." Speakers

3000, 4000 and 6000 Milli-watt Power Inputs
An improved Kinematic
Power Loudspeaker with

Power Loudspeaker with an automatic impedance matching circuit. Uses no field current. Handles more power and volume without distortion than any non-dynamic speaker we have tetted. Chrome steel permanent magnets acting through lamin-ated pole pieces produce an intense magnetic flux in the 6/thousandths alc

in the 6/thousandths alr gap. A heavy laminated silison steel armature is suspended with phosopher-bronze (lexible torque supports. No armature pivots to chatter or stick. Speakers will carry 35 Ma. direct current. Output transformers are not required. Speakers may be ordered for single or push-pull circuits. For improving battery radios, use in sound trucks, as extra speakers on any radio or P.A. system which does not provide field current, we recommend these speakers very highly.

6" Utah Orthovox 3000 Milliwatts Capacity. Frequency Response Equals the Finest Type 5" Dynamic Speakers

4E | 0280 For single tube. 4E | 028 | For Push-Pull Tubes. List Price \$3.50. \$2.06 YOUR PRICE, EACH

8" Utah Orthovox 4000 Milliwatts Capacity. Frequency Characteristic Uniform between 140 and 8000 Cycles.

4E | 0283—For single tube. 4E | 0284—For Push-Pull tubes. List Price \$4.00. YOUR PRICE EACH \$2.35

12" Utah Orthovox

\$3.53 Page 39

6 Inch De Luxe



YOUR PRICE

Less Transformer New Design---Superior Performance

Carries full output of any power tube delivering up to 4000 mil-livatts. Inductive Shunt Hum Bucking device permits the use of the field circuit as part of

of the field circuit as part of the power pack filter system.

Voice eoil diameter, %". Impedance 4½ to 6 ohms. Resistance 4 ohms. Pield power 6 watts. Overall diameter 6½". Depth 3%". Shipping weight 4 lbs.

Less Output Transformer

YOUR PRIC			\$1.55
		\$14	
Stock	Field		Field
Number	Ohms		Ohms
14E10500	1000	14E10503	1800 tapped
14E10501	2000		at 300

With Output Transformer (Specify output transformer desired by giving type letter indicated in table below.) Order field Resistance wanted by stock numbers.

14E10504

EACH	TEN FOR	\$17.5	Q_100
Stock Number	Field Ohms	Stock Number	Field Ohms
14E10500T 14E10501T	1000	14E10503T	1800 tapped at 300
14E10502T	2500	14E10504T	4 ohnus for 6 volt

6 Inch Standard

4000 Milliwatt Audio Output
Less Output Transformer
14E10565-2500 ohm 6 Watt Fleid. YOUR PRICE \$1.35 EACH

Ten for With Output Transformer 14E10565T-2500 ohm 6 Watt Field.

Ten for......\$15.70
Specify Transformer desired by giving type letter indicated in table below.

indicated in table below. A low costs good quality full dynamic speaker, strong rugged construction, voice coil and spider are aligned before cementing the cone in place, thereby assuring freedom from chatter usually found in competitively priced speakers. Voice coil diameter %" Impedance 1½ to 6 ohms. D.C. resistance 4 ohms. Overall diameter 6½", 3\mathbb{3}" depth. Weight packed, 3\mathbb{4}, lbs.

81/2 Inch Standard

For 6000 Milliwatt Audio Output
Less Output Transformer
14E10570-2500 ohm 6
Watt Field,
YOUR PRICE
52.10 EACH Ten for \$19.50

With Output Transformer 14E10570T- 2500 ohm 6 YOUR PRICE EACH

Ten for \$23.00 desired by giving type letter

Specify transformer desired by glving type letter indicated in table below. This 8½ lineh Standard quality Dynamic makes a suitable replacement for the majority of five and six tube, single or push-pull, midget radio sets. The voice coil impedance is 4½ to 6 ohms. Resistance 4 ohms, diameter of voice coil 7½". Speaker is 434" deen. Shipping weight 5¼ lbs. Special size field coils of less than 3000 ohms can be supplied on order for 50c each extra.

Universal 500 Ohm **Line Matching Transformer** 3E4140— YOUR PRICE 74¢



A flexible means of coupling 1 to 6 speakers to a 500 ohm Amplifier output Circuit. Tapped secondary permits matching ratios within limits of 1 to 6 speakers, of 6 ohm impedance transformer is the corkers in this catalog having an

to a 500 ohm line. to a 500 ohm line. This transformer is the correct size for all speakers in this catalog harring an impedance of approximately 6 ohms. The Chart gives the taps which may be used to match 3 ohms, 6 ohm, and 12 ohm impedance elreuits to a 500 ohm line, instructions for connecting included with each transformer. See chart on page 109.

81/2 Inch De Luxe



wanted

14E10521T 14E10522T

YOUR PRICE

Less Transformer Printant Highs—
Rich Bass Tones:
A splendld overall performance characterize these

a spiendid overall performance characterize these speakers. For use with single or push-pull power tubes delivering up to 6000 milliwatts audio input. New Inductive Shunt Hum Buck-

of A.C. ripple current in speaker filter system of A.C. Radio. Voice coll diameter 78". Impedance 4½ to 6 chms. Resistance 4.2 ohms. Field power 8 watts. Overall diameter 8½". Depth 434". of A.C.

Shipping weight 5½ lbs.

Less Output Transformer
YOUR PRICE

Ten	for	\$23	.00
Stock	Field	Stock	Field
Number	Ohms	Number	Ohms
14E10520	1000	14E10523	1800 tapped
14E10521	2000		at 300
14E10522	2500	14E10524	4 ohms for 6 volt

With Output Transformer (Specify output transformer desired by giving type letter indicated in table below. Order field resist by stock number.

YOUR PRICE EACH\$26.50 Field Ohms Stock Stock Number Ohms 14F10520T 1000 14F10523T

1800 tapped at 300 4 ohms for 6 volt NOTE: Field Coils of resistance other than stock sizes be supplied for 50c extra. sizes quoted

14E10524T

2000 2500

A.C. Dynamic Speakers Field Power from A.C.



M A.C.
Line using an 80
tube. Inductive
Shunt Hum Bucking device eliminates hum of old
style A.C. Dynamic style A.C. Dynamic Speakers. 2500 ohm field. Volce Coll dlameter 78.7. Im-pedance 5 to 7 ohms. Resistance 4.2 ohms. Handles 6 0 0 0 milliwatts audio power. Fleid rectifier operates on 115 volt. 60 cycle A.C. Overall Di-

M.C. Overall Di-M. Depth 4%". Type 80 tube not in-Shipping weight 834 lbs. 8'2" DeLuxe A.C. Model

8'2" DeLuxe A.C. Model 14E10575—Less Output Transformer YOUR \$5.55 PRICE 14E10575T-With Output Transformer

11" De Luxe A.C. Model

11" overall diameter, 6" depth. Shipping weight 10 lbs. Electrical specifications same as above but responds to deeper tones better than 8½" Model. 14E10577—Less Output Transformer YOUR __\$6.45

PRICE 14E10577T-With Output Transformer \$6.95

(Specify Output Transformer desired by giving type letter indicated in table be-

11 Inch De Luxe

For 10 Watt Output With 10 Watts in Field

VALIR PRICE EACH Less Transformer

The II Inch DeLuxe Speaker is designed for superior tone quality. superior tone quality, and high efficiency. A large size field pet and extra large voice ceil insures high sensitivity at all frequencies. For traveling musicians, the 11 inch Delaws Model is unexcelled. It is particularly suited to ball-rooms and small theater installations where a well rounded tone is necessary to accommodate the acoustics of undraped walls

Installations where a well rounded tone is necessary to accommodate the acoustless of undraned walls and constantly changing absorption factors. Extrastrong cone of moulded seamless material supported at the edge by the heavy steel frame and at the apex by a special resiliant micatra spider. The spider actually carries the voice coil. thus maintaining perfect alignment regardless of expansion or contraction of the cone with temperature changes, inductive Shunt Hum Bucking device is an integral part of this speaker. Voice Coil diameter 1½", Resistance 5 olms, Impedance 5½ to 7 ohms. Full it watt carrying capacity. Overall diameter 11". Depth 6¾". Shipping Weight 6½ lbs. A portable housing or large haftle should be embloyed with this speaker to properly reproduce low notes.

YOUR	Less Output Transformer PRICE \$2.95
EACH	Ten for\$28.00

Stock Number	Field Ohms	Stock Number	Field Ohms
14E10540	1000	14E10543	2500
14E10541	1500	14E10544	3000
14E10542	2000	14E10545	6 V. 4

With Output Transformer (Specify Output Transformer desired by giving type letter indicated in table below.)

YOUR PRICE

Ten for.....\$32.50 Number Number Ohms 114E10543T 2500 114E10540T 1000 114E10541T 114E10642T 114E10544T 3000 114E10545T 6 V.

1500 2000 NOTE: Special values of field resistance less than 3000 ohms other than stock sizes can be supplied for 75c extra.

SPECIAL NOTE: Universal 500 Ohm Line to voice coil matching transformer listed below for these speakers.



New 5 Inch Speaker YOUR PRICE \$1.45

With Self-Adjusting-Ratio Coupling Transformer. 4E | 0560 2500 ohm field. 4E10561-3000 ohm field.

4E10561—Journal of the state of a special damping design which makes impedance matching non-critical. The following single output tubes operate properly with this transformer; 38, 41, 42, 43, 45, 47, 245, 71A and 89 triode. Voice coil resistance, 2½ ohms, Impedance 3.3 to 4 ohms. Overall diameter 5", depth 2½". Shipping weight 2½ lbs.

Select Proper Output Transformer from This Chart

When Ordering Speakers Specify Output Transformers Required by Stating Type Letter of Transformer

	FOI	FOR TUBES IN PUSH-PULL			FOR SINGLE TUBES					
Transformer Type	(A)	0	0		0	(3)	0	(9	0
Ratio	27 19:1	35:1	43	5:1	60:1	20:1	27 1 2 : I	3	5:1	45:1
For The Following Types of Radio Power Tubes	48 2 A 3	43 45 2B6 71A 12A5 482B 483	2A5 20 33 42 46 47 6A4 89	PZH GA KR5 59P 89P PZ LA P. or T.	10 38 41 49T 12A AE KR25	48	13 45 2B6 71 \ 2A3 12A5 48 50	2A5 20 33 42 46 47 6A4 89	PZH GA KR5 59P 89P PZ 1.A P. or T.	10 38 41 49T 12A AE KR2

121/2" Standard Dynamic



For P. A. Systems and large Sets. <u>635</u> FACH

Less Output Transformer

Tremendous Vol Volume with 10 Watts of Audio Input. Requires only 9 to 10 watts for field excitation. Reduced Air gap intensities magnetic flux.
Voice Coll Main-Voice Coil Maintained in perfect alignment with full floating micarta spider suspen-

alignment with full floating micarta spider suspen-sion—will not chatter against pole pieces regardless of expansion or contraction of cone diaphragm. This speaker should be mounted on a Baffle of at least 4 ft. diameter for good results. Voice Coil Im-pedance 5 ohms, Resistance 5 ohms. Diameter of V. C. 1½". Overall diameter 12½". Depth 8". Shpg. Wt. 14 lbs.

Less Output Transformer

Stock Number	Field Ohms	Stock Number	Field Ohms 2500 3000 6 V. 4.	
14E10580 14E10581 14E10582	1000 1500 2000	14E10583 14E10584 14E10585		
VOUD DOLO	-			

FACH			\$6.35
Witt	h Output	Transform	er
Stock Number	Field Ohnis	Stock Number	Field Ohms
114E10580T 114E10581T 114E10582T	1000 1500 2000	114E10583T 114E10584T 114E10585T	2500 3000 6 V. 4.
YOUR PRICE			\$6.85

121/2" Standard Dynamic

A.C. Model
Uses a Filtered Field Supply Rectified by a Type
80 Tube. For 115 V. A.C. 80 Cycle.
14E10595—Less Tube and Less Output Trans-114E10595T-Less Tube and with Output YOUR PRICE \$12.85

Full 10 Watts of Field Power available from the filtered rectlified A.C. line supply. Type 80 tube provides most economical system of rectification for this purpose. Voice coil and cone construction is the same as the D.C. 12½" Standard Dynamic described above. Shipping weight 19 lbs.

14" Standard Dynamic

For Permanent Public Address Installa-tions, Theaters, Auditoriums, Churches,

tions, Theaters, Auditoriums, Churches, Athletic Fields.

Handles Full 12 Watt Audio Input—10 Watt Field.

A Super Power Dynamic Speaker for use with large P. A. Systems which must distribute great volume of sound without marked directional effect. Voice Coll:— Impedance 6 ohms; Resistance 5 ohms. Diameter 1½". Overall diameter 11", depth 9". Shipping weight 15 lbs.

	Less	Output	Transfor.	mer	
Stock	1	Field	Stock	1	Field

EACH				・ウロ・フコ
YOUR				\$6.95
14E1060 14E1060 14E1060	1	1000 1500 2000	14E10603 14E10604 14E10605	2500 3000 6 V. 4.
		1000		2500
Number		Ohms	Number	Ohins

Number	Ohms	Number	Ohms
114E10600T 114E10601T 114E10602T	1000 1500 2000	114E10603T 114E10604T 114E10605T	2500 3000 6 V. 4.
YOUR PRICE			\$7.55

14 Inch Standard Dynamic

A.C. Model

115 Voit A.C. 60 Cycle Rectified Field Supply.

Uses type 80 tube and Filter System. This speaker is identical electrically to the 14" Dynamic described above.

14E 106 15—Less Tube and Less Output Trans-

114E10615T-Less Tube, with Output Trans-

For all of Above Models
(Specify Output Transformer desired by giving type letter indicated in table on on page 40.)

Special Field Coils under 3000 ohms can be supplied to order, \$1.50, extra.

Dynamic and Magnetic Speakers

Miniature Speaker Cabinets

4E10488-\$149 PRICE Ten for \$13.50

cothic design. Solid, rigid construction. Natural walnut veneer front in rich hand rubbed brown finish. Suitable for 5" Magnetic unish. Sultable for 5" Magnetle and Dynamie Speakers. Handsome appearance. Provides excellent baffle. Overall size 9" high, 7" wide, 314"



deep. Cabinet with 5 Inch Magnetic Speaker Speaker chassis not mounted, no connecting corincluded.

4E10489-YOUR PRICE EACH ... \$2.65 Ten for..... ...\$25.00

New Walnut Cabinet

For Magnetic Por Magnetic or Dynamic Speakers Takes any Speaker Not Over 9 Inches Diameter. 14D10481—Cabinet Only. List Price \$3.50. Your Price, \$1.85

TEN FOR \$16.75

Attractive new design cabinet. Genuine Walnut front and sides in rich warm walnut brown fin-ish. Neat grille with fine, dark gold, figured,

fine, dark gold, figured, two tone grille cloth. Very strong and rigid yet light in weight. Placed back of front grille is a heavy laminated baffle board with centered 5½" circular hole. Veneer back cover drilled with six 1½" holes makes for a finely finished job and Insures. best acoustic properties. Height 11". Width 10¾". Depth overall 8½". Serew holes omitted so that properly finished job can be made with any speaker. with any speaker.

Cabinet with 8 Inch Magnetic Speaker 14D10482-YOUR PRICE ... \$3.65 EACH

TEN FOR \$31.50

Special Speaker Cabinet

For Magnetic or Dynamic Speakers



Attractive Square Design 14D10483 our Price \$1.25 Each . TEN FOR \$11.90

Same cabinet knocked down, unfinished and with no grille in front 4D10484— Your Price, 59¢

TEN FOR \$5,40 Takes any speaker uine Walnut front. midget sets. For speakers or not over 834" d ror speakers or muget sets, takes any speaker not over \$%" diameter. Genuline Walnut front. Rich two tone gold griffe cloth back of attractive grifle. Warm Walnut-Brown finish. Size overall 12½" high, 12½" wide. 8" deep. Inside dimen-sions, 8%" high, 10½" wide, 7" deep.

Walnut Cabinet



Speakers Midget Sets 14010480 Your Special Price **\$2.94**

A beautiful Gothic Cathedral design in high design in high grade fine quality

Anish. Suitable for mounting any speaker chassis hown on this page or any other speaker not over 13½ inches diameter. Front frame of speaker is anish. 1.392 incises animeter. From frame of speaker is of beautiful wainut veneer in rich butt grain. The attractive grille backed with gold brodze slik grille cloth is in contrasting lighter tone. Edge of grille base and routing on side of the case are outlined with dull black lacquer. Heavy % in. sides. Size 16 in. high, 14 in. wide, 9½ in. deep.

5 Inch Magnetic

4E | 045 | -List Price \$2.50. YOUR PRICE \$1 EACH

Ten for Siv.50 Midget type speaker. Sturdily built. Very fine tone qualities. Overall distances 5-%". Overall depth 2". Heavy pressed steel frame, cadmium plated. Heavy magnet belanced armature unit. Bakelite is a second of the second of th Ten for \$10.90

with improved balanced armature unit. Bakelite strip with mounting lugs. Recommended as a replacement speaker in Midget A.C.; A.C.-D.C.; Battery Sets; for Hotel Room or other P.A. multi-unit installations; for extension speaker on any home or auto set. Handles about 1½ watts without blasting. D.C. resistance about 1000 ohms.

6 Inch Magnetic

83/8" Magnetic



4E 1 0450-List Price \$4.50.

Your Special \$195 Ten for \$17.90

A highly efficient speaker that gives more volume on less energy input. Finest tone quality with true fidelity. Operates at peak with about 0.7 watts power input. Extra heavy magnet with balanced armature unit which is deal speaker for original installation in battery set or for use as an extra extension speaker in sets

or for or for use as an extra extension speaker in sets using dynamic speaker. Mounted in Walnut cabinets we supply, this speaker makes a very high grade installation on Hotel and P. A. jobs, D.C. resistance about 1000 ohms. Overall diameter 8% inches. Depth 43%". Bligid steel frame with mounting holes in outer diameter.

Special 41/2" Dynamic



250 Ohm Field, Voice Coil 5/8", 2 Ohms Impedance 4E 10555—List Price \$2.50. VOLLE

EACH

Ten for \$6.50

Ten for \$6.50

The Smallest Satisfactory Dynamic Speaker Made. Three voice coil support. Low resistance flum-Bucking coil. Handles 1½ watt signal with surprising tone quality for such a small reproducer. Extends 2½ back of baffle. Output Transformer not included. Instruction sheet explains how to add this speaker to existing circuits without use of transformer, as a "second" or "high frequency accentuating" speaker. Low resistance field coil permits substitution of field in place of first filter choke in majority of receivers.

41/2" Twin Dynamics 4E10556—List Price, \$5.00.

... \$1.35 YOUR PRICE, "Twin-Speakers"

YOUR PRICE, "Twin-Speakers" Yes as speakers supplied as Non-Resonant Twins with option of connecting fields for 125 or 500 ohm 50 to 100 milliampere circuit and the option of connecting the voice coils for 1 or 4 ohm impedance circuit. Especially recommended for use with small P. A. Systems where small speakers must be employed near the microphone without feed-back distortion and the large regular speakers used at a distance from the microphone. Handle 3 watts. We recommend our 500 ohm line to 4 ohm voice coil matching transformer to couple these speakers in circuit with larger dynamic units.

A. C. DYNAMIC A.C. Rectifier Metallic Rectifier 14010453

Your Price \$4.76

Field coil current obtained

with

single 45, 71A, 50 or 2A3 tube. Cone is 9" in

BEST'S Kinematic Power

Speaker A new design. Handles amazing power without rattles or distortion. Has amazing power without rattles or distortion. Has a me power handling capacity as Dyn am i consize. Requires no field current. Used to replace Dynamics where field current is not available. Especially suitable for P.A. extensions, replacement of magnetic Speakers, or as second Speaker in Console Sects. Die east zine body securely anchored to steel cone frame. Has permenent magnets. Impedance coll and capacity units mounted on frame prevents D.C. from entering impedance creuit and admits A.C. only to speaker windings.

With Impedance Capacity Unit

net weight.
4E10475—
List Price, \$6.00.

YOUR

rower Handling Capacity 110-7000 cycle freq. 2 lbs. net weight. 4E10476—List Price, \$7,50, YOUR YOUR \$3.10 YOUR \$3.65

8" Diameter Cone
Overall depth 24". Power handling capacity 3½"
watts. Frequency 100 to 7000 cycles. Wt., 3 lbs.
4E 10474—List Price, \$8.50.

YOUR PRICE
\$4.15 Without Impedance Capacity Unit

Same physical and electrical specifications as those listed above except without impedance coll and capacity unit. Approx. 1000 ohms impedance. and capacity unit. Approx. 1000 onms impedance.

5" Diameter Cone 45" Diameter Cone 45" 10472—
YOUR PRICE \$2.40

8" Diameter Cone

4F10473-YOUR PRICE

Best Midget Dynamic Chassis



Best Midget Dynamic Chassis

Diameter 5 Inches
Especially designed for
Midget, and AC-DC Sets.
Fidellty of tone surpassed
only by the linest of
large size specific per a kers.
Strong rugged construction. Rust proof alumtinum fin i sh. Moisture
proof cone. 16 mounting
holes in flange of cone
housting. Mo un tin g
bracket with 2½" centers is part of field houstones in gange of cone
housting. Mo un tin g
bracket with 2½" centers is part of field housters is part of field houswith 18, 2%". Imp. 4.25 ohms. Pwr.,
4 watts. Res., 3 ohms. Shipping weight, 2½ lbs.
WITH INPUT TRANSFORMER FOR
YOUR PRICE
FACH

4D10466 Single 43, 45 or 71A 4D10467 Single 41, 42, 89 or LA 4D10468 Single 38 4D10469 Single 48 or 2A3

YOUR PRICE \$275

TEN FOR \$25.00

Best 61/2"



Dynamic A Special Value 4E10470— List, \$9.50. Price, \$195 List, \$9.50. Your Price,

TEN FOR \$18.00 TEN FOR \$18.00

Full Size Genuine Best
Dynamic Speaker Chassis.
One-piece moulded e on e.
Diaphragm type spider holds
voice coil in exact center
regardless of expansion or
contraction of cone. Rustproof aluminum finish.
Strong, rugged construction.
Field resistance 2500 ohms. Output transformer
for single type 47, 2A5, PZ, PZH, 79, 89, 33, 68,
GA tubes. Overall diameter 6½" Depth 234".
Core diameter 5½" Power handling capacity 3
watts. Power dissipation of fields 5 watts.

Speaker Centering Shims



3E7970-Your Price, Per Kit.... 396

Replacement Speaker Field Coils



They duplicate exactly the electrical and physical characteristics of the originals. All coils are double dipped in a special impregnating solution and will withstand extreme moisture and changes of temperature. Resistance guaranteed accurate.

Persistance guaranteed accurate.

Field Coils Supplied for All Speakers

We can supply any field coil not included in our listing. When ordering Special Field Coils please send us the following information: (1) Inside diameter of hole through center of coil, (2) Outside diameter of coil, (3) Width or helght of coil. (4) Resistance of coil, (If you cannot determine the resistance send a short please of wire used in the windings of the coils.) (5) If possible give us the name and model number of both speaker

	unu re	ceiver.	
Field Ohms	Stock Number	Your Price	Se
1,100	3E7912	\$2.50 2.50 2.50	M
2,500 600	3E7915 3E7916	2.10 1.35 3.53 4.70	-
		2.59 2.35	
4,500	3E7920	3.25	_
2,500 1,000 1,800 2,500	3E7922 3E7923 3E7924 3E7925	2.57 2.75 1.75 1.65 1.47 1.21	0
5,000	3E7927	3.50	P
		2.20 2.85	R
3,100	3E7930	3.25	R
2,730	3E7931	3.25	S
2,730	3E7932	3,30	
1,250	3E7934	4.41	υ
	3E7935	2.20 1.50	
1.650 765	3E7937 3E7938	2.00 1.88 1.94	v
	0hms 1,700 1,100 700 2,500 600 600 1,500 1,500 1,500 1,500 1,500 2,500 2,500 3,100 2,500 2,500 2,750 3,100 2,730 1,250 1,756 1,756 1,756 1,756 1,756 1,756 1,756	Field Ohms Stock Ohms Number 1,700 3E7911 1,100 3E7912 2,500 3E7915 600 3E7915 600 3E7915 6,000 3E7917 1,500 3E7917 1,500 3E7918 1,500 3E7920 1,500 3E7920 1,000 3E7920 1,000 3E7920 1,000 3E7920 3,100 3E7926 3,500 3E7927 2,500 3E7927 2,500 3E7928 7,500 3E7930 2,730 3E7931 2,730 3E7931 2,730 3E7931 2,750 3E7931 1,250 3E7934 1,750 3E7934 1,750 3E7935 1,650 3E7936 1,650 3E793	Ohms Number Price 1,700 3E7911 \$2,50 1,100 3E7912 2,50 2,500 3E7913 2,50 3E7915 3E7915 3,53 600 3E7915 3,53 5,000 3E7913 2,59 1,500 3E7913 2,59 1,500 3E7913 2,59 1,500 3E7921 2,57 1,500 3E7921 2,57 1,000 3E7922 2,75 1,000 3E7923 1,75 2,500 3E7922 1,75 1,000 3E7923 1,75 2,500 3E7927 3,50 3E793 3,25 2,20 3,100 3E7923 3,25 2,730 3E7930 3,25 2,730 3E7931 3,25 2,730 3E7932 3,30 1,250 3E7934 4,41 1,750 3E7934 4,41 1

Set or Speaker	Field Ohms	Stock Number	
MAJESTIC (Continued)			
G11C, 201, 203, 204	1,430	3E7940	2.20
G13, 253, 254, 211, 214	570		1.55
G4, Models 130	7.650		4.41
G5 Models 131, 132,	7,000	321341	7.72
233, 61, 72, 163	7.650	3E7942	3.51
200, 01, 72, 100	7,000	32.342	3.72
G6, Models 51, 52, 131	1,000	3E7943	3.55
G7, Model 21	1,250		4.41
G8. Model 22	1,250		4.41
G9, Model 23	1.250		4.41
G13B, Model 353	300		1.95
Glab, Model 333			
G14, Model 351	750	3E/948	3.88
G14B, Model 353	550	3E7949	3.88
G14C, Model 223	5,350		3.88
G14D, Model 223	720	3 E 7951	3.53
GLAE Model 221	5.350	3E7952	3.88
G14E, Model 221 G14F, Model 307	1,040		3.88
Models G13C, 215	570		1.94
Models G13C, 213	370	3E/334	1.34
OXFORD (Medium)	4,000	3E7955	2.75
PHILCO Model 20	3.300	3E7956	1.19
86, 87, 65, 95, 76, 96, 77	2,000		1.74
RCA Model 66	7,000	3E7958	2.2
106	6,000		2.45
			_
ROLA Model F4	3,000	3E7960	1.75
STEWART WARNER	i		
Series 950,	1.000		
Models 200A, 445A, 565A			3.9
Model R202	10,000	3E7962	2.3
UTAH Model 97, A-100	2,250	3E7963	3.00
Model Little Giant	_,_,,		
(Isdoyne)	2,500	3E7964	1.9
VICTOR RE32-45-75	3.000	3E7965	1.9

Magnavox Automobile Speaker

Models 150.4 - 154.4

New fine quality are the outstanding features of the new, improved Magnavox Auto Speakers. Tone is full, rich and true—a conspicuous feature among auto speakers.





When ordering specify type of tube or tubes speaker is for and whether connected in single or push-pull. The correct output transformer will be



4E 10625— Type 150A 6½" mo List Price, \$10.00. model. YOUR \$4.21 PRICE

4E10626-Type 154 \ 8" model. List Price \$12.00 YOUR \$4.95 PRICE

Magnetic Speaker Coils

for RCA R-100, 30, and Western Electric 540AW Magnetic Speakers 3E7968-Your Price, Per Pair 356

Exactly duplicate the original coils physically and electrically. Total Resistance 1500 ohms. Size 21/32" Outside diameter with &" hole. Thickness &". See Figure 52, Page 43, Gernsbach Manual Vol. 1.

For RCA R-100A, 100B and 103

D.C. resistance 1200 ohms. Size of each coil, 1\%" outside diameter, \%" hole diameter, \%" thickness, For Speakers used in RCA Models 30A, 50 and 51. For use with any Speakers using this same size coil.

3E7969— YOUR PRICE, PER PAIR 35¢

Special Speaker Field Coils For APEX, GLORITONE U. S. Radio & Telev.

and Mont. Ward Sets High grade coils wound more accurately and impregnated more thoroughly than the originals. The complete specifications given below assure you or receiving exact coil needed.

\$147

YOUR PRICE Fact. Our Stock Num. Set Spkr. Model Num. Dimensions I. D. O.D. L. Ohms 3E7900 5,935T *3E7901 11,500T *3E7902 11,500T *3E7903 11,500T *3E7904 11,500T 2 14 ° 7.8 ° 2 5 ° 1 12 ° 2 14 ° 1 3 4 ° 2 14 ° 1 3 4 ° 1 7 14 $\frac{2286}{2467}$ $\frac{2758}{2758}$ 7.6 € 2925 14. 78" 214" 134" 114" 214" 112" 124" 134" 124" 224" 134" 124" 224" 134" 134" 224" 134" 3261 3E7905 1,000 1936 3E7906 11,000 2505 3E7907 700 2801 43E7908 6,600T 3261 3E7910 1,000 26P 27 32

*Tapped at 2400 Ohms | †Tapped at 3000 ohms.

Paper Rings For Speaker Mounting 3E7971-



Your Price, Per Set 25¢

Radio Repair Cement



For Speaker Cones. Anchoring Wires Etc. 3E2066 YOUR PRICE, Per Set

Waterproof. Makes extra strong durante form. Ready for use. Generous size metal can will last for months. Brush and can of thinner included. for months. Brush and can of thinner included. Thinner is also useful for loosening cemented wires and removing voice coils.

For RE32, 45, 57, 75

Made of reinforced one piece fabric, coated with metalized lacquer. Apex is double reinforced, a feature not used in the original. Bakelite voice coil bobbin with 4 layers of precision wound wire Far superior to the original part.

YOUR PRICE, EACH 89¢

Improved DeLuxe
VICTOR Cone

For Majestic Speakers G1, G2
One piece moulded, seamless fibre. The original part in these Speakers is of heavy paper and does not provide reproduction at all comparable with that of these replace-the change and note the Make the change and note the improvement.

4F11560 For C1 4E11561-For G2

YOUR PRICE 94¢ EACH

For Atwater Kent 43, 46, 55, 60, 66, 67, 74 Equals or surpasses the original cones.

4E11500—Part 15142. 4E11501—Part 14374. 4E11526—YOUR

FOR RADIOLA 106, R80, R82, R86, R35, R39, RE57, R84, R50, R55, RAE59, RAE79, AZ774B, R41DC, R46, R47, R66, R41AC, R67, RG4, 9.54, 9.18, 7.26, 9.56, 12-12. WESTINGHOUSE WR4, WR5, WR6, WR7, RCA VICTOR RES7, 34, 35, GRAVEAR GR878, GB700, GB700, GB900, GB100, GEN. ELEC, J80, J85, J76.

4 E | 1 5 8 4 - F o r Models 90, 3, 7, 20, 21, YOUR PRICE . 61¢

For Radiola

104, 105

Replaces the out-of-date seamed paper type cones used originally in the speakers of this type.

4E11585-

\$1.19 PRICE

> For Brunswick , S82, 81, 82, 14 31, S14, S21, S31 14, 21,

One-piece seamless cones.

2-Due to improved molded construction, these cones sur-pass the originals in tone quality and durability.

3— Coils are machine wound, same number of turns and size of wire as originals.

WE CAN FURNISH CONES FOR ANY

YOUR PRICE \$	1.1	PRIC	E, EAC	\$1.10 ¢	EII5I OUR PI	9— RICE		\$1.42	WE CAN FUR SETS NOT L cone with voice	NISH STED: coil a	CONES F Send in stached.	OR ANY your old
Set or Speaker Model or Part Number	Diam.	Stock Number	Your Price	Set or Speaker Model or Part Number	Diam. In.	Stock Number	Your Price	Set or Sp or Pa	eaker Model t Number	Diam, In.	Stock Number	Your Price
AIRLINE 62-70 Utah Large Cub No.3 332-W (Little Giant No.1)	8 8	4E11523 4E11507	\$1.23 1.23	LYRIC Model No.9 D Model 8-7 (Jensen D15 Model 10 Model 8-6 (Rola F-6)	1014 84 9 74	4E11545 4E11529 4E11546 4E11547	1.10 1.23 1.34	RCA (Con RCA M34, R-78, RAE CRD-9D(28	5 10	4E11588	\$0.61 1.10
ATWATER KENT 43, 46, 55, 60, 66, 67, 64 (Part No. 15142) 43, 46, 55, 60, 66, 67, 64	1014	4E11500 4E11501	\$1.19 1.19	Model 88 Model 880 MAGNAVOX D7, D8	934	4E11548 4E11549 4E11550	1.23 1.23 51.34	10,0,10,0,	R77, RE81 R70	736 10	4E11590 4E11591	1.10
(Part No. 14374) 80, 82, 84, 558, 627, 87, 90, 92, Early 83, 85 (Part No. 19465)	83%	4E11502	.98	130 Series, Model 136 130 Series, Model 138 140 Series, Model 142	81 ₂ 81 ₂ 91 ₂	4E11551 4E11525 4E11553	1.22 1.22 1.22	ROLA F5 Series F6 (Old Model D110	"J"),1990,	8 915	4E11593 4E11594 4E11595	51.10 1.17 1.22
H2, L. F. P. H. (Part 18081) 77, 88, 89, 94, 96, 469,	1034	4E11503	1.23	Model 143 Model 144 Model 150 Model 154	11 14 7 1 ₂ 6 8	4E11554 4E11522 4E11556 4E11524	1.34 1.18 1.10 1.22	Series "K"	(N.E.)	6	4E11592 4E11630	50.98
BOSCH 58, 48 31, 73, 20J	954	4E11510 4E11510 4E11511	51.35 1.35	Deep MAJESTIC	1116	4E11559 4E11558	1.42	5PARTON 737, 931, 89 109, 110, 1 591, 593, 7	A, 99, 101, 1, 301, 589, 40, 750, 930 ensen D7)	9	4E11550	51.34
5A, 39A BRUNSWICK 10 D, E D11, 12, 16, 18, 33	7 83 9	4E11514 4E11516	\$1.23 1.23	G1—Models 71, 72 G2—Models 71, 72, 91, 92, 181 G3—Models 90, 91, 93, 101, 102, 103	9	4E11560 4E11561	.94	737, 931, (J 600 Series (600 Series (Model 410	Jensen 1915) Magnavox 138)	11 1/4 8 1/4 7 3/4 7 3/4	4E11531 4E11529 4E11525 4E11596	1.34 1.10 1.10 1.27
1011, 12, 16, 18, 33 E17, 24, 25 S81, S82, 81, 82, 14	12 12	4E11517 4E11518	1.42 1.42	101, 102, 103 G4—Model 130	10	4E11562 4E11563	.98 .98		All Models	10	4E11597	1.42
E17, 24, 25 881, 882, 81, 82, 14 21, 31, 814, 821, 831 15, 22, 32, 42 CLARION 60, 80, 81, 85,	12 12	4E11519 4E11505	1.42	G5—Models 131, 132, 233, 61, 62, 163 G6—Models 51, 52, 53	12 10	4E11564 4E11565	1.42 1.22	200A, 445A	-WARNER , 565A, (950 Point Spider) nt Spider)	o o	4E11598	\$1.34
90, 91, 100, 120, 25-60 220, 260, 25-260	8 3 g 6	4E11514 4E11515	\$1,22 1,10	G7—Model 21 G8—Model 22 G9—Model 23	10 12 12	4E11566 4E11567 4E11568	1.22 1.42 1.42	104 A R 202		8 14 8	4E11599 4E11600 4E11601	1.34 1.22 1.22
CROSLEY 262, 428, 408, 628 124 (Utah Cub No. 2) 124 (Jensen D-9)	9 8 114	4E11520 4E11509 4E11521	\$1.19 1.41 1.34	G10B—Models 151, 153, 154, 155, 156 G11—Models 251, 253, 254, 201, 203, 204	7 1/3 10	4E11569	.98 1.18	30, 31 (Uta		11 714	4E11508 4E11509 4E11602	\$1.42 1.22 1.10
124 (Magnayox 144) 125 (Utah Cub No. 3) 135 (Magnayox 154) 249 (Magnayox 138)	712 734 8 814	4E11522 4E11523 4E11524 4E11525	1.34 1.34 1.23 1.23	254, 201, 203, 204 G13—Models 253, 254, 211, 214, 353, 215 G14—Models 351, 353,	12	4E11571	1.10	20, Speaker 26, Speaker 26A, Speake 26P, Speake 26P, Speake 26P, Speaker 27, Speaker	2286 er 2467 er 2758	8 8	4E11603 4E11604 4E11605	.98 .98 .98
FADA Shallow Deep (Models 20, 32, 25,	812	4E11626	\$1.34	223, 221, 307 G19 Models 291,3293, 294 303, 304, 324, 314	12	4E11572 4E11573	.98			815	4E11606 4E11607 4E11608 4E11609	1.10 1.10 .98 1.10
15, 15B, 15C) KU45, 41, 412, 42, 422, 44, 46, 47	812	4E11627 4E11628	1.34	G22—Models 336, 344, 363, 393	12	4E11574	.98	10B, Špeake 99A, Špeake	r 3261	10 8	4E11610 4E11611	1.22
GENERAL ELECTRIC T41, H31, H51, H32, 1172, S22, 842, S132, K62, 842B	1014	4E11526	\$1,23	G25A—Model 381 G26A—Models 371, 373 G26C—Models 411, 413, 411A, 413A	5 5	4E11575 4E11576 4E11577	.68 .73	Utah Cub (Cub (3 Poir Large Cub Solder)	2 Point Spider) it Spider) No. 1 (Inside	6 6 734	4E11633 4E11613 4E11614	\$1.10 1.10
GENERAL MOTORS		4E11527	1,23	D65—Model 331 (Best) D-5 Models 371, 373 GJ-16B—Model 311		4E11555 4E11578 4E11534	.95 .81 1.10	Large Cub Spider) Large Cub	No. 2 (2 Point No. 3 (3 Point	7¾	4E11509	1.22
"Little General (Rola K) GRAYBAR GB678.	734	4611320		NEWCOMB-HAWLEY	9	4E11550	51.34	Spider) Little Giant Spider) (Is	No. 1 (Inside odyne)	7¾ 8	4E11523 4E11507	1.22
GB700, GB770, GB900, (RCA 106) GB8, GB989, GB9, GT7, GC13, GC14, GT8, (RCA		4E11526		OXFORD 2 Point Spider (Joy Kelsey) 2Pt. Spider 2 Point Spider	10	4E11579 4E11580 4E11581	\$1.18 1.22 1.22	(Spider)	No. 2 (2 Point No. 3 (3 Point	8	4E11616	1.22
48)	10	4E11527		3 Point Spider 3 Point Spider		4E11632 4E11582	1.34	(Spider) A100 Stadium (66			4E11506 4E11617 4E11508	1.22 1.34 1.42
Giant No.1 Inside Spider	8 914	4E11507	1.23 \$1.42	PHILCO 87, 65, 95, 76, 96, 77, 40, 111, 90, 112 90, 3, 7, 20, 21, 70	10 8	4E11583 4E11584	\$0.68	VICTOR R RE57, 34, 3	E32, 45, 75 5 (RCA106)	9	4E11618 4E11526	\$0.89 1.22
JENSEN D4, D5 D7, D8 D9 (Outside Spider) D9 (Inside Spider) D11	1114	4E11531 4E11532 4E11521 4E11533	1.42 1.32 1.32 1.18	RCA 104, 105 106, R80, R82, R86, R29, RE57, R34, R50, R55, R46, RAE59, RAE79,	8	4E11585	\$1.19		WR6, WR7 12, WR15	1014	4E11526 4E11527	51.22 1.22
D15 D16 AUDITORIUM DA5,	8.54	4E11529 4E11534	1.10	R46, RAE59, RAE79, AZ774B, R47, R41DC, R66, R41AC, R67, R62, RG4, 9054, 9-18, 7-26, 9-56, 12-15	1014	4E11526	1.10	No. 107	DECOSTER	12	4E11631	\$1.42
DA6, DA7, J1, J2	13 6 15	4E11535 4E11536 4E11537	2.70 .98 .98	48, R7, R7A, R8, R10, R11, R12, R15, R18, R19, R20, R23, R42, R14,			1.10	52, 72, (Oxf	ord) 8)	12	4E11620	\$1.42
343 D19 D1 D10	10	4E11538 4E11539 4E11540	1.34 1.10 1.18	R11, R12, R13, R13, R19, R20, R23, R42, R14, RE17, R29, R43ED, RAE 26, RE73, CE29, R6, R21, RE16, RE16A	1 1			(Symington 52, 72, (Mag 52, 72, (Far 92 (Jensen 1	znavox) rand)	1134	4E11621 4E11622 4E11623	1.42 1.42 1.42 1.42
D12, D14 PM1 T1, T2	812	4E11541 4E11542 4E11543	1.18 1.10 .98	R21, RE16, RE16A Photophone Photophone	10 1434 772	4E11527 4E11586 4E11587	.88 1.71 1.10	103 (Peter 8 "Zenette" A. B. C. D	śmith)	8 i	4E11521 4E11624 4E11507 4E11551	1.42

EXACT DUPLICATE

THEY FIT! Mounting holes, lugs, voltages and everything exactly like the original. Better indulation and higher safety factor than the original but otherwise the same. If the transformer you desire to replace is not the one originally supplied with set, send us on a separate sheet with your order, make, model, and style mounting employed and we will supply the proper replacement. The leading transformer factories of the country are located only a few blocks from our plant and are cated only a few blocks from our plant and are prepared to duplicate almost any transformer you desire, very promptly.

STANCOR

REPLACEMENTS

Complete Stock-Quick Shipments

Additional Models

We are constantly adding to our stock additional models of Replacement Power Transformers. If the transformer you require is not quoted here, write us for price, stating make and model of the receiver and the number and type of tubes used. We will promptly send you a low quotation on the job and guarantee an exact replacement.

RADIO MODEL

POWER TRANSFORMERS **Diagram of Connections**

Each unit is packed in an individual earton containing a planograph which plainly designates the connecting leads, the voltages, and gives the circuit. When ordering, state name, model number of the set for which transformer is required together with the stock number and you will be assured of prompt shipment.

25 Cycle Can Be Supplied

Transformers for 25 cycle current can be supplied for any Radio Models listed at an additional cost of 60% above price quoted for 60 cycle Transformers.

Stancor Type No.

List Price

Radolek Stock No.

RADIO MODEL	Shpg. Wt.	Radolek Stock No.	Stancor Type No.	List Price	Your Price
AIRLINE (Mont. Ward) A.E-10 11, 12, 16, 62-29 20-W, 62-520 26-P 32-W, 62-030, 62-232	8 5 3 3 7	3E3629 3E3680 3E3620 3E3621 3E3624	P-1478 P-1136 P-1070 P-1358 P-1291	\$9.25 6.50 4.15 5.00 6.25	\$5.44 3.82 2.44 2.94 3.67
26W 60 1238 1355, 1955 62-21, 62-22, 62-30 62-68 62-010	5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3E3623 3E3625 3E3628 3E3628 3E3631 3E3627	P-1405 P-1404 P-1479 P-1016 P-1461 P-1495 P-1438	5.00 7.00 7.00 7.25 7.75 7.50 7.85	2.94 4.12 4.12 4.26 4.56 4.41 4.62

Airline 26-W and Apex 26-W

Staneor Type No. P-1405. Shipping weight, 5 lbs. List Price, \$5.00.

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3E3623-YOUR PRICE

				- 40	-
ALL-AMERICAN MOHAWK (Lyric) 60, 61, 62, 65, 66, 80 83, 84, 85, 86, 88 90 Lyric D, Lyric H J, P 86	9 7 9 4 5	3E3638 3E3639 3E3633 3E3635 3E3637	P-1463 P-1038 P-1134 P-1406 P-1410	\$8.25 7.20 8.75 5.25 5.25	54.85 4.23 5.14 3.09 3.09
ATWATER-KENT 37, 37C, 38 55-Early, 55C-Early 55-Late, 55C-Late 60-1st type, 60C-2nd type 60C-1st type, 60C-2nd type	6 9 9	3E3649 3E3651 3E3650 3E3652	P-716 P-918 P-913 P-1066	\$5.75 9.25 9.25 9.25	\$3.38 5.44 5.44 5.44
60-3rd type, 60C-3rd type 66 Early & Late—Plate 70-L1 chassis, 70-1.2 chassis 70-P chassis, 72-H1 chassis 72-H2 chassis, 74-L1 chassis 74-L2 chassis, 74-P chassis 76-L1 chassis, 76-L2 chassis 76-P chassis	5 10 5	3E3663 3E3653	P-1500 P-1213	6.10 8.50	3.59 5.00
80, 83 82, 85 84-Early, 84-Late 87-1st type, 87-3rd type 89-1st type, 89-3rd type	5 5 5	3E3655 3E3657 3E3659	P-1088 P-1084 P-1086	6.10 6.10 6.10	3.59 3.59 3.59
89P-1st type, 89P-3rd type	6	3E3661	P-1089	6.60	3.88

Atwater-Kent Models 70, 72, 74, 76 Chassis Models L1, L2, H1, H2P

Stancor Type No. P-1068. Shipping wt., \$259. bis. List, \$6.10. 3E3654-YOUR PRICE



Atwater-Kent Models 37, 37C, 38

Stancor Part No. P-716. Shipping wt., \$5 pounds. List Price, \$5.75. 3E3649-YOUR PRICE



BALKEIT 52, 55	3	3E3664	P-1149	\$4.00	\$2.35
BELMONT 41-series 40, 47-series 40 51-series 50	3 5	3E3665 3E3666	P-1000 P-453	4.25 5.00	2.50 2.94
51 A-series 50 A. 51 B-series 50 B 51 C-series 50 C 71-series 70	4 3 6	3E3667 3E3669 3E3668	P-597 P-1260 P-557	4.50 4.50 6.75	2.65 2.65 3.97
BOSCH 29, 825	10	3E3671	P-859	7.50	4.41
BREMER-TULLY 81, 82, S-81, S-82	11	3E3674	P-1112	8.25	4.85
BRUNSWICK 8-14, 8-21, 8-31, 8-81, 8-82, 14, 21, 31, 81, 82 10 11-D, 11A-D, 12-D, 12A-D, 16-D, 16A-D, 18-D, 18A-D, 33-D, 33-D, 33-D, 33-D, 6hassis)	11 5	3E3674 3E3682 3E3680	P-1112 P-1499 P-1136	8.25 4.40 6.50	4.85 2.59 3.82
5-KR, 2-KR0, 3-KR0, 5-KR0, 3-KR6, 5-KR6 3-NC8, 5-NC8	8 8	3E3677 3E3678	P-791 P-715	8.50 7.75	5.00 4.56

CLARION					
		3E3682	P-1499	\$4.40	\$2.59
AC-40	4				
AC-60	1 7	3E3627	P-1438	7.85	4.61
AC-61, AC-70	7	3E3688	P-1429	8.45	4.97
AC-80, AC-81, AC-84, AC-85, AC-120	5	3E3683	P-1928	5.00	2.94
AC-90, AC-90-A, AC-91	8	3 E 3 6 8 9	P-1166	6.25	3.67
AC-100	Ä	3 E 3610	P-1558	4.40	2.59
	1 6	3E3611	P-1974	6.25	3.67
AC-160	8		P-1494	5.65	3,32
AC-260	8	3E3612	31-1-51914	0.00	3,32
AC-280	9	3E3613	P-1927	6.25	3.67
AC-300	9	3 E 3614	P-1915	8.75	5.14
AC-320	5	3 E 3615	P-1916	3.45	2.03
	1 6	3E3616	P-1871	4.40	2.59
AC-340	1 0		P-1861	4.70	2.76
10-260	6	3 F 3617	17-1861	1 4 (0)	

Shpg.

Clarion A.C. 90, A.C. 90A, A.C. 91

Stancor Type No. P-1166. Shipping wt., \$267

3F3689-YOUR PRICE

3E3689-YOUR PRICE					
CROSLEY 40-8, 41-8, 42-8, 45-8, 82-8, (73 Chassis)	7	3E3698	P-1015	\$7.00	54,12
41, 41-A, 42, 704-B, 706-Show Box Series	8	3E3699	P-1472	7.00	4.12
EARL 31, 32, 338, 41	7	3E3700	P-893	7 00	4.12
EOISON C-2, R-1, R-2 (Plate—JR Clussis)	5	3E3703	P-961	5.25	3.09
C-4, R-4, R-5 (7R & 8P Chassis)	12	3E3704	P-1143	9.50	5.59
FRLA 71, 72, 73, 271, 271-A 81, 82, 245 224, 224-B	8 9 9	3E3707 3E3708 3E3709	P-1464 P-1466 P-1465	7.75 8.50 9.25	4.56 5.00 5.44
EVEREADY 31-Series 30, 32-Series 30, 33-Series 30, 34-Series 30 Series 30-C	9 6	3E3712 3E3713	P-1030 P-1480	9,00 7.00	5.29 4.12
42-Series 40, 43-Series 40, 44-Series 40 52-Series 50, 53-Series 50, 54-Series 50	7	3E3714 3E3715	P-956 P-901	7.50 7.50	4.41 4.41
FREEO-EISMANN NR-55 NR-78, NR-79, NR-90-8, NR-95	7 7 9	3E3718 3E3700 3E3719	P-1471 P-893 P-1101	7.50 7.00 8.50	4,41 4,12 5,00
NR-85 FRESHMAN Q15, Q16, 3Q15, 3Q16 QD16-8 31-8, 32-8, 41	9 9 7	3E3722 3E3723 3E3700	P-910 P-919 P-893	8.00 8.00 7.00	4.70 4.70 4.12
41-Series 40, 47-Series 40 51-Series 50	3 5	3E3665 3E3666	P-1000 P-453	4.25 5.00	2.50
51A-Series 50A, 51B-Series 50B 51C-Series 50C	4 4	3E3667 3E3669	P-597 P-1260	4.50 4.50	2.65 2.65
GENERAL ELECTRIC H-31, H-51, H-71 J-70, J-75 J-80, J-85, S-132 K-62	9 6 7 8	3E3726 3E3738 3E3736 3E3730	P-713 P-1487 P-1483 P-1474	\$8.35 5.20 6.90 8.00	\$4.91 3.00 4.00 4.70
8-22, S-22X, S-42 8-22A T-12 T-41	7 7 5 9	3E3732 3E3734 3E3740 3E3728	P-1481 P-1482 P-1493 P-927	7.50 7.00 5.20 7.35	4,41 4,12 3,00 4,32

General Electric H31, H51, H71

Stancor Type No. P-713. Shipping wt., 9 pounds. List, \$8.35.

3E3726-YOUR PRICE

GENERAL MOTORS				1	
110, 180, 190 (Little General MA Chassis) 211 (8-9-A Chassis) 220 (\$-10-A Chassis)	6 6	3E3743 3E3742 3E3744	P-1485 P-1271 P-1506	\$5.75 5.80 5.80	\$3.38 3.41 3.41
252, 253, 254, 255, 256, 257, 258 (S-3-A Chassis)	, 8	3E3745	P-1492	8.00	4.70

EXACT DUPLICATE

STANCOR REPLACEMENTS

POWER TRANSFORMERS

RADIO MODEL	Shpg. Wt.	Radolek Stock No.	Stancor Type No.	List Price	Your Price
GRAYBAR 310, 311 340 500, 550 600 GB-4 GB-8	8 8 9 8 5 7	3E3677 3E3678 3E3748 3E3749 3E3740 3E3732	P-791 P-715 P-714 P-883 P-1493 P-1481	\$8.50 7.75 7.90 7.50 5.20 7.50	\$5.00 4.56 4.64 4.41 3.06 4.41
GB-8-A GB-9 GB-678 GB-700, GB-770, GB-900 GB-989, GC-14, GT-8 GC-13, GT-7	7 8 9 9 7 6	3E3734 3E3730 3E3728 3E3726 3E3736 3E3738	P-1482 P-1474 P-927 P-713 P-1483 P-1487	7.00 8.00 7.35 8.35 6.90 5.20	4.12 4.70 4.32 4.91 4,06 3.06
GREBE AC-7 (Synchrophase) 118-4 (PP 45s) 148-4 (Pentode) 118-8	7 5 5 5	3E3750 3E3751 3E3752 3E3753	P-1475 P-1476 P-1477 P-1489	7.00 6.00 6.00 6.00	4.12 3.53 3.53 3.53
GULBRANSEN 60-Series 60, 63-Series 60 200 (9 in line series) 291, 292, 295, 9950	6	3E3625 3E3629	P-1404 P-1478	7.00 9.25	4.12 5.44
KELLOGG 523, 533, 534, 535, 536	11	3E3756	P-868	9.50	5.59
KENNEDY 10, 20 26	8 8	3E3757 3E3758	P-792 P-1488	8.00 8.00	4.70 4.70

Kennedy Model 10 and 20

Stancor Type No. P-792. Shipping wt., 8 pounds. List, \$8.00.

3E3757-YOUR PRICE



KOLSTER-BRANDES					
B-15, B-16 K-20, K-21, K-22, K-23,	9	3E3763	P-1193	\$9.50	\$5.59
K-25, K-27, K-28, K-37 E-24, K-36 K-43	8 11 9	3E3760 3E3761 3E3762	P-1190 P-1191 P-1192	8-25 10.00 9.00	4.85 5.88 5.29
KOLSTER-COLUMBIA 950 961	12 12	3E3764 3E3765	P-1194 P-1437	11.25 10.75	6.61 6.32
MAJESTIC 21, 22, 23 (Unmounted 20 classis) 51, 52 (Unn;ounted	6	3E3773	P-954	5.80	3.41
50 chassis) 71, 72 (Plate, 70 chassis) 71, 72 (Fil. 70B chassis)	7 6	3E3776 3E3777	P-905 P-790	5.20 4.00	3.06 2.35
71, 72 (Fil. 70B chassis)	6	3E3778	P-798	4.00	2.35
71, 72 (Plate 70B chassis) 90, 91, 93 (90B chassis) 102 (100-B cha sis)	6	3E3769	P-1486	4.00	2.35
103 (100-B chassis) 91, 92 (90 chassis)	12	3E3779	P-939	7.00	4.12
101 (100 chassis)	11_	3E3780	P-757	6.20	3.64
130, 131, 132 (130-A chassis) 233 (230-A chassis)	13	3E3774	P-1102	8.00	4.70
151, 153 (Unmounted 15 chassis), 154 (Unmounted 15-B chassis), 155 (Un- mounted 150 chassis) 156 (Unmounted 15 chassis)	4	3E3772	P-906	3.70	2.29
181 (Plate, 180 chassis)	11	3E3782	P-789	5.80	3.41
181 (Filament 180 chassis) 211, 214, 215 (Unmounted	11	3E3781	P-805	4.30	2.53
210 chassis) 251, 253, 254 (Unmounted 25 chassis) 251-B, 253-B, 254-B (Unmounted 25-B	8	3E3783	P-1507	6.10	3.59
chassis)	7	3E3775	P-1168	5.50	3.23

\$2.35

Filament Transformer
Models 71, 72 (70 Chassis)
Stancor Type No. P-798. Shpg. wt..
6 lbs. List. \$4.00.
3E3778—YOUR PRICE.......\$2.35

Majestic Models 91, 92 (90 Chassis) Model 101 (100 Chassis) Type No. P-757. Shpg. wt., 11 pounds.

3E3780 YOUR PRICE



NATIONAL CARBON CO. (See Eveready)							
NAVIGATOR	1	1					
41 (Series 40) 47 (Series 40)	3	3E3665	P-1000	\$4.25	\$2.50		
51 (Series 50)	5	3 E 3 6 6 6	P-453	5.00	2.94		
51A (Series 50-A)	1			1			
51B (Series 50-B)	4	3 E 3 6 6 7	P-597	4.50	2.65		
51C (Series 50-C)	3	3E3669	P-1260	4.50	2,65		
71 (Series 70)	1 6	3E3668	P-557	6.75	3.97		

RADIO MODEL	Shpg.	Radolek	Stancor	List	Your
	Wt.	Stock No.	Type No.	Price	Price
OZARKA 90 93-A Viking 91	8 6 8	3E3785 3E3668 3E3786	P-220 P-557 P-1484	\$8.25 6.75 8.25	\$4.85 3.97 4.85

Ozarka Model 90

Stancor Type No. P-220. Shpg. wt., 8 pounds. List, \$8.25. 3E3785-YOUR PRICE

PEERLESS (See United Reproducers Corp.) PHILCO 20, 220 (Chassis 20) 50, 51, 52, 551 65 (Chassis 65) P-762 P-1460 P-711 3E3794 3E3791 3E3795 7 5 8 4.50 7.65 70, 270, 370, 470, 570 76, 77 86 (Chassis 86) 87 (Chassis 87) P-1119 P-785 6.50 7.65 7.65 7.35 3.82 7 7 7 8 3E3806 3E3796 P-786 P-763 3E3798 4.32 90, 490 (Chassis 90, 1-'47) 90, 490 (Chassis 90, 2-'47s) 90 (Chassis 90, 2-'45s) 91 (Chassis 91) 95, 96, 296 P-1468 P-1497 P-1469 P-1498 P-787 3.67 3.45 4.38 6.25 6.25 7.45 5.95 7.15 3E3792 89989 3E3803 3E3793

10 9 7

3 F 3800

3E3801 3E3802

111, 211 (Chassis 111), 112, 212 (2-'45s) 112, 212 (2-'47s) 511 (511 Chassis) Philco Model 65 (Chassis 65)

Stancor Type No. 1'-711. Shpg. wt., 8 lbs. List, \$7.65. Philico Models 20, 220, (Chassis 2)
Stancor Type No. 17-762. Shpg. wt., 7 lbs.
List. \$6.50.

3E3794-YOUR PRICE

Philco Model 87 (Chassis 87)
Stancor Type No. P-763. Shpg. wt., 8 lbs.
List. \$7.35. 3E3798-YOUR PRICE



P-882 P-784

 $7.15 \\ 7.65 \\ 7.65$

4.50

RCA—RADIOLA—VICTOR AP-736, AZ-774B, 10-69 10-51, (above Ser. No. 800) 10-70, (above Ser. No. 2600) 12-15, (above Ser. No. 2600) AP-736B, 9-16X 3E3817 3E3818 P-1473 P-1430 \$17.25 \$10.14 16.25 9.55 AP-777C, R-64, R-67, 9-18X, 9-54 F-35, E-135, E-152, R-32, R-52, RE-45, RE-75, RE-154, RE-156 R-4, R-6 3E3816 P-827 19 22.50 13,23 10 6 3E3819 3E3738 P-717 P 1487 $\frac{8.50}{5.20}$ 5.00 R-5, R-5X R-7, R-9 R-7A R-12, RE-19, RO-23, R-8, R-10 R-11, R-21, RAE-26, RE-18, RE-18A P-1493 P-1481 P-1482 5.20 7.50 7.00 3.06 4.41 4.12 3E3740 5 7 7 3E3732 3E3734 3 E 3 7 3 6 P-1483 6.90 4.06 3E3730 P-1474 8.00 8 4.70 R-14, R-15, R-42, R-48, RE-17 R-17, R-18AC, R-33AC, R-51AC, RAD-50, 7-11, 7-25, 7-26X R-34, R-35, R-39, RE-57, RE-73 9 3E3728 P-927 7.35 4.32 8 3E3677 P-791 8.50 5.00 9 3E3821 P-718 8.00 4.70 R-44, R-46AC, R-47 R-60, R-62 R-66 R-80, R-82, R-86 3E3748 3E3678 3E3749 3E3726 7.90 7.75 7.50 4.64 4.56 4.41 4.91 P-714 P-715 9 8.35

RCA Victor Radiola Models R 80, R 82, R 86 Graybar GB 700, GB 770, GB 900 Westinghouse WR5, WR6, WR6R, WR7

Stancor Type No. P-713. Shpg. wt, 9 pounds. List. \$8.35.

RCA Victor R 44, R 46AC, R 47 Graybar 500, 550 Stancor Type No. P-714. Shpg. wt., 9 lbs. List, \$7.90. 3E3748—YOUR PRICE \$4.64

RCA Victor R 60, R 62, Brunswick 3 NC 8, 5 NC 8 Stancer Type No. P-715. Shop. wt., 8 lbs. List. \$7.75. \$4.56 3E3678-YOUR PRICE

RCA Victor R 17, R 18 AC, R 33 AC, R 51 AC, RAD 50, 7-11, 7-25, 7-26X
Graybar 310, 311. Brunswick 5 KR, 2 KRO, 3 KRO, 5 KRO 3 KR6, 5 KR6
Stancor Type No. P-791. L1st, \$8.50.

3E3677-YOUR PRICE ... RCA Victor Radiola Models E-35, E-135, E-152, R-32, R-52, RE-45, RE-75, RE-154, RE-156 Stancor Type No. P-17. List. \$8.50. \$5.00



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EXACT DUPLICATE

STANCOR

POWER TRANSFORMERS

RADIO MODEL	Shpg. Wt.	Radolek Stock No.	Stancor Type No.	List Price	Your Price
SENTINEL RADIO CORP. 108, 108A, 108B, 110 111, 112, 114, 115, 116 (Chassis 104)	5 7 7	3E3851 3E3850 3E3850	P-420 P-1253 P-1253	\$ 4.80 8.50 8.50	\$2.82 5.00 5.00
SILVER MARSHALL B, J D, E, F Q DeLuxe below No. 40,000	7 7 9	3E3822 3E3825 3E3826	P-1496 P-1439 P-1467	8.00 3.00 8.00	4.70 4.70 4.70
V, 728 Short-Wave Q Short-Wave R Sheridan 750 726 Short-Wave	9 10 5 10	3E3826 3E3823 3E3824 3E3830	P-1467 P-1491 P-1272 P-1490	8 00 9.00 5.00 9.00	4.70 5.29 2.94 5.29
SONORA A-30, A-32, A-40 2RP-25, 3-R, 4-R A-31, A-33, A-35	8 8 9	3E3828 3E3828 3E3829	P-1380 P-1380 P-1462	8.90 8.90 8.00	5.23 5.23 4.70
SPARTON AC-7, 62, 63 9-A, 410, 420, 600A 610A, 620A 25, 26, 26AW, 30, 30A 30B, 45 35, 101, 110, 111, 111A	5 7 7 10 10 12	3E3807 3E3808 3E3808 3E3809 3E3809 3E3831	P-1373 P-1196 P-1196 P-1204 P-1204 P-1412	6.25 8.00 8.00 8.00 8.00 10.25	3.67 4.70 4.70 4.70 4.70 6.03
870 89-A 99, 109 103, 301, 301A, 564 570, 574, 578, 740, 750 589 591, 593, 931	12 8 11 7 7 7	3E3831 3E3810 3E3832 3E3811 3E3811 3E3812 3E3813	P-1412 P-921 P-1411 P-1372 P-1372 P-909 P-864	10.25 7.45 9.00 10.25 10.25 8.00 8.00	6.03 4.38 5.29 6.03 6.03 4.70 4.70

Sparton Models 591, 593, 931

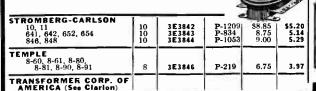
Power Transformer

Stancor Type No. P-864. Shpg. wt., 7 pounds. List. \$8.00. 3E3813-YOUR PRICE

				SADU	N .
SPLITDORF M-5 (Plate)	5	3 E 3 7 0 3	P-961	\$5.25	\$3.09
STEWART-WARNER 801, 801-A, 802, (Series A) 801, 801-A, 802, (Series B)	7	3E3837	P-1108	7.25	4.26
901, 902, 903 (Series 900) 951, 952, 953 (Series 950) R-100-A, (Series R-100)	7 7 7 7 7	3 E 3 8 3 9 3 E 3 8 3 9	P-1470 P-1470 P-1470 P-1470 P-1470	6.50 6.50 6.50 6.50 6.50	3.82 3.82 3.82 3.82 3.82

Stewart-Warner Models 901, 902, 903, (Series 900) 951, 952, 953, (Series 950) R-100 A (Series R-100)

Stancor Type No. P-1470. Shpg. wt., 7 lbs. List, \$6.50.



STANCOR FILTER CHOKES

Top Quality at a Reasonable Price! **EXACT-DUPLICATE REPLACEMENTS**

RADIO MODEL	Wt.	Stock No.	Type No.	Price	Price
ATWATER-KENT 36, 37, 38, 40, 42 43, 44, 52	0.7 0.7	3E3980 3E3980	C-1162 C-1162	\$1.45 1.45	\$0.85 .85
BELMONT 425, 525, 530 545, 625	0.6 0.6	3E3981 3E3981	C-1318 C-1318	1.20 1.20	.70 .70
CLARION AC-160, AC-260 25-160, 25-260 AC-300, 25-300 AC-360, 25-360	2 2 3 2	3E3982 3E3982 3E3983 3E3984	C-1315 C-1315 C-1270 C-1271	1.90 1.90 2.20 1.40	1.12 1.12 1.29 .82
FRESHMAN 425, 525, 530, 452, 625	0.6	3E3981	C-1318	1.20	.70
NAVIGATOR 425, 525, 530, 545, 625	0.6	3E3981	C-1318	1.20	.70
PHILCO 15, 40, 41, 42, 65, 76, 77, 87 (1st position), 95, 96, 111, 112 (using 2-45's), 41 4, 21, 48, 70, 90, (all models), 91, 470, 490, 87 (2nd position).		3E3986 3E3998 3E3987	C-1141-P C-1440-P C-1140-P	2.75 1.75 3.50	1.62 1.01 2.06

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RADIO MODEL	Shpg. Wt.	Radolek Stock No.	Stancor Type No.	List Price	Your Price
TRAV-LER A B C	5 5 5	3E3847 3E3848 3E3849	P-149 P-130 P-187	\$4.75 4.75 4.75	\$2.79 2.79 2.79
TRUE-TONE	6	3 E 3 6 2 5	P-1404	7.00	4.12
UNITED AIR CLEANER CORP. (See Sentinel Radio Corp.)					
UNITED REPRODUCERS CORP. 70, 71, 72 (Series K-70)	7	3E3788	P-1434	8.00	4.70
U. S. RADIO & TELEVISION CORP. 7 (Series 8-A) 8, (Series 8-B) 9, 19 (900 Chassis) 9, 19 (902 Chassis) 10, 10-C (1000 Chassis)	7 6 6 7 7	3E3626 3E3628 3E3628 3E3631 3E3631 3E3630	P-1461 P-1479 P-1479 P-1495 P-1495 P-1016	7.75 7.00 7.00 7.50 7.50 7.25	4.56 4.12 4.13 4.41 4.41 4.41
10-C (1001 Chassis) 20 (Gloriette-20 Chassis) 26 (Gloritone-26 Chassis) 26-P (Gloritone-26-P Chas.) 32 Series, (32 Chassis) 36, 37 (Apcx)	7 4 5 5 7 9	3E3630 3E3620 3E3623 3E3621 3E3624 3E3645	P-1016 P-1070 P-1405 P-1358 P-1291 P-340	7.25 4.15 5.00 5.00 6.25 9.00	4.20 2.40 2.90 2.90 3.60 5.20
Apex Models 3	6. 37				1

Power Transformer

Fits Monroe and Marvelo Model 6-7.

Fits Monroe and Marvelo Model 6-7. Stancor Type No. P-340. Shpg. wt., 9 pounds. List, \$9.00. 3E3645-

YOUR PRICE



				R. C. A., VICTOR)	
V	IKI	NG	(See	Ozarka)	

TINING (300 OZBINE)	_			_	
WELLS-GARDNER C. CG 60, 63	8 6	3E3629 3E3625	P-1478 P-1404	\$9.25 7.00	\$5.44 4.12
WESTINGHOUSE	9	3E3728	P-927	7.35	4.32
WR-5, WR-6, WR-6-R, WR-7 WR-7-R, WR-8, WR-8-R	9	3E3726 3E3726	P-713 P-713	8.35 8.35	4.91 4.91
WR-10, WR-12 WR-10-A WR-14 WR-15	7 7 5 8	3E3732 3E3734 3E3740 3E3730	P-1481 P-1482 P-1493 P-1474	7.50 7.00 5.20 8.00	4.41 4.12 3.06 4.70
ZENITH 10, 11, 12 (Super Zenith)	9	3E3853	P-851	8.00	4.70
52, 53, 54, 55, 60, 61, 62, 64, 67, 71, 72, 73, 77	11	3E3854	P-712	8.00	4.70



Zenith Models 52, 53, 54, 55, 60, 61, 62, 64, 67, 71, 72, 73, 77

Power Transformer

Stancor Type No. P-712. Shipping wt., 11 pounds. List, \$8.00.

3E3854-YOUR PRICE

70

Universal Condenser Microphone

The New Model E Condenser Microphone is a professional instrument especially designed for use in Broadcasting Studios, Sound Recording, Public Address, Orchestral Music and all uses where absolute absence of hiss or other background noises is essential. Frequency response from 35 to 10,000 cycles. Connects to standard input transformers of 200 chms where carbon microphones have been previously used. Two stage amplifier increases the output approximately 30 db. Signal output equals that of the highest quality type of carbon microphone but does not have the usual hiss associated with carbon microphone tubes. Uses two type 864 non-microphonic tubes. Uses two type 864 non-microphonic tubes. Uses two type 864 non-microphonic tubes is 34 amp. at 6 volts and 4 mils. on 180 volt battery. Head has automatic barometric adjustment and diaphragm is protected by a solid cast grating. 90° swivel of head permits used directly overhead. Supplied with tubes and 25 feet of shielded rubber covered cable.

3E2808—Black Crackle Finish.

3E2808—Chrome Fisish.

List Price, 560.00.

YOUR PRICE

YOUR PRICE .

\$35.28

DeJur-Amsco 3 Gang .000365 Mfg.

Superhet Variable Condenser

Tuning Ratio 6:1. Increased tuning ratio is accomplished by gears which insure a smooth positive contruction. Aluminum plates. Cadminum plates teel frame. 4" shaft extends 14". Size 34" long, 3\hat{3}" wide, 1\hat{3}" high. Clockwise rotation.

3E7309—
VOUR SPECIAL PRICE.

986

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STANCOR Exact Duplicate AUDIOS Replacements for All Popular Sets

Push-Pull Input for Sparton



Models 9A, 410, 410 DC, 420, 420 DC, 600 A, 610 A, 620A.

Stancor Type A 3E3971— List, \$3.00. List. \$3.00.
Your \$1.76 YOUR PRICE...\$1.91

Push-Pull Input for Philco

Models 30, 40, 41, 42, 73, 76, 77, 77A, 82, 83, 86, 87.

Stancor Type A 72 YCP.

3E3961-List. \$3.25.





Guaranteed finest quality. Coils are carefully wound and highly insulated. Laminations accurately made of fine silicon steel. Carefully varnished and stacked.

STANCOR Output Transformers

Unshielded type. Cadmium plated mounting strips. Wire leads. Designed to withstand hard continuous usage. (For Class "A" Amplification.)



For Single Tubes

For Tubes in Push-Puti

Core Size %"x%". Dimensions: Height 2", Depth 1%", Length overall 2%". Hole Centers 2".

Tubes: 71A, 45, 48, 43, 59
3E4185—Stancor A-2203.
List, \$1,10.
YOUR PRICE 65¢ | Tubes: 71A, 45, 48, 43, 59
3E4176—Stancor A-2220.
YOUR PRICE 71¢

Core Size %"x%". Dimensions: Height 2", Depth

	is". Hole Centers 218".
	Tubes: 71A, 45, 48, 43, 59 3E4 186 Stancor A-2201, List, \$1.60. YOUR PRICE
Tubes: 12A, 10, 31, 41 3E4 177—Stancor A-2227. List, \$1.50. YOUR PRICE	Tubes: 12A, 10, 31, 41 3E4 178—Stancor A-2231. List, \$1.60. YOUR PRICE
Tubes: 33, 47, 2A5, 49, 46, 42 3E4 8 — Stancor A-2313. List, \$1.50. YOUR PRICE	Tubes: 33, 47, 2A5, 49, 46, 42 3E4 82—Stancor A-2312. List, \$1.60. YOUR PRICE
Tubes: 38, 89 3E4179—Stancor A-2347. List, \$1.50. YOUR PRICE	Tubes: 38, 89 3E4180—Stancor A-2348. List, \$1.60. YOUR PRICE 94¢

Core Size $\frac{7}{6}$ "x $\frac{7}{6}$ ". Dimensions: Height $2\frac{1}{4}$ ", Depth $1\frac{7}{6}$ ", Length overall $3\frac{1}{6}$ ". Hole Centers $3\frac{7}{6}$ ". Tubes: 71A, 45, 50, 2A3, 13, 59, 48 Tubes: 71A, 45, 50, 2A3, 4 3E4 183—Stancor A-2234. List, \$2.10.

\$1.23 List, \$2.20. Core Size 1"x1". Dimensions: Height 2\%"
Depth 2", Length overall 4\frac{1}{18}". Hole Centers 3\frac{1}{18}"

For Push-Puil Tubes 71A, 45, 50, 2A3, 48, 59.

-Stancor type A-2235. List, \$2.50.

STANCOR Audio Transformers

For single and pushpull stages. Unmounted with cadmium plated frames and bottom plates. To feed from types 25, 27, 30, 37, 56, 85, 01A tubes and sil tubes having similar plate impedances. The 2 to 1 ratio on any size core is for use with all types of tubes listed and in addition will feed from 2A7, 2B7, 12A, 36, 57, 75, 199 tubes and others of higher plate impedances but which do not exceed 12 M.A. plate current.



Midget Size
2" High, 1%" Wide, 2%" Long. Mtg. Ctrs., 2". Core %"x¾" Stancor

Type No.	Ratio	Price	Price
A-64 A-64-C	Straight 4:1 P.P. Input 4:1	\$1.30 1.40	\$.76 .82
15/4" Wide, 3	Regular Size	., 213". Core 3	4"x¾".
Stancor Type No.	Ratio	List Price	Your Price
A-72	Straight 2:1	\$1.90	\$1.13
A-72-C	P.P. Input 2:1		1.18
A-73	Straight 3:1	1.90	1.12
A-73-C	P.P. Input 3:1	2.00	1,18
A-74	Straight 4:1	1.90	1 12
A-74-C	P.P. Input 4:1	2.00	1.10
	A-64 A-64-C Iba" Wide, 3 Stancor Type No. A-72 A-73-C A-73-C A-74	A-64 A-64-C Straight 4:1 A-64-C P.P. Input 4:1 A-72 Straight 2:1 A-73 Straight 3:1 A-73-C P.P. Input 3:1 A-74 Straight 4:1	A-64

2" High, 21/8" Wide, 3%" Long. Mtg. Ctrs., 213". Core 34"x1".

		Large Size		
3E4156 3E4157	A-74-Y A-74-YC	Straight 4:1 P.P. Input 4:1	\$2.10 2.20	\$1.23 1.25
Stock No.	Type No.	Ratio	I'rice	Price

274" 11	ign, I'/e" Wide,	318" Long. Mitg. Cirs	37g . Cole 7	8 X/8 .	
Radolek Stock No. Stancor Type No		Ratio	List Price	Your Price	
3E4158 3E4159	A-82 A-82-C	Straight 2:1 P.P Input 2:1	\$2.40 2.50	51.41 1.47	
3E4160 3E4161	A-83 A-83-C	Straight 3:1 P.P. Input 3:1	2.40 2.50	1.41 1.47	
3E4162 3E4163	A-84 A-84-C	Straight 4:1 P.P. Input 4:1	2.40 2.50	1.41	

۱.۱	P. P. Output	757977	0480 0.75	1.62	25∕a″ H	igh, 2" Wide.	Giant Size	rs., 3%". Core	I"xI".
ő; [r. r. Output	3E3973 A-	2402 2.73	1.62	Radolek Stock No.	Stancor Type No.	Ratio	List Price	Your Price
c.}	P. P. Input	3E3972 A-	2120 3.25	1.91	3E4164 3E4165	A-102 A-102-C	Straight 2:1 P.P. Input 2:1	\$2.90 3.00	\$1.71 1.76
,					3E4166 3E4167	A-102-C A-103 A-103-C	Straight 3:1 P.P. Input 3:1	2.90 3.00	1.71 1.76
	Input-Output Assembly	3E3958 AT	U-100 7.00	4.12		A-104 A-104-C	Straight 4:1 P.P. Input 4:1	2.90 3.00	1.71 1.76

Price Q=+3	FRICE	. +			
RADIO MODEL	Part	Rado- lek No.	Stan- cor No.	I.ist	Your Price
AIRLINE (Mont. Ward)	P. P. Input	3E3954	A-2132	\$4.70	\$2.76
PRINCHICK IO	Output 1st Audio		A-2814 AU-101	1.50 3.50	1.12
14, 21, 31, 8-31 14, 21, 31, 8-14, 8-21, 8-31, 8-81, 8-82	P. P. Input	3E3951		4.15	2.44
	P. P. Output	3E3952		3.25	1.91
14, 21, 31, 8-14, 8-21, 8-31, 8-81, 8-82 15-B, 15-DC, 22-DC, 32-DC, 42-DC	P. P. Input	3E3991	AU-104	5.15	3.03
CLARION AC-40	Output P. P. Input P. P. Input	3E3990 3E3954	A •2814 A •2132	1.90 4.70	1.12
AC-61, 25-61	P. P. Input	3E3955	A-2133	4.90	2.88
AC-80, AC-81, AC-84, AC-85, AC-90, AC-90-A, AC-91, 25-80, 25-81, 25-84, 25-85, 25-90	Output	3E3992		2,50	1.47
AC-160, 25-160 AC-280, 25-280	P. P. Output P. P. Output Driver Trans.	3E3993 3E3994	A-2836 A-2811	2.50 2.50	1.47
AC-160, 25-160 AC-280, 25-280 AC-300, 25-300 AC-320, 25-320 AC-360, 25-360	Driver Trans. Output P. P. Input	3E3996	A-4126 A-2718	1.60	1.68
	P. P. Input	3 E 3997	A-4016	1.70	1.00
GENERAL ELECTRIC H-31, H-51, H-71	Input-Output Assembly	3E3958	AU-100	7.00	4.12
GRAYBAR GB-700, GB-770, GB-900	Input-Output Assembly	3E3958	AU-100	7.00	4.12
PHILCO 3 (Transitone Chassis) 30 (30 Chassis) 82, 86 (86 Chassis) 83, 87 (87 Chassis)	Input	3E3962	A-74- YP	\$2.95	\$1.73
3 (Transitone Chassis) 70, 70-A, 270, 270-A, 370, 370-A, 470, 470-A (70 Chassis) 90, 90-A, 490, 490-A (90, 1-247 Chassis)	Output	3E3965	A- 2392-P	2.40	1.41
20, 20-A, 21, 220, 220-A (20 Chassis) 20, 20-A, 21, 220, 220-A (20 Chassis) 40,41,42,46,346 (Chassis 40) 62, 65 (65 Chassis)	P. P. Input	3E3963	74-CP	2.35	1,38
(20 Chnssis) 40,41,42,46,346 (Chnssis 40) 62, 65 (65 Chnssis) 73,76 (76 Chnssis) 77,77-A (77 Chnssis) 82,86 (86 Chnssis) 83,87 (87 Chnssis) 90,90-A (90,2-245's) 92,95 (95 Chnssis) 96,96-A,296,296-A (96 Chnssis) 11,111-A,211,211-A (111 Chnssis) 112,112-A,212,212-A, (112, 12-245's)	P. P. Output	3E3964	2318-P	2.40	1.41
30 (30 Chassis) 40, 41, 42 (40 Chassis) 73, 76 (76 Chassis) 77, 77-A (77 Chassis) 82, 86 (86 Chassis) 83, 87 (87 Chassis)	P. P. Input	3E3961	A-72- YCP	3.25	1.91
62, 65 (65 Chassis) 92, 95 (95 Chassis) 96, 96-A, 296, 296-A (96 Chassis) 111, 111-A, 211, 211-A (111 Chassis) 12, 112-A, 212, 212-A (112, 2-245's)	P. P. Input	3E3960	A-104- CP	\$3.75	\$2.21
(112, 2-245's) 511 (511 Chassis)	Input	3 E 39 5 9	A-72- YP	3.15	1.85
RCA—RAOIOLA—VICTOR R-34, R-35, R-39, R-80, R-82, R-86, RAE-68, RE-57	Input-Output Assembly	3E3958	AU-100	7.00	4.12
SPARTON 9-A.410,410-DC,420, 420-DC, 600-A, 610-A,	P, P. Input	3E3971	A-2128	3.00	1.76
620-A 39, 49, 69, 79, 79-A	Audio	3E3970	I	3.00	1.76
55, 103, 111-A, 235, 301, 301-A, 564, 570, 574, 578, 591, 593, 740, 750, 870, 931-AC, 301-DC, 591, 593, 931-AC,	P. P. Output	lh 8	A-2462	2.75	1.62
301-DC, 591, 593, 931-AC, 931-DC	P. P. Input	3E3972	A-2120	3.25	1.91
WR-5, WR-6, WR-6-R, WR-7, WR-7, WR-7-R, WR-8, WR-8-R	Input-Output Assembly	3E3958	AW-100		4.12

Radolek Power Transformers



Highest quality, conservatively rated universal type shielded Power Transformers made expressers made express-ly for RADOLEK. All primaries are for 115 V. 50-60 cycle A.C. unless otherwise speci-

50-60 Cycle

65 Watt for 4-6 Tubes

55 Watt for 4-6 Tubes
Type R-609. Provides 5 volts at 2
amperes for the rectifier tube and 236
volts at 534 amperes C.T. for the heater
tubes. 550 volts C.T. supplies 55 MA.
for the power circuit. Mounting area
234 x334 ". Four mounting bolts 34"
in from each corner. 2" above panel,
extends 1" below deck. Wt. 232 lbs.
Black enameled housing.
354 085 - 1 tot. 23 00 3E4085-List, \$2.00,

YOUR PRICE

YOUR PRICE

50 Watt for 4 Tube Midgets

TYPE R-504. Accommodates one type 80 tube on a 5 volt, 2 ampere winding and a 245, 57 and 58 on the 24 volt, 4 ampere C.T. circuit. The high voltage circuit is 575 C.T. 40 MA. limit. 110 V. 50 cycle Primary. Mounting area 244 x3". Mig. 2 x314." Requires 1" clearance below deck and 13," above deck. ... 69¢

3E4084-List, \$1.65. YOUR PRICE

90 Watt for 7-11 Tubes

Type R-756. 90 Watt. For 7 to 11 Tubes
equal or less current than rating of the windings
equal or less current than rating of the windings
C.T. 700 Volts, 65 MA. C.T. Mounting area,
3% "x276". Two hole Mtg. Centers, 23". Allow 2½" clearance above deck and 1½" below
deck. Wt. 3½ [bs.
3E4086—List, \$4.50.
YOUR PRICE

For those localities where power line voltage is and to run too high.

Type R-796. A 60 watt replacement for four and five tube receivers of the 110 volt type which overheat on 125 volts, or consistantly burn out tubes. Flexible 8" tinned coppositions of the consistency of the consistency of the consistency burn out tubes.

sistantly burn out tubes.
Flexible 8" tinned copper insulated leads. Secondarles:
-5 volts, 2 Amps.; 2½ Volts, 5 Amps. C.T.; 700 Volts, 50 Ma. C.T. Mounting area 2½"x3". Mfg.

3E4087-List, \$3.00. YOUR PRICE \$1.29

P-A Type Power Transformer



Type R-758. Weight 7 Ibs handles 140 Watts. For Public Address ampliflers or Public Address annilitiers or large radio receivers. 115 Volt. 60 Cycle. Secondaries supply: 120 MA. thro a 700 volts centertapped rectifier plate circuit. 5 volts at 3 amperes for a 523 or 80 tube, and 2½ volts, 14 Amperes. C.T. for heater tubes. Mounting area 3¾"x3¾". Height 4½".

3E4090-List, \$7.00. YOUR PRICE

".....\$2**.45**

Semi-Universal **Output Transformer**

For use with single or push-pull power tubes drawing less than 35 MA, plate current and having less than 7000 ohms output load characteristic. Center-tapped primary. Off center tap on secondary permits choice of overall ratios of 25:1, 45:1, 70:1. Will exactly match Push-Pull 45 tubes to 1.5 Ohm, 3.5 Ohm, or 10 Ohm voice coll. Will match single 47, 2A5, etc. to 2 Ohm, 4 Ohm, or 12 Ohm, voice coil circuit. Mtg. C. 2\%", 1" core. 2\%"\2\%", 1" core.

3E4092-List Price, \$3.00. YOUR PRICE 84¢

\$145

Radolek Multi-Tap Choke 3E3923-List. \$3.00.

YOUR PRICE



YOUR PRICE
For use with a tube short checking device, as a line balancing impedance, as a das an audio autoformer. Excellent for balancing microphone mix circuits. D.C. Resistance 1500 ohms. 3" silicon steel core. Regular shell type open transformer frame. 2".2½" x1½" thick. 40 MA. current carrying capacity. Mtg. Holes 2½".

HORDARSON

ORIGINAL REPLACEMENT



89A E 75

10000 (Garage of the control of the

New Sparton Power Transformers built by Thordarson exactly according to the original specifications of the transformers supplied Sparton.

For SPARTON

Models 52, 63, AC-7 Tor B-11, 401, and 71A tubes. Pri., 110 V. Sec., 3 V. 5 A. C.T., 5 V. 1 A., 900 V. 70 Ma. C.T. Sparton Part No. B-1454. 3E4366 Type T-2397. List, \$4.00. List, \$4.00. YOUR PRICE. \$2.35

For Sparton Models 69, 79-A

For 80, 50, and 485 (or 184) tubes. Pri. 110-120-130 V. Sec. 5 V. 2 A. C.T., 600 V. 75 Ma. C.T., 7½ V. 1½ A. C.T., 3 V. 7 A. C.T. Shpg. wt., 6 1bs. Sparton Part No. B-1871. 3E4367—Type T-2907 D. List Price, \$6.00. YOUR PRICE ... \$3.53

For Sparton 89-A

For Sparton of A Proceedings of the State of Sta

3E4368-Type T-3321. \$4.70 List, \$8.00. YOUR PRICE

For Sparton 109

For Sparton 101, 110, 111A, 574, 870 Voltages on Diagram 101

Has 1½ volt circuit for Phom-Combination sets. 300 Watt Capacity, sufficient for 12 and 13 tube Sparton receivers. Spag. wt., 12 lbs. 3E4370—Type T-3865-B. Sate 370 — Supp. Wt., 12 lbs.
3824 370 — Type T-3865-B.
List, \$12.00.
YOUR PRICE \$7.06
For Sparton 301, 564, 570,
578, 740, 750

For Sparton 301, 564, 570, 578, 740, 750

For 6-485s, 2-259s, and 2-281s, I'rl., 110-120-130 V. Sec., 7½ V. 2½ A. C.T., 7½ V. 2½ A. C.T., Shig, wt. 10 Bb. C.T., 3 V. 7 A. C.T., Shig, wt.

10 lbs. 3E4371—Type T-3773-B. List. \$8.00. YOUR PRICE \$4.70

For SPARTON 931, 235, 589, 591, 737, 593, 600 Series

For 7-484s (or 486s), 2-422Bs (or 483s), and 1-80. Pri., 110-120-130 V. Sec., 5 V. 2 A. C.T., 600 V. 90 Ma. C.T., 3 V. 8 A. C.T. 5 V., 3 A. C.T. Shpg. wt. 7 lbs

3E4372—Type T-3770-C. List, 57.00. YOUR PRICE \$4.12 ggs.
For Sparton 930
For 6-484s (or 485s), 2-4820
Pt., 105-115-120
T. For 6-484s (or 485), 2-482lts, and 1-80, Prl., 105-115-130 V. Sec., 5 V. 2 A. C.T., 500 V. 70 Ma. C.T., 3 V. 7 A. C.T. 5 V. 3 A. C.T. Shpg. wt. 5 lbs. 3E4373 —Type Tid487 I.1st, \$5.00. YOUR PRICE

For Sparton 410, 420, 600A, 610A, 620A For 24A, 27, 483, and 80 tubes. Pri., 100-110-120 V. Sec., 5 V. 2 A. C.T., 600 V. 90 Ma. C.T., 5 V. 3 A. C.T., 2½ V. 7 A. C.T. Shpg. wt., 7 bs. 3E4374—Type T-4555.

List, \$6.00. YOUR PRICE

POPULAR SPARTON AUDIOS

Made by Thordarson According to the Original Factory Specifications For Sparton 931, 301

Straight Audio sub-panel shielded style for use in extra stage audio supplied with 10-tube 931 and 11 tube 301 Models employing a first stage audio tube. Sparton Fart No. B-2587. Type T-3878. 3E4375—Ilst, \$2.02 \$1.18 YOUR PRICE

For Sparton 931, 589

Push-Pull Input. Matched to couple a 485 tube Into push-pull 483s. Also fits the 10-tube Model 589. Sparton Part No. A-4104. Type T-3422. 3E4377—List, \$2.00.

\$1.18 YOUR PRICE

For Sparton 930, 931

Push-Pull Output. Matched to couple push-pull 482B or 483 Sparton tubes into 8" Magnavor or low Jensen Speakers supplied with Sparton Receivers. Sparton Part No. A-3763. Type T-3399. 35743.79. Let \$13.75. 3E4378-List, \$1.75. YOUR PRICE

For Sparton 301, 564, 570, 578, 740, 750, 103

Push-Pull Output. Matched to couple push-pull 586 or P-P 50 tubes to 8" Magnavox Speakers. Open type. Sparton Part No. B-2430. Type 7.3665-18. 3E4379—List, \$2.75.

YOUR PRICE

\$1.62

Special Heavy-Duty Outputs

T-5745. Open Style. Carries 60 Ma. in P-P circuits using type 50 and 2A3 tubes. Will match any 6 to 12 ohms V.C. circuit. Size 2½x2½x3"

3E4310 List, \$3.00. YOUR

PRICE

\$1.76





YOUR PRICE .

T-2903. Shielded. Carries 60 Ma. in P-P circuits with type 50 or 2A3 tubes Tapped for 4, 8, 15 ohm voice coil circuits. Size 3½x3x3¾". List, \$4.00.

3E4311 YOUR PRICE ... \$2.35

Universal Output Transformer

Thordarson Type T-5701

T-5701

Designed to couple any except types 50 and 2A3
power tube or P-P "A"
or "A prime" circuit to
a n y Dynamic Speaker or "A prime" circuit to
a ny Dynamic Speaker
vaice coll or combination
of voice colls the impedance of which lies be
tween 1/10th a nd 29
olms. A high primary
impedance and five secondary windings in
ferent number of turns, permit a while
election of ratios. The correct ratio
equals the square root of the quotient of
the load impedance of the power tubes



equals the square root of the quotient of the load impedance of the power tubes divided by the load impedance of the voice coll circuit. A complete chart showing all possible combinations is furnished. No measurement necessary to determine any application. Size 31-4343—YOUR PRICE. \$1.18

Manufacturer's Type Audio Transformers

Interstage Straight Audio

Interstage Straight Audio
Intended for use in replacing standard
Manufacturer's type Audios in hundreds
of Sets. Exact replacement for first
and some second stage positions in
Monroe. Marvelo, Knight, Kennedy,
Bush-Lane, and others. High-grade
silicon steel core. Black Japanned
case. Sub-nanel lug connections. Safe
plate current carrying capacity, 10
Mas. A special application of this
Transformer is for use as a phonoinput Transformer when used with
a high impedance Pickup. Ratio 1.3.
Size 2°x23", "x23", "igh. Mig. hole
centers 23s".
SE4335—List, \$2.00.

956

Push-Pull Audio Input

Replacement push-pull Manufacturer's Type Audio Input for class "A" and "A prime" audio systems. Tone Type Audio Input for class "A" and "A prime" audio systems. Tone characteristic has a slight hump between 80 and 100 cycles giving a pleasing base effect without detracting from the highs. Sub-panel lug contections. Safe plate current carrying capacity, 10 Ma. Any triode tube input may be used with plate voltage under 250. Suitable grid impedance for all "A" type amplifier tubes, both pentode and triode. Ratio 1:3. Size 2"x2%" x2%" high. Mtg. hole centers. 2%".

3E4337—List, \$2.50, YOUR PRICE \$1.23

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FACTORY TYPE TRANSFORMERS

THORDARSON



Philco Transformers as originally built by Thordarson for Philco. All are EXACT Replacements for Receivers specified. 50-60 Cy. AC.

Power Transformers for PHILCO 20, 220 Philco No. 4234

For 21A, 27, 71A, and 80 Tubes, Pri. 115 V. Sec., 2½ V. 7A, C.T. 5 V. ½ A. C.T., 5 V. 2 A., 650 V. 70 Ma. C.T. Shpg. wt., 7 lbs. 3E4382 -Type T-4401-A.

List, \$6.00. \$3.53

PHILCO No. 4446 for Models 111, 112, 211 For 24A, 27, 45, and 80 tubes. Prl., 115 V. Sec., 2½ V. 14 A. C.T., 2½ V. 3 A. C.T., 5 V. 2 A., 750 V. 150 Ma. C.T. shpg. wt., 10 bs. 3E4383—Type T-4558-A. List Price, \$6.00. YOUR PRICE. \$2.49

PHILCO No. 3752 for Models 95, 96, 296
For 24A, 27, 45, and 80 tubes. Pri. 115 V. Sec., 2½ V. 10½ A. C.T., 2½ V. 3 A. C.T., 5 V 2 A., 700 V. 80 Ma. C.T.
3E4385—Type T-4248.
List, \$6.00. YOUR PRICE \$3.53

PHILCO S-W Fil. Transformer For 2 tubes. Pri. 115 V. Sec., 232 V. 3E4380—Type T-5061. List, \$1.75. YOUR PRICE

PHILCO Audio Transformers

PHILCO Input Transformer

rnı	LCO Imput	1141121	Dime	13
Stock Number	Set Model	Type No.	List Price	Your Price
3E4323 3E4324 3E4325 3E4326 3E4327	20, 21 65, 95, 96, 111 30, 86, 87 47, 91 15, 112,	T-4400 T-4252 T-3855 T-5204	\$2.25 3.50 2.75 2.25	\$1.32 2.06 1.62 1.32
3E4328	212 (2-47's) 90, 90-B, 390	T-4989 T-4807	3.25 2.75	1.91

Philco P-P Output Transformers Stock Type No. List | Your Price | Price Set Model Number 3E4329 3E4330 3E4331 15, 91 20, 220, 86 42, Twin Spkr 71, Twin Spkr \$0.82 1.18 T-5277 .79 1.35 70, 270, 470, 490 65, 76, 87, 90, 90-B, 95, 296, 111, 112 3E4332 T-4832 \$2.00 \$1.18 3E4333

PHILCO No. 3400 for Model 87

\$4.12

PHILCO No. 3271 for Model 86

For 26, 27, 71A and 80 tubes. Pri. 115 V. Sec., 1½ V. 4½ A. 2½ V. 2 A. C.T., 5 V. ½ A. C.T., 5 V. 2 A., 700 V. 80 Ma. C.T. 7 lbs. 324 387—Type T-3170.

List, \$6.00. YOUR PRICE. \$3.53

PHILCO 70, 270, 470

For 24A, 27, 47, and 80 tubes, Prl. 115 V. Sec., 2½ V. 9 A. C.T., 2½ V. 2 A. C.T., 5 V. 2 A., 709 V. 90 Ma. C.T. 7 pounds, Part No. 5117, 3E4389—Type T-4834. List, \$6.50. YOUR PRICE

PHILCO No. 3516 for Model 65
For 24A, 27, 45, and 80 tubes, Prl. 115 V. Sec., 2½ V. 5½ A. C.T., 2½ V. 3 A. C.T., 5 V. 2 A., 600 V. 75 Ma. C.T. 8 pounds.
3E4390—Type T-3740. 3E4390—Type List, \$7.00. YO YOUR PRICE

PHILCO Part No. 5266 50, 51, 52

PHILCO Part No. 5362 for Model 90

PHILCO Part No. 5362 for Model 90
Note: Same transformers employed in all Model 90
Receivers. Voltages are proper for all types of output tubes used in the Model 90 series. Pri. 115
V. Sec., 2½ V. 10½ A. C.T., 2½ V. 3 A. C.T., 5 V. 2 A., 750 V. 90 Ma. C.T. 6 pounds.
3E4392—Type T-4805.
List, \$7.00. YOUR PRICE.................\$3.67

PHILCO 90-B. 390, 490

(Main power transformer; does not provide S-W Fil. supply.) For 24A, 27, 47, and 80 tubes. Prl. 115 V. Sec., 2½ V. 12A, C.T., 2½ V. 3A, C.T., 5 V. 2A., 750 V. 90 Ma, C.T. 6 lbs. Part No. 5362, 3E4393—Type T-4919.

List, \$6.25. YOUR PRICE........\$3.67

PHILCO Part No. 6672 for Model 15 For 4-44s, 4-37s, 2-42s, I-80. Prl. 115 V. S 6 V. 4A. C.T., 5 V. 3 A., 650 V. 80 Ma. C.T. 3E4394—Type T-5292. List, \$5.50 YOUR PRICE

R-100 Universal Audio



3F4300-List. \$1.75 YOUR PRICE

T-4254 2.00

o man \$1.03 Designed for making convenient audio repairs. May be mounted in 75% of Re-ceivers without drilling ex-tra holes. Excellent tone.

tra holes. Excellent tone.
Ratio 1 to 3½. Size 2%1
1½x2" high. Convenient solder lug connections.

R-103 Universal Audio Replacement 3E4301-List, \$2.00.

SL4301—List, \$2.00.
YOUR PRICE
Employs heavier core than R-100, resulting in hetter bass note response. At least an octave greater tone range. Ratio 1.34. Size 1%x2x2%". Same style universal mounting brackets.



R-300 Straight Audio 3E4305-List, \$4.00.

PRICE \$2.35

Known to custom Setbuilders as the finest Audio available.

1.3 ratio. Practically "straight line" audio characteristics from 30 to 8000 cycles. Size 2½x2½x3" high. Excellent for use with type 56 or 2A6 stage working into a 56 or power stage.

Type T-2408 P-P Input (Matches R-300. 3E4307—List, \$4.00. 3E4307—List, \$4.00.

The last word in quality Push-pull Audio amplification. Ratio 1:2. Ideal for coupling 56 or 27 tube to any class "A" or "A" prime P-P Amplifier. Install this Transformer in any suitable Radio or Amplifier and note the improvement.

R101 P-P Input, 1:2 Ratio

3E4302—List, \$2.25. YOUR PRICE \$1.33

Identical in appearance to the R100 except that it has slightly larger
core. Suitable for coupling any
triode tube to any push-pull power
tubes. High tension insulation
permits use of 300 volt plate circuit
without danger of leakage to grid of power tubes.
Due to modern design, the tone range is greater
then most calculated Audios

than most original Audios.

Open Style P-P Input

Type T-3391. General characteristics similiar to R-101 except for 8 inch insulated coded leads instead of lugs and once style two-hole mounting. Mounting hole centers 2\(\frac{2}{2}\)". Size 1\%\x2\x2\%". Black enamel finish. Similiar to original in majority of Radio Receivers.

3E4309-List, \$2.00.**\$1.18** YOUR PRICE ...

Special Thordarson **Universal Straight Audio**



T-2999 1:3 Ratio
Designed to feed from 01A, 26, 27, 30, 37, 55, 56, 75, or 2A6 into any single amplifier tube. Open frame mounting. Black enamel finish. Insulated coded 8" leads. Size 1%x22.76" unting.
Insulated coded ize 1%x2x236" centers 236". 8" leads. Size 1%x2x Mounting hole centers 2% 3E4308—List, \$1.75.

YOUR PRICE

Universal Push-Pull Input. Type T-3391. Designed to feed from 01A, 26, 27, 30, 37, 55, 56, 75 or 2A6 into any push-rull combination of amplifier tubes. Same physical specifications as amplifier tubes. Si T-2999 listed above.

3E4309-List \$2.00. YOUR PRICE

Radolek "2 A 3" Transformers Built by Thordarson to Radolek Specifications.

Power Transformer

for 2A3 Amplifier Type T-5822 Extra heavy. Cool Operating under 100 watt load, Shielded in black japanned steel under low water was.

In black japanned steel
housing. Knockout provided
to permit wiring above
chassis as n breadboard
layout, or under chassis. layout, or under chassis. For 110-120 volt 50-50 cycle. Secondary windings, 770 V., 150 Ma. C.T.; 5 V., 3A; 2½ V. 14 A. C.T. Dimensions: 47%" high, x 37%"x 34%". Mounting hole centers, 3 & "x 34%".

ters, 3\(\hat{h}''x3\(\hat{h}''\).
3E4350—List,\$6.00,
YOUR YOUR \$3.53



5822 115 VAC

Push-Pull Input Transformer



3:1 Ratio, Type T-5741

Especially designed to feed from a single 27 or 56 into push-pull 56s or 2A3s. Shielded for under chassis wiring. Mounts on 2½" sq. area 3" high, Mounting holes 2½" centers. Excelarea 3" nigh. Mounting holes 2%" centers. Excel-lent fidelity on bass notes.

الشسا

3E4342-List, \$3.75. \$2.21 Interstage Transformer Type T-5870

2A3 P-P Output Type T-5746

Shielded sub panel type. Efficiently transfers 15 watts from 2.43 P-P tubes into any speaker voice coil combination having net load value of 6 to 12 ohms. Low resistance—not critical in coupling. Extra heavy windings for high plate current of 2A3 tubes. Matches P-P Input T-5741 in dimensions and appearance, 3E4.458—List, 33.25.
YOUR PRICE.

2A3 P-P Output Open Type T-5745

Same electrical characteristics as Type T-5745. Size 214 x214 x214 x214 x319 high. 3E4369—List, \$3.00. your PRICE \$1.76 \$1.76

Filter Choke for 2A3 Circuit

Shielded Type T-1700
A heavy brute-force type filter choke capable of carrying 150 ma. Actual inductance of 8.75 Henries (for use with 8 Mfd. condensers preceding and following this choke.) D.C. Resistance 231 ohms. Size 3"x34"x37". Use as first choke

3E4349-List Price, \$4.50. YOUR PRICE

...\$2.65 Second Position Filter Choke

Second Position Filter Choke
Open Type—T-5753
Actual inductance of 9.5 Henries (equal to old
style rating of "30" H.) at 110 Ma. D.C. Resistance 200 ohms. Insulated 8" leads. Heavy silicon
steel core. Size 24 "824" (83" high. Mrg. hole
centers 3". Standard for 2A3 amplifiers.
3E4341—List Price, \$2.00. \$1.18 YOUR PRICE

Microphone Transformers

T-5837; A low priced shielded microphone Transformer. Trans-fers sharp, whear signals from 'Mike' to grid. Designed Pri-marily for the speaking voice. Split primary matches 200 ohm single or double button micro-

3E4365-List Price, \$3.00. \$1.76 PRICE

Page 49

Orchestra: Shielded 1-22 ratio quality double button 'Mike' transformer. 50-5000 audio frequency range. For lance bands, vocal, and general speech service. Masches impedance of all standard carbon single or double button microphones. 3E4346—T-3020. List Price, \$5.00. \$2.94

Type T-3391. De. 27. 30. 37. 55. 56. 27. 30. 37. 55. 56. 29. 101 combination of iteal specifications of specifications as \$1.18

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Universal Replacement Transformers A Style and Capacity for every Receiver

Replace Originals. These Transformers are intended for use where original replacements are not available, or are priced higher than you are willing to pay. From these types you can select the proper model for practically any Radio Set. All Transformers are for 105-120 V. 50,60 Cy.

Finest Quality. These Transformers are first quality, new stock. Correctly engineered, carefully made by skilled workmen in a fully equipped factory. We guarantee that they will equal or surpass any on the market in their price range.



TYPE A

TYPE B



TYPE C



TYPE D

3E4054-YOUR PRICE, \$1.53 Type D

Size: 2%"x2%"x3&" high. Mtg. Centers 2"x2&". Shpg. wt., 3% lbs.

Type D



TYPE E

Solder lug connections on fibre strips extending from base. Mounting screw at each corner for flat mounting. Black enameled steel shield cover.

Unshielded type with 12" wire lead connections. Brackets supplied for horizontal mounting. For vertical mounting see bracket listing page 92. Types B and C
3E4024-"B"-Leads.
3E4039-"C"-Lugs.
YOUR PRICE, \$1.03

00

VOLTS 5

Unshielded type with solder Shielded type. Black enambility connections mounted on eled steel side plates totally brack fibre strips projecting from enclose windings. Connections but sides. Otherwise identities to solder lugs on backing plate tilms cal with type B.

Fitted with black japanned brackets having a wide flex-ibility for various combina-tions of mounting positions and mounting hole centers.

Type E 3E4070-YOUR PRICE, \$1.40

Size: 25% "x3 % "x3 %" high. Min. Mtg. Centers 15% "x-11%". Shpg. wt., 3½ 1bs.

Type E

3E4071— YOUR PRICE, \$1.60

Type A Size: 2½"x3"x1½" above base. Mig. Centers 2"x2½". Shpg. wt. 2½ lbs. Type A 3E4008 3E4008-YOUR PRICE: \$1.20 Size: 2%"x3%"x1%" above base. Mtg. Centers 2%"x-2%". Shpg. wt., 2% lbs. Type A

3E4007— \$1.52 YOUR PRICE.. \$1.52 Size: 3¼"x3¾"x2¼" above base. Mtg. Centers 2½"x-3½". Shpg. wt., 3¾ lbs.

Type A

3E4006-YOUR PRICE \$1.77

Size: 3¼"x3¾"x2¼" above base. Mtg. Centers 2½"x-3¼". Shpg. wt., 5 lbs.

3E4007

3E4006

3E4005

Each. \$1.05 Size: 2"x2\%"x3\%" high. Mtg. Centers 2"x2\%". Shpg. lhs. Types B and C
3E4023—"B"—Leads,
3E4038—"C"—Lugs,
YOUR PRICE, \$1.30
Size: 3¼"x3¼"x3" high,
Mig. Centers 2"x2¼". Shop

3 lbs.

Types B and C
3E4022-"B"-Leads.
3E4037-"C"-Lugs.
YOUR PRICE. \$1.62

Size: 3% "x3% "x34," high, Mtg. Centers 34 "x2". Shpg.

50 Watt-For 4 Tubes -For 4-6 Tubes 0000 لمقفعها لع لها لهما VOLTS 5 2.5 2.5 AMPS 3 1.75 5.25

2.5 3.25

Loodood

90 Watt-For 5-8 Tubes 0000 Leaded to take

2.5 2.5 1.75 7 VOLTS 5 AMPS. 3 700 70MA

95 Watt-For 6-9 Tubes 0000 لعقمها لعالما لعها 2.5 2.5

3E4052— YOUR PRICE, \$2.12 Type D Size: 31/2"x31/2"x41/2" hig Mtg. Centers 27/2"x2/8 Shog. wt., 41/2 lbs.

Type D 3E4051-YOUR PRICE. \$2.30

Type E 3E4072-YOUR PRICE. \$1.85 Size: 2 18"x3 18"x3 18" high. Min. Mtg. Centers 1 14"x-1 18". Shpg. wt., 5 lbs.

Type E 3E4073-YOUR PRICE, \$2.10

Type E

Type A 3E4010—\$1.85 YOUR PRICE...\$1.85 Size: 3½"x3½"x2¾" above base. Mtg. Centers 2½"x-3½". Shpg. wt., 5 lbs. 3E4010

Type A

3E4005-YOUR PRICE \$1.85

Size: 3%"x4¼"x2¼" above base. Mtg. Centers 2%"x-3¼". Shpg. wt., 5½ lbs.

Types B and C
3E4025—"B"—Leads.
3E4040—"C"—Lugs.
YOUR PRICE, \$1.90

Size: 3%"x34"x34"x34" high. Mtg. Centers 3%"x2". Shpg. wt., 5 lbs.

Size: 3% "x3% "x3 %" high. Mtg. Centers 3 \ "x2". Shpg. wt., 5 lbs. Types B and C
3E4020—"B"—Leads.
3E4035—"C"—Lugs.
YOUR PRICE, \$1.95

Special for Type 226-171A VOLTS 5 5 2.5 1.5 600 AMPS, 2 0.5 2 4.5 70MA

65 Watt-For 6-7 Tubes

لعقفهما لعالما لعلما لعها لعها

2000 لمعقوم لها لها لهما 2.5 2.5 700 8.75 100MA

Type 3E4043-YOUR PRICE, \$2.40 Size: 3½"x3½"x1½" hig Mtg. Centers 2½"x2½ Shog. wt., 4½ lbs.

Size: 3½"x3½"x4½" hig Mtg. Centers 2½"x2½ Shog. wt., 4½ lbs.

3E4074-YOUR PRICE, \$2.25 Size: 218"x318"x318" high. Min. Mtg. Centers 1%"x-118". Shpg. wt., 5 lbs.

Type E Type D 3E4050— YOUR PRICE. \$2.55 3E4075— YOUR PRICE. \$2.45 Size: 3½"x3%"x4½" high. Mtg. Centers 2½"x2½". Shpg. wt., 4½ lbs.

Size: 3½"x3¾"x4½" hlg Min. Mtg. Centers 2"x2½ Shpg. wt., 5½ lbs.

Type A 3E4011- \$2.10 Types B and C
3E4026—"B"—Leads.
3E4041—"C"—Lugs.
YOUR PRICE, \$2.22 Each

Size: 3%"x314"x34," high. Mtg. Centers 3%"x214". Shpg. wt., 5½ lbs. Types B and C
3E4819-"8"-Leads.
3E4034-"C"-Lugs.
YOUR PRICE, \$2.45

85 Watt-For 8-9 Tubes Special for Type 226-171A لعقفها لعالها لعلها لها VOLTS 5 5 2.5 1.5 600 AMPS 2 0.5 1.75 6.3 90MA

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(100 (100 (100 (100)

2.5 2.5 700 3 10.5 100 MA.

130 Watt-For 8-12 Tubes

VOLTS 5 AMPS. 3

3E4044-YOUR PRICE, \$2.65 Size: 3%"x3%"x4%" his Mtg. Centers 2%"x2% Shog. wt., 5% lbs.

Type D

3E4049— YOUR PRICE, \$2.80

Type D

Type E 3E4076— YOUR PRICE, \$2.50 Size: 2%"x3%"x3%" high. Min. Mtg. Centers, 172"x-118". Shpg. wt., 5½ lbs.

Type E

3E4077— YOUR PRICE, **\$2.75**

Type A 3E4004— \$2.25 YOUR PRICE.. \$2.25 Size: 3%"x44"x24" abore base. Mtg. Centers 2%"x-3\frac{3}{4}". Shpg. wt., 5\frac{5}{4} lbs.

YOUR PRIOR TO THE Types B and C
3E4018—"B"—Leads.
3E4033—"C"—Lugs.
YOUR PRICE, \$2.65

145 Watt-For 9-14 Tubes معووف tool at a look VOLTS 5 2.5 2.5 700 3 12.25 110MA.

Size: 3%"x3½"x1½" high. Mtz. Centers 2%"x2¼". Shag. wt., 4½ lbs. Type D 3E4048-YOUR PRICE. \$3.10 Size: 2 1 x 3 x 4 x 4 1 1 high. Min. Mtg. Centers 2"x 2 1/2". Shpg. wt., 5 1/2 lbs. Type E 3E4078-YOUR PRICE, \$3.00

Size: 3\\2''x3\\4''x4\\2'' high. Min. Mtg. Centers 2''x2\\4''. Shpg. wt., 6 lbs.

3E4003— YOUR PRICE. \$2.45 Size: 3\%"x4\%"x2\%" above base. Mtg. Centers 3"x3\%". Shpg. wt., 5\% lbs.

Type A

Type A

Size: 4½"x4"x4&" high. Mtg. Centers 3¾"x2½". Shog. wt., 6½ lbs. Types B and C
3E4017—"B"—Leads.
3E4032—"C"—Lugs.
YOUR PRICE, 53.10
Size: 4½"x4"x4"x4" high.
Mtg. Centers 3¾"x2½".
Shpg. wt. 7 lbs.

155 Watt-For 10-16 Tubes 2000 (000 (0) (0) (00) VOLTS 5

Size: 3%"x3\%"x1\%" high. Mtg. Centers 2\%"x2\%". Shpg. wt., 4\% lbs. Type D 3E4047— YOUR PRICE, \$3.45 Size: 34"x34"x444" hig Mtg. Centers 2%"x24 Shrg. wt., 4% lbs.

Type E 3E4079— YOUR PRICE, \$3.40

Size: 3½"x3¾"x4½" hig Min. Mtg. Centers 2"x2½ Shpg. wt., 6½ lbs.

3E4002— \$2.95 YOUR PRICE.. \$2.95 Size: 3%"x4\4"x2\%" above hase. Mtg. Centers 3"x3\4". Shpg. wt., 6 lbs. Page 50

3E4002-

THE RADOLEK COMPANY

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Approved Quality!

PIONEER EXACT-DUPLICATE REPLACEMENT POWER TRANSFORMERS

Bargain Prices!

These transformers are faithful duplica-tions of the originals in physical and electrical specifications.

Important mounting holes are exactly placed. No redrilling, no rewiring for practically every job.

The prices quoted are exceptionally low for the quality offered. Every transformer is new fresh stock. exceptionally

Apex Gloritone



Þ

Model 26-A Shpg. wt., 4 lbs. 3E8681—List, \$5.50. YOUR SPE-YOUR SPE-CIAL PRICE. \$2.20

Model 26-P Shpg. wt., 8 lbs. 3E8683—List, \$5.00.

YOUR Price.	\$2	00.5
Shpg. Wt.	Stock Number	Your Price
4_	3E8670	\$1.61

RADIO MODEL	Wt.	Number	Price
ALL AMERICAN MOHAWK Lyrie J	4	3E8670	\$1.61
APEX 36, 37 10 20 32	9 7 3 7	3E8671 3E8672 3E8673 3E8674	4.10 3.75 1.75 3.45
8 99 7 7, 25 cycle	6 5 7 6	3E8675 3E8676 3E8677 3E8678	3.25 2.50 2.95 4.10
9 46 26A (Gloritone) 27 (Gloritone) 26P (Gloritone)	5 6 4 6 8	3E8679 3E8680 3E8681 3E8682 3E8683	3.10 3.85 2.20 2.75 2.00

Atwater-Kent 37, 38

Models 55, 55C

Late Model Shpg. wt., 9 lbs. List, \$9.75. 3E8688—Late. YOUR PRICE, Ea. \$2.70



RADIO MODEL	Shpg.	Stock	Your
	Wt.	Number	Price
ATWATER-KENT 37, 38 55, 55C, late mode 55, 55C, early mode H1, H2, L1, L2, L 82F, 85F		3E8687 3E8688 3E8689 3E8690 3E8691	\$1.75 2.70 4.20 3.35 3.35
84 (All)	5	3E8692	3.35
84F	8	3E8693	3.65
80, 83	5	3E8694	3.35
80F, 83F	8	3E8695	4.85
87, 89, 89P	6	3E8696	3.65
89F	10	3E8697	5.10
66 (Plate)	10	3E8698	4.25
82, 85	5	3E8699	3.35
60, 60C	9	3E8700	4.75
BOSCH 29, 825 48 58 60	10 6 6 6	3E8702 3E8703 3E8704 3E8705	3.95 3.35 3.35 3.75
BREMER-TULLY 81, 82, S-81, S-82	8	3E8707	3.55



Brunswick

Models 3NC-8, 5NC-8 Shpg. wt., 8 lbs. 3E8710 List, \$6.75. YOUR PRICE

265

RADIO MODEL	Shpg. Wt.	Stock Number	Your Price
BRUNSWICK 10 3NC8, 5NC8	5 8	3E8709 3E8710	\$2.30 2.65
12, 12A, 16, 16A, 18, 18A, 33, 33A 2KRO, 3KRO	5	3E8711	3.60
3KR6, 5KR, 5KR0, 5KR6 14, 21, 31, 81, 82,	8	3E8712	1.40
\$14, \$21, \$81, \$82, 60 cycle 15, 22, 32, 42	11 13	3E8713 3E8714	3.75 3.95
FRESHMAN Q15, Q16, 3Q15, 3Q16 QD168	9	3E8726 3E8727	2.95 3.75
GENERAL ELEC. H31, 51, 71 T41, K60	9 9	3E8729 3E8730	2,25 2,50

RADIO MODEL	Shpg. Wt.	Number	Price
GRAYBAR GB700, 770, 900 GB500, 550 GB340 GB310, 311 GB600 GB678	9 9 8 9 9	3E8729 3E8733 3E8710 3E8712 3E8734 3E8730	\$2.20 2.65 2.65 1.60 3.25 2.25
KENNEDY 10, 20	8	3E8736	2.95
KNIGHT 6-7, (2 sec. Choke)	9	3E8671	4.10
MAJESTIC—90, 9P6 180, 8P6 (plate) 70, 7P6 (plate) 70, 7P6 (filament)	11 7 6 6	3E8746 3E8747 3E8748 3E8749	3.75 3.25 2.10 2.10
180, 8P6 (filament) 50 unmounted 15A unmounted 20 chassis.	7 7 4	3E8750 3E8751 3E8752	2.95 3.75 1.75
unmounted	6	3 E 8 7 5 3	3.95
21, 22, 23, chassis 20 90B, 100B	6 12	3E8754 3E8755	3.15 3.90
130Å, 230A, sets 130, 131, 132, 133 25, 25A 91, 92	13 7 12	3E8756 3E8757 3E8758	3.70 3.75 3.35
MARVELO-MONROE 6/7 (2 Sec. Choke)	9	3E8671	4.10

Philco Model 65

Shpg. wt., 8 lbs. 3E8763—List, \$7.00. YOUR

PRICE \$2.45 Model 87

Shog. wt., 8 lbs. 3E8766—List, \$7.00. YOUR YOUR **\$2.45**

Models 20, 220 Shpg. wt., 7 lbs. 3F8762—List \$6.00

RADIO MODEL	Shpg.	Stock	Your
	Wt.	Number	Price
PHILCO—20, 220	7	3E8762	\$2.45
65	8	3E8763	2.45
76, 77, 77A	7	3E8764	2.65
86, 82	7	3E8765	2.65
87	8	3E8766	2.45
95, 96, 296, 92 70,270,370,470,570 111, 211, 112, 212 490, 90 (45 or 47) 511, 521, 531, 541, 551, 561,571,581	10	3E8767 3E8768 3E8769 3E8770 3E8771	2.65 2.65 2.65 2.65 2.65
4 14, 43, 71, 89, 91 50, 51	5 5 6 7	3E8772 3E8773 3E8774 3E8775	2.50 2.65 2.65 2.95

Radiola 17, 18, 33, 50, 51
Victor 7-11, 8-25, 7-26, 17-8
Brunswick 2KR0, 3KR0,
3KR6, 5KR, 5KR0, 5KR6
Graybar 311
The Original Part

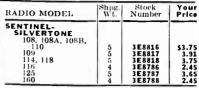
The Original Part 3E8712—List,\$6.00. YOUR PRICE \$1.60

Radiola 44, 46, 47 Shpg. wt. 9 lbs. 3E8733—List. \$6.50. YOUR

\$2.65 PRICE. RCA Victor RE 32, R 52, RE 45, RE 75

Shpg. wt., 10 lbs. 3E8784—List, \$6.75. YOUR PRICE

OUN THIOL			
RCA-VICTOR- RADIOLA 80, 82, 86 60 62 44, 46, 47 17, 18, 33, 51, 50	9 8 9	3E8729 3E8710 3E8733 3E8712	\$2.20 2.65 2.65 1.60
66 42, 48 R15, 14 64, 67	9 9 9 19	3E8734 3E8730 3E8730 3E8782	3.25 2.50 2.50 8.75
7-11, 7-25 R32, R52, RE45, RE75 R35, R39, RE57	8 10 9	3E8712 3E8784 3E8730	1.60 2.65 2.25



Sparton 591, 593, 931

Shpg. wt., 7 lbs. 3E8792—List, \$7.00. YOUR PRICE..... \$3.85

Sparton 301

Shpg. wt., 10 lbs. 3E8797—List, \$12.00. YOUR PRICE. \$3.95

Sparton 930



3E8795-

RADIO MODEL	Shpg. Wt.	Stock Number	Your Price
5PARTON 589 591, 593, 931 89A 109 ensemble 930	7 7 8 11 5	3E8791 3E8792 3E8793 3E8794 3E8795	\$3.85 3.85 5.90 6.75 2.50
25, 26, 26AW, 30, 45 301 110, 111, 101 410, 420 103, 301A, 578, 740, 750	10 10 12 7	3E8796 3E8797 3E8798 3E8799 3E8800	6.25 3.95 4.45 3.50 5.75
69, 79, 89 62, 63, AC7	6	3E8801 3E3937	3.45 2.30
STEINITE 40C, 41C, 60C, 102C 40, 50, 70, 80, 102	11 10	3E8803 3E8804	4.95 5.55
STEWART-WARNER 801, 801A, 802 811, 811A, 25 eycle 961, 962, 963 102A	7	3E8806 3E8808 3E8809 3E8810	3.40 5.40 3.65 3.25
STROMBERG- CARLSON 641, 642, 652, 654 10, 11 846, 848	10 10 10	3E8811 3E8812 3E8813	3.45 3.75 4.25
TEMPLE 6-60, 8-80, 8-90, 8-61, 8-81, 8-91	8	3E8814	3.50
U. S. RADIO & TEL. CORP. (See Apex & Gloritone)			
UNITED AIR CLEANERS (See Sentinel-Silvertone)			
WESTINGHOUSE WR4 WR5, 6, 7	9	3E8730 3E8729	2.50 2.20
ZENITH 52, 53, 54, 55, 57, 60, 61, 62, 64, 67, 602, 613, 622, 642, 672, 522, 532, 542, 95 10, 11, 12	11 9	3E8822 3E8823	3.75 3.60

Zenith

52, 53, 54, 55, 57, 60, 61, 62, 64, 67, 95, 602, 513, 622, 642, 672, 522, 532, 542

Shpg. wt., 11 lbs. 3E8822—List, \$7.25. YOUR YOUR PRICE..... \$3.75



Filament Transformers



Made of the best quality, new materials. Cores carefully wound and variable. These transformers are excellent for use as pre-heaters, short testers, filament supply, and to light the filaments of the tubes in short wave sets and converters. When used with "B" eliminator will convert battery sets to A. with "B" eliminator will convert battery sets to A. C. operation. Can also be used in tube testers. Silent in operation—no All taps marked.

2½ Volt Center Tapped, 30 Watts 3E4225—Secondaries 2½ V. 4 ann., 2½ V 9 ann. Height 3½", width 2¾". Monthing holes—center 30 center 3¼"x1½".

1½-2½-5 Volt, 30 Watts
3E4226-Secondaries 1½ V. 7 amps. 2½ V
2 amp. 5 V. 2 amp. Height 3½". Width 3".
Mounting holes center to center 3%21\frac{32}{32}". 1.1st \$5.00. YOUR PRICE \$2.25



Special Filament Transformers

YOUR PRICE

Good quality and dependable in operation. For use as pre-heater, in short wave sets, etc. 110 volt primary. Secondary 2½ V., 5½ amp. Mounting holes—center to center—2½ inches. Height 2½ inches. Width 1½ inches. Weight, 1 lb. Silent in operation. 15 watts.

2½ Volt—12 Amp. Filament Transformer Same as above except that it delivers 12 amps. Center tapped. 30 watts. 3E4228—List, \$2.75. \$1.10

YOUR PRICE 6.3 Volt Filament Transformer

Size and appearance, identical to above transformer. I relivers 6.3 volts at 3 amps. For use with the new 6.3 volt tubes on 115 volt A. C. Can also be used on 7.5 volt tubes. 20 watts.

3E4229—List, \$2.25.

976

YOUR PRICE ..

7.5 Volt Filament Transformer 2½ Amp. Sec., 115 Volt Primary St shape matches 3C4227. 20 watts. 3E4230—List, \$2.50. Size and PRICE

Tube Tester Filament Transformer 1½, 2, 2½, 3.3, 5, 6.3, 7½, 15, 25, 30 volts; at 2 amps.



3E3929 YOUR \$1.25 hole centers 21/2 x 1 18'

For construction tube testers or replacement in standard testers. Supplies the correct voltages for all types of tubes including the class tweeters. ing the oldest types and all those just recently announced. Flexible 8" leads are color coded and a dia-gram is included which gives all the connections. Dimensions: 2%" high, 3" wide, 2%" deep. Mounting Pri. 115 V. 50/60 cycles.

Special Value Midget Power Transformers

For 4 Tube, 35 Watt Sets

3E4069-YOUR PRICE EACH .. 76¢



For 4-5 Tube, 50 Watt Sets

3E3939 YOUR PRICE EACH ... 89¢

YOUR PRICE EACH
For early model 4 Tube or late
model 5 Tube Midget Sets. Will
suppily a 47, 80, and 2-24As or
3-57 type tubes. Prl. 115 V. 5060 cycle A.C. Sec., 650 V. 50
Ma. C.T., 2½ V. 7 A. C.T.,
V. 2 A. Lug terminals. Size
3x½", projects above chassis
1¾"; below chassis ¾".

Bargain! 30 Henry Choke

3D3926

YOUR PRICE 45C

100 M.A. D.C. Resistance 230 Ohms

A full size heavy choke.

duty choke. Best quality silicon steel 1" core. Coil highly insulated and machine wound with exacting precision. Laminations carefully varnished and stacked. Entire assembly mounted in a black enameled heavy steel frame. Leads securely fastened and anchored in fibre plates which protect the coil assembly. An unusual value, Dimensions: 33% high, 25% wide, 2%" deep. Mounting hole centers 2x124."

Special Thordarson 30 Henry Filter Choke



T-3174 3E4339—List, \$1.50. YOUR PRICE ^c≝...65¢ EACH . 60 Ma. Resistunce 600 ohms. 13%"x2"x2 5" high. Mrg. hole cen. 2 5". 3" Silicon steel core. Used as second choke in sets using 26 type tubes and 1'-P 71A tubes. Black, strel mounting strap.

Universal Output Choke Center Tapped

3E4338-List Price YOUR PRICE. 80¢

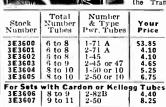
matching

For matching any standard power tube to a load of ½ the recommended value for that particular tube. Will match a 34, 42, 47, 48 or 2.45 tube. With 71A or 45 tube. Outside terminals connect in plate circuit of power tube. Center tap and B Pos. terminal connects to speaker circuit. Used as a center-tapped output choke for jush-pull 71A or 45 tubes with magnetic speaker across the outside terminals. Carries 35 Ma. Approx. 800 ohms each side of center-tap. 2½"x2½"x2½"x2" high.

Power Transformers Repaired Rewound-Rebuilt-Guaranteed Like New

Duplicate the Original . . . We Prepay the Return Postage

How it is done: The old winding is measured and then removed. The ore laminations are eleaned and restacked. The original Manufacturer's specifications are checked with what remained of the old winding. Your description of the tubes used checks our findings. New coils are wound exactly like the original and assembled on the old laminations. All connections are made exactly as in the original Transformer. The easing is cleaned and refinished. We return the Transformer postpaid, guaranteed as good as new.



Add \$1.00 extra for Units sealed in wax

Highest Quality Workmanship

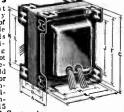
All work is done under the direction of skilled, experienced transformer Engineers. We guarantee that the remanufactured transformer will be returned to you in perfect working condition and with electrical characteristics exactly like the original or if the original design was faulty, with improved corrected characteristics.

How to Obtain Fast Service

(1) Send in old Transformer prepaid, with your name and address. (2) Send your order by mail in the regular manner, paid in full or with a 20% deposit, (3) Specify on your order make, nodel, and exact tube combination of the Receiver using the Transformer. State line voltage and frequency it is to be used with.

"Multi-Tap" Universal Power

Transformers Tapped filament: windings supply wide selection of voltages. Suitable for 1377 models of Receivers. Universal mounting with 16 "H" slot mounting holes. Removing side shield exposes lugs for various circuit combinations. Excellent for experimental use. For 115
V. 50/60 cycle A.C. supply.



Dimensions in Inches

	** M	ulti-	Tap	" Ur	iver	sal U	Inits		
Stock No.			С						J
3 E 4 0 5 6 3 E 4 0 5 7 3 E 4 0 5 8	276	314	374	2 1/8	24	31/4	134	2 246	21/2
3 E 4058	353	3 3	412	314	314	4	2 3	233	3%
	v	olta	ge ar	d C	urrei	nt D	ata		

650 Volts 60 Ma.CT 80 Ma.CT 100 Ma. CT 11 1 1 V or 2 1 V 1 1 V or 2 1 V 1 1 V or 2 1 V 3.1 A or 5 A 4.2 A or 7 A 6 1 A or 10 1 A B 2½V or 5V 3A or 1½A C.T. C.T. C.T. C.T. C.T. C.T. C.T. E 0 5V 5V 5V 5V 3A C.T. 3A C.T. 3A C.T. 3E4056 3E4057 3E4058 Your price Your price **|\$2.79|\$3.23| \$3.53**

Power Transformers for the New 6.3 Volt Tubes





45 Watt

Primary 115 volts, 50-60 cycle. Secondary 600 V, 50 Ma., 6.3 V, 2 A. C.T. and 5 V, 2 A. Mig. centers: Type A 2½x2½". Type B 3x2". Used as general replacement in the 4, 5, and 6 tubo Sets which employ 6.3 volt tubes. Each Transformer individually boxed. Wiring diagrams furnished. Shpg. wt., 3 lbs. 33E4065—Type A Mounting.

3E4065—Type A Mounting.

YOUR PRICE EACH

3E4066—Type B Mounting YOUR PRICE EACH

70 Watts

Primary 115 volts, 50-60 cycles. Secondary 700 V. 70 Ma. C.T., 6.3 V. 3 A. C.T., and 2½ V. 4 A. C.T., and 5 V. 2 A. Mounting centers: Type A. 3%x3%; Type 18, 3%x2". Used as general replacement for 7, 8, or 9 tube Sets with 6.3 volt tubes and 2.5 volt power tubes. Each Transformer individually boxed. Wiring diagrams furnished. Shpg. et. 8 lbs.
3E4067—Type A Mounting.
YOUR PRICE EACH

A Complete Selection

Radolek has the most complete Selection of transformers ever included in a single catalog. Our prices are right and the quality guaranteed. Buy all your transformer requirements from Radolek with confidence. See Page 112 for the best buy ever offered on Phileo general replacement transformers.

Carter Universal **Output Transformers**

Correctly Matches All Tubes to any Speaker 3F3930-YOUR PRICE 95¢

An Essential stock item for every serviceman. Disigned with a high in pedance primary having



signed with a high impedance primary having a special tapped secondary to permit ratio of turns in winding to match any standard lower tube plate impedance not exceeding 11,000 ohms and passing less than 40 milliamperes plate current. (Push-Poll tubes, both drawing less than 10 mils each are satisfactory but parallel power tubes with a total current over 40 mils may not be used with this transformer.) Secondary taps can be selected to match hate impedance to any voice coil having an Impedance (practically the same as the L.C. resistance) between 0.11 ohm and 15 ohms Complete instructions, and table for selecting proper connections for single or push-pull power tubes coupled to any standard dynamic voice cell, included. Do not use with type 50 tube.

Pioneer Shielded Universal Audio



former of Surpassing Quality 3E4260 List Price \$2.50. YOUR NET

49c

A very special value. Standard 2 to 1 ratio audio. Designed for first stage audio position in Kennedy Model 210, Monroe 6-7, Marvelo 6-7, Knight 6-7 and all sets, either A.C. or D.C. using 201A, 226, 112A or 171A or 215 amplifiers. Husky sized windings and laminations Insure fine tone quality. Mounts above panel. Size 3½ x22½ inches. Mounting holes 2½ inch centers. Steel shell, cadmium plated.

Flexible color coded leads. Many servicemen using this transformer in small lym size portable P. A. special value Standard 2 to 1 very

Flexible color coded leads. Many servicemen using this transformer in small two stage portable P. A. ampliflers because of its audio curve which limits hiss and distinctly favors bass tone reproduction.

Special Output Transformer For Tubes in Push-Pull 71A, 45, 50, 2A3, 43, 59 3E3927-YOUR

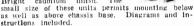


PRICE ...49¢ Will carry 65 mil. plate current. 3000 turn, center t a p p e d primary. 100 turn second-3000
tapped p.
100 turn secondary. Silicon steel core. To determine voice coil content to fit former;

vide twice the plate impedance to fit this transformer; for push-pull, different plate impedance of one tube by 225; for push-pull, different plate impedance of one tube by 225; the plate impedance by 900. See tube chart in this eatalog for plate impedance (called A.C. plate resistance). Dimensions: Height 23 A.C. plate resistance). Dimensions: Height 23 A.C. plate centers, from 31%" to 35%". Slotted mounting hole

Universal Replacement Audios and Output Transformer

All with universal mounting brackets and universal electrical characteristics. High quality transformer suitable for use in the finest of receivers. Size of all units: 2 %" high, 2" wide, and 2 %" deep. Can be mounted on either side or either end. Bright cadmium finish. The small size of these units permits mounting below as well as above chassis base. Diagrams and instructions included.



Straight Audio Transformer

3E4190—Designed to feed from any type of general purpose tube into a stage of single audio. Can be used on either A.C. or D.C. sets. 81¢

Universal Output Universal Output
Will couple all combinations of power tubes,
either single or push-pull
to any dynamic or magnetle speaker. For voice
coil impedances from 1 30

to 30 ohms. 3E4191— YOUR YOUR PRICE 81¢ YOUR PRICE 88¢

Universal P.P.
Input Ratio 3:1
Designed to feed from any type of general purpose tubes in either single or push-pull into a stage of either single or push-pull audio. 3E4192—
YOUR 886

Universal P.P.

Radolek Audio Repair Bridge



- Fastest Audio Repair Device
- Improves Tone Quality
- Utilizes Old Transformer
- Easily Installed Under Chas-

3E3920-List. \$3.50. YOUR PRICE

Stancor Universal Output

Designed to couple any power rube or push-oall output (except 2.43 & 50 tubes) to any vaice coil load approximately 1.48, 15, or 30 ohns impedance. Six secondary taps. Complete instructions, including arrangement for use of a magnetic speaker furnished with transformer. Size 114 "x2" x212" high. Mtg. C. 234" wt. 114 15.

3E3925—List, \$2.10.

YOUR PRICE....

Stancor Universal Input

A companion transformer to the above output. Center-tapped secondary for Input to grids of any Class A power tubes. Size 114 "x2" x242" high. Mgs. C. 238."

3F3924-List. \$2.20. YOUR PRICE...

\$1.29

May be connected in less than 5 minutes in any Radio receiver or amplifier. Simple instructions turnished.

Consists of a selected resistance-capacity network in a moisture proof rectangular case. Flexible color coded leads permit quick connections to faulty audio circuit. Will repair audio transformer circuits of either straight or push-pull type in which the primary of the transformer has opened or shorted to the secondary. Also corrects circuit of straight or shorted to the secondary is open.

A gain in tone quality accompanied by a slight loss of solume occurs when this type of repair is made. Substitution of type 56 tubes for type 27 tubes preceeding the circuit repaired compensates for the slight loss of volume.

The Radolek Audio Repair Bridge provides the fastest method of repairing audio transformer failures without the necessity of removing the old transformer. Size 13, "x-144" % " deep.

Completes Circuit Around Defective

Audio Transformer

Stancor 30 Henry Filter Chokes Type C1002



Guaranteed quality. Five inch flexible leads. 75 Ma. Resistance 400 ohms. Core size 7n "x-7s". Mtg. C. 31a". Frame size 34," \(\) \ filter position.
3E4201 List,

3E4201 List, \$1.45. YOUR PRICE, 85¢

Replacement Chokes

For A.C.-D.C. Receivers 3E3932—12 henries at 10 Ma. D.C. resistance 375 ohms. For 4-tube sets. Size: 11½"x2½"x1½" high. Mtg. Centers 2.¼".

YOUR PRICE..... 59¢



Pioneer Replacement Audio Transformers



New Deal Values—The lowest priced Audio Transformers of satisfactory against Transformers of much greater quality we have ever offered. New method of winding the primary last with high speed special machine makes this price range possible. We have tested cycles within 4 db.

	Size: 1	1/4×13/4×13/8"	′high. _□		Size: 1	38x13/4x15/6			Size:	1%x21/4x2"	
Stock	T	D - 141 -	Your	Stock No.	T	Raltio	Your	Stock No.	Type*	Raltio	Your Price
No. 3E4100	Type'	Raltio	Price	3E4105	Type*	1:2	Price	3E4110	S. A.	1:21	11100
3E4101	S. A.	1:37		3E4106	S A	1:3		3E4111	S. A.	1.3/	
3E4102	P-P	1:2	OC I	3E4107	P-P	1:2	- OC	3E4112	P-P	1:2	9c
3E4103	P-P	1:3	7	3E4108	P-P	1:3		3E4113	P-P	1:3 ,	•
		(*) S.A	., Straig	ht At	adio, P-l	P, Push	-Pull			

Pioneer Replacement Output Transformers

How to Select the Right Transformer

Locate in the vertical column the type power tube or tubes your radio or amplifiter employs. In a horizontal line with this tube number is our code number for the types of transformers for Transformers carry 45 MA safely.



Single Output Tube Transformers **Push-Pull Output Transformers** Transformer Type Num-

Power Tube Type	to Plate to Plate Load Imped.	transformer Type Numbers to use on various Voice Coil Impedances and Output Tubes,				Power Tube Type	Plate Load Imped.	bers	to use e Coil	on var Impeda t Tube	ances
Voice (oit Imped.	→ 2	3-4	5-7	9-16	Voice (Coil Imped.	> 2	3-4	5-7	9-16
2A5 6A4 10 20 31	14000 16000 20000 13000 14000	P80 P80 P80 P80 P80 P80	P60 P60 P60 P60 P60 P60	P45 P45 P60 P45 P45	P35 F35 P45 P35 P35	2A5 6A4 10 20 31	7000 8000 11000 6500 7000	R60 R60 R80 R60 R60	R45 R45 R60 R45 R45	R35 R35 R45 R35 R35	$\begin{array}{c} R27^{+_2} \\ R27^{+_2} \\ R35 \\ R27^{+_2} \\ R27^{+_2} \end{array}$
33 38 41 42 43	14000 22000 18000 14000 8000	P80 P80 P80 P60	P60 P80 P60 P60 P45	P45 P60 P60 P45 P35	P35 P45 P45 P35 P37	33 38 41 42 43	7000 11600 12000 7000 4500	R60 R80 R80 R60 R45	R45 R60 R60 R45 R35	R35 R45 R45 R35 R27 12	$\begin{array}{c} {\rm R27^{1}_{2}} \\ {\rm R35} \\ {\rm R35} \\ {\rm R27^{1}_{2}} \\ {\rm R20} \end{array}$
45 46 47 48 49Tri.	8000 12800 14000 4000 20000	P80 P45	P45 P60 P60 P35 P60	P35 P45 P45 P27 12 P60	$\begin{array}{c} P27^{1_{_{2}}} \\ P35 \\ P35 \\ P27^{1_{_{2}}} \\ P45 \end{array}$	45 46 47 48 49Trl.	3900 6400 7000 2000 11000	R45 R60 R60 R35 R80	R35 R45 R45 R271 ₂ R60	R27 1 ₂ R35 R35 R20 R45	R20 R27 12 R27 12 R35
2B6 59Pen. 71A 89Tri. 89Pen.	10000 12000 9600 14000 16000	P60 P80 P60 P80 P80 P80	P45 P60 P45 P60 P60	P35 P45 P35 P45 P45 P45	P27 ¹ 2 P35 P27 ¹ 2 P35 P35	2136 59 Pen. 71 A 89 Tri. 89 Pen.	5000 6000 4800 7000 8000	R45 R60	R35 R45 R35 R45 R45	R27 1 ₂ R35 R27 1 ₄ R35 R35	$\begin{array}{c} {\rm R20} \\ {\rm R27}^{+_2} \\ {\rm R20} \\ {\rm R27}^{+_2} \\ {\rm R27}^{+_2} \end{array}$

Stock Num.	Size	Ratio	Type	_
3E4130	Medium	27 12:1	P27 12	Your
3E4131		35:1	P35	Each
3E4132	"	45:1	P45	4.0
3E4133		60:1	P60	49c
3E4134	**	80:1	P80	470
3E4135	Large	2512:1	P271	Your
3E4136	44	35:1	P35	Price
3E4137	44	45:1	P45	Each
3E4138	4.5	60:1	P60	69c
3E4139	4.4	80:1	IP80	046
Dimensions:	Medium,		"x1%" 4"x2"	high, M.C

PRICE LIST

STOCK NUM.	Size	169110	Type	
E4115 E4116 E4117	Medium	$\frac{27 + 2}{35 : 1} : 1$	R20 R27 1/2 R35	Your Price Each
E4118 E4119 E4120	::	45:1 60:1 80:1	R45 R60 R80	44c
BE4121 BE4122 BE4123 BE4124 BE4125 BE4126	Large	20:1 27 ½:1 35:1 45:1 60:1 80:1	R20 R27 ^{1/2} R35 R45 R60 R80	Your Price Each

Jefferson Transformers

Universal Audio Replacement **Outputs, Chokes**

Straight Audio, 1 to 2 Ratio



For underchassis replace-ment in any A.C. or D.C. set. Brackets for vertical ment in any A.C. or D.C. set. Brackets for vertical or horizontal mounting. Range ± 4 db. 120 to 5000 cycles, Wt. ¾ lbs. Size 2% "x2½"xx ". Flexible bads.

3D4281-Code 467-164.

\$1.35.

Push-Pull Input or Straight Audio

For use in any A.C. or D.C. receiver. Designed For use in any Designed for push-pull, I to 3 ratio, amplification. By not connecting center tap, a I to 6 ratio straight audio 1s necting center top, necting center top, ratio straight audio is obtained. May be mounted in four positions with universal brackets. Lugs and tinned leads combined for resenient connections. The core is ± timed leads combined for convenient connections. The audio response curve is ± 4 db. from 80 to 3500 cycles at 1 to 6 ratio. Size 12"x2%"x134" high. Wt.,



3E4278-Code 467-168. List, \$1.95 YOUR PRICE

Jefferson Universal Output

Center tapped primary, six terminal secondary, 40 Ma. current carrying capacity. Prl. 3000 turns, C.T. Sec. 114 turns tapped at 25, 35, 47, and 78. Gives choice of ten ratios fitting practically all power tubes to a range of voice collimpedances between 1 and 15 ohms. Full instructions. Size 2"x23%"x134". 3E4297—Code 467-170. List, \$1.60.

YOUR PRICE

...94¢

General Purpose Choke

80 Ma. 220 ohm. approximately 10 henries absolute inductance. (Equal to old rating of 30) % core cross section. 2"x23%"x134" high.

3E4298-Code 466-135, List, \$1.25, YOUR PRICE

Jefferson "Quality Series"

Jefferson "Quality Series"
Oversize Push-Pull Input
A husky new universal mounting input transformer. Windings are machine wound and vacuum treated. New high permeability core of increased cross section. The high impedance of the primary winding particularly suits this transformer to the new type high-mu triode tubes of the 56, 2A6, and 75 type. The earlier triodes work better with high impedance coupling than with their original transformers. The mechanically center tapped secondary delivers uniform potential to the grids of any type power tubes. 2"x23%"x2" high. Wt. 1½ lbs.

3E4295—Code 467-175. List, \$2.00.

-Code 487-175. List, \$2.00. \$1.17 3E4295-YOUR PRICE

Oversize Universal Output



Diesigned upon the principle of adjusting the ratio of the transformer by proper selection of secondary taps. The primary is 3000 turns. C.f. The secondary is 141 turns tapped at 25, 35, 47, 78, turns. To match any (except 2A3 and 30) power tube or push-bull output to any the relations of the respective windings is furnished. No mathematical calculations are necessary. Universal mounting brackets, instructions, etc. 81ze 2 x 23% x 22 in igh. Stock this transformer as a regular item—1s wide application guarantees non-obsolescence, Wt. 1½ ibs.
31E4279—Code 467-176.

3E4279—Code 467-176. YOUR PRICE \$1.17

Universal Choke "30" Henry

An all-purpose filter choke incorporating universal mounting features. Recommended for use in all circuits requiring a quality choke of sturdy and generous proportions. Windlings are vacuum impregnated to remove all trace of moisture and to guard against re-absorption. Connections brunght and leads. Resistance 275 ohms; maximum current earrying capacity 100 mils. Size 2"x2%"x2" ligh. Sign. wt. 14 lbs.



rent carrying capacity 100 high. Shpg. wt., 1% lbs.

3E4296—Code 466-125. List Price, \$1.75. YOUR PRICE 79¢

Replacement Type Audios

Straight Audio

Manufacturer's type, ratio 1 to 2. Used in
many sets to couple 27
detector to 26 tube or
from a 26 to a 71A. 10
Ma. Plate current limit.
Size 3"x15g"x15g". Wt. 1

3E4265— Code 467-401. List Price, \$1.05. YOUR PRICE



Push-Pull Input

Manufacturer's type, ratio 1 to 2. For coupling a 26, 01A, or 27 tube to push-pull 112A, 71A, or 45 tubes, 10 Ma. Plate current limit. Sizes 3"x 158," 15," Wt. 3, lbs. 3E4266—467-402. List Price, \$1.10. 45¢

Push-Pull Output

For coupling push-pull 71A or 45's to a voice coil having a D.C. resistance of approximately 4 obms and an impedance of 6 obms at 400 cycles. By not employing the center tap, a single 33, 42, 47, tube may be coupled to the same voice coil. Ratio of transformer, 3714 to 1, total primary to secondary. Size 3"x15", Wt. 34 lb. secondary. Size 3"x158"x174". Wt. 34 3E4267-467-409. List 1'rice, \$1.00. YOUR PRICE

Large Size Replacement Push-Pull Input Ratio 1 to 3



3E4268-467-404. List Price, \$1.40. YOUR PRICE... 82¢

Increased core size and heavier wire greatly improve the audio response curve of this transformer. Sell this transformer on service jobs where results better than obtained with the original unit are desired. ± 4 db. from 90 to 4000 cycles.

Push-Pull Output

Ratio 62:1 total primary to total secondary. 3½
Watt. Designed to couple 71A or 45 tubes in
pusi-pull to voice colls of approximately 5 olums
D.C. resistance or 6 to 8 olum impedance. When
the center tap 1s not used, tubes of the 33, 42, 47
and 2A5 type may be coupled to the same voice
coil as above. 40 Ma. Plate current limit.
3E4269—467-410. List, \$1.15.
YOUR PRICE

150 Milliampere Choke

150 Milliampere Choke

A heavy current, "First Section Choke" of the open vertical type. D.C. resistance 425 ohnis. Approximately 30 henries at 150 mils. Weighs 3½ lbs. Size 2½ "x3" 4½" high. Careful layer insulated, machine wound coils thoroughly impreximated prepares this choke for hard service use. Used in series with a 50 wait 5000 ohm rheostat, and the shielded Universal Output (467-171) a dunmy speaker substitute circuit for test bench use may be built which will duplicate any dynamic speaker requirement of any standard radio chassis brought to your shop for repair without the speaker. 3E4270—466-210. List, \$1.75. YOUR PRICE

Shielded Universal Output

3E4280—467-171, List Price, \$5.00. \$2.35

MicrophoneTransformer Two Button—Shielded

A splendid steel cased single or double button "Mike" transformer with extra layer insulation to prevent capacity losses within the winding which would reduce the response range. Matches standard primary winding will match a single 200 ohm button. Size 2%"x2%"x2%" high. Mtg. centers 234."

3E4271-467-263. List, \$5.00. YOUR SPECIAL PRICE \$1.47

Filament Transformers

2½V, 3½A, 10 Watts Open type, 115 Volt 50-60 cycles. A small, well in-sulated filament supply ransformer for short-wadapters, etc. Size 1% 3¼ "x2" high. Wt. 1 lb. 3E4272—464-211. List. \$1.40. short-wave

List, \$1.40. YOUR PRICE ... 82¢



21/2V, 121/2A, 35 Watt

Open type, 115 volt 50-80 cycles. Extra heavy insulation, safe for 806 type tubes. 24% "x2"x25%". Wt. 2 lbs. Center tapped. 3E4273—464-201. List, \$2.00.

YOUR PRICE

6.3V, 4A, 30 Watt

Open type, 115 volt 50-60 cycles. For the new type
6.3 volt tubes. 10 to 12, 0.3 or 0.4 ampere tubes
may be operated from this transformer. Center tapped,
3E4274—464-221. List, \$2.00. ..\$1.18 YOUR PRICE

Class "B" Plate, Filament, Audio, Transformers and Chokes

Class "B" Plate Supply—90 Watts

For use with type \$2, 523, or 83 tubes. Has single secondary 775 V. C.T. Will operate steadily at 200 Ma, load, 115 V. 50,60 cycle primary. Side lug connections. Size: 33% x 34% x 14%" h 1 g h. Diagram furnished. furnished.

3E4282—Code 465-151. List, \$8.75. YOUR PRICE ... \$4.41



Class "B" Filament Transformer

For use with above Plate Transformer. Has 5 V. 3 A., 2½ V. 3½ A. and 2½ V. 14 A. secondary windings. 115 V. 50/00 evelo primary. Lugs on side of case. Size: \$\frac{8}{3}\cdot \frac{8}{3}\cdot \cdot \frac{8}{3}\cdot \cdot \cdot \frac{8}{3}\cdot \cdot \c

Class "B" Input Transformer

3E4286-Code 467-271.

List. \$6.25. YOUR PRICE \$2.94



For interstage or straight audio coupling to a class "B" power stage. Primary and secondary center tapped. Side lug connections. Size 2½"x27s"x27g" high. Diagrams furnished. Shpg. wt., 2½ lbs.

Class "B" Output Transformer Has tapped primary and tapped secondary for coupling Class "B" 46, 53, or 59 type tubes to either 1, 3, 6, or 10 olun voice coil. Shpg. wt., 2½ ibs. 3E4287—Code 467-281. List, \$6.25. \$2.94

Class "B" Buffer Choke

For use as first choke of a Class 'B' filter system. 190 ohms, 18 henries, 150 Ma, capacity. Size 2\frac{3}{2}\frac{10}{2}\fra

Class "B" General Purpose Filter Choke

Is particularly applicable as second section class 'B' amplifier clock. Resistance 199 ohtms; nominal inductance 10 henries, 150 M.A. Construction and dimensions are identical with above choke. Diagram Included. Stipping wt. 2½ lbs. 3E4285—Code 466-200. List, \$3.20.

YOUR PRICE

Jefferson "STAR" Audios

Jefferson "STAR" Audios

Sealed in blark enanched cases to prevent moisture from getting into coils. For use in either A.C. or D.C. receivers. Finest rolled high silicon steel core. Nickeled hinding posts mounted on bakelite insulation. 2%" high by 2%" wide and 28%" deep. Mounting hole centers 2%". Windings are completely shielded and clear-ly marked for proper connections. Shing, Wt., 1 lb. 3D4275—Code 467-113. 3 to 1 Ratio. 3D4275—Code 467-116. 5 to 1 Ratio. List. \$2.20.



YOUR PRICE.

Tapped Push-Pull Input Type 3E4277—Code 567-118. 3 to 1 Ratio with on hottom. List, \$2.50. \$1.24 YOUR PRICE



Filterette *Type RF2* 3E8502— \$4.95 YOUR PRICE \$2.90

An Inductance Capacity Filter. Eliminates scratchy or buzzing noises caused by leaky power-lines, defective house wiring, etc. The inductance capacitive action of this unit is especially adapted for filtering out line noises and assuring a flow of smooth filtered current to the radio. Contains a dual-capacity filter followed by a dual inductance, which establishes a high impedance circuit preventing line noise and diverting interference to the ground. A ground connection is provided on the case of the Filterette. Size of case 2½"xi½"x3½" high. For use on A.C. or D.C. lines under 130 volts and with radio receivers drawing less than 150 watts.



Falck Claroceptor 3E2427— List, \$5.00. Your Price \$2.94

Especially effective for reducing noises in A.C.-D.C. Sets. A Dual inductance capacity-fil-

Inductance capacity-filter.

The electric lighting wires of a city are endless antennae which collect not only signals from broadcast stations elevators, electric motors and coupriless electric devices used within and outside the home. These disturbances penetrate into A.C. radio sets through the wall socket connection and are heard as blare, squeal, fry and scratch—"Man-made static." Block out these noises by plugging in a Claroceptor between the wall socket and set.



Thordarson A. C. Line **Booster Auto** Transformer

3E4321— 100 watt Auto-Transformer. Tapped for boosting either 90 or 100 volts to 115 volts. List Price, \$4.00.

Your \$2.39

3E4322—150 watt Auto-Transformer. Tapped for boosting either 90 or 100 volts to 115 volts. List Price, \$5.00. YOUR PRICE \$2.96

Employed to Step up A.C. line voltages in districts at a considerable distance from a line-transformer as in out kirts of a city or in rural districts. Built with 18" cord for connection to wall socket A.C. outlet. Neat fireproof metal container equipped with two standard A.C. female plus covicets.

3E8503-List, \$2.25. \$1.32

Filterette Junior

YOUR PRICE compact unit, easy to install, for

A compact unit, easy to install, for eliminating interference caused by household appliances, such as electric fans, heating pads, vacuum cleaners, light switches, etc. Has standard connection between electrical outlet and receiver. Operates on 110-120 volts A.C. or D.C. A demonstration at the home of your customer will assure an easy, profitable sale.

Filterette Senior

3E8504-List, \$5.50.

YOUR PRICE .. \$3.23



larger Filterette than the Junior. Especially a targer retterette than the Junior. Especially recommended for appliances causing more intense interference than that suppressed by the Filterette Jr. Can be used on appliances drawing up to 5 amps. 110 voits A.C. or D.C. In metal case 2" diameter and 4" long. Has binding post for grounding Filterette to frame of appliance. Supplied complete with cord, plug and receptacle.

Clarostat A.C. Line Voltage Regulator

For sets with critical line voltage requirements where a dependable regulator must be employed. Resistor increases in resistance value as line voltage raises, thus automatically maintaining a steady potential on the receiver with which it is used. Stock Num. Type Watts of Set List Ea. \$1.75 (200 A) 66 to 100 (200 A) (200 A)

(Ten for

.\$7.95)

I. C. A. "Junior" Filtervolt Noise Eliminators FOUR REVOLETO 3E2480 List l'rice, \$3.00. PRICE \$1.64

A capacity type line filter which diverts interference from the electric line to the earth and acts as a filter to eliminate interference caused by heating pads, light switches, and motors of less than 1-6 H.P. Operates on 110-120 Volts A.C. or D.C. Tell your customer why he should buy this item with a demonstration. Make \$1.24 extra on your regular service calls.

Line Voltage Reducer Standard Type for Reduction of



List \$3.00.

YOUR PRICE

Ten for \$3.00

Maintains a constant potential on lines on which voltage climbs. Protects tubes, condensers and resistors against line surges by automatically reducing line voltage to a normal operating voltage. Air-cooled type, with plug for standard outlet. Usually sells for \$1.00. Servicemen can make 68c extra on each call where the set owner has had tubes burned out due to high line voltage.

Amperite Self Adjusting **Voltage Controls**



"Amperite" is a thermal regulated resistance designed to maintain a uniform potential across the primary of the Power Transformer. Receivers designed to use "Amperite" controls usually have Power Transformers designed to operate on 80 to 90 volts. The "Amperite" matched to this circuit has a special resistance wire within its envelope. As the line voltage fluctuates the temperature of this wire changes its resistance value in direct proportion to the Increase or decrease in voltage. This action results in a uniform voltage across the primary of the Power Transformer. When replacing "Amperite" always check for a short circuit. If the "Amperite" lights up brightly, this indicates a partial short.

Standard Amperites

t Sets	operated	οп
t lines.		
No.		
Tubes		
41		A5
4-5		A5
		A5
8-9-10		A_5
		Aā
-125		ets.
1	3-A-5	
	t lines. No. Tubes 4* 4-5 6-7 8-9-10 11-12	No. Amper Tubes Num 4* 4-5 8 6-7 7 8-9-10 9 11-12 11

3E2408-175 Watt Sets. List, \$3.00. \$1.25

Special "Amperite" Controls

For Bremer-Tully S-81, S-82 For Brunswick 14, 21, 31 For Grebe HS4, 1285, 450 For Hammerlund-Roberts III-Q 30 For Kylectron K-71, K-72, 3E2409— 9-20* 3E2409— 9-20* 3E24 | 0-11-20 3E24 | 0-11-20 3F2410-11-20 Peerless 21 to 25 For Sonora 30, 32 40 For Majestic 90, 91, 92 For Star-Raider (Sets use 2) 3E24 | 0-11-20 3E24 | 1-90 3E24 | 9-18-20

3E2301-876 For RCA 876 Ballast. YOUR PRICE EA. .. \$2.25

-9-20 Amperite replaces old Duresite 110 jubes.

Oil Burner **Filterette** Type OB 110

3E8524-List. \$9.50. Your Price \$5.60

For application to all oil burners to prevent distribution of radio noise caused by elec-tric ignition or by the universal motors

the universal motors used with ome burners. Mounted in a standard black enameled steel cutout box 7"xii\(\frac{1}{2}\)xi mounting on a pipe standard or flat surface. Maximum potential 110 volts A.C. or D.C. Maximum current four amperes. Supplied with complete instructions for installing with any type of burner. Should be located as close to the interfering mechanism as possible and should be grounded to the oil tank pipes and to the water system.

WIRT Voltage Regulator

No. 211

The Wirt Voltage Regulator installs between the house current convenience outlet, or wall receptacle, and the plug from the Set. Provides five resistance values which are controlled by simply rotating the fibre ring at the end. When properly adjusted it protects tubes, condensers, and reduces noises and hums. Enclosed in nickel plated heavy metal case. Fits any standard outlet. For use on Sets having six or less tubes.

Automatic Voltage Control

For Reducing Line Voltages 3E2267-List, \$1.75.

YOUR 57¢ PRICE

Ten for \$5.48

Ten for \$5.48

Protects tubes, resistors, and condensers by preventing excessive line voltage. Automatically compensates for line surges by increasing in resistance as voltage rises. This assures a constant flow of smooth current and prevents overloading. Aircooled type. Fits any standard secket or outlet, and supplies 110 volts A.C. or D.C. on any line up to 130 volts. This unit usually sells for \$1.75. Servicemen can easily sell a control like this to every set owner who has had trouble with burned out tubes, condensers or resistors due to excessive line voltage.

Clarostat Replacement **Line Ballasts**



Compensates line voltage changes for Sets designed for use with Ballast. Will maintain the normal voltage across the primary of the power transformer within allowable limits for efficient operation, regardless of line fluctuation between 95 and 125 volts. WE CAN ALSO SUPPLY REPLACEMENT BALLASTS FOR SETS NOT LISTED BELOW. Send your order giving make, model and number of giving make, model and number of tubes in Set.

Type 2169 2179 Bremer Tully Brunswick, HI Q-30, Scott Silver Sonora

3E3117 2408 Clarion 1516

*MAJESTIC 70, 71 *MAJESTIC 70B. 72 *MAJESTIC 180, 181 *MAJESTIC 90, 91, 92, 100 3E3|05 3E3|06 3E3|07 3E3|08 1210 6310

United Reproducer, Peerless and 3E3109

Onted Reproducer, Peerless Grebe Stark Piano and Belmont Simplex, Baldwin Stewart-Warner 900-61816 Stewart-Warner 950-62152 Stewart-Warner R100-66756 3E3||0 3E3||1 3E3||2 3E3||3 3E3||4 List Price. 2518 2516 5001 5002 5003 Each \$2.50. \$1.18 YOUR PRICE ...

(*) Ballasts also available for MAJESTIC Sets operating on 25-30-40 cycles; and 230 volts 60 cycles. In ordering please mention power unit type, frequency and ballast markings.

THE DEVICES listed on this page are for re-ducing line noises and regulating line voltages. Shielded antenna systems and noise reducing aerial systems are listed on pages 98 and 99.

itreous Enameled Resistors



Wire wound on a %" porcelain tube 1%" long with a %" hollow center. Coated with high quality Vitreous log with a %" hollow center. Coated with high quality Virreous enamel and fired at red heat making an enamel coating which is fused tightly to the wire, terminal connections, and base. Either the solder lugs and 1½" timed wire leads may be used for mountainer with the desired of the sold of th ing unit in circuit.

Non-Porous Waterproof Coating

10 Watt YOUR PRICE, EACH

18C Ten for.....\$1.75

		20 W	att!	Size—	2 Inc	hes Le	mg		
3 D1925 3 D1926 3 D1927 3 D1928 3 D1929 3 D1930 3 D1931 3 D1932 3 D1933	23 4 5 7.5 10 15	3D1934 3D1935 3D1936 3D1937 3D1938 3D1940 3D1941 3D1942 3D1943	30 40 50 75 100 125	3D1944 3D1945 3D1946 3D1947 3D1948 3D1949 3D1950 3D1951	250 300 350 400 500 600	3D1953 3D1954 3D1955 3D1956 3D1957 3D1958	1,250 1,500 2,000 2,500 3,000 3,500	3 D1960 3 D8200 3 D8201 3 D8202 3 D8203 3 D8203 3 D8204 3 D8205 3 D8206	5,000 6,000 7,500 10,000 12,000 15,000 20,000 25,000
Number	Ohms	Number	Ohms	Stock Number	Ohms	Stock Number	Ohms	Stock Number	Ohms

			. C DIEC-	2 11tt	tes Lon	· ·	
Stock Number	Resist- ance Ohms	Stock Number	Resist- ance Ohms	Stock Number	Resist- ance Ohms	Stock Number	Resist- ance Ohms
3C1825 3C1826 3C1828 3C1829 3C1830 3C1831	5 10 50 75 100 150	3C1839 3C1840 3C1841 3C1842 3C1844 3C1845	750 800 1000 1100 1250 1500	3C1853 3C1854 3C1855 3C1856 3C1857 3C1858	3000 3250 3500 3750 4000 4500	3C1866 3D1867 3D8210 3D8211 3D8212 3D8213	15,000 25,000 30,000 35,000 40,000 45,000
3C1832 3C1833 3C1834 3C1835 3C1836 3C1837 3C1838	200 250 300 350 400 500 650	3C1846 3C1847 3C1848 3C1849 3C1850 3C1851 3C1852	1750 1850 2000 2250 2400 2500 2750	3C1859 3C1860 3C1861 3C1862 3C1863 3C1864 3C1865	5000 6000 7000 7500 8000 10000 12500	3D8214 3D8215 3D8216 3D8217 3D8218 3D8219 3D8220	50,000 60,000 70,000 75,000 80,000 90,000
YOUR	400	YOUR		YOUR		YOUR	

PRICE 19C PRICE 23C PRICE 27C PRICE 35C

50 Watt Size—# Inches Long (with tugs)							
3C1875 3C1876 3C1877 3C1878 3C1879 3C1880 3C1882	10 20 50 100 250 500 750	3C1883 3C1884 3C1885 3C1886 3C1887 3C1888	1000 1150 1250 1500 2000 2250 2500	3C1891 3C1892 3C1893 3C1894 3C1895 3C1896 3C1897	4000 5000 6000 7000 7500 8000 9000	3C1898 3C1899 3C1900 3C1901 3C1902 3C1903 3C1904	10,000 12,000 15,000 25,000 50,000 70,000

YOUR 29C YOUR 35C PRICE 39C PRICE 48C

Adjustable Voltage Dividers



Vitreous Enameled

Will replace any tapped volt-

Will replace any tapped voltage divider. Wound on Isoland the United Programmes and Complete with One Adjustable Lug ontact button on adjustable lug shorts out minimum of resistance permits the use of more than one adjustable tap where required. Rated typin accordance with the requirements of the National Electric Manurers Association. Adjustable mounting brackets. Small contact but

	Watt 21/2"x5% n Mtg. ("	50 Size Minimu	Wat 41/2"x5 m Mtg.	,"	Size	Watt 612"x% m Mtg.	."
Stock Number	Resist. Ohms	Max. Curuʻt M.A.	Stock Number	Resist, Ohms	Max. Curn't M.A.	Stock Number	Resist.	Max. Curn't M.A.
3E1676 3E1678 3E1680 3E1682 3E1683 3E1684	5 15 50 100 150 200	2450 1410 770 545 445 385	3E1703 3E1704 3E1707 3E1709 3E1711 3E1714	10 50 100 200 500 1000	2340 1048 740 520 330 234	3E1732 3E1733 3E1734 3E1736 3E1737 3E1738	100 250 500 1000 1500 2000	865 545 387 270 223 190
3E1685 3E1686 3E1687 3E1688 3E1689 3E1690	250 500 750 800 1000 1500	345 245 200 193 173 141	3E1716 3E1718 3E1719 3E1720	2000 3000 4000 5000	165 135 117 104	3E1739 3E1741 3E1742 3E1743 3E1744 3E1745	2500 5000 10000 15000 20000 25000	173 122 86 70 61 55
3E1691 3E1693 3E1696	2000 3000 5000	122 100 77	List Price YOUR PRICE		65¢	YOUR PRICE		88¢
3E1698 3E1699 List Price	7500 10000 2, 75c.	63 54	3E1757 3E1721 3E1722 3E1723 3E1724	7500 10000 12000 15000 20000	85 74 67 60 50	3E1746 3E1748 3E1750 3E1751 3E1752	30000 40000 50000 60000 80000	50 43 39 35 31
PRICE .		44¢	List Price	25000 l	45	YOUR PRICE	100000	94¢

...74¢

PRICE

56¢ PRICE

3E1726 | 30000 3E1727 | 50000

New Radolek **Resistance Indicator**

Calibrated Variable Resistance Box

\$770 YOUR PRICE

Every Serviceman Needs This!

3E2547-List Price, \$6.50

Makes any resistance between 0 and 100,000 ohms instantly available. Consists of a calibrated 25,000 ohm pertentioneter with the first 1000 ohms spread out over half the arc of rotatentiometer with the mrst topo omins spread out over half the are of rotation. Three selected 25,000 ohm resistors in series with the potentiometer permit adjustment of resistance to any value from 0 up to 0.1 megohm, through insulated pinhacks. Excellent temporary substitute fox birmed out resistors or voltage divider sections to determine the original value of resistor. May be employed as "known" variable resistance in Wheatstone bridge circuits. Used for calibrating hand made ohumaeters; selecting best bias resistances; extending voltages as shunt multiplier; etc.

New! Exclusive Radolek

Invention! Designed and built in Radolek's lab-oratory. Safety, onvenience, speed, accuracy, and general utility built in to the finest calibrated resistance into the finest calibrated resistance in-ticator available at a moderate price. Will meet your severest service—will save you hours of tedlous searching for proper size resistors. Specifica-tions: Moulded brown bakelite case with modernistic close titting indi-cator knob, etched alumhum scale, slx plnjacks, special tapered "pot" and resistors. Matches finest precision mill apparatus in appearance, 330° built apparatus in appearance. 330° deg. arc of rotation, over 7 inches of wire weund contact surface. Size: 5"x 218"x2'4".



Many Advantages of Radolek Indicator

Tapered resistance permits more exact adjustment under 1000 clums than possible with ordinary resistance in dicators. Has 15 watt canacity up to 1000 ohm. 10 wast to 25,000, 1 watt to 100,000 ohms. Safety factor of 50% overload. Beautiful easy reading etched aluminum dal plate with circuit diagram. Fire-proof bakelite case protects user from burns or shock. No exposed 'hot' terminals. Excellent non-pitting constant pressure rollar cantact on resistance element. May be carried in hip pæcket. Can be used as 25,000 ohm calibrated potentiometer. Has highest quality with leads with sering-prone pin can be used as 25,000 onto calibrated potentiometer. Hiss highest quality 21" test leads with spring-prone pittps and tapered Alligator jaw test elips. All values of resistance have 5% or better accuracy. A resistance indicator years ahead in design.

Radolek Megohm Indicator

Decade 0.1 Meg. Resistance Steps

Calibrated resistance standard consisting of ten 100,000 ohm resistors connected in series and wired to ten taps on a constant contact selector switch. Makes available any resistance from 0.1 megohm to 1 megohm in 100,000 ohm steps. 5% accuracy.

3D2546-List Price, \$6.50. YOUR

PRICE \$350

PRICE

Primarily designed to extend the range of the Radolek Resistance Indicator, to 1,100,000 ohms. This is a particularly sultable trial substitute for burned out resistors suspected to have had a value between 0.1 meg, and 1 meg. The Megohm Indicator may also be used as a multiplier for converting an 0-1 millianmeter to a voluncter having ten ranges from 100 to 1000 volts maximum. Ohmmeters may be calibrated with special voltages and resistors by comparison of reading with scale of the Megohm Indicator. Experimental work on Lottin-White circuits is greatly facilitated with this resistance box. The Megohm Indicator is built in a moulded bakelite box to match the Radolek Resistance Indicator. Perfect insulation. No possibility of shock or burn regardless of how the box is handled. Rated at one wait per 100,000 ohms. 100% overload safely factor. Positive position, constant contact, rotary switch. Etched aluminum dal marked, 1 to 10, indicating the value of resistance in tentis of a megohm. Supplied with 24" test leads equipped with alligator-spring clips and spring tip prongs. Fit tip-jacks perfectly.



Calibrated Resistance Indicator Set

Consists of One Radolek Resistance Indicator and One Megohm

Indicator

Indicator

3E2527

Indicator

Regular Value, \$13.00.

YOUR SPECIAL PRICE
FOR COMPLETE SET

Radolok's calibrated Resistance Indicator combined with the Mexohm Indicator gives the serviceman a compler range of test resistors between 0 and 1.100.000 ohms any odd value instantly available for experimental or test use. Serves the purpose of Decade Resistance boxes that usually sell for more than \$100.00. Excellent for all resistance substitution in radio receivers, for test purpose.

The most useful and needed accessories in a modern service shop now available at a price in reach of every serviceman. Cases are 218 "(148" xii 4" deep Etched dial plates. New style modernistic knobs 100% shock-proof bakelite cases. No possibility of a burn. Accuracy better than 5% Each Calibrated Resistance Indicator is small enough to be carried in your portable tool box. Mounting holes within are arranged for permanent mounting against a wall or on a test panel.

3F1674

List Price, 95c.

12000

15000 15000 20000 30000 50000

Extra Adjustable Lugs

For the where ad-

required. 3E | 755-

79¢ PRICE. EA. 6¢

Carbon Resistor Assortment



Resistors Your Price

(1/5 watt size) One of each size Radolek Cer-

tified Carbon Resistors list at

Stock Number	Asst. Size	Price
3E1225 3E1226 3E1227	1/2 Watt	\$4.25 4.30 4.40

Every servicement, engineer and laboratory should have each of these kits on hand. One of each resistance listed in tables at right included in the kits. Every resistor color color and guaranteed accuracy of 10% plus or minus. Fresh new stock of highest quality. In these assortments, practically every possible resistor requirements for any type circuit or apparatus is instantly found. It will pay you to invest in a set of these kits.

3 WATT Carbon Resistors



Same high grade guaranteed qual Same high grade guaranteed quality as other resistors quoted on this page. Resistance guaranteed plus or minus 10%. Body size—2½ inches long; & inch diameter, 1½ inch tinned copper wire leads. Stock Resist, 1840ck Resist.

Stock	Resist.	Stock	Resist.
Number	Ohms	Number	Ohms
3C1250	250	3C1261	12,500
3C1251	500	3C1262	15,000
3C1252	750	3C1263	20.000
3C1253	900	3C1264	25,000
3C1254	1,000	3C1265	50,000
3C1255		3C1266	75,000
3C1256	2,000	3C1267	100.000
3C 1257	3,000	3C1268	150,000
3C1258		3C1269	250,000
3C1259	7.500	3C1270	500,000
3C1260	10.000	3C1271	1 Meg.

Giant Spaghetti For Insulating Resistors, etc.

Glant Spaghetti Cambric Giant Spachetti — Cambric Strubing. To insulate 1 watt Carbon. Metallized and similar small Resistors. 1000 volt insulation. Heat resisting up to 350° F. Excellent for slipping over junctions of three or more wires, and insulating joints in shielded wire. May be filled with hot tar for airtight seal of soldered joints. Tubular shape, 36" diameter, 3 ft. lengths.

BE2054-YOUR PRICE 18¢ Length ..

Ten lengths for \$1.60

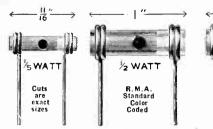
١.

Grid Leak Mountings



3E1970-Single. ... 19¢ NET. Each 3E 1971 - Double. 29¢ sistor by referring to this chart.

Radolek **Carbon Resistors** Certified



Certified Quality

Finest quality, new Iresh stock direct from the factory. The development of years of extensive research and manifacturing experience. Resistance is permanent, within a narrow range even when operated at overloads for a long period of time. Have only slicht temperature coefficients at ordinary voltages. The resistance—after first few minutes of operation becomes constant. Pree from capacity effect. Unaffected by humidity. Negative temperature coefficient. Conservative wattage rating, will carry reasonable overloads safely.

At Our Price, No Serviceman Can Afford to Waste His Time or Jeopardize His Reputation Using Inferior "Job Lot" or "Surplus" Resisitors. Resistors Offered At Lower Prices Are of Inferior Quality and Expensive At Any Price.

Guaranteed Accuracy

I WATT

Fresh New Stock R.M.A. Standard Sizes for Capacities

Variations from salues are negligible. Ratings guaranteed within 10% average variations close to 5%. Unusually quiet and become MORE QUIET the longer in use. Very strong and sturdy. Will stand all reasonable handling in manufacturing and repairing. All have welded-on 1½ inch tinned cupper wire leads. Perfect and permanent electrical and mechanical contact. Each resistor marked with standard R.M.A. color code or labeled with rated resistance.

Be Fair to Yourself and Your Customer! We recommend a resale price of \$1.00 for Certified Quality Resistors. With this gen-erous profit you cannot afford to risk your reputation as a serviceman with "odd lot" or "second" quality cheap resistors.

1/5 WATT Price Each . Per Dozen...... Per Hundred.....

1/2 WATT Net. Each

Specify Size and Resistance by Stock Number

1 WATT Net.

Hundred......\$7.15

П	1/8 Watt	16 Watt	1 Watt		1/8 Watt	1/2 Watt	1 Watt		15 Watt	1/2 Watt	1 Watt	
П	Stock	Stock	Stock	Resistance	Stock	Stock	Stock	Resistance	Stock	Stock	Stock	Resistance
Н	Number	Number	Number	Ohms	Number	Number	Number	Ohms	Number	Number	Number	Ohms
9	3C1000	3C1075	3C1150	100	3C1021 1	3C 1096 I	301171	1 3,506	3C1041 I	301116	301191	1 100,000
1	3C1001	3C1076	301151	150	3C1022	3C1097	3C1172	4,000	3C1042	3C1117	3C1192	150,000
	3C1002	3C1077	3C1152	200	3C1023	3C1098	3C1173	4,500	3C1043	3C1118	3C1193	200,000
	3C1003	3C1078	3C1153	250	3C1024	3C1099	3C1174	5.000	3C1044	301119	3C1194	250,000
	3C1004	3C1079	3C1154	300	3C1025	3C1100	3C1175	6.000	3C1045	3C 120	3C1195	300,000
- 1	3C1005	3C1080	3C1155	1 350					3C1046	3C1121	3C1196	400,000
	3C1006	3C1081	3C1156	400	3C1026	301101	3C1176	7,000	201017	001121	001130	
	3C1007	3C1082			3C1027	301102	3C1177	8.000				Megohms
			3C1157	450	3C1028	301103	3C1178	9.000	3C1047	3C1122	3C1197	.5
	3C1008	3C1083	3C1158	500	3C1029	3C1104	3C1179	10,000	3E 1061	3E1136	3E1211	1 .6
	3C1009	3C1084	3C1159	600	3C1030	3C1105	3C1180	12,500	3E1062	3E1137	3E1212	.75
-	3C1010	3C1085	3C1160	1 700					3E1063	3E1138	3E1213	.9
8	3C1011	3C1086	3C1161	800	3C1031	3C1106	301181	15,000	3C1048	3C1123	3C1198	1.0
г	3C1012	3C1087	3C1162	900	3C1032	3C1107	3C1182	17,500	3C1049	3C1124	3C1199	1.5
S	301013	3C1088	3C1163	1.000	3C1033	801108	301183	20.000	3C1050	301125	3C1200	2.0
h '	3C1014	3C 089	3C1164	1.250	3C1034	3C1109	3C1184	22,500	3C1051			
					3C1035	3C1110	3C1185	25.000		3C1126	3C 1201	2.5
	3C1015	3C1090	3C1165	1,500			<u>` </u>		3C1052	3C1127	3C1202	3.0
	301016	3C1091	3C1166	1.750	3C1036	3C1111	3C1186	30,000	3C1053	3C1128	3C1203	3.5
١.	3C1017	3C1092	3C1167	2,000	3C1037	3C1112	3C1187	10,000	3C1054	3C1129	3C1204	4.0
í	301018	3C1093	3C1168	2.250	3C1038	3C1113	301188	50.000	3C1055	3C1130	3C1205	5.0
	3C1019	3C1094	301169	2,500	301039	3C1114	3C1189	60,000	3C1056	301131	3C1206	1 6,
	3C1020	3C1095	3C1170	3,000		301115	3C1190		3C1060	301135	3C1210	10.
, ,						001110		1 10,000	. 301000	301133	301210	1 10.

ADISTOR



Color Code Chart FREE

Included is our special chart which gives R.M.A. color code. You can instantly determine resistance of any re-

3E1233-Case only

No Resistors. YOUR PRICE

These kits enable the serviceman to make practically any resistor repair regardless of any unusual value resistance needed. Twenty-five of the most popular value resistors are included as follows: 1 each 100; 250; 400; 500; 500; 100,000; 2000; 3,000; 4,000; 5,000; 5,000; 25,000; 0,000; 5,000; 5,000; 5,000; 5,000; 5,000; 5,000; 50,000; 5,000; 100,000; 25,000; 50,000; 50,000; 100,000; 25,000; 500,000 ohms; 1 megohim; 2 megohims. If value wanted is not in kit, combinations can be made to give a resultant resistance of any exact value needed. Simple chart and calculating formulae included in kit. Accuracy guaranteed within 10 %, and most values are actually within 5%.

These kits enable the

3E|232-1 watt 3E|23|-1/2 watt 3E|230-1/6 watt

serviceman

In the Metal Box

Resistors are always ready and safe. These sets of resistors are packed in strong, green lacquered heavy gauge steel boxes. The boxes protect the resistors against the roughest handling. Just drop the kit in your tool box and forget it. When you get on a job, you are always sure to have the correct dependable resistors ready to use.

Carbon Resistors



Per Dozen 50 Assorted for 3.25 100 Assorted for 5.85 Supplied in all Resistances list-ed in above quotations.

ed in above quotations.

Specify Resistance Wanted.
Guaranteed first quality, fresh, new, elean stock. We never have and will not handle 'factory rejects' nor 'job lots' of carbon resistors. Every resistor supplied on this quotation is standard size, standard specification, standard R.M.A. color coded. Have 1½ Inch tinned copper leads welded to ends of carbon rods. Obinage tolerance guaranteed within 10% plus or minus. minus

or minus.

We recommend that every conscientious Radio Service Man use the best quality Carbon Resistors like our Radoke Certified Line listed above. But if you feel you must use low cost resistors, you will find this Special line the BEST VALUES in the low priced field. No one can ever afford to use the resorted, recolored, cheap reject resistors usually offered at job lot prices.

Copyright 1934 by W. C. Braun

NET, Each

42¢

IRC Metallized Resistors



IRC Certified Resistor Kits

In Factory Sealed Boxes

Handy Kit No. 1 20-1 Watt Resistors

3E1475-List, \$5.00. __\$**3.00** YOUR PRICE .

Contains 20 metallized units of the most used sizes. Makes it rossible for the man who is doing repair and replarement work to secure hundreds of different values. Pocket size. Contains one each of: 500, 1,000, 2,000, 5,000, 10,000, 15,000, 00,000, 75,000, 50,000, 00,000, 00,000, 00,000, 25,000, 55,000, 55,000, 55,000, 55,000, 55,000, 50,000, 100,000, 200,000 ohms; 1, 1, 1, 1, 1, 1, 1, 2, 2 and 3 megohms.

Handy Kit No. 2

20-2 Watt Resistors

Handy Kit No. 3

20 Midget 1/2 Watt Resistors One each: Ohms -50, 100, 250, 500, 0, 2000, 5000, 10,000,

Handy Kit No. 4 12-5 Watt Resistors

12-5 Watt Resistors
One each of the following sizes: Ohm
-50, 140, 200, 500, 1000, 1500, 2000,
5000, 10,000, 12,500, 15,000,
3E(1479—List, \$5.40.
YOUR PRICE. \$3.24

Handy Kit No. 5

12-10 Watt Power-Wound Resistors, Safely Replaces burned out sections of

voltage dividers. One each of the following: Ohms 100, 500, 1000, 2000, 3000, 5000, 7500, 10.000, 15.000, 20,000, 25,000

3E1481-List, \$7.80. YOUR PRICE \$4.68

Handy Grid Bias Kit

3E1477—List, \$3.20. \$1.92

Contains 10 assorted Resistors of I watt and Yower Wire Wound (5-watt) types, required to bias the following type tubes: 24-26-27: 71A-10-45-50-47. Contains resistance values that can be used as grid suppressors.

New IRC No. 6 **Combination Kit**



Assorted Resistors in Handy Steel Case

107

Here is a somplete Resistor stock that will enable you to handle any service job without loss of time or motion. Kit contains 107 assorted Resistors in a wide rarge of values shown by extensive IRC records to be required in service work. Only the most popular sizes in each wattage are included: 15-16 Watt, 46-1 Watt, 22-2 Watt, 12-5 Watt Power Wire Wound, and 12-10 Watt Power Wire Wound Resistors. A neatly printed stock card makes it easy to keep your stock complete.

17,500 20,000 22,500 25,000

3E1432 3E1433 3E1434 3E1435

3E1398 3E1399 3E1400 3E1401

FREE! Resides the handy steel Kit (regular Sale 1482—List Price, purchaser receives without cost a copy of the famous 136.15.

Your Price \$21.26 | IRC Resister Replacement Guide (Value \$1.00) and the IRC Color Code Chart (Value 25c).

Genuine IRC—The original Metallized Resistors—depend-able, most efficient made for modern Radio Sets. Accurate within 10%.

IRC THE P 1/3 Watt Pigtail Type Length % In. Fa YOUR PRICE 15¢

Stock		Stock	
Number	Ohms	Number	Ohms
3E1280	50	3E1445	11,000
3E1281	100	3E1446	12,500
3E1282	200	3E1447	15,000
3E1283	250	3E1448	20,000
3E1284	300	3E1449	25,000
3E1285	_350	3E1450	30,000
3E1286	400	3E1451	40,000
3E1287	500	3E1452	50,000
3E1288	600	3E1453	60,000
3E1289	750	3E1454	65,000
3E1290	850	3E1455	70.000
3E1291	1,000	3E1456	75,000
3E1292	1.250		Megohms
3E1293	1,500	3E1457	0.1
3E1294	2,000	3E1458	0.15
3E1295	2,250	3E1459	0.2
3E1296	2,500	3E1460	0.25
3E1297	3,000	3E1461	0.3
3E1298	3,500	3E1462	0.4
3E1299	4.000	3E1463	0.5
3E1440	5,000	3E1464	0.75
3E1441	6.000	3E1465	1.0
3E1442	7.500	3E1466	1.5
3E1443	8.000	3E1467	2.0
3E1444	10,000	3E1468	3.0

IRC 1 Watt



1		11	
Stock Number	Ohms	Stock Number	Ohms
3E1375 3E1376 3E1377 3E1378 3E1368 3E1369 3E1370	100 150 200 250 300 350 400	3E1402 3E1403 3E1404 3E1405 3E1406 3E1407 3E1408	30,000 32,000 40,000 45,000 50,000 51,000
3E1379 3E1371 3E1372 3E1373 3E1380 3E1374	500 600 750 850 1,000 1,250	3E1438 3E1409 3E1410 3E1411 3E1412 3E1413	65,000 70,000 75,000 99,000 100,000 150,000
3E1381 3E1382 3E1383 3E1384 3E1385 3E1386	1,350 1,500 2,000 2,250 2,500 3,000	3E1414 3E1415 3E1416 3E1417 3E1418 3E1419	190,000 200,000 240,000 250,000 300,000 400,000
3E1387 3E1388 3E1389 3E1390 3E1391 3E1392	3,500 4,000 5,000 6,000 7,000 8,000	3E1420 3E1421 3E1422 3E1423 3E1424	490,000 500,000 750,000 Megohms 1.0 1.5
3E1393 3E1394 3E1436 3E1437 3E1396 3E1397	9,000 10,000 11,000 12,500 13,000 15,000	3E1425 3E1426 3E1427 3E1428 3E1430 3E1431	2.0 2.5 3.0 3.5 5.0 6.0

IRC ½ Watt List 25c Your Price Each Length 1" 15¢ Stock Stock

Number	Ohms	Number	Ohms
3E1355	50	3E1323	20,000
3E1300	100	3E1324	25,000
3E1356	200	3E1325	30,000
3E1301	250	3E1326	32,000
3E1302 3E1357	270	3E1327	40,000
	300	3E1328	45,000
3E1358	350	3E1329	50,000
3E1359	400	3E1330	51,000
3E1303	500	3E1331	60,000
3E1360 3E1361	600	3E1366	65,000
3E1362	750 850	3E1332	70,000
		3E1333	75,000
3E1304	1,000	3E1334	99,000
3E1363	1.250	3E1335	100,000
3E1305	1,500	3E1336	150,000
3E1306	2,000	3E1337	160,000
3E1307	2,250	3E1338	200,000
3E1308	2,500	3E1339	240,000
3E1309	2,700	3E1340	250,000
3E1310	2,900	3E1341	300,000
3E1311	3,000	3E1342	330,000
3E1312	3,500	3E1343	400,000
3E1313	4,000	3E1344	490,000
3E1314	5,000	3E1345	500,000
3E1315	6,000	3E1346	750,000
3E1316	7,000		Megohms
3E1364	7.500	3E1347	1.0
3E1317	8,000	3 E 1 3 4 8	1.5
3E1318	9,000	3E1349	2.0
3E1319	10,000	3E1350	2.5
3E1365	11,000	3E1351	3.0
3E1320	12,500	3E1352	3.5
3E1321	15,000	3E1353	4.0
3E1322	17,500	3E1354	5.0

IRC 2 Watt



-			
Stock Number	Ohms	Stock Number	Ohms
			China
3E1500	50	3E1520	12,500
3E1501	100	3 E 1 5 2 1	15,000
3E1582	200	3E1522	20,000
3E1502	250	3 E 1 5 2 3	25,000
3£1583	300	3E1524	30,000
3E1584	350	3E1525	40,000
3E1585	400	3E1526	50,000
3E1503	500	3E1527	51,000
3£1586	600	3E1591	60,000
3E1504	750	3E1592	65,000
3E1587	850	3E1593	70,000
3E1505	1,000	3E1528	75,000
3E1506	1,250	3E1529	100,000
3E1507	1,500	3E1530	125,000
3E1508	1,750	3E1531	150,000
3E1509	2.000	3 E1532	175,000
3E1510	2,250	3E1533	200,000
3E1588	2,500	3E1534	250,000
3E1511	3,000	3E1535	300,000
3E1512	3.500	3E1537	400,000
3E1513	4,000	3E1538	500,000
3E1514	5.000	3 E 1 5 3 9	750,000
3E1515	6,000		Megohms
3E1516	7,000	3E1540	1.0
3E1589	7.500	3E1594	1.5
3E1517	8,000	3E1542	2.0
3E1518	9,000	3 E1544	3.0
3E1519	10,000	3E1547	5.0
3E1590	11,000		3.0

IRC Resistor Guide



Price \$1.00

Given Free with Orders for 20 IRC Resistors

Gives detailed information on Resistors used in practically all lead-ing Radio Sets.

Metallized Auto Radio Suppressors



Special Ford Type

YOUR PRICE

For Ford V-8. 50,000 ohms. Also suitable for all other cars except those having recessed plugs.
3E1489—List, 40c. 24¢



3E1490 List, 40c. 24¢ Especially made for Buicks and other cars having recessed plugs.

Standard Spark Plug Type



YOUR PRICE Standard Cable Type

Metallized

For insertion in spark plug cable, Generally used where Spark Plug Type cannot be connected.

3E1486—list, 40c.

24¢ YOUR PRICE Standard Distributor Type

I(R) C 3E1487 List, 40c.

YOUR PRICE

New IRC Fused Dual Resistance Indicator



3E1483-List, \$4.50. \$2.70

YOUR PRICE
Two ranges obtained by tilting ball bearing silder to the scale desired. Low range, 100 to 10,000 ohms, high tange 10,000 to 100,000 ohms, high tange 10,000 to 100,000 ohms. Littelfuse protects the resistance element against overheating.

New improved narrow-Jaw alligator clins on test leads. Choice of pottentiometer or straight resistance content in the protection of the prot Featured Applications

Experimental substitute for defective resistors. Calibrated rheostat for limiting current or adjusting voltage. As "known" resistance branch of a wheatstone bridge circuit.

New IRC Volt-Ohmmeter



1 2/2 lbs.
1 Invaluable for accurate servicing through the point-to-point Exclusive Vacuum Relay.

Easy to read knife edge pointer.

Extra large 3" etched scale. Bakelite case. Special moulded knob. One et of pin jucks for all readings. 1" Preceision Wire Wound Resistors used exclusively. Very compact—fits easily into service Kit. Voltage Ranges 3/30/300/600; Resistance ranges: 0/1.000/100.000/ohms and 0/1 megohm.

E 1 4 7 4—List. \$42.50. \$24.99

CONTINENTAL CARBON Inc.

Certified Molded Carborite Resistors

1000 Volt Ceramic Coat Insulation The finest first quality molded carbon resistors. Their special feature is the Ceramic Coating having a 1000 Voit Insulation. This style of construction permits them to be mounted close to or in contact with the chassis and to come in contact with the chassis and to come in contact with the chassis and to come in contact with Vire' wires or bieces of apparatus, without danger of shorting. This coating is very tough, will not chip off and is especially effective at the ends covering the connecting wire fully. Only the tinned lead wires away from the body are bare. These efficient and accurate resistors are highly recommended for all repair work. While slightly higher in price, their sourcing quality and performance make them worth more than the added cost. The exclusive manufacturing processes used by Continental have reduced the effects of load, age, temperature and humidity to a minimum, Permanent resistance value. Modern laboratory machines and methods remove all units that do not pass the right Continental standards of accuracy. Quietness: Their exclusive mechanical construction and the highly developed resistance material have eliminated noisy operation.

Non-inductive: Sturdy construction. Over-size current carrying capacity. R.M.A. Color Coding, plus Certified Seal. Body sizes:—½ watt, ½ diameter, ½ long.—I watt, ½ diameter, ½ long. Il½ l The finest first quality molded carbon resistors.
Their special feature is the Ceramic Coating



YOUR PRICE, EACH

14 Watt			12 Watt			Stock		Resist.
Stock Number	Stock Number		Stock Number	Stock Number		Number		Ohms.
3E7800	3E7840		3E7813 3E7814	3E7853 3E7854			3E7866 3E7867	75,000 100,000
3E7801 3E7802 3E7803	3E7841 3E7842 3E7843	400	3E7815 3E7816	3E7855 3E7856	7,000	3E7828	3E7868 3E7869	150,000 200,000
3E7804	3E7844		3E7817	3E7857			3E7870	250,000
3E7805 3E7806	3E7845 3E7846	1,000	3E7818 3E7819	3E7858 3E7859	12,500	3E7831	3E7871 3E7872	300,000
3E7807	3E7847		3 E 7820	3E7860			3E7873	500,000
3E7808 3E7809	3E7848 3E7849		3E7821 3E7822	3E7861 3E7862			3E7874 3E7875	1. Meg. 1.5Meg.
3E7810 3E7811	3E7850 3E7851	3,000	3E7823 3E7824	3E7863 3E7864	40,000		3E7876 3E7877	2. Meg. 3. Meg.
3E7812	3E7852		3E7825	3E7865		3E7838	3E7878	5. M g.

Continental Certified **Carborite Molded Resisters**

3 Watt

1000 Volt Ceramic Coating Insulation

Same high grade quality and style of construction as above ½ watt and 1 watt but 3 watt capacity. Body size—Diameter 23", Length 1%", 1½" tinned wire leads.



Specify Resistance by Stock Number

Stock	Resist.	Stock	Resist.	Stock	Resist.	Stock	Resist.
Number	Ohms.	Number	Ohms.	Number	Ohms.	Number	
3E7880 3E7881 3E7882 3E7883 3E7884	1,000 2,000 5,000	3E7885 3E7886 3E7887 3E7888 3E7888	12,500 15,000 25,000	3E7890 3E7891 3E7892 3E7893 3E7894		3E7898	250,000 300,000 400,600 500,000 1 Meg.

Continental Ignition Interference Suppressor

High quality ignition noise Suppressors developed to afford complete absorption of motor interference with minimum effect upon operation of the motor. "Carbonite" element assures permanent satisfactory performance despite heat, vibration, or moisture.



The new Flexo-terminal spark plus suppressor. The terminal can be bent to mount the supressor in a vertical or torizontal position.

3E 1801-0 YOUR 23¢ PRICE New Buick, Packard and Chrysler, Type Elliow spark plug suppressor. The suppressor takes the place of the terminal on the ignition cable.

Bakelite Spark Plug Suppressor

3E1805-TOUR PRICE. 18¢ 30c.



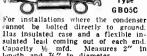
Resistance type. Bakelite body. Has threaded insert for screwing Suppres-sor directly into spark plug. Threads Bakelite body. Has any spark plug.

Tu 3E1802	2—	į.
VALLE	23	c
Distributor suppressor. Will makes of distributors.	fit	all
3E1803- List, 40c.		0
YOUR	23	4

Cable suppressor. Meets requirements where it is necessary to cut the ignition cable at any point and install a suppressor.

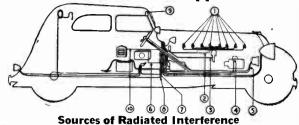
3E | 804-List. 40c. 515 YOUR23¢ PRICE Standard Type Universal Spark Plug Suppressor with "U" terminal.

Insulated Container Auto Filter Condenser



Capacity & mfd. Measure length and %" in diameter. 3E1813—List, 60c. YOUR PRICE

Auto Radio Noise Suppression



Spark Plug Cables:

A high frequency oscillating current is set up by the discharge across the spark plug points. CONTINENTAL is set up by the discharge across the spark plug points. CONTINENTAL Suppressors effectively keep this from reaching the radio set. Improved reception can be secured by placing a suppressor in each spark plug cable on installations having a suppressor

on instantation only at 2.

2— Coil to Distributor Cables:
Suppressor here absorbs oscilla current interference from spark oscillating and rotor.
or or add tween distributor points and Peen down distributor rotor solder to reduce this gap to minimum.

3— Low Tension Breaker to Coils:
Install Type GB025, GB05, or GB05B
Filter Units. Especially necessary Filter t mounted on dash or through bulk-head.

Generator Commutator:

Noise introduced to electrical system by sparking at brushes. Clean brushes to minimize and install Types GB05, GB1, or GB05B and GB1A Filter by sparking at Diustics, the distribution of minimize and install Types GB05, GB1, or GB05B and GB1A Filter Units, where greatest mechanical strength is desired, with terminal of lead wire on battery side of generator cutout. If noise persists when idling motor, install second condenser across generator side of control.

5- Horn:

5— Horn: Spark at horn armature causes inter-ference that works back into set. GBI or GBIA Filter Unit across terminals will usually eliminate all interference.

- Radio 6-Volt Input:

6— Radio 6-Volt Input:
Miscellaneous noise entering the receiver through the power input can be
effectively eliminated by installing in
the "A" lead to the receiver the Type
GB05DH Dual Capacity and Inductance Filter Unit. Such interference
may persist, although all electrical

ted Interference
units are properly filtered, since it is frequently set up by loose electrical connections, insecurely grounded electrical accessories, or frictional static discharges. Improves the tone quality of many auto-radio installations with rorrect filter capacities.

7-8—Lighting Wiring in Car Body: Miscellaneous "hash" or noise introduced into the electrical system will be radiated from every wire that is not enclosed by metal. Dome light, stop light, tail light, and other wiring that passes near the radio antenna cause this interference to enter the radio receiver. The offending wires may be located by disconnecting, one at a time, each cable where it connects to the light switch, ammeter, or starter switch. When a wire is found by the disconnection of which the interfence is climinated, reconnect it and connect a Type GB05 Filter Unit from it to ground. If this does not remove the noise, a Type GB1 or Type GB05C Filter Unit may be necessary. The Type GB05C Filter Unit has been designed for applications of this type where it is impossible to connect the rectal container of the other type units to a grounded metal bart of the 'ar end still have it close to the radiating circuit.

still have it close to the radiating circuit.

9-10— Electric Windshield Wiper, Electric Fan, or Hot Water Heater; Sparking of commutators and switch points in such accessories cause interference which may be removed by use points in such accessories cause inter-ference which may be removed by use of Type GB025, GB05, or GB1 Fil-ter Units. Make installations as close to the devise as nossible. The larger the capacity of the Filter used, the more effective will be the noise elim-ination. Some heaters may require the use of a Type GB05H Capacity and Inductance Filter Unit.

Tan

Diagram at left shows Type GB05DH Capacity-Inductance Filter consisting of two ½ mfd. Condensers and Filter Choke.

Diagram at right is of Type GB05H having ½ mfd. Condenser and Filter Choke.



Auto-Filter Condensers

For elimination of noise from auto-radio installations, where capacity the sufficient to filter out the disturbance. Used to stop interference from the generator commutator, elec-trical windshield wiper, horn, dis-

Standard Filter Condensers

Enclosed in round metal container sealed against container sealed against moisture and oil. One side is connected to the container which has a flange for bolting to the chassis, making direct electrical contact to ground. The okser terminat has long insulated lead with convenient serew



ug.			u u	
Stock Sumber	Code Number	Cap'ty Mfd.	List Price	You:
E1806 E1807 E1808		1 1/2	50 e 60 e 75 ¢	29c 35c 44c

Super-Duty Filter Condensers

Recommended for instal-lations in the motor com-



Capacity and Inductance Auto-Filter Units

For use where noise suppression prob-lems cannot be solved by the filtering effect of capacity alone. Especially effective where car lighting wiring radiates interference into the antenna. These units are usually connected be-tween the light system switch or am-meter and the leads to lights and accessives. accessories.

3E1811 Q. List. \$1.00. PRICE YOUR

TOUR
Type GB05H
Consists of 1/2 mfd. Condenser with choke suitable for carrying up to 5 amps. Housed in Insulating containing with three insulated flexible leads.

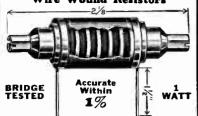
3" long, 7/4" diam.



Type GB05DH.

Consists of two ½ mfd. condensers and a filter choke. Housed in a metal case which makes connection to ground. Two flexible insulated leads connect to the circuit, which is opened for insertion of the filter. Size 2"x1 1%". Used to filter power supply from hattery to receiver or for lighting circuits not completely filtered by choke and single condenser units.

ELECTRAD Precision Wire Wound Resistors



Designed for use in high grade test instruments, laboratory equipment and custom built apparatus. Particularly useful as voltmeter multipliers or for the construction of a 1000 ohms per volt multi-range voltmeter with any good quality 0.1 milli-ameter. Actually bridge-tested and guaranteed to be accurate within 1%. Space wound with highest quality enameled resistance wire in layers on Isolantite and impregnated with moisture resisting compound to insure against variation due to moisture absorption or temperature fluctuation. Non-inductive—low distributed capacity due to high insulation between turns and multiple layer design. Body length above 450,000 ohms 1½ in.



			- 6	•	lie.
YOUR PRICE	List Price	Cur- rent M. A.	Max, Volts Poten- tial	Resist. Ohms	Stock Number
44c	\$0.75 .75 .75 .75 .75 .75 .75 .75	3875 1225 847 548 387 245 220 210	.38 1.2 1.77 2.7 3.8 6.1 6.82 7.1	2.08 5. 10, 25 30, 33.33	3E8341 3E8300 3E8344 3E8301 3E8346 3E8347 3E8349 3E8350
44c	\$0.75 .75 .75 .75 .75 .75 .75	182 173 122 100 86 61 55	8.25 8.6 12. 15. 17. 25 27.	45 50. 190 150 200 400 500	3E8302 3E8353 3E8354 3E8303 3E8355 3E8304 3E8356
47c 50c	\$0.80 .80 .85 .85	46 44 38 37 33 24	32.4 34. 38. 40. 45. 61.	700 750 1,000 1,450 1,500 2,500	3E8305 3E8357 3E8358 3E8306 3E8307 3E8359
53c	\$0.90 .90 .90 .90 .90	23 19 18 18 17 17	65. 79. 83. 84 86 87	3,500 4,000 4,450 4,500 4,950 5,000	3E8360 3E8308 3E8361 3E8309 3E8362 3E8363
56c 59c	\$0.95 .95 .95 .95 1.00	16 14 12 12 11 10	90 107 122 125 137 150	5,500 7,450 9,950 10,000 12,500 14,950	3E8364 3E8310 3E8311 3E8366 3E8312 3E8367
73c	\$1.25 1.25 1.25 1.25 1.25 1.25 1.25	8.6 7.7 7. 6.5 6.1 5.5	173 194 212 229 245 274	20,000 25,000 30,000 35,000 40,000 50,000	3E8368 3E8369 3E8313 3E8370 3E8371 3E8372
88c \$1.02 1.18	\$1.50 1.50 1.75 1.75 2.00	5. 4.4 4. 3.8 3.4	300 336 375 387 433	60,000 75,000 90,000 100,000 125,000	3E8314 3E8315 3E8316 3E8373 3E8317
1.32	\$2.25 2.25 2.25 2.25 2.25	3.2 3.1 2.9 2.7	450 475 510 548	140,000 150,000 175,000 200,000	3E8318 3E8374 3E8319 3E8375
1.47	\$2.50 2.50 2.75 2.75 2.75 2.75	2.5 2.4 2.2 2.2	580 610 670 750 750	225,000 250,000 300,000 400,000 450,000	3E8320 3E8376 3E8377 3E8378 3E8321
1.91 2.35 2.94	\$3.25 4.00 4.00 5.00 5.00	2. 1.6 1.3	750 770 750 1000 1000	500,000 600,000 750,000 900,000 1 Meg.	3E8379 3E8322 3E8323 3E8324 3E8325

Removable Ferrule Terminals
Furnished without ferrules with 1½ in, tinned
wire leads. Can be converted to ferrule type unit
as illustrated above by screwing ferrulo into each end of resistor.

3E8299-Ferrules List, per Pair, 15c. YOUR PRICE, per Pair.



Type A-10 Watts

3/8"x13/4" Long Cur

> 5 7.5 1150

800

1000 1250 1500

2000 2500

3000

4000

5000 7500 10000

destrad

Lug Type

Adjustable Sliding Clips
To adjust Truvolt re-

0

1/2 Watt Capacity Wire wound on fiber strip. End lugs firmly clamped on, cannot pull off. Can be bent to any angle for mounting. Overall length about 1½". Accuracy guaranteed within 5%.

Ohms

To adjust Truvolt re-sistors to exact value

uestred.
3E231—For Type
"A" Truvolt.
3E230—For Types
"B" and "D."
YOUR

PRICE, Each ... 6¢

List Price, Each 50c.

YOUR PRICE, Each.

rent M. A.

3150 2200 2000 1800 1400 $\frac{5}{3}.5$

1000

Max. Volts

3 4.5 5.5 7 8.5

100

158 173

29¢

EACH

65c

TEN FOR

Stock

Number Ohms

Resist.

3E150 3E151 3E152 3E153

3E154 3E155

3E156

3E157 3E158 3E158 3E159

3 F 160

3E161 3E162

3E163 3E164 3E165 3E166 3D167 3E168

3E169 3E170 3E171 3E172

3E173 3E174

3E180 3E181

Stock

Number

3E475 3E476 3E477 3E478 3E479

ELECTRAD TRUVOLT Wire Wound Adjustable Resistors

High quality non-oxidizing low temperature co-efficient resistance wire, space wound on heat resisting asbestos insulated flexible core which in turn is wound on thread cut groove channels in special high tensile strength fire-proof white lara tubes. Advantages are high power dissipation due to natural air cooling design, easy connection of taps, and durability. Improved adjustable clip permits tapping at any desired point. Protective fiber insulating sleeve. Mounting brackets included.

Each 8¢

Ten For

75 c

Center Tapped Resistor

000	Volt	Insulation
RANGE	ADJUSTABL	0
1000	000000	MOUNTING

SELF-TAPPING
4- SCREW
THREADED
LAVA TUBB RESISTANCE ASSISTOS
PIES FOUND
OM ASSISTANCE
OM ASSISTANCE
OM ASSISTANCE
COVERNME
OM ASSISTANCE
OF COME

Sectional View of Truvolt Adjustible of Electrad atts

0

	pe B— 1½″x2′			Ty	/pe D_ 111/6"x6		
Stock Num.	Resist. Ohms	Cur- rent M. A.	- 1	Stock Num.	Resist. Ohms	Cur- rent M. A.	
3E112 3E113 3E114 3E115 3E116 3E117	100 200 250 300 400 500	500 353 320 289 250 224	V./	3E190 3E191 3E192 3E193 3E194	100 200 300 400 500	865 610 500 432 387	List Price
3E118 3E119 3E120 3E121 3E122 3E122	750 800 850 1,000 1,250 1,500	182 177 165 158 141 129	List Price 85¢ YOUR PRICE	3E195 3E196 3E197 3E198	750 800 1,000 1,250	316 306 274 245 224	YOUR PRICE
3E124 3E125 3E126	2,000 2,250 2,500	112 105 100	49c Each	3E200 3E201 3E202 3E203	2,000 2,250 2,500 3,000	194 182 173 158	Each
3E127 3E128 3E129 3E130	3,000 3,500 4,000 4,500	91 84 79 75		3E204 3E205 3E206 3E207	3,500 4,000 4,500 5,000	146 137 129 122	8
3E131 3E132 3E133 3E134	5,000 6,000 7, 000	71 64 60 59		3E208 3E209 3E210	6,000 7,000 7,200	112 103 102	
3E135 3E136	7,200 7,500 8,000	58			PRICE		96c
			53c	3E214 3E215 List. Pr	10,000 12,000 ice \$1.90	87 79	
3E137 List Pr YOUR	9,000 ice 95c PRIČE.	53	56c		15,000 20,000	71 61	\$1.12
3E138 3E139 3E140	10,000 12,000 15,000	50 45 41			ce \$2.15 PRICE.		\$1.26
	PRICE.	1 35	58c	3E219 3E220	30,000 40,000 ice \$2.25	50 43	
3E142 List Pr	25,000 ce \$1.15 PRICE	32	67c	YOUR 3E221	PRICE.	39	\$1.32
3E143	30,000 ice \$1.25	29		YOUR 3E222	PRICE.	35	<u>\$1.47</u>
YOUR 3E144	PRICE.	25	73c	3E223 3E224	80,000 100,000 ice \$2.75	35 31 27	
List Pr YOUR 3E145	PRICE.	122.5	76c		PRICE.	, .	\$1.62
List Pr	50,000 ice \$1,40 PRICE.	1	82c	2520	5 O hm	Resi	istor

tor

3E396-EACH... 10 For 45 c For Type 30 Tube on 2.9 Volts.

Wound on a ½ " wide 1¾ " long fibre strip. proximately

Will dissipate proximately 1 watt. Terminals can be used for mounting. Can be bent for mounting in practically any position. Mounting hole centers on strip are 3/8".

3E482 3E483 3E484 3E485 3E486 3E487 3E488 Stock Number Ohms Stock Number Ohms 3E494 3E495 3E496 30 40 50 100 3E490 3E491 3E492 3E493 Wire Wound Resistors—Pigtail Types

Wound on genuine Bakelite Strips 1%'' long, 1/2'' wide, 1/8'' thick, wire leads 11/2'' long. Wire May Be Unwound for Special Values of Grid Bias Resistance. 1 Watt Standard Type Center Tapped PRICE, Each 10¢ YOUR Ten for 95c Tolerance YOUR PRICE, EACH ... 11¢ | Stock |

Number	Ohms	Number	Ohms	Number	Ohms	Number	Ohms	IEN FO	к		98c
3E400		3E412	15	3E425 3E426	200 225	3E439 3E440	700 750	Stock Number	Ohms	Stock Number	Ohms
3E401 3E402 3E403 3E404	1 1 1 1 1 3	3E414 3E415 3E416 3E417	20 25 30 36	3E427 3E427 3E428 3E429	250 275 300	3E441 3E442 3E443	800 900 1000	3E455 3E456 3E457	6 10 12	3E464 3E465 3E466	50 60 70
3E405	3	3E418	40	3E431	350	3E444	1250	3 E 4 5 8	15	3E467	80
3E406 3E407 3E408 3E409 3E410 3E411	4 5 6 8 10 12	3E419 3E420 3E421 3E422 3E423 3E424	50 75 100 125 150 175	3E433 3E434 3E435 3E436 3E437 3E438	400 450 500 550 600 650	3E445 3E446 3E447 3E448 3E449 3E451	1500 1750 2000 2250 2500 3000	3E459 3E460 3E461 3E462 3E463	18 20 25 30 40	3E468 3E469 3E470 3E471 3E472	100 150 200 300 400



List Each 35c.

Size	134x3 Inches.	YOUR PR	CE	LC
Stock Num.	Ohms I Stock Nuru.	Ohms Stock Num.	Ohms Stock Num.	Ohms
3D1599 3C1600 3C1601	1 3C1610 1 3C1611 2 3C1612	25 3C 62 30 3C 62 2 35 3C 62 3	300 3C1632 400 3C1633 500 3C1634	3,500 4,000 5,000
3C1602 3C1603 3C1604	3 3C1613 4 3C1614 5 3C1615 7.5 3C1616	40 3C1624 50 3C1625 75 3C1626 100 3C1627	750 3C 635 750 3C 636 1,000 3C 637	7,500 10,000
3C1605 3C1606 3C1607 3C1608 3C1609	10 3C1617 12 3C1618 15 3C1619 20 3C1620	125 150 3C1629 200 3C1630 250 3C1631	1,500 2,000 2,500 3,000 3,000 3,000 3,000 3,000 3,000	12,000 15,000 20,000 25,000

Center Tapped 10 WATT 3E | 660 3E | 661 3E | 662 3E | 663 3E | 664 3E | 665

20 WATT

Stock Num

3C1648 3C1649 3C1650 3C1651

Size

Ohms

55.000 60,000

65,000 70,000 75,000 2x 7 inches Stock Num Ohms 3C1652 3C1653 3C1654 3C1655 3C1656 80 000

List 75c. YOUR PRICE 44¢

List, 45c YOUR PRICE

27¢

OHMITE Wire-Watt YOUR PRICE, Each

Ohms

35.000

40,000 45,000 50,000

10 WATT

3E1657 3E1658 3E1659

Stock Num.

3C1642 3C1643 3C1644 3C1645 3C1646

3D8264



curacy	guarante		5%.
Stock	Resist.	Stock	Resist.
Number	Ohms	Number	Ohms
3 D 8 2 5 0	100	3 D 827 I	2,250
3 D 825 I	125	3 D 8 2 7 2	2.500
3 D 8252	150	3 D 8 2 7 3	3,000
3 D 8253	200	3 D 8274	3.500
3D8254	250	3 D 8275	4,000
3 D 8255	300	3 D 8276	1,500
3 D 8256	350	3 D 8277	5,000
3 D 8 2 5 7	400	3D8278	6,000
3D8258	500	3D8279	7.000
3 D8259	600	3 D 8280	7.500
3 D 8260	700	3 D8281	8,000
3 D 8261	750	3 D 8 2 8 2	9,000
3D8262	800	3 D 8 2 8 3	10,000
3 D8263	900	3D8284	12.500
3 D 8 2 6 4	1,000	3 D 8285	15,000

16,000 17,500 18,000 20,000 1,100 1,200 1,2503 D 8 2 6 5 3 D 8 2 8 6 3 D8287 3 D8288 3 D 8266 3 D 8267 3 D 8289 1.500 3 D 8269 3 D 829 I 25,000 2.000 3 D 8270 3 D 8292 30,000 35,000 3 D 8293 3 D 8294 3 D 8295 List 1 YOUR Price 40,000 45.000 PRICE 3D8296 50,000 Center Tapped Wire-Watt 3E8240 3E8241 3E8342 10 15 20 25 3E8245 3E8246 3E8247 3E8248

1,000

List, 35c YOUR PRICE

Power Cords Line Cord Resistor For AC-DC Sets

85,000 90,000

100.000



Replacement for voltage resistor in older AC-DC sets, Consists of a line cord and plug in which is built the resistor for dropping the line voltage to the correct value for the tube flaments. External position dissipates heat readily and protects condensers and other set parts from the degenerative heat effects of poorly ventilated internal resistors.

Stock Total Filament Resistance Voltage Drop.

Number 3D1815 3D1816 3D1817 Resistance Voltage Drop 290 25.2 to 31.5 160 56.5 to 68.9 68.9 to 75.2 List Price, \$1.50. 48¢ YOUR PRICE.....

"Dual-Scale" Resistance Indicator



Two accurate resistance ranges with scales 0-1000 and 0-100,000 ohms. Petermines values of burned out resistors. Connect the two clips across the burned out resistor and run the contact slowly along the resistance reale. When the set plays properly the correct value for the replacement resistor is real directly on the scale Complete unit is built into a polished there case. Directions included.

3D1820—List \$4.00. \$2.35

New Candohm Replacement

Armoured Resistors Wire Wound



Used by leading set manufacturers. Designed especially for replacement of ordinary type resistors. Wound on genulne bakelite core, covered with 1500 volt insulation—outer steel case protects unit from breakage or abrasion. Guaranteed 5% accurate.

1 WattBelow 12.500 ohms. Size ½x1"—Above 10,000 ohms. Size ½x1½".

Number	Ohms	Stock Number	Ohms	Number	Ohms
3E4900	100	3E4909	700	3E4918	3000
3E4901	150	3E4910	750	3E4919	3500
3E4902	200	3E4911	800	3E4920	4000
3E4903	250	3E4912	1000	3E4921	5000
3E4904	300	3E4913	1250	3E4922	8000
3E4905	350	3E4914	1500	3E4923	10000
3E4906	400	3E4915	2000	3E4924	15000
3E4907	500	3E4916	2250	3E4925	20000
3E4908	600	3E4917	2500	3E4926	25000

List Price, 25c.

YOUR PRICE

21/2 Watt		11/2 W	att Center Tapped
Stock Number	Ohms	Stock Number	Ohms
3E4927 3E4928 3E4929 3E4930 3E4931	30000 35000 40000 50000 35000 1.ist 35c Your Price	3E4932 3E4933 3E4934 3E4935 3E4936 3E4937	10) Size 14 x 114 20 List 25c 40 YOUR PRICE 80 100 12¢

10 Watt

Size 3/4x13/4"

Stock Number	Ohms	Stock Number	Ohms	Stock Number	Ohm8
3E4940	10	3E4950	500	3E4960	4000
3E4941	20	3E4951	600	3E4961	4500
3E4942	50	3E4952	750	3E4962	5000
3E4943	100	3E4953	1000	3E4963	6000
3E4944	150	3E4954	1200	3E4964	7500
3E4945	200	3E4955	1500	3E4965	10000
3E4946	250	3E4956	2000	3E4966	12000
3E4947	300	3E4957	2500	3E4967	15000
3E4948	350	3E4958	3000	3E4968	20000
3E4949	400	3E4959	3500	3E4969	25000

List Price, 40c.

20c

Candohm Original Equipment Resistors Exact duplicate of the original

Exact duplicate of the original Candohm units used in the sets listed below. Candohm part number shown in listing is identical to number stamped on metal shell of original unit to be replaced. Where resistor to be replaced as no number send unit to us properly tagged with name of set manufacturer.

Part Num.	Resistance Each Section	Stock Num.	Your Price	Part Num.	Resistance Each Section	Stock Num.	Your Price
Belm R258 R261	350 {15000-2500 150-350	3E4984 3E4985	20¢ 69¢	U. S. 1752 1959	Radio and Te {3500-8400 10700 4700-8400 10700	levisio 3E4988 3E4989	n \$1.56
C rost 20176	110-10-10	3E4970	49¢	2303 2381	1000-2640 8000-8000	3E4990 3E4991	39¢ 69¢
20452 b	10-860 320-225 2000-1750	3E4971	69¢	2811	(550-600-600 1200-1000	3E4992	69¢
20909 21955 21956	3250-3250 3160	3E4972 3E4986 3E4987	49c 29c	2811A	1200-1000-500	3E4993	69¢
$\frac{28471}{22574}$	25000-8500 (3000-2150 1220-45	3E4938 3E4973	39€	3111	2500-425-600 1800-1000-500	3E4994	78¢
22574	{1790-2150 1220-45	3E4974		3360 3476	{300-10000 {11000-3000 {1100-3200-180	3E4995	88¢
28755 a	246-28	3E4975	78¢	3621	225-250-200 (200-290-225	3E4997	78¢
Grigs 7818	by-Grunow 2000-140-500	3E4976	39c	4145	1800-800 300-10600 10000	3E4998	59¢
$\frac{8292}{9239}$	2000-350-500 {7000-40 3000-300	3E4977 3E4978	39¢ 69¢	4353	{850-850 5000-1600	3E4999	49¢
10145	1408-134-1800 1360-9000-10000	3E4979	69¢	5463	(400-1400 800-4200-250	3E4895	59¢ 49¢
10252 10535	10,000 300-1500-500	3E4980 3E4939	29¢ 39¢	5807 6749	{400-1400 500-4200 60-17500	3E4897	39¢
Inter R302 R303	national Kad 1500 310	ette 3E4981 3E4982	29¢ 78¢	Zenit 63-251	h {300-200 1845-60.5	3E4898	69¢
RCA 67822	Victor 315	3E4983	78¢	63-252	900-2400 (3300-900	3E4899	59¢

Candohmeter Resistance Indicator Dual Range

Two Candom uniform wire wound resistors in a single mounting with accurately calibrated 0.10,000 and 0.100,000 ohm scales. Furnished with slide-contact prod with insulated handle and two alligator testing. Quickly determines the value of any turned out or defective resistor.



3E4894-List, \$2.50. YOUR PRICE ...

New Standard Replacement RADIOHM VOLUME CONTROLS

Centralab with its unequalled experience in the design and manufacture of over 18,000,000 volume controls for set manufacturers and replacement has developed a new Improved Radlohm. A newly designed patented non-rubbing contact turns smoothly with an absolute minimum of wear. New small size, with long shaft, easy to saw to fit practically every set application. Case diameter 1% in., depth % in., shaft 2½ in. long milled flat. The Switch Model is equipped with C-H underwriters Approved Snap Switch mounted on back cover. Switch capacity 2 Amps., 125 V.: ½ Amp., 250 V. Switch depth %", total depth switch type %".

With Switch



Less Switch



F	ive for	\$3.70		Five	e for \$2.70
Resis	tance	Curve	Number		Use in
Ohms	Taper	Num.	Switch	Less Switch	Circuit Number (See Page 68)
500	Unif.	1	62-118	72-118	9, 17, 20
1,000	Unif.	1 1	62-107	72-107	9, 17, 20
2,000	Unif.	1 .	62-101	72-101	4, 9, 17, 19, 20
3,000	Unif.	1 1	62-108	72-108	4, 9, 19, 20
4.000	Unit.	1	62-109	72-109	4, 9, 19, 20
5,000	Unif.	1	62-110	72-110	4, 9, 19, 20
5,000	L. H.	6	52-204	70-204	4, 19, 20
10,000	Unif.	ï	62-114	72-114	4, 9, 10, 11, 19, 20
10.000	L. H.	3	62-113	72-113	5 7 8
10,000	R. H.	4	52-205	70-205	5, 7, 8 5, 7, 8
10,000	L. H.	6	62-100	72-100	4, 19, 20
15,000	L. H.	3	62-115	72-115	5.7.8
15,000	R. H.	4	99-006	79-006	2, 5, 7, 8 5, 7, 8
20,000	L. H.	3	62-119	72-119	5.7.8
25,000	Unif.	1	62-111	72-111	4, 9, 10, 11, 19, 20
25,000	R. H.	2 4	62-133	72-133	2, 5, 19
25,000	R. H.	4	52-206	70-206	2, 5, 7, 8
25,000	L. H.	3	62-102	72-102	5, 7, 8
50,000	Unit.	1	62-103	72-103	4, 19, 20
50,000	L. H.	5	62-117	72-117	4, 5, 6, 15, 16, 19 20, 21
75,000	L. H.	5	62-123	72-123	4, 6, 15, 16, 19,
75,000	В. Н.	4	52-202	70-202	20, 21
100,000	Unit.	1	62-104	72-104	2, 18
100,000	L. H.	5	62-122	72-104	6 10 12 15 10 01
200,000	Unif.	ĭ	62-120	72-120	6, 12, 13, 15, 16, 21 14
200,000	R. H.	4	62-131	72-131	18
250,000	L. H.	5	62-121	72-121	6, 12, 13, 21
500,000	L. H.	5	62-105	72-105	6, 12, 13, 21
500,000	Unif.	1	62-106	72-106	14
500,000	R. H.	2	52-103	70-203	3
1 meg.	L. H.	6	62-116	72-116	12, 13, 21
3 meg.	L. H.	- 6	62-132	72-132	16

3 meg. | L. 11. | 6 | 62-132 | 172-132 | 110
All standard Radiohms are 3 terminal (potentiometer) type.
Where 2 terminal control is required use center and one outside
terminal Taper is more important than maximum resistance.
The curve of each control listed is shown on the two charts on
the opposite page. Typical circuit applications on Page 68.

New Switch Cover · Plate

For all Centralab Standard Radiohms
Any plain Radiohm listed above may be converted
to the switch type by replacing the back cover
with this new switch coverplate. Approved switch.

3E3000-List. 50c.

Latest Centralab



Volume Control Guide

32 pages of up-to-the-minute data. Includes type and resistance of Volume Controls and gives part number wherever possible. Also has standard RMA color code. Pocket size. FREE With every order for 5 or most CENTRALAB Volume Controls. 3E3001—If ordered separtely.

Special ATWATER **KENT Replacements** Models 82 and 82F Early and Late Models



R1-433P-List, \$2.25. YOUR PRICE

\$109

Special 550 ohm volume con-trol with switch. Exactly du-plicates the original electric-ally and mechanically but not necessarily in appearance. | Nour Price...... 25¢

Volume Control Strips Atwater Kent

Models 37, 37F. 37, 31 F, 38, 40, 40F, 41-DC, 42, 42F, 43, 44, 45, 46, 47, 52, 53. 450 ohm strip. R · 1738--List, 75c.

YOUR PRICE..... Early Models 55, 55C, 55F, 55FC, 60, 60C, 61, 61C. 600 ohm strip, R-1742 List, 75e.

RADOLEK REPLACEMENT

Electrad—Centralab and Radolek

This new Radolek Replacement Volume Control Guide has been prepared for you after months of investigation. We have carefully checked set manufacturers original circuit data and have compared the original specifications with Centralab and Electrad special replacement listings.

Model Receiver R			1	1	1		1 1		1
226 A. C. Improvement (Vol.) 11-203 50.53 72-116 50.51 320002 50.4 50.51 50.51 50.50 50.				Electrad Number		tralab	Your Price	Control	Your
Section Comparison Compar	I	226 A. C. Improvement (Vol.)				72-116 72-105			50.49
		1st Mohawk-Kellogg, A. C. Lyric J3, J8, P4, P8, P9, C6, 550, (Vol.) 2D Mohawk-Kellogg A. C., Duet, Sextette, Forte, Lorraine, Sover-	7500	RI-240	.59	72-114	.61	3E3004	.49
Spring R. (Timer) Spring R. (Spring SAP) (2d. Spring SAP) (2d. Spr	ı	cign, 7 Tube D. C., Lyrie K. 115, \$10, SW8, SW80, SA65, SA90, SA91, SA110, SA130, (Vol.)	500M	R1-203	.59	72-105	.61	3E3002	.49
SAPE 27. SAPE 27	ı	Lyric & (Tone)	35M	R1-241		72-117	.61		
12M	ì	SA91, 2d. SA90 (A. V. C. Adj.) SA110 (A. V. C. Adj.)	7500 2000	R1-560 R1-232	.59	72-114 72-101	.61 .61	3E3011	.49
12M		20. 8A130 (A. V. C. A01.) 60, 61, 62, 65, 66, 77, 80, 83, 84, 85, 86, 88, 99, 8 Tube D. C. (Vol.)				1	l i	3E3006	.49
Section Sect		70, 73, 75, (Vol.)	12M				1.47	3E3007 3E3008	1.04
Section Sect	ı	S6, 87, 88, DC65, 7 Tube S. G. D. C., (Vol.) 87 (Tone)			.59	72-114 72-117	.61 .61	3E3004	.49
1.0 1.0		SS, S50, S63, SW8, SW80, SA65,						3 E 2004	40
7 Tube D. C. Super (Vol.) B7, (Vol.) B7, (Vol.) B7, (Vol.) B7, (Vol.) B7, (Vol.) B80, (Vol.) B80, (Vol.) S80, (Vol		Lyrie D11, D19, D29, D39, D69, H19, H29, H60, B30, B31, B80, D. C. with 222 Tubes, (Vol.)	7500 \ \ 10M	R-1802-T	1.32	74-601	1.22		1.04
10	ı		[7500]					252000	
S80, (Vol.) 15M R1-20 .59 72-115 .61 353008 .49	ı		10M 50M	FB-479-T	2.10	74-602	1.22	3E3010	1.04
U.5. (Vol.) 20M R1-279 .59 72-119 .61 3E3013 .49	ı	880, (Vol.)	15M	R1-201	.59	72-115	.61	3E3002 3E3008	.49
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Sept	۱		100M			25-426 62-105	1.47		
Sept		89, 89F, 92, 92F, 96, 96F, 99, 99F, 155, 228, 228D, 228F, 246, 260, 260F, 469, 469D, 469F, 558D, 588, 612, 627, 812, (Vol.)	500M	RI-206	.59	62-105	.83	3E3025	.49
Sept		84Q, 1st. 85, 1st. 85F, 188, 188F, 469Q, 558Q, 756, 756B, (Vol.)	500M	R1-203	.59	72-105	.61	3E3002	.49
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87D. (Vol.) 2d. 96, 96P. 1st. & 2d.99, (Neon) 3d. 99, 99F. (Neon) 3d. 99, 1st. & 69F. 480. (Neon) 636, 756, 756B, (Vol.) 1st. & 2d. 260, 1st. & 2d. 260F. (Neon) 3d. 260, 3d. 260F, 2d. 469, 2d. 469F, 612, 812, (Neon) 20M. R1-279 R1-23T R1-205 S9 R2-103 R1-201 S9 R2-103 R1-210 R1-201 S9 R2-103 R1-210 R1-201 S9 R2-103 R1-210 R1-210 R1-210 R1-220 R1-230 R1-230 R1-230 R1-230 R1-230 R1-230 R1-230 R1-230 R1-240 R1-250	١	82, 82F, (Vol.) 86, 86F, (Vol.) 2d. 85, 2d. 85F, (Vol.) 2d. 84, 2d. 84F, 87, 94, 94F, (Vol.)	550 550	RG-463PG RI-433P	1.19 1.19 1.19	62-118 72-118	.83	3E3020	.49 .49 .49
2d. 96, 96P, 18t. & 2d. 99, (Neon) 3d. 99, 99F, (Neon) 3d. 99, 99F, (Neon) 480, (Neon) 49,	١	87D, (Vol.)	[2500]	R-1823T	1.32				
636, 756, 756B, (Vol.) 1st. & 2d. 260, 1st. & 2d. 260F, (Neon) 3d. 260, 3d. 260F, 2d. 469, 2d. 469F, 612, 812, (Neon) 20M RI-279 1st. & 2d. 260F, 2d. 469, 2d. 469F, 612, 812, (Neon) 20M RI-279 1st. & 2d. 260F, 2d. 469, 2d. 469F, 2d. 469	١	2d, 96, 96P, 1st. & 2d.99, (Neon) 3d, 99, 99F, (Neon) 3d, 96, 1st. 469, 1st. 469F	40M	R1-205	.59				.49 .49
(Neon)	١							3E3011	.49
3d. 260. 3d. 260F. 2d. 469, 2d. 469, 2d. 469F. 511, 217, 217D. 275, 310J. 310T. 427, 427D. 510, 667, 667D. 708, 711J. 711R. 711R. 708A. (Vol.) 2d. 188, 2d. 188F. 3d. 260, 3d. 260F. 2d. 469, 469D. 2d. 469F. 558D, 588, 612, 812, (Q. A. V. C. Adl.) 2d. 188, 2d. 1882, 3d. 260 and 260F. 2d. 469 and 2d. 469F. 2d. 469D. 2d. 469F. 2	١	(Neon)						3E3008	.49
Adi) 20.01 11-21.9 .33 12-119 .61 35-3013 .43		36, 260, 3d, 260F, 2d, 469, 2d, 469F, 612, 812, (Neon)						1.	.49
Adi) 20.01 11-21.9 .33 12-119 .61 35-3013 .43		165, 217, 217D, 275, 310J, 310T, 427, 427D, 510, 667, 667D, 708, 711J, 711R, 711R, 711R, 808A, (Vol.) 2d, 188, 2d, 188F, 3d, 260, 3d	500M	RI-953P	.92	62-105	.83	3E3023	.49
		260F, 2d. 469, 469D, 2d. 469F, 558D, 588, 612, 812, (Q. A. V. C. Adj.)	20M	R1-279	.59	72-119	.61	3E3013	.49
	1	World Padio History							-

VOLUME CONTROL GUIDE

Volume, Tone, Sensitivity and Hum Controls

With the ald of you servicemen who have called to our attention errors in our former listings, we offer a more complete and accurate Guide. The Radolek Replacement Controls are made to our specifications by Centralab, Electrad, Carter, Clarostat, Stackpole and Frost.

Model Receiver Resist. Electrad Ohms Number Price No. Price Control Number Price Price Control Number Pri
Section Sect
Section Sect
(Tone) ST-Jr. (6T31, 6T-Jr., (Tone) 30B, 7330, (Vol.) 2700 R1-233 S99 R1-230 S99 R1-233 S99 R1-233 R
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110, (Vol.) 1 Meg RI-206 5.59 62-116 83 3E3002 550, (Vol.) 75M RI-203 5.59 62-105 83 3E3003 518, 660, (Vol.) 75M RI-202 5.59 52-202 83 3E3003 500, (Vol.) 500M RI-203 5.59 62-105 83 3E3003 501, 704, 710, 100, (Vol.) 75M RI-202 5.59 52-202 83 3E3003 501, 704, 710, 100, (Vol.) 75M RI-205 5.59 72-105 6.1 3E3028 710, (Tone) 75M RI-206 5.59 72-116 6.1 3E3028 710, (Tone) 75M 75M RI-206 5.59 72-116 6.1 3E3025 710, (Tone) 770, (Vol.)
150
6-40, 6-41, (Vol.) Counterphase 8, BT6, (Vol.) 7-70, 7-71, (Vol.) 10M R1-203 .53 72-169 .58 318002 . 7-70, 7-71, (Vol.) 10M R1-283 .53 72-169 .58 318002 . 83A, (Vol.) 83A, (Vol.) 83A, (Vol.) 81, 82, (Vol.) 10M R1-283 .53 62-102 .63 318006 . 81, 82, (Vol.) 81, 82, (Vol.) 10M R1-283 .53 72-169 .58 318006 . 81, 82, (Vol.) 25M R1-642P 1.05 52-206 .63 318003 . 8-81, 8-82, (Vol.) 8-81, 8-82, (Vol.) 1000 R1-233 .53 52-206 .83 318003 .
BRUNSWIGT-8, (Vol.) BPR5, lat. PR17-8, (Vol.) R1_2KR, 2KR0, 3KR0, 5KR6, (Vol.) 3KR8, 5KR, 5KR0, 5KR6, (Vol.) 3NC8, 5NC8, 5NO, (Vol.) B17, BPR5, 2d. PR17-8, (Vol.) C2000 60 R1-402 R1-404 R1-40
3NW8, (Sens.) 3NW8, (Vol.) 3NW8, (Vol.) 3NW8, (Vol.) 314, S21, S31, S81, S82, (Vol.) 314, S21, S31, S81, S82, S82-25, S81-25, S82-25, S81-25, S82-25, S81-25, S82-25,
DC14, DC21, DC31, (Vol.) 11, 12, 16, 33, (Vol.) 10 Midget D11, D12, D16, D17, D18, D24, D25, D33, (Tone) 20M R1-280 21 21 226, D33, (Tone) 238 24100 24100 25, D33, (Tone) 20M R1-280 25, D33, (Tone) 26, D33, (Tone) 27 28 28 29 208 209 209 209 209 209 209 209 209 209 209
D11. D12. D16, D17, D18. D33, (Vol.) 17, 24, 25, 4A, 4PA, (Vol.) 17, 24, 25, 4A, 4PA, (Vol.) 18, 12, 16, 18, 33, (Tone) 14, 21, 31, 81, 82, (Vol.) 11, 12, 16, 33, (Vol.) 15, 18, 182, (Vol.) 15, 18, 18, 182, (Vol.) 18, 182, 182, (Vol.) 1
CLAGO RADIO CO. 3000 RI-233 .59 72-108 .61 3E3026 31 Mayflower, (Vol.) 500M RI-203 .59 62-106 .83 3E3002 Cavaller Midget, (Vol.) 10M RI-240 .59 62-114 .83 3E3002
COLONIAL RAOIO CORP. 25, 56, (Vol.) 500M RI-203 .59 62-105 .83 3E3002 AC32, DC32, (Vol.) (75M) 10M R-1651T 1.32 25-417 1.71 (15M + 150Bi RI-240 .59 99-006 .83 3E3004
46, (Vol.) 15M RI-201 59 62-115 83 253008 50, (Vol.) 15M RI-201 59 (9-006 83 153008 52; (Vol.) 15M RI-201 59 72-115 61 153008 62-76, (Vol.) 15M RI-201 59 70-006 63 153008 62-76, (Vol.) 15M RI-201 59 70-006 63 153008 639, (2495, T345, T397, (Vol.) 15M RI-201 59 70-006 63 153008 63 152, 52, 56, 62, 69, 71, 76, (Tone) 500M RI-203 59 62-105 83 353002
C399, C495, C595, C695, C995, T345, T397, (Tone)
106, 106B, (Vol.) 500M RI.793
COLUMBIA PHONO. CO. C1, C2, C3, C4, C5, C6, C7. 920, 930, (Vol.) 961, 980, (Phono) 962, 963, 964, 965, 965, 965, 965, 965, 965, 965, 965
900, 901, 902, 930, 931, 950, 961, 980, (Phono) 50M RI-384 .66 72-117 75-525 1.71 950, (Vol.) 950, (Vol.) 25M RI-280 .59 72-100 .61 3E3029 Columbia Phono. — Con't on next page

New Standard Twin Replacement Volume Controls

Two variable resistances on a common shaft completely insulated from each other and from the shaft and bushing. Many receivers giving troublesome operation with single controls may be improved ensiderably when a twin is used as described below:

74-601—For use where the original control was in the C-bias circuit. Panel tresistance 10,000 ohms tapered for antenna. Rear section 25,000 ohms tapered PRICE. \$12

resistance resistance resistance 15,000 ohms tapered PRIOE. for C-blas.
74-602—For use where the original was in the screen grid circuit. Panel resistance 10,000 ohms tapered for antenna. Rear section 50,000 ohms tapered as screen grid potentiameter.

TAPER CURVE CHARTS

For Standard Centralab Radiohm Controls

Correct choice of Volume Control permits smooth, even change of volume on any Radio Receiver:

Curve 1—Uniform Voltage Divider or S-G Potentiometer Curve 2—C-Bias Control where low portion is important Curve 4—For both Antenna shunt and C-bias of 3 tubes

Curve 3—For Antenna and C-bias of 2 tubes

Curve 5—Audio Pot. or Tone Control; also AVC and QAVC Curve 6—Input to Grid, Ant. Shunt, or 1st audio Tone Control. NOTE: All Volume controls are arranged to increase volume with clockwise rotation. Refering to diagrams below: The graphs given are arranged to indicate minimum volume at left (Designated terminal "A" in diagrams on Page 68). The Graph lines indicate the per cent of change of resistance for a given amount of rotation of the control shaft. Curve 1 is uniform. Curves 2 and 4 (L. H. taper) indicate volume controls used in circuits in which volume is increased by decreasing resistance in circuit. In which volume is increased by increasing resistance in circuit. In the diagrams the extreme right indicates maximum volume (designated terminal "C" in diagrams on Page 68).

on Page 68). 3/ATURN 42 TURN 1/4 TURN 75% 50% (I)25% LTURN 10 TURN 312 TURN 75% 3 50% 6 25%

C R L Radiohm Load Capacity

With this table you can choose the proper capacity Radiohm to

handle	the load	of any cit	reuit wit				alety.
Control Num- ber	Control Num- ber	Resist. Ohms	Curve	Safe Max. Vol- ume	Millian 90% Rot.	50% Rot.	Min. Vol- ume
62-118 62-107 62-101 62-108 62-109	72-118 72-107 72-101 72-108 72-109	500 1,000 2,000 3,000 4,000	1 1 1 1 1	70 50 50 50 50 50	70 50 40 35 35	60 40 25 20 18	60 40 25 20 18
62-110 62-114 62-113 52-205 62-115	72-110 72-114 72-113 70-205 72-115	5,000 10,000 10,000 10,000 15,000	1 1 3 4 3	50 35 20 40 20	35 25 14 30 12	15 10 7 13 6	15 10 7 7 6
99-006 62-119 62-111 52-206 62-103	79-006 72-119 72-111 70-206 72-103	15,000 20,000 25,000 25,000 50,000	4 3 1 4 1	40 18 30 30 20	30 10 15 18 10	12 5 5 7 4	6 5 7 4
52-202 62-104 62-131 62-106 52-203	70-202 72-104 72-131 72-106 70-203	75,000 100,000 200,000 500,000 500,000	4 1 4 1 2	30 10 20 10 15	10 7 10 2 10	5 3 3 1 2	2 3 1 1 .5

Brunswick Replacement Volume Control

Model 10 Midget

Special 4100 ohm replacement volume (control. Identical value electrically and same overall size as original. Appearance may differ slightly.

Num-55-004-List, \$2.00.





Senior Potentiometers and Gain Controls

where accuracy of control is important the Senior Gain Control is superior for uniform volume attenuation because of its large size and the care used in manufacturing. The Bakelite Case is made tight against dust or humidity and resistances are absolutely permanent. Shaft and bushing insulated from all terminals. Furnished with two locknuts for mounting and with large black Bakelite knob. Gain controls are potentionneters especially tapered for uniform volume attenuation of audio amplifier and may be calibrated in decibels by the user. Bakelite case 2½ "xx". Threaded bushing % "x½" long. Shaft ½ "x½" long. **Potentiometers**

Gain Controls

List Price, \$3.50. \$171

Stock	Ohms.	Attenua-
Number	Resist.	tion
24-083	500,000	50 Db.
24-084	250,000	50 Db.
24-085	100,000	50 Db.
24-086	500,000	30 Db.

Stock | Ow [Stock]

Num.	Ohms	Num.	Ohms
24-108 24-110 24-111 24-112 24-020	2,000 10,000	24-050 24-100 24-200 24-500	50,000 100,000 200,000 500,000

Giant Power Rheostat



50 Watt

Resistance wire wound on metal frame insu-lated with as bestos. Capable of

Capable of operating at high temperature without damage. Will dissipate up to 50 watts. All resistances have a terminals and may be used as a retaint matter than the matter of the state o terninals and may be used as a potentiometer or rheostat. A convenient nortable control for radio recevers, soldering Irons, and other shop equipment. Contact lever is connected electrically with mounting sleeve. Insulating washers for mounting on metal panel furnished.

Stock Number	Ohms	
48-025 48-060	60	YOUR PRICE
48-151 48-501	500	S¶ 22
48-811 —	5,000	51.35

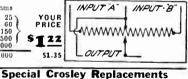
Centralab Straight Resistance Fader A straight center tap-ped Poten-



tiometer for simple pickup cirdo not re-quire con-stant impedance. Resistances given a rethose of

each half. Case 2¼."
Shaft ¼"x½" long. Mou
3s" hole. Furnished wit
sulated bushing and knob. Mounts In Stock | Bosist | Tiet or on

Num.	Ohms.	Your Price
64-305 64-301 64-302	100,000 50,000 25,000	Each. \$1.96



VOLUME CONTROLS For Mod. 608, 609 GEM BOX

1800 ohm with fixed bias Resistor. 日港" shaft.

Models 305, 315, 335, 345 Part W-7022.

3E3288 PRICE 75¢

Part W-22148-A 3E3290 YOUR PRICE. MDDELS 53, 54, 55, 56, 57, 58, Part W-20558.

3E3291 64¢ YOUR PRICE

CROSLEY 40S.
41S, 42S, 71A, 82S,
Early and Late
Models. Twin
Volume
Control 25,000-10,000 ohm.

W-6596 YOUR PRICE

CROSLEY 122, 123 Vol. Control with Switch Part W23112, (old No. 22597) 3E3294-66¢ PRICE 79¢

YOUR PRICE.

CROSLEY Model 26 Volume Control ohm, long shaft Part W-20114 RI-504-



CROSLEY Models 602, 2nd 604, 704A, 704B, 2nd Jewel Box Part W-7564. OUR PRICE





PRICE

66¢

RADOLEK REPLACEMENT

Model Receiver	Resist.	Electrad Number	Your	Cen- tralab No.	Your Price	Radolek Control Number	You
COLUMBIA PHONO.—Con't. 960, (Vol.) 940, 951, 980, C11, (Vol.) 31, 32, 25-31, 25-32, (Vol.) 33, 34, 25-33, 25-34, (Vol.) CNDA, CNDB, CNDB, (Vol.)	5000 25 M 4100 10500	RI-278 RI-203 RI-277 RI-573	\$0.59 .59 .59	70-204 72-102 62-110 52-205	50.61 .61 .83 .83	1	50.45
C80A, C80B, C800, (Vol.) C80A, C80B, C800, (Tone) C90, (Tone) C90, (Vol.) C100, (Vol.) 120B, (Vol.)	50M 50M 250M 200M 300M	RI-208 RI-205 RI-208 RI-281 RI-208	.59 .59 .59	72-121 72-121 72-121 72-121 72-131 62-101	.61 .61 .61 .61	3E3027 3E3012 3E3012 3E3012	.45
COLUMBIA RADIO CORP. SG5, (Vol.) Ist. SG8, (Vol.) 2d. SG8, (Vol.)	75M 30M 6000	R1-772T R1-202 R1-240	1.32 .59 .59	70-202 82-028	1.22	3E3003 3E3004	.49
SG9, (Vol.) SG9, (Tone) SG-10, (Vol.)	1500 \ 1500 \ 10M 500M 60M	R-1827P RI-1745TP RI-203 RI-205	1.19 1.59 .59 .59	72-100 72-105 70-202	.61 .61	3E3029 3E3002 3E3022	.49
CROSLEY RADIO CORP. AC7, AC7C, (Fil.) 608, 609, Genibox, (Vol.) 804, 3d. Jewelbox, (Vol.) 610, (Vol.)	500 500 10 M 1500	RI-282 RI-1723G R-296 R-1712	.59 .65 .66	72-118 51-039 51-039	.61 .73	3E3034 3E3035 3E3036	.56 .56
1st. 704, 1st. Jewelbox, (Vol.) 1st. 706, 1st. Showbox, (Vol.) 32, 40, 41, 41A, 342, 61, 62, 705, 2d. 706, 2d. Showbox, (Vol.) 602, 2d. 704, 704A, 704B, 2d. Jewelbox, (Vol.)	10M 10M 350	RI-348 RI-347 R-1725	.66 .79	70-113 70-113 51-037	.98 .98	3E3037 3E3038 3E3039	.56 .67
on all on an artist	350 400 75M 150M	R-1839 R1-274 R1-202 R1-504	.66 .59 .59	51-037 70-118 70-202 72-045 72-019	.73 .98 .61	3E3040 3E3131 3E3003 3E3042	.56 .49 .49
20, 21, 22, 23, (Vol.) 26, (Vol.) 27, 28, (Vol.) 54, 55, 56, 57, 57V, 58, (Vol.) 54, 55, 56, 57, 57V, 58, (Vol.) 308, 318, 338, 348, (Vol.)	25M 25M 25M 32500	R1-203 R1-242 R1-686 R-1687	.59 .59 .66 .66	72-019 72-111 72-111 72-019	.73 .61 .61 .73	3E3002 3E3043 3E3043 3E3044	.49 .49 .56
let. 408, 1st. 418, 1st. 428, 71A, 1st. 828, (Vol.) 24, 408, 26, 418, 2d. 428, 24, 228, (Vol.) 25, 228, (Vol.) 26, 48, (Vol.) 26, 48, (Vol.)	25M 15M 25M 40M 4500 40M 25M	R-1711 R-1711 R1-592G R1-205 R1-279	.66 .79 .59	70-503 74-511 79-006 52-206 72-111	1.22 1.22 .61 .83 .61	3E3045 3E3045 3E3046 3E3022 3E3013	.56 .56 .49 .49
74. (Vol.) 75, 76, 77A, 77B, 77L, 84C, 84D, (Vol.) 77-1, (Vol.) 90 Auto, 91 Auto, 92 Auto, (Vol.) 95 Auto, 96 Auto, (Vol.)	50M 300M 15M 60M 300M	R1-205 R1-203 R1-592G R1-205 R1-203	.59 .59 .79 .59	72-103 72-047 79-006 72-117 72-104	.61 .73 .61 .61	3E3022 3E3002 3E3046 3E3022 3E3002	.49 .49 .49 .49
95 Auto, 96 Auto, Roamlo, (Vol.) 120, (Vol.) 120, 121A, 121-1, 121-B, (Tone) 121A, (Vol.) 121-1, 121-B, (Vol.) 18t. 122, Smoker, (Vol.) 2d. 122, (Vol.)	10M 100M 650 650 2500 3000	RG-489 RI-201 RI-242 RI-282 RI-282 RI-278 RI-278	.59 .59 .59 .59 .59	99-006 99-006 72-118 72-118 72-101 72-108	.83 .83 .61 .61	3E3008 3E3069 3E3021 3E3021 3E3033 3E3033	.49 .49 .49 .49
122, 123, (Tone) 123, (Vol.) 124, (Vol.) 125, (Vol.) 125, (Vol.) 124, 125, (Tone) 124-1, (Vol.)	40M 10M 10M 10M 25M 4500	FB-557 R1-240 R1-616P RI-616P FB-556 R1-616P	1.27 .59 .92 .92 1.27	72-117 52-205 52-205 52-205 72-117 72-110	.61 .83 .83 .83 .61	3E3047 3E3004 3E3031 3E3031 3E3047	.49 .49 .69 .69
124-1, (Tone) 126, (Vol.) 126, (Tone) 126-1, (Vol.) 126-1, (Vol.) 126-1, 128, (Tone) 127, (Vol.)	80M 650 100M 650 300M 500M	R1-202 R1-282 FB-558 R1-282 R1-203 R1-203	.59 .59 1.27 .59 .59	72-123 72-055 72-122 72-055 62-121 62-121	.61 .73 .61 .73	3E3003 3E3002 3E3002	.49
127-1, (Vol.) 127, (Tone) 127-1, 129, 129-1, 132-1, 136-1	500M 1 Meg. 80M	R1-203 R1-206	.59	72-121 72-116	.61 .61	3E3002 3E3025	.49
146. (Tone) 128. (Vol.) 131. (Vol.)	1500 1500	FB-558 RI-232 RI-232	1.27 .59 .59	52-202 72-101 72-101	.61	3E3055 3E3055	.49 .49
129, (Vol.) 133, (Vol.) 129-1, (Vol.) 132-1, (46, 150, (Q. A. V. C. Adj.) 143-1, (Vol.) 133, 134, 134-1, 135, (Tone)	4500 4500 400M 10M 400M	RI-278 RI-201 RI-278 RI-203 RI-240 RI-203	.59 .59 .59 .59 .59	72-115 72-115 72-115 72-121 2013901 62-105	.61 .61 .61	3E3033 3E3008 3E3033 3E3002 3E3004 3E3002	.49 .49 .49 .49
134, 134-1, 143-1, 146, 146-1, 150, 157, 158, 160, 164, 168D, 170, 171, (Tone) 133-1, 135, 141, 146-1, (Vol.) 132-1, 136-1, (Vol.)	80M 4500 500M 500M	FB-558 RI-278 RI-950T	1.27 .59 1.32	52-202 62-110	.83	3 E 3 0 3 3	.49
137, (Vol.) 147, (Vol.) 148, (Vol.) 155, (Vol.) 156, (Vol.) 160, (Q. A. V. C. Adj.)	500 4500 4600 4000 10M 5000	R1-282 R1-278 R1-278 R1-278 R1-240 R1-278	.59 .59 .59 .59 .59	72-118 62-110 62-110 62-110 52-205 70-202	.83	3E3033 3E3033 3E3033 3E3004	.49 .49 .49
154, (Vol.) 88 Auto, (Vol.) 98 Auto, (Vol.) 160, (Vol.) 163, 166, 176, (Vol.) 99 Auto, (Tone) 159, (Vol.) 169, (Vol.)	10M	R1-283 RG-489 RG-489 RG-489	.59 .66 .66 .66 .59 1.27	62-100 62-132 62-131 72-132 62-110 70-202 52-204 52-205	.83 .83 .61 .83 .61	3E3006 3E3032 3E3033 3E3006	.49

VOLUME CONTROL GUIDE

AOLOME		17 1		711	5	,,,,,,	
Model Receiver	Resist. Ohnis	Electrad Number	Your Price	Cen- tralab No.	Your Price	Radolek Control Number	Your Price
THOS, A. EDISON, INC.	50M	RI-205	\$0.59	70-203	50.61	3E3022	5.049
Cl, C2, M1, R1, R2, JC, JR, SC (Vol.)	2000	R-1675	.66	26-021	.98	3E3048	.56
R200, (Vol.) Cl. C2, M1, R1, R2, JC, JR, SC, (Vol.) Cl. C2, M1, R1, R2, JC, JR, SC, (Regen.)	3000	R-1713	.66	24-008	.98	3E3049	.56
C4, R4, R5, (Vol.)	5M \ 10M	R-1714TP	1.59	76-003	1.47		
R4-DC, R5-DC, (Vol.)	5M 10M	R-1714TP RI-203	1.59	76-003 74-512	1.47	3E3002	.49
R6, R7, (Vol.) Abbey Jr., Abbey Bat., (Vol.) R6, R7, Early Model (Phono)	500M 500M 500M	R1-203 R1-203	.59 .59 .59	70-203 64-306	1.47	3E3002 3E3002	.49
ELECTRICAL RESEARCH	10M	R1-203	50	72-100	.61	3E3002	.49
R1, (Vol.) 30, 31, 32, R2, R3, AR3, (Vol.) '4, 76, 210, (Vol.)	101	R1-201	.59 .59	72-115	.61	3E3008	.49
25, (Vol.)	20M 10M	R-1714TP	1.59	74-601	1.22	3E3050	1,04
	1 5M	R-1714TP	1.59	75-506	1.71	3E3050	1.24
71, 72, 73, 271, 271A, (Vol.) 224AC, 224B, (Vol.) 35, 37, 38, 39, 225, 230, (Tone) 35, 37, 38, 39, 230, (Vol.) 75, 77, 231, (Vol.)	10M 5M, 6000 1 Meg 250M 75M	R-1714TP RI-205 RI-206 RI-208 RI-202	1.59 .59 .59 .59	75-506 72-110 72-116 72-121 70-202	1.71 .61 .61 .61	3E3050 3E3022 3E3025 3E3012 3E3003	1.24 .49 .49 .49 .49
20 01 010 00 000 045	10M	RI-240	.59	52-205	.83	3E3004	.49
31, 82, 245, (Tone) 30, 81P, 82P, 248, (Tone)	500M 500M	RI-202 RI-202	.59	72-105 72-105	.61 .61	3E3003 3E3003	.49 .49
10, 81, 82, 827, 249, 148, (Vol.) 11, 82, 245, (Tone) 10, 81P, 82P, 248, (Tone) 11, 62, 63, 250, (Vol.) 71 A, 335, (Tone) 135, (Vol.) 136, (Vol.)	25M 500M 10M 10M	R1-240 R1-203 R1-234 R1-240	.59 .59 .59	62-111 72-105 52-205 62-100	.83 .61 .83 .83	3E3004 3E3002 3E3032 3E3004	.49 .49 .49
550, (Vol.)	15M 10M	R1-201 R1-240	.59 .59	62-113 62-113	.83	3E3008 3E3004	.49 .49
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Resistance of "Pad" should equal Impedance of Circuit or Line,
Where possible use a "T" or Constant imp. Fader type control
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A 4-watt attenuator for individually controlling moderate power, low impedance Speakers operating from a central system. Wire wound. Bakelite case 3½"x1¾" deep.

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For individual control of magnetic speakers from centralized system. Provides smooth, individual volume control for each speaker. No switch. Bushing diam., \$\% "x\\\ y'' nog. Shaft diam., \\ w'' extends \\ y'' Bakelite case diam., \(1\% \) "x\\\ y''' deep. Sbaft and hushing insulated. With knob.



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3 smooth

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83-002		83-005	50
Stock	Resist.	Stock	Resist.
Num.	Ohms	Num.	Ohms

Used to tade from him to him, pickup to pickup, microphone to microphone or line to line. Bakellte case 3½"x1¾" deep, single or three hole Mtg. With knob

while	maint	aining	constant	1m-
	ee. B	akelite	case 3	112"X
134"			or three	hole
Mtg.	With	knob.		
LINE	3	5	511	DAO
C// +L	2	3	5-0	,,,,,
0	5	3	3	
S-	3	<	>	
	>	5	3.	
LINE	~	>	- 20	DAD

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Dial Plate and Knob for Above Controls



For use with constant impedance or gain controls. Heavy brass silver finish with etched black call-brations, 0-10. Dlam. 3". Use 60—60-490—2550 rotation for 1-wat "L" Pad 60.489—3250 rotation, for all others List, 50c.
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Special RCA Reference Chart

Of General Electric, Graybar and Westing-

house Receivers Built By RCA Victor
You can easily find the correct control for any General Electric,
Graybar or Westinghouse receiver. Locate on this chart the
model number of the equivalent RCA Victor receiver and refer

General	Graybar	Westinghouse	Identical to
Electric Model Num.	Model Number	Model Number	R.C.AVicto Model Num
K50, K51 K50P, K51P K60 K65 K54P S42B H32			R28 R28P R37 R38 RE40 R43 R50
H72 J72 J82 J86 J100 J105	GB100 GT8-56 GT8-69 GT10-69 GT10-88		R55 RAE59 R70 R71 R72 R74 R76
J107 J125 J109 K106 K107 A90 A60 B40 A81	GT10-99		R77 R78 RE81 R90 R90P M32 M34 P31
T41 H31 H51	GB 311 GB 500 GB 555 GB 678 GB 340 GB 600 GB 700 GB 770	WR 4	33 44 46 48 62 66 80 82
H71 K43 K52, K53 K63 K64 K80, K85 B81, B86 K66	GB 900	WR 6 WR 7	86 100 110 120 121 140 142B 220
K126 K48 K58 K79 J70 T12 T12E	(iT 7 GB 4	WR 9	280 300 310 331 T5 R4 R5 R5X
J75 822 822A J80 842 8132	GG15 GB8 GB8A GT8	WR14 WR10 WR10A	R6 R7 R7A R8 R9
K62 J85 BX K40A L50, L51 K40	GB989 GB9 GC14	WR12 WR15	R10 R11 R12 R17M R18W R22 R27

Electrad Model "B" Super Tonatrol

Capacity 3 Watts
Variable Resistance units for use as volume controls in radio receivers, attenuators in transmitters, and regeneration controls for short wave receivers. The resistance element consists of a carbonaceaous material fused to the sur-

carbonaceaous material fused to the surface of a vitreous enamel coated metal strip. Enclosed in a moulded bakelite case. Resistance is varied by means of a revolving self-aligning phosphor spring. A smooth, stepless flow of current is insured. Unit has extra long life with practically no variation in resistance value. Case is 2" diameter. Depth shaft is 4" diameter, 14" long. Mount in single 3," hole on any panel not over 4," thick. All units are potentiometer type and have no switches.

Stock	Resistance	Super	Tonatrols
Number	Ohms	Taper	
FB551	500	Uniform) List Pr

FB551 FB552 FB553	500 1,000 2,000	Uniform	List Price, Each \$2.40
FB554 FB555 FB556	5,000 10,000 25,000	Reverse	YOUR NET PRICE
FB557 FB558	50,000 100,000	Uniform	\$1 41

Dual Unit Super Tonatrols
Case Diameter 2"; Depth 1A"; Shaft 2%"

long.
FB228T. Panel unit 50,000 ohms for antenna control. Rear unit 50,000 ohms for screen control.
List Price, \$3.00.

YOUR PRICE.....\$1.75 FB478T. Panel unit 15,000 ohms for antenna control. Rear unit 75,000 ohms for cathode

RADOLEK REPLACEMEN

Model Receiver	Resist. Ohms	Electrad Number	Your Price	Cen- tralab No.	Your Price	Radolek Control Number	Your
FREEO-EISEMANN CO. NR55DC, NR56DC, NR60, NR- 60DC, NR70, NR78DC, NR79- DC, (Vol.)	250M	RI-201	\$0.59	72-116	\$0.61	3E3008	\$0.49
NR55, NR56, (Vol.)	250M 10M	R-1748T	1.32	74-506	1,47		
NR90S, (Vol.) NR95, (Vol.)	50M 50M 50M	R-1833TG RI-202	1.45	74-506 70-202	1.47	3E3003	۱.,
NR80, NR80DC, NR85, NR85DC, (Vol. Strip)	1300 20M 50M	R-1891 R1-279 FB-557	.24 .59 1.27	72-119 72-117	.61 .61	3E3013 3E3047	.49
58, (Tone) 54, 56, 59, 72, 74, 90, 91DC, 92, MB5, MB7, MB9, (Vol.)	10M	RI-204	.59	72-114	.61	3E3024	.49
98, (Vol.) 98, (Tone)	15M 500M	RI-201 RI-203	.59	72-115 72-105	.61 .61	3E3008 3E3002	.49
JESSE FRENCH & SONS PIANO CO. AC8, 5093, H2DC, (Vol.) G-Jr.,	2000	RI-201	.59	72-103	.61	3E3008	.49
H2Jr., H2Pent., (Vol.)	10M 10M 5000	RI-1745TP RI-240 RI-278	1.59 .59	75-507 62-113 72-110	1.71 .83 .61	3E3054 3E3004 3E3033	1.24 .49
H2Jr., H2Pent., (Vol.) H2 Special, (Vol.) H2Jr., S2, (Tone) U1, (Vol.)	1 Meg. 2000	R1-206 R1-232	.59	72-110 72-116 62-101	.61	3E3055	.49
U1, (Tone) 87, (Vol.)	50M 75M	R1-205 R1-202	.59	72-117 70-202	.61	3E3003	.49
CHARLES FRESHMAN CO.							
2N 3015 3016 OD168 (Vol.)	2000 2000	RI-201 RI-201	.59 .59	72-101 41-200	.61 .73	3E3008 3E3008	.49 .49
M, (Vol.) G60, H, K, K60S, L, LS, (Vol.) 21, 22, (Vol.)	2000 500M (10M)	RI-201 RI-203	.59	72-105 72-105	.61 .61	3E3008 3E3002	.49
21DC, 24DC, 31DC, 33DC, (Vol.) 31, 32, 33, (Vol.)	250M	R-1833TG	1,45	25-416 72-121	1.47 .61		
31, 32, 41, (Vol.)	75M			70-202	.61		
GALVIN MFG. CO. Motorola 5. (Vol.) 5171, (Vol.) 6112P1, Motorola 6, (Vol.) 7138, (Vol.) 7138A, 7147A, 88, 61, (Vol.)	15M 20M 300M 100M	RI-242	.59	99-006 62-119 70-036 72-104	.83 .83 .98	3E3147 3E3147 3E3147 3E3069	.59 .59 59
7T38A, 7T47A, 88, 61, (Vol.) S10, Lazy Boy, (Vol.) 44, 77, S6, (Vol.)	500M 500M 500M	RI-203 RI-958P RI-959P	.59 .92 1.05	62-105 62-105 62-105	.83 .83	3E3002 3E3023 3E3023	.49 .49
GENERAL MOTORS RADIO CORP.	BOOM	1(1-33.71	1.03	02-103		3 = 3023	.49
AC5 (Ring)	400	RI-274	.59	72-118	.61	3E3131	.49
AC6-80, 5051 M. G. Set, 5052, 5057, 5060, 5065, 5066, (Vol.)	20M	RI-279	.59	72-111	.61	3E3013	.49
AC6, AC6Jr., 32DC6, 110DC6, AC6-80, 5051 M. G. Set, 5052, 5057, 5060, 5065, 5066, (Vol.) 25, 26, 27, 28, 43, 48, A5003, A5010, 5069, 5091, (Vol.)	15M	RI-201	.59	72-111	.61	3E3008	.49
AC8, 5077, 5080, (Vol.) 93, 94, A5005, A5020, 120, 130, 140, (Vol.)	15M 50M	RI-201	.59	72-102	.61	3E3008	.49
	4000 15M	RI-205 FB-567T	2.10	72-103 74-602	1.22	3E3022	.49
120, 130, 140, 150, 160, 170, A Chas., B Chas., E Chas., (Tone)	1 Meg.	RI-206	.59	72-116	.61	3E3025	.49
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MA, Little General, (Vol.)	15M 5000			62-117	.83		
216, 217, 219, S1A, S1B, S5A, S5B, (Vol.) 251, S2A, S2B, (Vol.) 252, S3A, S3B, (Vol.) 253, 254, 255, 256, 257, 258,	50M 10M 10M	RI-111P RI-156P RI-156P	1.05 1.05 1.05	62-103 52-205 62-114	.83 .83 .83	3E3056 3E3056	.89
253, 254, 255, 256, 257, 258, (Vol.) 290, 291, S4A, S4B, (Vol.)	10M	RI-156P	1.05	62-103	.83	3E3056	.89
	200M 50M	RI-132P RI-205	.59	62-114	.83	3E3056 3E3022	.89
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60, 61, 62, 160, 163, (Vol.) 15, 150, 151, 153, 155, 156, Castlewood, Ellswood, Haven-	900	RI-441	.66	72-073	.73	3E3059	.97
wood, Silei wood, (vol.)	11500\ +264Bi	RI-440PG	1.19	55-010	.88	3E3060	.72
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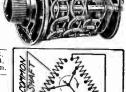
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Model Receiver	Resist		You		Your Price	Radolek Control Number	You
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490, 491, 493, (Vol.) 490, 491, 492, (Tone) 55, 59, 75, 195, 500, 560, 566, 599, (Vol.)	200 M 250 M	R1-902 R1-551	.66	72-121 62-121	.61 .83	3E3067	.49
55, 59, 75, 195, 500, 560, 566, 599, (Vol.) 35, 86, 800, 998, (Vol.) 35, 86, 800, 998, (Tone)	200M 200M 250M	RI-901P RI-902 RI-551	.92 .66	62-121 72-121 62-121	.83 .61 .83	3E3068 3E3067	.69
HOWARD RADIO CO. 35DC., (Vol.) 210, S11245, Green Diamond 8,	5000	RI-278	.59	70-204	.61	-	
(Vol.) SGA, SGC, (Vol.)	50M 6000	R-179	.66	72-117	.61		
	10M	RI-201	.59	74-601 70-205	1.22	3E3008	.49
SGB, Miniature, (Vol.) 5, 35-47, 40, 40-47, EX, H, 4-47, (Vol.) 5, 35-47, 40, 40-47, 400, 420, 1, H-47, K. L. M. (Tone) 5, 60, AVH, EX, (Tone) 55A, 45, 60, AVH, AVO, (Vol.) 0, 25, 30, 32, (Vol.) 0, T. (Vol.) 20, L. M. (Vol.) 20, K. (Vol.)	10M	RI-278 RI-206	.59	70-205 62-116	1	3E3033	.49
15A, 45, 60, AVH, AVO, (Vol.) 0, 25, 30, 32, (Vol.)	500M 500M 9M	RI-203 RI-203 RI-201	.59 .59	62-105 62-105 72-113	.83	3E3002 3E3002 3E3008	.49 .49
0, T, (Vol.) 20, L, M, (Vol.) 00, K, (Vol.) 5A, AVO, (Tone) 3, (Vol.)	10M 500M 100M 500M 10M	RI-201 RI-203 RI-242 RI-203	.59 .59 .59	62-114 72-106 72-104 72-106	.83 .61 .61	3E3008 3E3002 3E3069 3E3002	.49 .49 .49
INTERNAT'L KADETTE	8020 X }	R1-201	.59	62-113		3E3008	.49
	n next	RI-240 page	.59	62-113	.83	3E3004	.49

New ELECTRAD Tapped "T" Attenuator Constant Impedance

New high quality T Pad utiliz-ing wire wound non-inductive resistors with a triple gang tan-switch of new design with self cleaning contacts. Absolute quiet attenuation is obtainable in 11 steps. Ideal for high quality P. A. and broadcast application. 8 watt capacity.





OUTPUT

44 22

ELECTRAD Model U Constant Impedance Volume Control

Simple inexpensive method for controlling volume of electric pickup, individual control of magoetic speakers or headphones operating on the same line where i forpedance is required. Case 1.5" diam. shaft 2" long. Single %" mounting. relatively constant



LR-LR-LR-

Stock Number U500 U4000 U10000

Idst. \$2.00 YOUR PRICE, Ohms Line Imped. EACH 500

Royalty "T" Pad Attenuator Constant impedance volume control for individual control of 2 or more microphones, speakers, or electric plekups without disturbing the impedance of the input system. Case diam. 1½", depth 1½", shaft 1½" long. Single %" hole.

Impedance in Ohms Number





Royalty "L" Pad Attenuator

Constant impedance volume control for variable series and shunt resistor. For individual control of one or more units on a common line maintaining relatively For in-

itaot in	pedance.		
tock umber	Impedance in Ohms	List Price \$2.50	6
-15 -200 -500 -3000 -5000	15 200 500 3000 5000	YOUR PRICE \$147	MPUT WWW

Exact Replacements for Majestic

Majestic Models 15, 15B, 150, 151, 153 154, 155, 156, Castlewood, Ellswood, Fyfe wood, Havenwood, Sherwood, Vel-ume Control 11,500 olms plus 264 ohm bias resistor with switch. 55-010. List, \$1.80.

88¢ YOUR PRICE Volume Control—Models 25, 251, 253, 254, 1st Models Brentwood, Brucewood, Cheltenwood 154, Fyfewood, 10,000 ohm control with switch, 55-014. List, \$1.80.

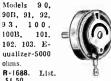
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93, 100, 100B. 102. 103. Equalizer-5000



88¢

ohms R-1688. List. \$1.50. YOUR \$1.32 PRICE

R1810T. List, \$2.50. YOUR PRICE

Volur	me Cor	ntrol H	look-up	Diagram	s				_		19.5		_
Diagr Tap	ram 1		Diagram 2 Taper 2	A	iagram 3 Taper 2	RADOLEI	C R	EPI	LA	CE	M	LN	T
Filar Filar	ries iment inetat	C T	Cathode Bine Rhenstat		Plate Voltage Uheostat	Model Receiver	Resist. Ohms	Electrad Number	Your Price	Cen- tralab No.			Your Price
Tap	agram 4 ser I or 6	Man	Diagram 5		Diagram 6 Taper 5 F. Grid	INTERNAT'L KADETTE — J. JS. (Tone) KS. (Vol.) KS. (Tone) Kadette, (Vol.)	Con't 100M 8000 10M 200M	RI-242 RI-560 RI-240 RI-281	\$0.59 .59 .59	72-122 72-114 72-100 72-131	50.61 .61 .61	3E3069 3E3011 3E3004	50.49 .49 .49
SA U	ignal nput ntiometer		R. F. Primary Shunt Rhecetat	B B Por	Input entiometer	Kadette Jr., (Vol.) AW55, (Vol.) A, B, (Vot.) A, B, (Tone)	2 Meg. 15M 10M 20M	RG-489 RI-201 RI-798P RI-799 RI-201	.66 .59 .92 .66	62-132 99-106 62-113 72-119 99-006	.83 .83 .83 .61	3E3008	.48
	raper 3 r 2 Tubes aper 4 r 2 Tubes		Diagram 8	<u>+</u> (€)	Diagram 9 Taper I	T. (Vol.) KOLSTER K42, K43, K44, K45	15M { 25M } 10M }	RI-67OT	1.32	76-006	1.47	3E3070	1.12
Cathe Poten	- +		Potentiometer		Bleeder stentiometer	MONTGOMERY WARD & CO. 26W, 26WX, 27W, 27WX, 29W, 32W, 1500, 14000, 15000, 62000, 62-030, 62-232, Cavaller, Colle-							
	aper I		Taper I Plate Voltage	Tc A	Taper 6 A. V. C. Audio	gian, Commander, Latayette, Troubadour, (Vol.)	8000	R I-240	.59	62-114	.83	3E3004	.49
WWW-18 B		jim.	Voltage →# Bleeder Potentiometer	Ť, Po	irid Input tentiometer	060, 62-070, Challanger, Jr Coronado, Cortez, Princess, (Vol.) 27W, 1500, 15000, Collegian,	8000	RI-240	.59	79-006	.61	3E3004 3E3022	.49
	Taper 5		Diagram 14	+0	Nagram 15 Taper 6	(Tone) 26W, 26WX, 29W, 29WX, 32W, 3035, 3037, 3065, 3067, 62-030, 62-232, Cavalier, Commander.	50M	R1-205	.59	72-103	.61	323022	
1 JUS * W		AVC \$	Diade A. F. Output Potentiometer	We a	Grid Tone Control	Coronado, Cortez, Latayette, Troubadour, (Tone) 62-040 62-181. Commodore,	500M 2500	R1-203 R1-233	.59	72-105 62-108	.61 .83	3E3002 3E3026	.49
Die	ingram 16	<u></u>	Diagram 17	CSAL	Diagram 18 Taper 3	Sovereign, (Vol.) 181, 187, (Vol.) 51, 1522, 1562, 11000, 62-020,	2500	R1-278	.59	52-204	.83	3E3033	.49
	Taper 5		3	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Challanger, (Vol.)	11500 { 15M} 11500	R1-240 RI-573	.59	79-006 74-602	1.22	3E3004 3E3027	.49
	Circuit Tone Control		Grid Bias Filament Potentiometer		Base empensating etentiometer	tasy, Solo, (Vol.) 811, 811X, 1111, 1111X, 62- 1611, 62-1711, (Vol.)	7000	R1-202	.59	99-006	.83	3E3003	.49
MANUS 10	Diagram 19 Taper 4 or A, B, C Taper 3	, , , , , , , , , , , , , , , , , , ,	for A. B. C. Taper I for	1 c c	Diagram 21 I Taper 5 for A, B, C Taper 6 for A',B', C'	49, 811, 811X, 181, 187, 1111, 1111X, 1522, 1562, 1922, 2955, 2955X, 2957, 2957X, 62-040, 62-055, 62-181, 62-1611, 62-171, 11000, Challanger, Commodore,				70.116		3E3205	.49
1 0	for B', C'	1	A',B', C' Dunl Antenna		Oual Tone	Fantasy, Solo, Sovereign, (1 one)	1 Meg.	RI-206 RI-240	.59	72-116 52-205	.61	3E3004	.45
@ www.	Shunt and athode Bias	WWW.	Sereen Grid	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ume Control	1238, 1355, 62-1838, 62-1955, Minstrel, Recital, (Vol.)	1 Meg.	R1-206	.59	62-116	.83	3E3025	.49
See page 63	for volum	me contro	Ge Ge	Replace		500, 2800, 2822, 2827, 2895, 2897 10000, Balhoa, DeSota, Dicta- tor, Serenader, (Vol.)	400	R1-274	.59	72-118	.61	3E3131	.49
		3 ///		=		2822, 2827, 2895, 2897, Balboa, DeSota, Minstrel, (Tone) 1st. 2622, 1st. 2655, 1st. 2775.	150M 10M	RI-281 RI-240	.59	72-131 52-205	.61	3E3004	.49
ala	7	4		Volur Contr	_	1st. AE10, (Vol.) 2d. 2622, 2d. 2655, 2d. 2775, 2d. AE10, (Vol.)	{ 10M 500M			74-509	1.47		
Phileo	9	Deale	rs Phile	0	Deal's	62-11, 62-12, 62-14, 62-19, 62- 27, Grenadier, Recital, (Vol.) 62-20, 62-25, 62-26, 62-26X,	3000	RI-234	.59	52-204	.83	3E3032	.49
Model Number	Stock Number	Pric	e Numb	er Numb		(Vol.) 62-21, 62-22, 62-30, (Vol.)	300 500M	RI-274 RI-203	.59	62-105	.83	3E3002	.49
3 (Trans.) 6 (Trans.) 7 (Trans.) 9 (Trans.) 12 (Trans.)	L-4463 L-7525 L-6109 L-7525 L-7525	1.0	6 70 6 70 (AV 6 71 6 76	C) L-3528 L-5039 L-6015 L-6499 L-3879 L-4094	1.06	62-26 X, 62-27, 62-30, 1238, 1355, 62-1838, 62-1955, Grenadier,	150M	R1-281	.59	72-131	.61		
15	L-8054 L-7050 L-33-5	.8	8 80 9 81	L-33-5 L-33-5 L-3076	005 .85 002 .59	1st. 11-12, 62-7, 62-8, 62-9, 1st. 62-29, (Vol.) 1st. 11-12, 1st. 62-29, (Tone)	15M 200M 500M	RI-201 RI-208 RI-203	.59 .59	62-115 72-131 62-105	.61	3E3008 3E3012 3E3002	.49
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35 (Batt.) 37 (Batt.) 40 (D. C.) 41 (D. C.) 42 (D. C.)	L-5317 L-7239 L-4056 L-4094 L-4094	1.0 .5	90 (2-4) 91 91	7) L-6015 L-8054 L-7045 L-3790	* .88 * .59	(Vol.) 62-010, (Vol.) 62-38, 62-40, 62-50, (Vol.) 62-38, 62-40, 62-50, (Tone) Auto Radio Super 6, (Vol.) 62-7, 62-8, (Tone)	3000 25M 1 Meg. 200M 500M 25M	RI-206 RI-208 RI-203 RI-280	.59 .59 .59 .59	70-206	.83 .61 .61	3E3013 3E3025 3E3012 3E3002	.49 .49 .49
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52 53	L-5839 L-33-5	9 .:	59 511 85 *Used in	L-307en models wit ensation.	.82		00014		.59	72-108 72-122	.61 .61	3E3002 3E3069	
Special For Models 42DC, 77, 7	20, 20A, 77A. Phi	21, 220,	ements			8, 12, 5th. & 8th. Transitone Auto, (Vol.) 10, 7th. Transitone Auto, (Vol.) 1st. 14, 14-126, 14-226, 141.ZX			.59 .59	72-108 72-108	.61 .61	3E3002	.49
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	"	SL50	39—Philee	Part No.	5039. 880	1st. 19, 19-121, 19-122, (Vol.) Philco Con't on next page	350M		.66				

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Model Receiver	Resist Ohnis				You		You
PHILCO—Con't 2d. 19, 19LX, 19LZX, (Vol.) 41, 41E, 42, 220A, (Vol),	500M	R1-203	\$0.5	9 72-106	\$0.61	3E3002	\$0.4
30, 96, 96A, 296, 296A, 111, 111A, 211, 211A, 112, 112A, 112E, 112X, 212, 212E, 112-2-45, 112-2-47, (Vol.)		R-1735T	1.3		.93	3E3072	.7
45, 112-2-47, (Vol.) 37, (Vol.)	500M	R1-479	,60	6 72-177	.64	3E3073	.5
38, (Vol.) 40, (Vol.) 18, (Vol. Tone Tapped)	210 20M 1750 350M -	R1-232	1.32 .92 .55	72-119 72-118	.93 .61 .61	3E3074 3E3055	.69
25X, 43, 43-121, 43-221, (Vol.) 44, (Vol.) 46, 46E, (Vol.)	500M 350M 5000 210	RI-203 RI-833P R-1824T	.59 .92	72-106 62-105	.61 .83	3E3002	.49
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53, (Vol.) 54, (Vol.) 57, (Vol.)	1750 20M 500M 20M	R-1823T RI-832P RI-203 RI-535P	1.32 .92 .59	62-119 72-106	.93 .83 .61	3E3075 3E3002 3E3075	.69 .49 .69
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(Vol.) 00-2-47, 90A-2-47, 90X, 70- A.V.C., (Vol.)	500M	R1-203	.59	72-106	.61	3E3002	.49
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THE RAOOLEK CO. Arrvelo AC6-7, Monroe AC6-7, Keystone AC6-7, Marvelo AC8-8, Monroe AC8-9, Marvelo Trlo- bynamie 10, Marvelo Bat. 8, 40nroe Bat. 8, (Vot.) Airvelo 30, Little Ghant 6, Trlo one Dynamie 9, Special TRF, (Vol.)	3000	RI-233	.59	72-108	.61	3E3076 3E3026	.49
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67, (Tone) 18AC, R18DC, R33AC, 33DC, R51DC, (Vol.) 4, R6, (Vol.)	10M (4350 +) 150B1	RI-402	.79	72-100	.61	3E3029	.49
5 PSDC PSV (Vol.)	20M	R1-383G	.66	72-110	.61		
5X, (Regen, Cont.) 4, R6, R8, R10, R12, R19, 23, (Tone)	28M 50M	R1-382 R1-241 R1-205	.5\$	72-100	.61	3E3005	.49
5X. (Regen, Cont.) 4. Ré, 18, R10, R12, R19, 23, (Tone) 7. R9, R10DC, RE16A, 1st. pierette, (Vol.) 7LW, (Vol.)	3800 3800	RI-383G RI-383G	.59 .79	62-117 72-110 72-110	.61 .61	3E3022	.49
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7A, R11, RE16A, RE18, RE- A, R21, RO23, RAE26, (Tone)		R1-385	1	1210900	.73	3E3120	.62
E20. R50. R55 RAE59 RAE _* 1	200M 50M	RI-413	.66	62-121 72-103	.83	352121	.49
(Vol.) E20, R50, R55, RAE59, AE79, (Tone)	500M	R1-379	.66	72-103	.61	3E3121 3E3028	.49
AE26, RAE79, (Phono.) AE59, (Phono.) C. AVictor — Con't on	60 60 next	RI-384 RI-661P	.66	48-050 48-050	.98		

ELECTRAD Replacement **Volume Controls**

With Long Shafts



Type over 5,000 ahms

Snap-on Switch Underwriters approved. Converts any plain Converts any plain Standard Electrad control

Easy to select the proper value and Taper for most satisfactory operation. Wire wound types wound on fibre, carbon types covered with separate wire segments on which smooth contact is made, therefore the properties of the proper metal pancis. Standard controls have plain back covers and may easily be converted to switch type by substituting Electrad Snap-On Switch Cover. Case diam. 1%", Depth 18", Bushing lits %" hole. Shaft ¼" diam., 1%" long.

Electrad announces that a new bake-lite case control slightly smaller in depth will be ready within the next few months. We will supply the new type as soon as it is in production. The value and type numbers will be the same as listed below. 25¢

Standard Electrad Controls

Without Switch 590 List Price, \$1.00. YOUR PRICE....

Stock	Used in Circuit Number	Taper	Taper Indicated by Ohmage Readings in Sections					
Num.	(See page 68)	Num.	Start	14	1 2	3/4	Finish	
R1-204 R1-269 R1-270 R1-271 R1-272	1 1 1 1 17	1 1 1 1	Open 10 0 0 0	8 Unif Unif Unif Unif	Unif.	Unif.	30	
R1-273 R1-274 R1-282 R1-275 R1-276	9, 17, 20	1 1 1 1	0 0 0 0 0	Unif. Unif. Unif. Unif. Unif.	Unif.	Unit.	200 400 600 800 1000	
R1-233 R1-277 R1-234	4, 9, 17, 19, 20 4, 9, 19, 20 4, 9, 19, 20 4, 9, 19, 20 4, 9, 19, 20 4, 19, 20	1 1 1 1 5	0 0 0 0	Unif. Unif. Unif. Unif. 300	Unif.	Unif.	2000 3000 4000 5000 5000	
R1-240	4, 9, 10, 11, 19, 20 5, 7, 8 2, 5, 7, 8	3 1 3 4 3	0 0 0 12M 0	350 Unif. 20 5 M 100	1500 Unit, 2000 1 M 2 M	Unif.	7500 10,000 10,000 0 15,000	
21-280 21-241	2, 5, 19 4, 19, 20	1 5 2 1 4	8	Urdf. 1500 800 Unif. 25M	Unif. 6M 2M Unif. 2M	Unif. 12,500 15M Unif. 200	25,000 25,000 30,000 50,000 0	
₹1-281 ₹1-208 ₹1-203	6, 12, 13, 21	6 1 6 2	0 0 0 0	15M 2M	25M Unif. 60M 20M 250M	125M	100,000 200,000 250,000 500,000 1 Me	

All above controls except RI-204 are potentiometer type. Where rheostat is wanted use center and one outside terminal. Uniform controls in values to 5,000 ohms are wire wound.

Special Replacement Controls for PHILCO Receivers

Models 82, 86, 87, 511, 521, 531, 541, 551, 561, 571, 581, 10,000 oh m volume control. 24-016-

List. \$1.50. YOUR

PRICE

Philco Models

48, 51, 51A, 52 500 ohm vol-ume control.

73¢

51-076—List, \$1.00. 49¢

Phileo Model 95. volume control. 24-264-List, \$1.50. YOUR PRICE.....

500,000 73¢

Philco Models 20, 20A, 21, 37, 46, 46E, 70, 70A 90 (2-45), 20A (2-45), 22A, 27O, 47O, 47OA 5000 - 25O chm twin volume control. 74-579—List, \$1.90.

Models 22L, 47, 47-121, 47-221, 71-71-121, 71-125, Special 1 meg. Volume Control. 51-095--List, \$1.00. YOUR PRICE..... 49¢

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Special Replacement Controls for RCA-VICTOR-RADIOLA

7-25, 7-26X, 9-16X, R17 R-41 A C R50. R51AC

Special 2.000 ohm wire wound volume control Exactly duplicates the original electrical and nechanical specifications. Slightly different appearance. R1-401—L1st. \$1.50.

Radiola R44, R46AC, R47

Tapped volume control 1500+ R1-403—List, \$1.50. YOUR PRICE 79¢



1,200 ohm volume control.
RI-405 List, \$1.50. .79¢

Radiola Models R18AC, R18DC, R33AC, R33DC, R51AC, R51DC, 7-26 2.000 ohm volume control.

RI-402—List, \$1.50. 79¢



and electrical specifications to original part number 6019 physical appearance slightly different.
72-013—List, \$1.50.
YOUR PRICE 73¢

RCA Victor Models R15, RE 17, R42, R48, GE-T41 Graybar GB678

Westing-

Special twin volume control 50,000 ohms each section, Exactly replaces the original RCA Victor part 62940. 3E3080—List, \$3.00. \$1.18

PRICE



13.000 ohm volume control tapped at 3,000 ohms. Exactly replaces original part number RI-385—List, \$1,25. 66¢

Victor Models VV9-18X. VE9-54 Radiola R64,

9-54 2.000 ohm sensitivity control. RI-406—List, \$1.50. 79¢

YOUR PRICE Radiola Model R66

550 ohm volume control. RI-407—List, \$1.50. **79¢** YOUR PRICE **79¢**

Radiola Models R60 and R62 450 ohm volume control. R1-404—List, \$1.50. 79¢

Radiola Models RAE68, R80, R82, R86 4.000 ohm volume control complete

with spe-cial wire wound shunt resistor.
RI-381G—List, \$1.50.
YOUR PRICE 79¢

Victor Models RE34, RE35, RE39, RE57, RE73

Special twin volum 50,000-1,000 ohms. volume Identical part 62895. FB-336T—List, \$4.00.

PRICE \$2.10

RCA Victor Models R32, RE45, R52, RE75, R154, RE156



Special twin volume control. 3.800 ohms each section. An improved type, exactly replaces the original unit and will provide snoother, more satisfactory service. 3E308 i—List. \$2.50.

PRICE

Radiola Model

50.000 volume control. Duplicates e-lectrical specifi-

cations of officinal control.
RI-408—List, \$1.25. YOUR PRICE Value \$5.00.

Electric

\$2.45 This attractive sign will quickly pay for itself by the

4DIO735-YOUR PRICE

new business it will bring you. Just the thing for window or show ease. Substantial metal case, antique gold finished frame, glass panel with transparent red lettering against opaque black background. Two 6 Inch tubular bulbs inside case provide strong, evenly distributed illumination. Has attention compelling attractiveness either day or night. Closely resembles expensive neon sign in appearance. Overall size 143, in. long, 5½ in. high, 3½ in. deep. Complete with two 25 watt bulbs and 6 Ft. cord with plug.

A GENUINE NEON SIGN IS LISTED ON PAGE 16.

RADOLEK REPLACEMENT

MADOLLI	- 30		4				
Model Receiver	Resist. Ohms	Electrad Number	Your Price	Cen- tralab No.	Your Price	Radolek Control Number	Your Price
R. C. AVICTOR, INC.— RAE68, (Vol.) T5, RE16, RE16A, RE17,	Con't 50M	RI-205	50.59	72-103	\$0.61	3E3022	\$0.49
T5, RE16, RE16A, RE17, RE57, RAE68, (Phono.) R14, For 60 ey., (Vol.)	60 50M	RI-384	.66	48-050	.98		
R15, RE17, R42, R48, For 60 ey, (Vol.) R14, R42, (Tone)	10M 50M 50M	FB-228T	1.59	74-526	1.22	3E3122	1.04
R14, R42, (Tone) R16, 7-10, (Vol.)	22500 5	R1-280 R1-400	.59	62-111 48-006	.83		
RAE68, R80, R82, R86, (Vol.) RAE68, R80, R82, R86, (Tone) R42, For 60 cy., (Vol.)	4000 40M	R1-381G R1-205	.79 .59	72-109 72-117	.61 .61	3E3123 3E3022	.49
R42, For 60 cy., (Vol.) R47, (Tapped Vol.)	25M 10M 1500 +	FB-570T	1.59	=> +00		3E3124	
DP24 DP25 DF30 DF57	1400	R1-403	.79	72-108	.61	3E3124	_
RE73, (Tone) RE73, (Tone) RE73, R80, R82, R86, (Phono.) R80, R82, R86, Remote Con- trol Models, (Vol.) R44, R46AC, (Vol.)	2 Meg. 60	RG-489 R1-384	.79 .66	72-132 48-050	.61 .98		
trol Models, (Vol.) R44, R46AC, (Vol.)	3500 2900	R1-724 R1-403	.66 .79	72-109 72-108	.61 .61	3E3124	.49
R46DC, (Vol.) RE34, RE35, RE39, RE57,	50M (50M)	RI-408	.66	72-103	.61 1.22	3E3121 3E3125	1.04
RE73, (Vol.) RE35, RE39, RE57, (Remote	1000 3500 60	FB-336T RI-725T	2.10 1.32	74-524			
R60, R62, (Vol.) R66, (Vol.) R21, R22, (Vol.)	450 550 50M	RI-404 RI-407 RI-205	.79 .79 .59	72-118 72-118 72-103	.61 .61 .73	3E3021 3E3021 3E3022	.49 .49 .49
P31, (Vol.) R78, (Tone Tapped Twin Vol.)	1 Meg.	RI-206	.59	72-116	.61	3E3025	.49
	${6000 + \atop 600M}$			1220900	1.47		
R78A, RAE84, (Tone Tapped Vol.)	(6000 +)			1210902	.86		
R78, RAE84, (Tone) R78, RAE84, R90, (Q.A.V.C.	500M 4500	R1-203 R1-383G	.59	72-105 72-110	.61	3E3002	.49
Adj.) R90, (Treble Tone) R90, (Base Tone)	200M 4 Meg.	R1-281	.59	62-120 72-132	.83		
R90, (Base 10ne) SW3, R24, R71, R72, R74, R76, R77, RE81, (Vol.) SW3, R24, R71, R72, (Tone) R74, (Tone)	50M 50M 200M	RI-205 RI-205 RI-281	.59 .59 .59	62-103 72-103 62-121	.83 .61 .83	3E3022 3E3022	.49
	5000	RI-278 RI-203	.59	72-110 62-105	.61 .83	3E3033 3E3002	.49
R70, (Vol.) R70, R76, R77, RE81, (Tone) R71B, (Tone) R73, R75, RE80, (Vol.) R73, R75, RE80, (Tone)	500M 150M 10M	RI-281 RI-240	.59 .59	72-120 70-205	.61		.49
Riso, (Filonos)	10M 60	RI-240 RI-384	.59	70-205 48-050	.98	3E3004	
SWA, SW10, (Vol.) R43, (Vol.)	25M 50M	RI-280 RI-205 RI-205 RI-384	.59 .59	70-206 72-103 62-117	.61 .67 .83	3E3022 3E3022	.49
SWA, SW10, (Vol.) R43, (Vol.) R43, (Tone) CE29, (Vol.) CE29, (Tone) 8-60, 9-40, CE29, (Phono.)	50M 60 200M	It1-281	.66	48-050 62-121 72-100	.98 .83		.49
8-60, 9-40, CE29, (Phono.) R32, RE45, R52, RE75, RE-	10M	R I-240	.59				.89
R32, RE45, R52, RE75, RE- 154, RE156, (Vol.) R32, E35, RE45, R52, RE75, RE135, RE154, RE156, (Tone) E35, RE45, RE75, E135,	1 Meg.	R-1706T RI-863	1.05	74-600 72-116	1.22		
(Phono,)		RI-282	.59	72-118	.61		
R37, R38, (Tapped Vol.) R37, R38, (Tone)	500M + 250M 500M	RI-203	.59	1210901 62-105	.86		.49
R28, RE40, (Vol.)	(3000 +) 100Bi	RI-743PC	.92	62-108	.83	. 52022	40
RE40, (Phono.) RF45, (Phono.) RC98, (Vol.)	5000 500 3000	RI-278 RI-773 RG-783PC	.66	72-110 72-118 72-108	.61	3E3021 3E3124	.49 .49
R 100, 186, 100, (V 01.)	4000	RI-836P	.92	72-019	.73	3E3126	.62
RC104, (Vol.) R84, (Vol.) 75, (Vol.) 77, (Tone) M30, (Vol.) M30, (Vol.) M34, (Vol.)	4000 36M 2 Meg.	RI-782PC RI-861 RI-862	.66	72-103 72-132	.61	3E3121	
77, (Tone) M30, (Vol.)	1 Meg. 50M 1 Meg.	RI-863 RI-205 RI-206	.66 .59	72-103	.61	3E3022	.49
M34, (Vol.)	180M	RI-281	.59	62-120	.83		-
RC106, R240, (Vol.) RC106, R240, (Tone) RC112, R121, (Vol.)	250M 1 Meg. 250M	RI-916 RI-921P RI-917	.66 .92	ll .		1	1
RC106, R240, (Vol.) RC106, R240, (Tone) RC112, R121, (Vol.) RC112, R121, (Tone) RC122, R220, (Vol.) RC122, R220, (Tone)	100 M 250 M 100 M	RI-919P RI-918 RI-920P	.92 .66	1			
R. K. RADIO LABS. RKB4, RHC4, RKP4, (Vol.) RKS4, RHT4, (Vol.)	10M	RI-963PG	.92	52-205	.83	3 E 3 0 2 7	.49
RKS4, RHT4, (Vol.) Arkayola, (Vol.)	10M 500M	RI-964P0 RI-966P		62-100	.83		.6
SEARS ROEBUCK & CO. 1370, (Vol.)	15M	RI-573	.59	52-205	.8:	3 E 3 0 2	- 1
1430, 1580, 1582, 1584, 1590, 1592, 1630, (Vol.) 1320, 1322, 1324, 1390, 1400	15M (5000 +) li	.59	1		1	- 1
1370, (Vol.) 1430, 1580, 1582, 1584, 1590, 1592, 1630, (Vol.) 1320, 1322, 1324, 1390, 1400 1402, 1404, 1406, 1450, (Vol.) 1480, 1482, 1484, (Vol.)	150Bi 15M	RI-573	.59	99-006			
		DIVOC		72-10	5 .6	1 3E302	5 .4
1462, 1480, 1482, 1484, 1570 1572, 1574, 1580, 1582, 1584 1590, 1592, 1630, 1640, (Tone R4433, F, FF, G, J, K, (Vol.) 218, 1404, 1406, 1430, (Vol.)	500M 15M 15M +	RI-201	.59	70-20	5 .6	1 3E300	8 .4
218, (Tone)	50M	RI-573 RI-205	.55	99-00	6 .8 7 .6	3 3E302 1 3E302	
Sears Roebuck Con't on	next	p age		11		11	- '

VALUE CANTEAU CUINE

VOLUME	CU		K	DL	GI	DID	JR,
Model Receiver	Resist. Ohms	Electrad Number	You		Your Price	Radolek Control Number	Your
SEARS ROEBUCK—Con't H, Mentor, (Vol.) 110, (Vol.) 111, (Vol.) 111A, (Vol.) 112, (Vol.) 1620, 1622, (Fil.) 1703, 7064, (Vol.) 1704, 1706, 1707, 7070, 7071, 7072, 7	2000 \ 10M \ 4000 \ 15M \ 100M \ 15M \ 28 \ 250M	R-1812TP R1-277 R1-573 R1-242 R1-573 R1-270 RG-930P	.59 .59 .59 .59 .59	62-110 79-006 72-104 98-003 48-015 72-121	\$0.83 .61 .61 .98 .98	3E3027	50.49
1705, (Vol.) 1705, (Tone) 1708, 1709, 1720, 1725, 7065, (Vol.)	500M (500M 5000) 1 Meg. (500M 1000)	RG-929P RI-925TP RG-932 RI-926T	1.59 .66 1.32	72-106	.61		
1708, 1709, 1712, 1713, 1714, 1721, 1722, 1732, (Tone) 1710, (Vol.) 1711, 7090, (Vol.) 1714, (Vol.) 1721, 1722, 1732, (Vol.)	500M 35 35 1 Meg. { 500M } 1000	RG-928 RG-931 RG-933 RG-932 R1-924T	.66 .66 .66 .66	72-105 48-050 48-050 72-116	.61 .98 .98 .61	3E3028	.49
1725, 1750, (Tone) 1750, (Vol.) 7073, 7074, 7075, 7076, 7077, 7078, 7091, 7092, 7093, 7094, (Vol.)	500M 500M	RG-934P RG-928	.92	72-106 72-106	.61 .61	7	
SENTINEL RADIO CORP. 8, 9, (Vol.) 11, 12, 15, 16, (Vol.) 29, 30, (Vol.) 103, 104, (Vol.) 108, (Vol.) 99, 108A, 109, 110, 111, (Vol.)	12M 10M 10M 10M 100M 7M	RI-201 RI-242 RI-242 RI-242 RI-242 RI-560	.59 .59 .59 .59 .59	72-106 62-115 62-115 79-006 99-006 72-122 62-114	.83 .83 .61 .83 .61	3E3008 3E3069 3E3069 3E3011	.49 .49 .49
108B, 117, (Vol.) 20, 114, 118, 261, 106B, 108, 108A, 108B, 109, 110, 114, (Tone) 513, (Vol.)	10M 50M (10M +) 200Bil	RI-560 RI-205 RI-240 R1-233	.59 .59 .59	72-100 72-117 52-205 72-108	.61 .61 .83	3E3011 3E3022 3E3004 3E3026	.49
550, 560, 561, (Vol.) 614, (Vol.) 440, (Vol.) 106B, 444, 660, 666C, (Vol.)	(14750 + \ 250Bi 500M 10M 10M	RI-201 RI-203 RI-573 RI-201	.59 .59 .59	62-115 62-105 62-115 72-115	.83 .83 .83	3E3008 3E3002 3E3008	.49 .49 .49
1020, 1030, (Vol.) 1020, 1030, (Tone) 1020, 1030, (Q. A. V. C. AdJ.) K. 70, (Vol.) 106, 666, (Vol.)	500M 30M 10M 5000 800 10M	R1-203 R1-241 R1-240 R1-278 R1-275 R1-240	.59 .59 .59 .59 .59	62-105 72-117 72-113 52-204 72-107 72-113	.83 .61 .61 .83 .61	3E3002 3E3004 3E3033 3E3004	.49 .49 .49
SIMPLEX RADIO CO. D. (Vol.) 6A, 2d. P. (Vol.) FI. (Vol.) HI. (Vol.) HI. (Tone)	15M 500M 50M 3000 500M	RI-201 RG-726G RI-205 RI-205 RI-203	.59 .79 .59 .59	62-115 62-105 62-103 62-108 72-105	.83 .83 .83 .83	3E3008 3E3023 3E3022 3E3022 3E3002	.49 .49 .49 .49
J. (Vol.) K. N. (Vol.) R. (Vol.) 32 V. P. Bat. P. Q. (Vol.) T. W. (Vol.)	3500 8000 8350 8350 500M	RI-233 RI-283 RI-936PG RI-935P RI-938P	.59 .59 .92 .92	62-108 72-114 62-113 62-113 62-105	.83 .61 .83 .83	3E3026 3E3006 3E3023	.49
7, (Vol.) 62, 63, (Vol.) 5, 9, (Vol.) 9A, 410, 420AC, 420DC, 430,	15M 75M 15M (30M 50M 2200	RI-201 RI-202 RI-361P R-1717TP RI-360P	.59 .59 1.05	72-115 72-202 52-205 75-543 62-101	.61 .61 .83	3E3008 3E3003 3E3128	.49 .49
14, 34, 40, 54, (Vol.) 14, 54, (Tone) 14, 52, 56, (Tone) 14, (Q. A. V. C. Adj.) 16, 16AW, 18, 27A, (Vol.) 18, 27, 27A, (Q. A. V. C. Adj.)	250M 50M 50M 2500 10M 10M	RI-694 RI-205 RI-205 RI-233 RI-240 RI-240 RI-206	.66 .59 .59 .59 .59 .59	72-121 62-117 72-117 72-117 72-101 52-205 52-205 72-116	.61 .83 .61 .61 .83 .83	3E3022 3E3022 3E3026 3E3004 3E3004 3E3025	.49 .49 .49 .49 .49
27, (Vol.) 31, 32, 51, 53, (Vol.) 39, (Vol.) 69, 79A, 89, 301, 301DC, 589, (Vol.) 55, 99, 101, 109 DeLuxe,	500M 500M	RI-201 RI-203 RI-203 RI-357	.59 .59 .59	72-116 70-203 79-006	.61 .61	3E3008 3E3002 3E3002 3E3046	.49 .49 .49
55, 99, 101, 109 DeLuxe, 930, 931, 931DC, (Vol.) 110, 111, (Vol.) 600, 610, 620, 740, 750, (Vol.) 1st. 41, (Vol.) 2d. 41, (Vol.) 591, 593, (Vol.)	75M 15M 200M 30M	RI-357 RI-357 RI-635 RI-281 RI-241 RI-357	.66 .66 .59	70-206 70-202 70-202 72-131 30-010 70-202	.61 .61 .61 .73	3E3129 3E3124 3E3005	.49 .49
546DC, 570DC, 574, 600DC, 610DC, 820DC, 737, 740DC, 130, (Vol.) 89A, 103, (Vol.) 870, (Vol.)	15M 5000 15M	RI-655 RI-774 RI-655 RI-655	.66 .66 .66	79-006 72-110 70-202 75-543	.61 .61 .61 .61	3E3130 3E3130 3E3130 3E3130	.49
STEWART-WARNER 300, 310, 330, 335, 345, (Vol.) 305, 315, 320, 340, 350, 355, (Vol.) 360, 363, (Vol.) 360, 363, (Vol.) 500, 520, 525, 700, 705, 710, 806, 8068, (Vol.)	500 500 500 500	RI-274 RI-274 RI-274 RI-274	.59 .59 .59	79-006 72-118 70-204 72-118	.61 .61 .61	3E3131 3E3131 3E3131 3E3131	.49 .49 .49 .49
806, 806B, (Vol.) Stewart-Warner-Con't on	next pa	R I-202 ag e	.59	72-118	.61	3E3003	.49

New RADOLEK

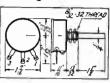
Replacement Volume Controls

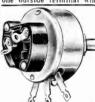
With Long Shafts—Insulated

Wire wound type up to 10,000 ohms. Carbon resistance type over 10.000 ohms. A new high quality series of replacement volume controls made for us by one of the oldest and foremost or the oldest and foremost convariable resistance manufacturers in the industry. Les Both whre wound and earbon types will safely dissipate 2 watts. Wire wound type precisely wound on fibre with

type precisely would on fibre with constant tension phosphor bronze spring contact. High resistant carbon type has ingeneously de-signed contact consisting of three tapered phosphor bronze fingers which contact the element directly to insure quiet operation and minimum wear. A phosphor bronze shoe rides on a separate brass segment terminating resistance to center lug. All controls are potentiometer type. Itse center and one outside terminal when theostat is required.







cover for plain cover. proved switch. 3E3450-

Control With Switch

C.H Underwriters' approved snap switch

List, \$1.75. YOUR PRICE

Snap-On Switch

Converts any Stand-ard Radolek control into switch type by substituting switch substituting switch C-H underwriters' ap-

List, 50c. YOUR PRICE..... Taper Curve Numbers Refer to Graph on Page 63, Circult Numbers Refer to Diagrams on Page 68,

Resist-		Number		Taper	
ance	Without		Тарег	Curve	Used in
Ohms	Switch	Switch		Number	Circuit Number
10	3E3451	3E34515	Unif.	1	1
20	3E3452	3E34525	Unif.	l i	l i
30	3E3453	3E34535		l i	1 1
50	3 E 3454	3E34545		l i i	l i
100	3E3455	3E34555		ì	i7
200	3 E 3456	3E34565	Unif.	i	l i7
400	252457	2524576	T714		0 17 00
400	3E3457 3E3458	3 E 3 4 5 7 S 3 E 3 4 5 8 S	Unif.		9, 17, 20
600			Unif.		9, 17, 20 9, 17, 20 9, 17, 20 9, 17, 20
800	3E3459	3 E 34595	Unif.	!	9, 17, 20
	3E3460	3E34605	Unif.	!!	9, 17, 20
2,000		3E34615	Unif.	! !	4, 9, 17, 19, 20
3,000	3E3462	3E34625	Unif.	I I	4, 9, 19, 20
4,000		3E34635	Unif.	1	4, 9, 19, 20
5,000	3E3464	3E34645	Unif.	1	4, 9, 19, 20
5,000		3E34655	I., JI.	5	4, 9, 19, 20
6,000	3E3466	3E34665	Unit.	1	4, 9, 19, 20 4, 19, 20
10,000	3E3467	3E34675	L. R.	5	1, 19, 20
10,000	3E3468	3E34685	Unif.	l l	4, 9, 10, 11, 19, 20
15,000	3E3469	3E34695	I. II.	3	5, 7, 8
20,000		3E34705	I. II.	3	5, 7, 8
25,000		3E34715	Unif.	ï	ได้ได้ใน
25,000		3E34725	L. H.	3	4, 10, 11 5, 7, 8 5, 7, 8
30,000		3E34735	L. H.	3 3	5 7 8
50,000		3E34745	Unif.	ĭ	4, 20
75.000	252475	2524756	D 11		0.0.10
75.000		3E34755	R. H.		2, 3, 18, 19
100,000		3E34765	L. H.	6	6, 12, 13, 15, 16, 21,
200,000		3E34775	Unif.	1 1	6 10 12 01
250,000		3E34785	L. H.	6	6, 12, 13, 21
500,000		3E34795	L. H.	6	6, 12, 13, 21
1,000,000	3E348U 1.	3E348US	La. 11.	6	12, 13, 21

Special Sparton Volume Controls

Models 9A, 410, 420AC, 420DC, 430, 750DC, 870, Junior, Jewell. Twin volume control 30,000-50,000 ohms.

1717TP-List, \$3.00. YOUR PRICE \$1.59



Sparton Models 55, 69, 79A, 89, 99, 101, 103, 109, DeLuxe, 110, 111, 301, D. C., 591, 593, 930, 931, 931 D. C. 50,000 ohn volume control. Thin shaft type, R1.357—List, \$1.25. 66¢ YOUR PRICE.....

Sparton Models 89A, 103, 564DC, 570DC, 574, 600, 600DC, 610, 610DC, 620, 620DC, 737, 740, 740DC, 750, 870, 15,000 ohm volume control. 66¢ **Special Stewart Warner Control**

66¢

Octave Tone Control And Static Suppressor

Frost Wire Wound Volume Controls

Very smooth wining contact made by high pressure self cleaning contact arm. Straight line resistance, no taper. Case 14" diam. 12" deep, switch type 1" deep 14" shaft 2" long.

Rheostats—Without Switch

Ohms	Stock Num.
6	3E3300
10	3E3301
20	3E3302
30	3E3303

Stock Number Less Switch

3E3312 3E3313

YOUR PRICE, 39C Each

3E3304

rols

Potentiometers								
Ohms	Stock Number With Switch							

3E3312 3E3313 3E3315 3E3317	PRICE 40c	400 2000 5000	31 31 31
Frost 70 V			
Compact carbon wiping contact, taper. Very has electro sta \$5", shaft 4"	Potentiome quiet operati	ter type. U ion, Switch Diam 114"	type
mounting.		1	

With Switch

	st Series
3E3353	59c
3E3348 3E3350	PRICE
3E3345 3E3346	List Ea. \$1.50
	3E3346 3E3347 3E3348 3E3350 3E3352 3E3353 3E3356

Controls

Carbon po-



3E3333 3E3334

Less Switch Ohnis |Stock Num.

tentiometer e. Bakelite type. Bakelite
case. Roller type
contact very
snooth and quiet.
Case diam. 1%".
long. 2"

Your Price Each	:.55c	69c
500,000	3E3390	3E3399
250,000		3E3398
100,000	3E3388	3E3397
75 000	3 E 3 3 8 7	3E3396
25,000	363302	3E3394
5,000	3E3382	3E3391
Ohms	Switch	Switch
	Less	I Wilb

Special Stromberg-

Temple Models

Stock

3E3320 3E3321 3E3322 3E3326 3E3327 3E3328

Ohms

1,000 2,000 3,000 50,000 75,000 100,000



\$1.25. 66¢

YOUR PRICE 10,000 ohm Vol. control with rear extension (Dbl. shaft.) R1-1437—List, \$1.00. 534

YOUR PRICE ... 534

Madels 641, 642, 652, 654
20,000 ohm Vol. Control with

long shaft.
R1-31—List, \$1.25.
YOUR PRICE 66¢

800 ohm Vol. Control with rear extension double shaft). R-1436—List, \$1.00. 53¢



\$1.47 PRICE United Bosch Models 28, 29.

250,000 ohm volume control
ume control
with special
threaded extended s h a f t,
Identical electrically and mechanically to original.

R-1747—List, \$1.75. 92¢

RADOLEK REPLACEMENT

e, Con- 7 phos-								
otates a hich in- circuit.	Model Receiver	Resist. Ohms	Electrad Number	Your Price	Cen- tralab No.	Your Price	Radolek Control Number	Your Price
quipment	STEWART-WARNER - Con't	75M	RI-203	\$0.59	70-202	\$0.61	3E3002	\$0.49
tube is ound. In	801, 801A, 801B, 802, 811A, 811B, (Vol.) 715, 720, (Vol.)	75M	R1-202	.59	70-202	.61	3E3003	.49
ractically		15M 10M	R1-201 R1-240	.59	72-115 72-114	.61 .61	3E3008 3E3004	.49 .49
gth 1½"	950 Bat., 950DC, 951 Bat., 951 DC, 952 Bat., 952DC, 953 Bat.,					Î		
2c	950 Bat., 950DC, 951 Bat., 951 DC, 952 Bat., 952DC, 953 Bat., 953DC, 970AC, 970DC, 971DC, 972, DC, 973DC, 980 Bat., R- 100C-DC, (Vol.)	[100M]						
7.0		1000	R-1759T	1.32	74-602	1.22	U	
İs	950AC, 951AC, 952AC, 953AC, 961,AC, 962AC, 963AC, (Vol.) 900, 901, 902, 903, 911, 912,	32M	RI-298	.66	30-010	.73	3E3132 3E3023	.56
010	913, (Vol.) R100A, R100B, R100E,	6000 32M	RI-202 RI-298	.66	28-031 30-010	.73	3E3132	.49
9	913, (Vol.) R100A, R100B, R100E, R100F, (Vol.) R100A, R100B, R100C, R100E, R100F, (Tone) R101A, R101B, Metropolitan,	60M	RI-201	.59	72-117	.61	3E3008	.49
1700		5000	RI-298	.66	72-110	.61	3E3132	.49
	R102A, R102B, R102E, (Vol.) R104A, R104B, R104E, (Vol.)	8500 400M	R1-283 R1-612	.59	62-105 62-105 72-117	.83	3E3006 3E3022	.49
T	R105, 50, 59, (Vol.) R106, (Vol.) R106, (Sens.)	60M 500M 8000	R1-205 RG-611P R1-560	.59 .92 .59	62-105 62-113	.61 .83	3E3011	.49
0	TRE THE IST THE VEST SECTION	250M	RI-208	.59	62-105	.83	3E3012	.49
	1st. 20, (Vol.) 2d. 108, 2d. 108X, 2d. 10, 2d. 20, (Vol.)	250M + 140Bi	R 1-208	50	62-105	.83	3E3012	.49
) vous	109, 1090, (VOL)	500M 500M	RI-203 RI-203	.59	62-106 62-106	.83	3E3002 3E3002	.49
PRICE	RIIO RIIOA. KIIUE. (VOL)	500M	R1-682P	.92	62-106	.83		
59 c	R111, R115, R1111, R1112, R1113, R1114, R1116, R1117, R1118, R1119, (Vol.)	500M 500M	RI-682P RI-939P	.92	62-105 62-106	.83		
	R118, R1119, (Vol.) R112 Auto, R1121 Auto, (Vol.) R116, R116A, R116AH, R116- AL, R116X, R116XH, R116-					li I		
	RITO RITOEF R1191, R1192.	500M	RI-203	.59	62-106	.83	3E3002	.49
	R1193, (Vol.) R120, R120A, 1201, (Vol.) R120EF, 1209, (Vol.)	500M 500M 500M	RI-203 RI-203 RI-203	.59 .59	62-106 72-106 62-106	.83 .61 .83	3E3002 3E3002 3E3002	.49 .49 49
	CTROMPERC-CARLSON	50000	11-200					
1.1	635, 636, 638, (Short Shaft) (Double Shaft)	{10000 }	RI-32 R-1437 RI-31	.66	72-161 72-162	.73	3E3133 3E3136 3E3134	.62
80	635, 636, 638, (Short Shaft) (Double Shaft) 641, 642, 652, 654, (Long Shaft) (Double Shaft)	${20000 \atop 800}$	R-1436	.66	72-159 72-160	.73 .73	3E3135	.49 .45
S1.00 YOUR	TEMPLE 8-61, 8-81, 8-91, 5-55, (Vol.)	/ 15M \						
PRICE		(500M /	R-1618T	1.32	74-515	1.47	3E3137	1.10
40c	TRANSFORMER CORP. OF AMER. 51, 53, 60, 60 Jr., 25-60, (Vol.)	25M	RI-205	.59	62-111	.83	3E3022	.49
t	51, 53, 60, 60 Jr., 25-60, (Vol.) 55, 56, (Vol.) 40, (Vol.)	25M 4100 +	RI-205	.59	51-005	.73	3E3022	.49
neters		120BI 12M	RI-234 RI-201	.59 .59	55-004 79-006	.98	3E3032 3E3008	.49
aft insu-	61, 70, (Vol.) 80, 25-80, 81, 25-81, 84, 25-84, 85, 25-85, (Vol.)	10500	R1-283	.59	72-114	.61	3E3006	.49
ed to with-		75M	RI-202	.59	79-006	.61	3E3003	.49
Uniform	90, 90A, 91, 92, 94, 94-20, 95, (Vol.) 90, 90A, 91, 92 (Tone)	435 12M	R1-274 R1-573	.59 .59	62-118 62-113 62-114	.83	3E3131 3E3027	.49
relite case 7": ¼" %" hole	83. (Vol.) 90. 90A. 91, 92, 94, 94-25, 95, (Vol.) 90, 90A. 91, 92, (Tone) 94, 25-94, 95, (Tone) 120, 121, 139, (Vol.)	12M 10500	R1-283 R1-573	.59	62-114 70-205	.83	3E3006 3E3027	.49
e %a″ note nt.	120 121, 139, 160, 25-160 (Tone)	100M	RI-242 RI-276	.59	62-114	.83	3E 3069	.49
	1349, (Vol.) 300, 320, (Vol.)	1000 10500 500M	R1-573 R1-203	.59	62-107 306-001 72-105	.86	3E3027 3E3002	.49
	300, 320, (Vol.) 300, (Q. A. V. C. Adl.) 420, (Vol.) 422, (Vol.)	500M 20M	RI-790P RI-791P	.92	62-105 62-119	.83		
YOUR	422, (Vol.) 470, (Vol.)	750M	RI-785	.66		-	ļ	-
49c	UNITED AMERICAN BOSCH CORP.		į		H		1	
	20L, 31, 32, Essex 4, (Vol.)	10M 10M	RG-493P RG-493P	.92	72-114 62-114	.61	3E3071 3E3138	.49
ale I	BOSCH CORP. 4, AC5, 7, 74, 7C, 20, 201, 20K, 20L, 31, 32, Essex 4, (Vol.) 36, 37, (Vol.) 73, 74, (Vol.) 20, 201, 20K, 20L, 60, 60D, 60E, 61, 62C, 62DC, 63DC, (Tone)	10M	RG-493P	.92	62-100 72-105	.61	3E3127 3E3002	.69
els	61, 62C, 62DC, 63DC, (10ne)	500M 500M	RI-203	.59	72-105	.61	3E3002	.49
	28, 29, (Vol.) 226, 242, 243, (Tone)	500M 500M	R-1747 RI-203	.92 .59	72-207 70-203	1.22	3E3139 3E3002	.49
Hel	10, 40, 41, 91, 92, (Vol.) 28, 29, (Vol.) 226, 242, 243, (Tone) 73, 74, (Tone) 5A, 5B, 205, 205B, 305A.	50M 10M	RI-205 RI-409P	1.05	72-117 99-006	.61	3E3022	.49
0	200, 201, 206, 210, 211, 224, 236, 237, 242, 243, (Vol.) 226, 250, 251, 312, 313, (Vol.) 226, 251, 2727, Tanged Vol.)	10M	RI-240	.59	70-205	.61	3E3004	.49
-	226, 250, 251, 312, 313, (Vol.) 260, 261, (Tone Tapped Vol.)	500M	RI-203	.59	72-105	.61	3E3002	.49
,		1100M	/RI-203	.59	99-006	.83	3E3002	.49
	U. S. RADIO & TELE- VISION CORP.	8000	R I-240	.59	72-113	.61	3E3004	.49
1.47	2d. 27, 2d. 27P, (Vol.)	8000 500M	RG-678P	1 .92	99-006 72-105	.83	3E3140	.69
h 5 28, 29.	7, 7A, 7B, (Q. A. V. C. Adj.) 8, 8A, 8B, 10, 10C, 1000.	200M	RI-281	.59	72-120	.61		
ohm vol-	U. S. RADIO & TELE- VISION CORP. 5A, 7D, 25, 25A, 540, 700, (Vol. 2d, 27, 2d, 27P, (Vol.) 7, 7A, 7B, 69, 906, (Vol.) 8, 8A, 8B, 10, 10C, 1000, 1001, (Vol.) 7D, 700, 10C, 1000, 1001, (Tone	1 Meg. 200M	RI-206 RI-281	.59	72-116 72-131	.61 .61	3E3025	.49
special	9, 12, 12B, 19, 120, 120B, 900,	200M	R1-281	.59	72-131	1		
s h a f t, electric- mechan-	9, 12, 12B, 19, 120, 120B, 900, 902, 1006, 1007, 1200, (Vol.) 9, 19, 900, 902, (Q. A. V. C. Adj. 9, 1st. 12B, 190, 902, 1st. 120B, 190, 902, 1st. 120B, 190, 190, 190, 181, 120B, 190, 190, 190, 190, 190, 181, 120B, 190, 190, 190, 190, 190, 190, 190, 190	.) 8000	R1-560	.59	72-114	.61	3E3011	.49
original.	(Tone)	100M		. 59	72-122	.61	3E3069	.49
.92¢	U. S. Radio & Television - World Radio History	- Cou.to	n∥ next pag	-	11		d	
							**	-

VOLUME CONTROL GUIDE

			_				
Model Receiver	Resist. Ohms	Electrad Number	Your Price	Cen- tralab No.	Your Price	Radolek Control Number	Your
U. S. RADIO—Con't 2D. 12, 2D. 12B, 2D. 120, 2D. 120B, 2D. 12pp, (Vol. Tone Tapped) 2D. 12, 2D. 12B, 28, 29, 31, 31 Remote, 32, 32A, 32B, 48W, 2D. 120, 2D. 120B, 482, 2D.	(500M +	RI-203	\$0.59	72-105	\$0.61	3E3002	\$0.49
1200, (Tone)	500M	RI-203	.59	72-105	.61	3E3002	.49
24, 36, 37, 50, 60, 90, 160, 400, (Vol.) Case 80, Case 81, Case 81B, Case 81C, 250, 506, 3040, 3056, (Vol.)	5M 20M	RI-278 RI-201	.59	70-204 72-100	.61 .61	3E3033 3E3008	.49
1st. 27, 1st. 27P, (Vol.) 29, (Vol.) 31, 31 Remote, (Vol.) 30 Auto, 32, 32A, 32B, 33DC, 49 Auto, (Vol.)	1000 8000 8000	RI-276 RI-560 RI-560	.59 .59 .59	62-107 79-006 52-205	.83 -61 .83	3E3011 3E3011	.49
	10M	RI-560	.59	72-115	.61	3E3011	.49
11, 11A, 14, 14A, 28, 41, 42, 43, 44, 46, 46A, 47, 47A, 48, 48A, 48W, 482, (Vol.) 1006, 1007, (Tone) 1010, (Vol.) 1010, (Tone)	400 8000 50M 500M 250M	RI-274 RI-560 RI-205 RI-203 RI-208	.59 .59 .59 .59	72-118 72-113 72-117 62-105 72-121	.61 .61 .61 .83	3E3031 3E3011 3E3022 3E3002 3E3012	.49 .49 .49 .49
WELLS GARDNER WG24, 291, CG, 9 in Line (new) (Vol) 9 in Line (old)	{ 15M \ 500M \ 15000	R1-232	.59	74-509 78-005	1.47	3E3141 3E3142	.73 .49
ZENITH RADIO CORP. ZE3, (Vol.) 35APX, 35PX, 37A, 341, 342, 342P, 352, 352A, 352APX, 352- PX, 362, 362X, (Vol.)	1000	RI-276	.59	72-107	.61		
PX, 362, 362X, (Vol.)	100M	RI-771P	.59	62-104	.83	3E3022	.49
27, 39, 39A, 40A, 392, 392A, (Vol.) 41, 42, 422, (Vol.) 52, 53, 54, 55, 57, 522, 532, 542, (Vol.) 60, 61, 62, 64, 67, (Vol.) 602, 612, 622, 642, 672, (Vol.)	100M 100M 100M 100M	RI-771P RI-771P RG-971P RG-9711	.92 .92 .92	62-104 62-104 62-042 62-104	.83 .83 .98 .83	3E3143	.79
		R1-205	.59	62-104	.83	3E3022	.49
70, 71, 72, 73, 77, 712, 722, 732, 777, (Vol.) 80, 81, 82, 89, 822, 892, Hypermetron, 10, 11, 12, 102, 112, 122, (Vol.)	(11500) (110M)	R-1434TP		75-614	1.47	3E3144	.49
20 21 22 20 202 200	50M	R-205P	.92	62-042	.98	3E3145	.79
90, 61, 62, 69, 622, 692, Hypermetron, (Tone) 1st. 91, 1st. 92, 1st. 912, 1st. 922, 1st. 103, 1st. 2017, 500, 501, 503, 514, 515, 516, 600, 604, 610, 616, 618, 2037, (Vol.)	50M1	RI-205	.59	72-104	.61	3E3022	.49
	250M 50M	RI-705P RI-205	.92	62-121 72-104	.61	2E2022	49
91, 92, 912, 922, (Tone) 2d. & 3d. Models of 91, 92, 912, 922, 103, 2014, (Vol.) 103, 2014, (Tone) AH, CH, RH, Zenette 8, (Vol.) AH, CH, RH, Zenette 8, (Tone)	250M 500M 10M 1 Meg.	RG-706P RI-206 RI-729P RI-206	.59 .59 .92 .59	72-104 62-121 70-203 52-105 72-116	.61 .83 .61 .83	3E3022 3E3025 3E3025	.49 .49
	11M	RI-573	.59	52-205	.83	3E3027	.49
BH, 2018, 2021, (Vol.) LH, MH, WH, 210, 210-5, 211-5, 220, 221, 250, 260, 270-5, 272, 2022, 2024, 2031, (Vol.) LP, (Vol.)	10M 10M	RI-201 RI-573	.59	52-205 52-205	.83	3E3008 3E3027	.49
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_	10M	R1-283	.59	62-100	.61	3E3022 3E3006	.49
2009C, Zenette 5, (Vol.) 103, 1017, (Tone) 2d. & 3d. 103, 2d. & 3d. 2017, (Vol.) 230, 240, 245, 500, 501, 503, 514, 515, 516, 600, 604, 606, 610, 618	50M	Ri-205	.59	72-117 75-503	1.47	3E3022	.49
618, 2037, (Vol.)	500M	RI-203	.59	62-106	.83	3E3002	.49
230, 240, 245, 410, 411, 420, 430, 440, (Tone) 410, 411, 420, 430, 440, (Tone Tapped Voi.) 563D. C., (Vol.) 701, (Vol.)	50M {3000+} 10M }	RI-205 RI-385	.59	72-117	.61	3E3022	.49
563D. C., (Vol.) 701, (Vol.)	50M 500M	R1-205 R1-203	.59	62-103 62-106	.83	3E3022 3E3002	.49
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2001	W// 1.2	Itt oil		12-101	.04		_

Minge	et Po	tentiom	eter	Mi	dget	Rheoste	at .
Stock Number	Ohms	Stock Number	Ohms	Stock Number	Ohms	Stock Number	Ohms
3C3413 3C3414 3C3415 3C3416 3C3417	6 10 15 20 200	3C3418 3C3419 3C3420 3C3421	400 500 1000 1500	3 C 3 4 0 5 3 C 3 4 0 6	3 6 10 15	3C3407 3C3408 3C3409 3C3410 3C3411 3C3412	20 25 30 40 50 75

Type M Dissipate 1 Watt

Rhoostat Rheosta. Diam. 1-16". l'oten-tionieter diam. 1½ panel ¼"

n. 1½". Projects back of 1 ½". Mounts in single hole on panels not over ½". ½" dlam. Shot

RADOLEK Heavy Duty Replacement Volume Controls

New Fused Carbon Resistance Carries 5 Watts at Any Setting

Used by I e a d in g Set
Manufacturers. Especially
adapted for use in circults where current dissipation is sufficiently
ordinary types of Volume Controls. Will carry
5 watts continuously with arm set at any point
of resistor segment. This is nearly 5 times the
capacity of the conventional control.
Solid moulded resistor element of bakelitecarbon mixture, formed by baking under terrific pressure. Silding
disc contactor of nickel-chrome steel provides perfect low resistance
contact to elements. Dustproof rustless steel housing on genulne bases
see steel housing on genulne bases
see steel housing on genulne bases steel housing on genulne bases
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SHAFT = TEMPERED STEEL

contact to elements. Dustproof rust-less steel housing on genuine bake-lite frame. Tinned soldering lugs. Dimensions: diameter, 1½", depth back of panel, ¾". Single ¾" hole mounting. Threaded shand ¾". Standard ¾" steel shaft 3" long. Switch model has Approved AC Switch C-H underwriters

C snap switch mounted on back Switch capa-125 V., 3/2 approved AC cover-plate. Seity 2 Amp. Amp. 250 V.

Less Switch With Switch List, \$1.75. YOUR 2c | List. \$2.25. 58c | PRICE 58c

Taper | Taper | (See | Curve | Num. Number Number Used in Circuit Number Resist with Switch Switch (See page 68) 3E-3500 3E-3501 3E-3502 3E-3503 3E-3504 3E-3520 3E-3521 3E-3522 3E-3523 3E-3524 3E-3525 9, 17, 20 9, 17, 20 9, 17, 20 4, 9, 19, 20 5, 7, 8 5, 7, 8 IInif. 1 000 5,000 10,000 10,000 L. H. R. H. 3E-3505 3E-3526 3E-3527 3E-3528 3E-3529 3E-3506 3E-3507 3E-3508 3E-3509 Unif. Unif. Unif. 4, 9, 10, 11, 19, 20 4, 19, 20 14 10 000 500 000 3E-3530 Frost Dual Centralab



High quality tandem units

Controls

Controls two separate insulated cirraters. Bakelite case diam. 1337 denth 147 147 147 shaft. 27 long. Single 367 mtg. Without

switch.	, s. o , a meg.	** ICHOUL
Stock Number	Panel Unit Ohms	Second Unit Ohms
E-3331 E-3332	10,000 10,000	50,000 25,000

YOUR PRICE, EACH

Controls Special value. 3000 ohm Radi-ohm two terminal type. diam., 4" shaft 1 inch long. Single %" ntg.
3E3095— YOUR PRICE

18¢ Frost **Potentiometer** 12.500 ohm. Rol-

Volume

shaft ½ in, long, Single %" 79¢ 3E3098-Your Price 39¢



Special Kennedy Dual Control

Models 12 S G and 20 (Above Serial
15,000) and Late Model 20B
Exact Centralab Replacement
Identical to the original control. Has
10,000 ohm section for antenna shunt and
50,000 ohm section for grid bias control. Long 3E3099-List, \$3.00. YOUR SPECIAL PRICE 49¢

U. S. Radio and Television Corp. Replacement Volume Controls

For Late Model Gloritone 27 and 27P
Special 8000 ohm volume control with switch.
Improved type—electrically identical to original—will give more satisfactory service.
R6678P—bits, \$1.75. 92¢ YOUR PRICE.



Special Zenith Controls For

Models 52, 53, 54, 55, 56, 56, 60, 60, 61, 62, 64, 67, 522, 532, 542

Improved 5,000 ohm volume control. Complete with wiring diagram of new circuit arrangement to provide smoother control action as suggested by the manufacturer.

RG971-P—List, \$1.75. 92¢

YOUR PRICE. Zenith Models 70, 71, 72, 73, 77, 712, 722, 732, 777

Improved dual volume control 11.500 ohms. 110.000 ohms. Same electrical characteristics as original unit—designed to give improved service.

R1.1434TP—List, \$3.00.



\$1.59 YOUR PRICE.....

thick.

14" dlam. Shaft ex No knob included.

Exact Duplicate Replacement Condensers

Paper Foil Type Unless Otherwise Specified

ATWATER KENT Condenser Blocks



37 and 38 Including P5100 YOUR \$169

Contains 3 mfd, filter block and 3 chokes, two high voltage filter chokes and one speaker choke. Six color coded insulated 6" leads and ground terminal. Size 5x11gx31g".

Part No. 9575 for Battery Set .25 mfd. bypass condenser 1½x3½. Two leads. P5180-List. \$1.25. 71¢ YOUR PRICE

Part No. 9497 for Models 37, 38, 39, 40, 42, 46, 52 25.25.25 mtd. bypass condenser size 332% x½. Three leads. P5497—List, \$1.50.

YOUR PRICE ... Part No. 14097 for Models 55, 55C, 55F 25 mfd. bypass condenser size 3½x Ττοο lug terminals. 71C

YOUR PRICE Part No. 16318 .35 mfd. bypass size 3½x1½x½. Two lug terminals. P2757—List, \$1.15.

YOUR PRICE Bypass for Model 35 2 mfd. bypass size 3½x1½x½. One insulated flexible lead. .71¢ YOUR PRICE

EVEREADY Model 50 AC

Part No. 2832 P5698-List. \$1.75.



25-.25-.25 mfd. bypass condenser, Will exactly replace part number 2832 in Model 50 AC-Size 2x2xl inch. Three lug terminals

PHILCO Filter Condenser



Model 87 Part 3401 P7237-YOUR PRICE

Exact dupli-

cate of ori-ginal part safety. Has with greater margin of safety. Has 8 sections as follows: 1-.01 Mfd. 600 V. 1-1 Mfd. 400 V. 1-2. Mfd. 200 V. 1-1. Mfd. 200 V., 1-1. Mfd. 400 V. 2-2. Mfd. 600 V., and 1-.1 Mfd. 600 V. tectangular metal con-tainer 5 dx 4 4 x 2 3. Mounting centers

Philco Midget Electrolytic

Part No. 10709 8 mfd. 350 working volts rectangular with mounting Size 314 x13g x 76 Drawn rectangular metal container with mounting flange. Size 3 ½ x1 ½ x 7½ inches. Mounting centers 1½". Three insulated 11" flexible leads, color coded.
3E9000—List, \$1.45.



YOUR PRICE .. **FADA Filter Condenser** Models



70.78 Duplicates the original Part No. 1492 MS. Total Capacity. P1492MS List. \$9.00

\$3.15

MAJESTIC Filter Condensers

2000 Models **7P6** 8P6 9P6

Exact duplicate Majestic replacement condenser blocks. Built to the original specifications they fit exactly and will give better service due to increased safety factors. All terminals

plainly marked.

Part No. 7
Total 9 mfd. Part No. 7P6 for Model 70
Total 9 mfd. Five lug terminals.
Container 9xix234 inches.
7P6—List. \$9.00.

\$1.90 YOUR PRICE Part No. 8P6 for Model 180 Chassis 8P3 and 8P6 Power Packs

Total 9 mfd. Six lug terminals. Container 9x4x21/4 inche
8P6—List, \$12.00.
YOUR PRICE inches.

Part No. 9P6 for Model 90 Power Packs

Total 7 mfd. Six lug terminals. Container 9x1x24 inches.

9P6—List, \$9.00. \$1.90 YOUR PRICE ...

Majestic By-Pass

350 D. C. WOLKING AGIES
Part 5047-05 mfd. bypass 1%x%x%.
P1382—List. \$0.50. YOUR PRICE 28¢
Part 5049-4 mfd. bypass, 1%x1x%.
P1398—List. \$0.65.
YOUR PRICE
Part 50506 mfd. bypass. 2x1%x1.
P1393—List. \$0.85.
Part 51402 mfd. hypass, 1%x1x%.
P1394—List, \$0.55.
YOUR PRICE
Part 5230-01 mfd. bypass, 2x 16.
P1406—List. \$0.20.
YOUR PRICE
Part 5231-005 mifd. bypass, 2x %.
P1405—List, \$0.20.
YOUR PRICE
Part 5233-1 mfd. bypass, 2x14.
P1409-List, \$0.20.
Part 5234-1 mfd. bypass, 2x 1/4.

YOUR PRICE Majestic Replacement

Part 5236—.02 mfd. hypass, 2x H.
P1408—List, \$0.20.

Part 5236—.02 mfd. hypass, 2x H.
P1407—List, \$0.20.

Electrolytic Part No. 10662

6-8 mfd. 450 W.V. Cardboard Container 4½x1½x1. Three lug terminals. Exact duplicate of the dusection used in the late Majestic. 3E9001—List, \$1.50. 88¢ YOUR PRICE

Majestic Pirate Chest

Models 380-381 Part No. 8755



11¢

1-8 mfd. 450 W.V. electrolytic condenser. Cardboard container 4%x1%x 1.3. Four lug terminals, 3E9002—List, \$1.35. YOUR PRICE

Majestic Electrolytic Replacement

6-8 mfd. 450 W.V. Round aluminum container. Inverted stud mounting; container neg. Mounts in single ¾" hole. Large lock nut clamps securely to chassis. Container 1%x14%. Two 10" insulated flexible Jeads.
3E9003—List, \$1.55.
YOUR PRICE

CROSLEY Replacements

Midget Electrolytic Travette 95, 163 art W25857B

Crosley Fiver 148, 167, 187

Two section 6 mfd. 300 volts—8 mfd. 25 volts. Cardboard container 24x 25 volts. Cardboard contains 11%x1%. Three lug terminals 3E9005—List, \$1.10. YOUR PRICE

Crosley Travette and **Dual Travette**

a second

Part W26870A 6 mfd. 25 volts. Card-board container 2½x 34x¾. Two lug terminals

3E9006-List, \$0.60. YOUR PRICE Crosley Models

163, 400, 402 Part W28068

12 mfd. 200 volts.
Cardboard container
21/4 x1 1/6 x1 1/6. Two lug to
3E9007—List, \$0.95. Two lug terminals YOUR PRICE

Crosley Model 167, 169 Part W29150A

Electrolytic Lectrolytic
Triple section 7 mfd. 450
W.V.—6 mfd.—400 W.V. 8
mfd.—25 W.V. Inverted
aluminum container. stu d
mounting for single %"
hole. Container common negstree. Size 4%x1%. Three
lug terminal.
339008—Liet ct no 39008—List, \$1.90.

PRICE ______\$1.12

Part W30419

Dual section electrolytic 8 mfd. 250 W.V.—8 mfd. 25 W.V. Inverted aluminum container, stud mounting for single %" hole. Container insulated. Size 314,8136. Two positive lug terminals; one common negative lug terminals; terminal

3E9009-List, \$1.10. 31.10. 65¢ YOUR PRICE

U. S. Radio & Television Filter

PART No. 733 for Model 41 Receiver Total capacity 4.5 mfd. 4 insulated color coded 12" leads. Dimensions: height 5", width 218" depth 2½". 4 mounting bolts at bottom, ½" bottom, %"
or 1%"x1%"

bolts at bottom. ½"
long for 1%"x1%"
mounting hole centers.
P733— YOUR PRICE

\$1.95

U. S. Radio Apex Model 37 Part 854

5.5 mfd. filter condenser size 5x3½x2. Eight lug terminals. Exactly duplicates the original condenser blockbuilt with a greater safety factor. P4322—List, \$5.00. \$2.82

U. S. Radio Model 26 Apex Gloritone Part 2235

Special multiple section bypass, 1-1-4-4-4-4-A Size 4½x214x8. Exact duplicate of the original part. Eight insulated flexible leads and one lug

P7530 List, \$3.00. YOUR PRICE

U. S. Radio and Television Models 46, 47—Part No. 975
Total capacity 5.6 mfd. 5 insulated color coded 12" leads. Appearance and dimensions exactly the same as the above filter condenser.

91c P975— YOUR PRICE \$1.75

Crosley Part B30017

Dual section 4-8 mfd. electrolytic condenser. Round Dual section 4-8 mid. elec-trolytic condenser. Round aluminum container. Insu-lated. Size 44x1%. Com-plete with mounting ring. Two positive lug terminals; common negative lug

3E9010—List, \$1.45.

PRICE

Crosley Paper and Foil Replacement Condensers

Model 77 Part W20446 .1-.5-.1 filter size 2x2x1 28". Three lug terminals. P5754—List, \$1.50. YOUR PRICE

Part W7753 Model 54 Model 34 Fart W//33 1-.5-.1 Bypass size 2x2x12.". Three lug terminals.

Three lug terminals. P5896—List, \$1.25.

Part W5496-.1 Bypass 11/2 x %". Two terminals. P5898—List, \$0.50.

Part W20186-..25-.3-.25 Bypass 2x

Part W23736-.25-.5-.25 Bypass 21/4 x

2x%". Four lug terminals. 75¢

SPARTON FilterCondenser Blocks

Constructed to duplicate the specifications of the original blocks. Equal or superior to the original units. Wherever possible, the safe-

possible, the safety margins have
been increased.

AC62—(Illustrated) for receivers
AC62. AC7 and AC63. Total capacity
9 mfd. 7 color coded 15" leads. Dimensions: Leneth 7", width 3½",
depth 2½". Mounting screws are
½x½z" for 6½x2" mounting bole
centers centers

YOUR PRICE

P79A—For models AC69A, 79A, 89, and 78A. Total capacity 71/10 mfd. 8 color coded 10" leads. Dimensions: 5%" high, 35" wide, 24" d-cp. 21/2" mounting hole centers. PRICE\$2.95

P7290 For Sparton Model 930 Receivers. Total capacity 6.1 mfd. 5 insulated color coded ledas. Dimensions 51/4" high, 31/4" wide, 21/2"

YOUR PRICE

Sparton By-Pass

Exact replacement for Sparton receivers-2% long-1%" diamete long—1%" unamed.
Bracket on end for %2
screw. Mounting lug with
alot at side. Fibre case diameter. screw. Mounting lug with slot at side. Fibre case with hermetically sealed ends. Paper and foil typo. 1928-31 models. foil

Stock Price Each Mid. Number 3E5290 3E5291 3E5292 .25 26c \$2.46

Exact Duplicate Replacement Electrolytic Condensers for Midget Sets



Part Num. 6487, for Victor Models 37, 38, 120, 220; Gen-Elec., K63.
An exact duplicate of the original in electrical and physical specifications. 4-4 mifd., 350 volts; 10 mid., 150 volts; 4 mid., 25 volts. Cardboard container 3% "x1%" x1%" with mounting flange. 3 leads, 2 lugs.
3E9012—List, \$3.10. nifd... 25

YOUR PRICE ..

Part Num. 7589, for Victor 28, Models 28, 110, 111, 115; G-E Models K52, K53, K58.

3E9013-List. \$1.75 Your Price \$1.03



Greater safety factor than the original. Will stand up. 4 mfd., 150 V.; 4 mfd., 450 v. Cardboard container with mounting tabs. 3%x1½x1"

Part Num. 6518, for Victor Models 22W, 22S; G-E Models L50, L5



Six inch flexible leads, color coded same as original. 8 Mfd., 250 V.; Cardboard container with mounting tab. 33 "x1½" x1½".

Part Num. 6511 RCA Victor 22W, 22S G-E Models L50, L51 3E9015—Llst, \$1.60. YOUR PRICE 94¢

10-8 mfd. 35 v. 4 mfd. 250 v. Cardboard container 3%x1 ax1 b in. Single mounting tab. Five inch color coded flexible leads. Insulated.

Part Num. 3538 RCA Victor

17M, 18W, 27 G-E Model K40A

3E9016-List. \$1.00. Your Price 59¢



4-4 mfd. 140 volts. Tubular board container. 214x1 in. Tubular Bare flexible leads.

Part Num. 6513 (old Num. 3536) RCA Victor 17M, 18W 27 General Electric K40A 18W, 3E9017-List, 75c.

leads.

Part Num. 66143, for RCA Victor Model R28P

3E9018-YOUR PRICE



4 mfd. 150 v. 4 mfd. 150 v. 4 mfd. 300 v. Cardboard container, 3%x1½x1½ in. with mounting tabs. Lug terminals. heard

RCA Victor Part Num. 10711 3E9019—List 95c. YOUR PRICE 56¢ PRICE 4-4 mfd., 250 w.v. Rectangular eardboard

1 to. Lug Terminals. RCA Victor Part Num. 66140 3E9020 List. \$1.55. YOUR PRICE 91¢

container.

238x1 Ax

4-4 mfd., 175 w.v. Tubular carboard container, #8x3½ in long. Flexible bare wire leads. Used in a number of RCA Victor A.C.-D.C. and compact

RCA Victor Part Num. 66140-2 RCA Victor Part Num. 66140-2 5-5 mfd. 35 w.v. Tubular cardboard container \(\frac{1}{2}\)x2\(\frac{1}{2}\) in. long. Flexible bare wire leads. 3E902:—List Price, \$1.15. 67¢

Gillfillian Part Num. 10267

3E9031-List. \$1.35. PRICE. 79¢ YOUR



16-8 mfd. 150 working volts. Card-board container with mounting tabs. 4x2x1 inch.

Part Num. A407, for International Kadette Standard Model 3F9022-List. \$1.00. YOUR Vour PRICE.. 59¢

3E9023-Your Price 44¢ 5-5 mfd. 35 volt.

5-5 mfd. 35 volt. Cardboard container. Color coded flexible insulated leads. Exactly duplicates the original part. Part Num. A424, for International Kadette Models A and B

3E9024— List. \$2,10. Your Price \$1.23

4-10-10 mfd.-175 v. Cardboard container 3%x1¼x1 in. flexible insulated leads. Color coded

Kadette Part Num. 10627

10627
3-3 mfd. 100 w.v., 3 mfd.
15 w.v. Carboard container
2½x1½x5, in. Color Coded
flexible insulated 12" leads,
3E9025—List Price, 95c, 3E9025—List Price.

PRICE 56¢ International Kadette Part

Num. A427 3E9026-List Price, \$1.20. YOUR PRICE 70¢ 3.5—3.5 mfd. 100 v.; 3.5 mfd. 25 v. Cardboard con-tainer 2x1 ax in. Four color coded 5 inch flexible

color coded 5 inch insulated wire leads. Part Num. HC31 for Emerson Models 20A, 25, 25A, 3E9027—

3E9027— List, \$1.00. Your Price 59¢

4-4 mfd. 200 volts. Cardboard container with single mounting tab.
Three flexible insulated wire leads

color coded.

Part Num. HC32 for Emerson
Models 20A, 25, 25A
5-5 mfd. 35 volts. Cardboard container with single mounting tab.
Three insulated flexible leads. color
coded

3E9028 List, 75c. YOUR PRICE 44¢

Part Num. KC68 for Emerson Model 250W 4-8-16 mfd. 175 volts.

3E9035 List List, \$1.80. \$1.06



8-8-8 mfd, 200 work-ing volts. Exact duplis-8-8 mfd. 200 working volts. Exact duplicate of the criginal with high peak rating for greater safety.

for greater safety.

Moisture proof cardboard container 4x34x1½ in. with
mounting lugs identical to the original
unit. Six insulated flexible color coded leads.

Colonial Model R9181 3E9030-I.ist. \$1.00. YOUR PRICE. 59¢ 16 mfd. 150 working volts.

cardboard container meh with Seven Inch-Tubular with center strap mo inch insulated flexible mounting.



Dry Electrolytic Replacement Condensers

Surge-proof and "self-healing." Withstand high operating temperatures—absolutely dry—may be mounted in any position.

Tubular Aluminum Containers

A Type for Every Replacement Job

High capacity available in the minimum amount of space.

Furnished in universal upright or inverted containers. Dry electrolytic.

Negative terminals grounded to can. Standard container size 4%"x13%" for all canacities. Inverted types furnished with lugs or 6" leads, mounted in 34" hole. D. C. working voltage

Rectangular

Metal Containers

Six inch, color coded, flexible insulated wire

leads for each so c t i o n . Flanges for convenient easy mounting. A 11 are 4%" high and 11/2" deep.

Stock

Number

A 1 I

Capac.

4-8 8-8 4-4-4 8-8-8



Working Voltage 450 V. D. C. Round Aluminum

Containers Binding post and lug

connections for post and fug connections for post-tives. Container is common negative. All are 43%" high. 8-8 size is 2½" diam. All others are 3" diam.

tock	Capac.	List	Your
umber	Mfd.	Price	Price
D5652	4-4	\$1.30	\$0.76
D5653	8-8	1.60	.94
D5654	8-8-8	2.70	1.59
D5655	9-9-18	3.75	2.20
D5656	8-8-8-8	3.60	2.12
Dry	Flectr	alvti	_

By-Pass Condensers Cardboard Containers



Especially suitable to replace "blown" paper by-pass filter sections. Very compact. Container dimensions 12" thick; 12" wide; 2%" long. Solder lug connections.

Stock	Cap.	Working	Price
Number		Volts D. C.	Each
3D5671	.5	450	29 c
3D5672	1.0	450	32 c
3D5673	2.0	450	38 c
3D5674	4.0	200	38 c
3D5675	8.0	150	44 c
3D5676	8.0	200	47 c
3D5677	10.0	100	41 c
3D5678	25.0	50	47 c
3D5679	10.0	25	29 c
3D5680	20.0	25	35 c

3D5658 3D5659 3D5660 3D5661 \$0.97 1.09 1.24 1.59 **Dry Electrolytic Filter Condensers**

(C)

 $\frac{1.00}{1.05}$

Width

Vaur

\$0.50 0.59 0.62 0.82

Your

Cardboard Containers Working Voltage 450 Volts
D. C.



Length of single units 41%" by 13%" wide. Dual units 41%" long by 112" wide. Six inch. color coded.

flexible insu	ilated	wire leads.	
Stock	Cap.	Container Your	Price
Number	Mfd.	Depth	Each
3D5662 3D5663 3D5664 3D5665	2 4 6 8	14 14 15	38 c 44 c 53 c 56 c
3D5666	4-4	1 1/ ₂	70 c
3D5667	4-8	1 3/ ₄	79 c
3D5669	6-8	2	85 c
3D5670	8-8	2	88 c

Tubular By-Pass Condensers

In Cardboard Tubes

Replacement cartridge type dry electrolytic condensers. Sealed with special wax to withstand high temperature. 2 inch tinned leads will not pull out. Length 24%." Diameter 5%" to 114". Your

tock	Cap.	Volts	Your	Stock	Cap.	Volts	
Tumber	Mfd.	D. C.	Price	Number	Mfd.	D. C.	
D5681	50	5	44 c	3D5690	8	150	
D5682	10	25	29 c	3D5691	2	200	
D5683	25	25	38 c	3D5692	4	200	
D5684	10	50	38 c	3D5693	8	200	
D5685 D5686 D5687 D5688 D5689	25 5 10 25 4	50 100 100 100 150	47 c 32 c 41 c 56 c 35 c	3D5694 3D5695 3D5696 3D5697	2 4 8 2	300 300 300 450	

Wurlitzer Part Num. 11007 3E9032-YOUR PRICE ... 44C

10-10 mfd. 25 WV. Round aluminum container with center mounting stud. Case center mounting stud. Case common negative. Lug terminals. Container 15kx1. Wurlitzer Part 10656 3E9033-YOUR PRICE. \$1.12 3E9034-List, \$1.25.

YOUR PRICE 72¢

Lyric Part No. 10678PE

4-8 mfd. 300 volts. Cardboard container 3x11/2x11/4. Three flexible insulated leads 12-16 mfd. 150 w.v.; 10 mfd. 25 flexible in w.v. Cardboard container 23/x15/x15/x. Color coded.



Price

44 c 32 c 38 c 47 c

35 c 4 l c



Keystone Dry Electrolytic Condensers Fully Guaranteed—Built to Give Constant Capacity

Keystone is the Radolek Trademark for Sciented Quality Products built by Prominent Manufacturers to Radolek Laboratory Specifications. Keystone Condensers are Fresh New Dry Electrolytic capacity units guaranteed for Full Capacity and Rated Voltage. Each type and size has been selected after careful test to have the lowest power factor, the greatest safety factor, and the longest life under extreme conditions. From the many production sample submitted for test, Radolek Engineers selected the best type in each size. Samples of each shipment are tested to maintain the highest standards. When you buy Keystone Condensers you receive the "cream" of the best manufactured products at the lowest honest prices.

New Universal Replacement

Aluminum Case and Leads Insulated

450 D.C. Working Volts 500 D.C. V. Peak Surge Suitable for all renlacements where inverted aluminum container type is required. If grounded container is desired the negative lead may be connected directly to the chassis. chassis.

3E5701-4 Mfd. Can size, 1%"x2%" List, 85c. YOUR 40¢ PRICE

3E5703-8 Mfd. Can size 138"x41%".

YOUR PRICE

Dry Electrolytic

In New Tab Type Fibreboard Cases

450 D.C. Working V. 500 D.C. V. Peak.

Mounting tab at each end facilitates installation. Tabs may be cut off without damage to unit, if not needed, 2 wire leads, I-Neg., 1-

3E5760-4 M f d. 1-5/16"x41/4"x5/8". List, 75c. 256 YOUR PRICE 35¢

3E5762—8 M f d. Case 1%"x44"x%". List, 95c. YOUR PRICE. 42¢

Aluminum Case Inverted Stud Mounting

Case Negative—450 D.C. Working Volts—500 D.C. Volts Peak Hermetically sealed. Unaffected by temperature. For single 36" hole mounting. Anothe projects through threaded insulated terminal.

Cap.	Container	Stock	List	Your	Ten
Mfd.	Size Inches	Number	Price	Price	For
2 4 6 8	1 3 8 x 2 5 8 1 3 8 x 2 5 8 1 3 8 x 2 5 8 1 3 4 x 4 1 8 1 3 8 x 4 1 8	3E5705 3E5706 3E5707 3E5708 3E5709	\$0.75 .85 1.00 1.05 1.60	\$0.35 .39 .45 .47	\$3.39 3.85 4.27 4.47 6.40

Dual Sections-Container Common Negative

Two Positive lug terminals project from insulated nipple Cap. Mfd. Total Cap. Container | Stock | List | Size Inches | Number | Price | Price 3E5710 3E5711 3E5712 \$0.60 4-4 6-6 8-8

All-Purpose Dry Electrolytic, Aluminum Case

450 D.C. Working Voltage—500 D.C. Volt Peak—Container and Leads Insulated Both positive and negative leads are brought out through insulated threaded nipple. If grounded container is required Neg. lead may be soldered to chassis. For single 78" hole Mrg. Locknut for clamping to chassis.

Cap.	Container	Stock	List	Your	Ten
Mfd.	Size Inches	Number	Price	Price	For
2 4 6 8	1 36 x 2 56 1 36 x 2 56 1 36 x 4 16 1 36 x 4 18	3E5700 3E5701 3E5702 3E5703 3E5704	\$0.75 .85 1.00 1.05 1.60	\$0.36 .40 .46 .47 .69	\$3.45 3.85 4.35 4.47 6.55

Dual Sections-Container Insulated

111166	Insulated	Tentas. two p				
Cap. Mfd. at Anodes	Total Cap.	Container Size Inches	Stock Number	List Price	Your Price	Ten For
4-4 6-6	8	1 3 á x 4 1/8 1 3 8 X 4 1 8	3E5713 3E5714		.75	7.15

New One-Inch Diameter Aluminum Cases

Compact for Small Receivers

450 D.C. Working Volts 500 Volts D.C. Peak
Container Negative
For use where mounting space is limited. The one-inch diameter
containers will fit most midget and compact receivers. Inverted
container for single 5/8" hole mounting. Container negative.
Positive lug terminal.

Cap.	Container	Stock	List	Your	Ten
	Size Inches	Number	Price	Price	For
2 4 6	1x25/6 1x25/6 1x11/6 1x41/6	3E5716 3E5717 3E5718 3E5719	\$0.75 .85 1.00 1.05	\$0.35 .40 .46 .48	\$3.39 3.85 4.35 4.60

Low Voltage Electrolytic Condensers

luminum	contain Contain		h mot	inting bolt			bottom. solderir	Fits ig lug.
2	Cap.	Work Volt	Peak Volt	Container Size	Stock Number	List Price	Your Price	Ten For
	5 5	25 50	35 75	13/4 X3/4 13/8 X3/4	3E5730 3E5731	\$0,60 .65	\$0.25	\$2.34 2.72
111	10 10 20	25 50 25	35 75 35	13/4×13/6 13/4×13/6 13/4×13/6	3E5732 3E5733 3E5734	.70 .80 .95	.29 .31 .35	2.72 2.90 3.29
	20 30	30 30	50 50	136 x 136	3E5735 3E5736	1.05 1.20	.41 .45	3.85 4.20



Multiple Section Dry Replacements

Top Connected-475 D.C. Working Volts

Universal replacement for upright, top-connected wet electrolytics. Aluminum Container. Complete with Mtg. rings.

Capy. Mfd. at	Container	Stock	Your
Anodes	Size Inches	Number	Price
8-8	2 1/2 x4 1/6	3E5740	\$0.87
5-15	2 1/2 x4 1/6	3E5742	1.10
8-8-8	3 x4 1/6	3E5744	1.29
9-9-18	3 x4 1/6	3E5745	1.79

Dry Electrolytics with Lugs

In New Tab Type Fibreboard Cases 450 D.C. Working Volts-500 D.C. V. Peak

Moisture-proof containers. Mounting tabs at each end simplify installation. Soldering lug terminals—1-Pos., 1-Neg.

ap.	Size of	Stock	List	Your	Ten
1fd.	Container	Number	Pric e	Price	For
2 4 6 8	21 x 15 6 x 5 6 4 1 4 x 15 6 x 5 6 4 1 4 x 15 6 x 7 6 4 1 4 x 15 6 x 7 6	3E5755 3E5756 3E5757 3E5758	\$0.65 .75 .90	\$0.28 .35 .39 .42	\$2.65 3.30 3.70 3.95



Dry Electrolytics with Leads

In New Tab Type Fibreboard Cases
450 D.C. Working Volts-500 D.C. V., Peak

Moisture proof containers with mounting tabs on each end. 6" No. 18 wire leads with high voltage insulation. 1-Pos., 1-Neg.

Cap.	Depth	Stock	List	Your	Ten
Mfd.	Container	Number	Pric e	Price	For
2	2 1/8 x 15 /4 x 5/6	3E5759	\$0.65	\$0.28	\$2.65
4	4 1/2 x 15 /4 x 5/6	3E5760	.75	.35	3.30
6	4 1/2 x 15 /4 x 3/8	3E5761	.90	.39	3.70
8	4 1/2 x 15 /4 x 3/8	3E5762	.95	.42	3.95
12	4 1/2 x 15 /4 x 11/2	3E5763	1.40	.62	5.90

Dual and Triple Dry Electrolytic Condensers

In Tab Type Fibreboard Cases. 400 D.C. Whg. V., 500 V. Peak Moisture proof fibreboard containers with tab on each end. 6 inch leads. Stock | List Number | Price Deoth Container 4 14 x1 3 8 x15/6 4 14 x1 38 x15/6 4 14 x1 38 x1 14 3E5765 3E5766 3E5767 3E5768 3E5769 3E5770 \$0.53 .53 .63 .63 .65 6-6 6-6 8-4 8-4 4 14 x 1 36 x 1 34 4 4 x 1 36 x 1 34 6.10 1.35 4 \(x \) \(\lambda x \) \(1 \) \(x \) \(1 \) \(x \) \(1 \) \(4 \) \(1 \) \(x \) \(1 1N-2P 2N-1P 2N-2P 3N-3P 3N-3P 3N-3P 8-8 8-8 8-8 4-4-4 8-8-8 9-9-18 3E5771 3E5772 3E5773 3E5774 1.50

Multiple Dry Electrolytics-Metal Containers

Inverted rectangular metal cases, completely insulated. Each section is separate and each has separate positive and negative leads. Leads are No. 18 flexible stranded 6 in. long; high voltage insulation. Condensers hermetically sealed -not affected by temperature variations.



Capacity Sections	Total Cap.	Depth Container	Stock Number	List Price		
4-4 4-6 4-8 6-6 6-8	8 10 12 12 12 14	4 14 X1 38 X15 16 4 38 X1 38 X1 14 4 38 X1 38 X1 14	3E5780 3E5781 3E5782 3E5783 3E5784	\$1.30 1.40 1.45 1.55 1.60	.72 .77 .79	\$ 6.35 6.80 7.30 7.45 7.75
8-8 4-4-4 6-6-6 8-8-8	16 12 18 24	4 3 4 X 1 1 2 X 17 16 4 3 4 X 2 1 3 X 17 16 4 3 8 X 2 1 4 X 17 16 4 3 4 X 2 1 4 X 17 16	3E5785 3E5786 3E5787 3E5788	1.60 2.55 2.65 2.70	.95 1.15	8.25 8.95 10.90 12.15

Small Ribbed Aluminum Container

450 D.C. Working Volts—600 Volt D.C. Peak
Corrugated surface provides a greater heat dissipating area for
cooler operation and higher efficiency. Smaller containers and
higher working voltage are possible with this unique design. For
single 3/1" hole mounting. Container negative.
Cap. Container | Stock | List | Your | Ten

Mfd.	Size Inches	Number	Price	Price	For
4 6 8	1 8 6 x 2 1 3 4 x 3 1/2 1 3 4 x 3 1/2	3E5720 3E5721 3E5722	\$1.05 1.20 1.25	\$0.44 .53 .56	\$4.15 4.70 5.30
_					



Voltage Doubling Dual Sections Fibreboard Cases-220 Volt D.C. Peak

Especially designed and matched for voltage doubling circuits employing 2525 or similar type tubes. Have pos.-neg. (neutral) common lead. Flexible 6 inch insulated wire leads.

Capacity	Container	Stock	List	Your	Ten
	Size	Number	Price	Price	For
10-10	4 14 x 1 14 x 1 14	3E5789	\$1,35	\$0.67	\$6.36
12-12	4 14 x 1 14 x 1 14	3E5790	1,45	.72	6.84
16-16	4 14 x 1 14 x 1 14	3E5791	1,65	.85	8.07

KEYSTONE Electrolytic Condensers

All Dry-Built to Give Constant Capacity

Dry Electrolytics in Round Metal Cases With Flush Lug-Type Mounting Screws

450 D.C. Working Volts-500 Volt Peak Container Insulated-Leads Insulated

Round aluminum container with lig type \(\frac{\psi_0}{\psi} \) studs riveted flush with sides of case. Mounting centers 1\(\frac{\psi}{\psi} \) for inverted mounting where studs must clear material beneath chassis. Cantainer insulated. Six inch flexible leads; high voltage ruber and braid insulation. Where grounded container is desired the negative lead should be grounded direct to chassis.

				chassis.		
Cap. Mfd.	Polarity Leads	Container Size Inches	Stock Number	List Price	Your Price	Ten For
2 4 8 4-4 4-8 8-8	1N-1P 1N-1P 1N-1P 1N-2P 1N-2P 1N-2P	138 X2 5/8 138 X2 5/8 134 X4 1/8 138 X4 1/8 13, X4 1/8	3E5723 3E5724 3E5725 3E5726 3E5727	\$0.85 .95 1.25 1.50 1.65	\$0.39 .44 .51 .64	\$3.70 4.17 4.85 6.12 7.30

Dry Electrolytics in Tubular Fibreboard Case

With Flush Lug-Type Mounting Screws
450 D.C. Working Volts—500 Volt Peak
Moisture-proof tough fibre board tubular containers sealed with
high melting point compound. Stranded flexible 6 inch leads
with high voltage rubber and braid insulation. Leads tinned for
easy soldering. Lug type %2 mounting studs riveted flush with
sides of container. Mounting centers 14%.

Cap.	Polarity	Container	Stock	List	Your	Ten
Mfd.	Leads	Size Inches	Number	Price	Price	For
2 4 8 4-4 4-8 8-8	IN-1P 1N-1P 1N-1P 1N-2P 1N-2P 1N-2P	1 14 x2 % 1 14 x2 % 1 14 x4 16 1 14 x4 16 1 14 x4 16 2 12 x4 16	3E5749 3E5750 3E5751 3E5752 3E5753 3E5754	\$0.75 .85 1.50 1.30 1.45 1.60	32c 39c 45c 57c 69c	\$3.04 3.70 4.33 5.45 6.62 7.40



Dry Replacement Electrolytics-Universal Upright

Top Connected—Complete with Mounting Brackets

450 D.C. Working Volts-500 Volt Peak

450 D.C. Working Volts—500 Volt Peak
These multiple section dry electrolytics are very popular for
replacement of wet electrolytics used in earlier model receivers. Each section is a separate condenser and all negative terminals are grounded to the aluminum container.
Hermetically sealed against moisture. Unaffected by wide
temperature variations. Solder-lug terminals. Complete with
mounting bracket.

Capacity	Total	Container	Stock	List	Your	Ten
Section	Cap.	Size	Number	Price	Price	For
4	4	1 3% x 2 5%	3E5737	\$0.85	\$0.39	\$ 3.77
8	8	1 3% x 4 1%	3E5738	1.05	.47	4.47
12	12	1 3% x 4 1%	3E5739	1.60	.72	6.80
		Dual	Sections			
8-8 9-9 5-15	16 18 20	2 12 x 4 1 g 2 12 x 4 1 g 2 12 x 4 1 g	3E5740 3E5741 3E5742	1.80 2.00 2.30	1.05 1.10	8.25 9.95 10.40
		Triple	e Sections			
2-4-8	$\left \begin{array}{c}14\\24\\36\end{array}\right $	13% x41,	3E5743	2.90	1.05	9.95
8-8-8		3 x41,	3E5744	2.70	1.29	12.15
9-9-18		3 x41,	3E5745	3.75	1.79	16.90
		Quadru	ple Section	15		
8-8-8-8	32	3 x41 ₈	3E5746	3.60	1.65	15.65
8-8-18-18	52	3 x41 ₈	3E5747	4.75	2.49	23.60
9-9-18-18	54	3 x41 ₈	3E5748	5.25	2.55	24.25

Dry Electrolytic Condensers

In Tubular Fibreboard Containers

Wax impregnated moisture-proof tubes hermetically sealed. 2" bare solid wire flexible leads. One lead negative, one positive. For bypass, filter and C Blas these tubulars provide high capacity at low cost.

Cap. Mrd.	Work Volts	D.C. Peak	Size LgthDla.	Stock Number	List Price	Your Price	Ten For
0.5	300	400	18,6X 16 18,6X 16	3E5792	\$0.45	\$0.16	51.50
0.5	400	500	18 4X 15	3E5793	.55	.19	1.82
1	300	400	1 1 K X 13 /4	3E5794	.50	.24	2.20
1 1	400	500	1 3 8 X 13 16	3E5795	.55	.27	2.57
2	400	500	113 16X 15/6	3E5796	.65	.31	2.85
2	500	600	113 HX 15 16	3E5797	.75	.34	3.19
2 2 4	400	500	1 4 x2 14	3E5798	.75	.35	3.34
1	200	250	1 3 % X 13 /6	3E5799	.50	.22	2.10
2	200	250	1 3 g X 13	3E5800	.55	.24	2.28
2	125	175	1 1 g X 13 /a	3E5801	.50	.22	1.95
4	125	175	1 3 8 X 13 /6	3E5802	.60	.24	2.20
6 1	125	175	1 x21	3E5803	70	.29	2.76
2 4 6 8	125	175	1 '8 X 2 14	3E5804	75	.31	2.95
1ŏ	125	175	1 1 8 X2 1 (3E5805	.85	.33	3.15
	12.7	.,,,	11 432 4	1 25 3003	1 .00	.33	3.15



Low Voltage Tubular Dry Electrolytics

Cap. Mfd.	Work Volts	D.C. Peak	Size LgthDia.	Stock Number	List Price	Your Price	Ten For
25 50 5 10 25 50	75 75 50 50 50 50	75 75 75 75	113 16 X 15 16 2 1 8 X 1 15 16 X 5 16 1 3 8 X 13 16 113 16 X 15 16 2 1 8 X 1	3E5806 3E5807 3E5808 3E5809 3E5810 3E5811	\$0,95 1.35 .50 .65 .80 1.20	\$0.45 .59 .24 .26 .36	\$4.2\$ 5.60 2.20 2.40 3.30 4.65
4 5 10 15 20 25 50	25 25 25 25 25 25 25 25 25 25	35 35 35 35 35	15,16 X 2 15,16 X 2 15,16 X 5 6 1 3 8 X 13 46 1 3 8 X 13 46 1 13 16 X 15 16 1 13 16 X 15 16	3E5812 3E5813 3E5814 3E5815 3E5816 3E5817 3E5818		.19 .21 .23 .25 .27 .29	1.80 1.95 2.15 2.35 2.56 2.72 3.98

Compact Dry Electrolytics In Fibreboard Cases

450 D.C. Working Volts—500 Volts Peal This new series of compact high voltage electrolytics is a boon to the serviceman wi repairing midget A.C. sets where space is a premium. Standard quality.

ry en		
at List		
List	Your	Ten

ap.	Container	Stock	List	Your	Ten
Ifd.	Size	Number	Price	Price	For
0.5 1 2 4 8	2x 4x1 x 7/4 27/4x1 4x 9/4 27/4x1 4x 9/4 27/4x1 4x 11/4 27/4x1 4x 11/4 27/4x1 4x 11/4	3E5820 3E5821 3E5822 3E5823 3E5824	\$0.80 .85 .95 1.15 1.35	\$0.22 .26 .29 .35	\$2.10 2.45 2.75 3.30 4.55

Midget Filter and Bypass Dry Electrolytics

For Midget Sets

For Midget Sets
Low Voltage—Fibreboard Cases
Special low voltage compact multiple
section dry electrolytics for midget and
A.C.-D.C. receivers. Furnished with 6
inch insulated flexible leads in moistureproof fibreboard containers with mounting tabs.

			,	ing tans.			
Cap. Mfd.	Peak Volts	Polarity of Leads	Container Size	Stock Number	List Price	Your Price	Ten For
4-4 4-4 5-8 8-8 8-8 12-4	200 200 200 200 200 200 200	1N-2P 2N-1P 1N-2P 1N-2P 2N-2P 1N-2P	1 4 x1 36 x2 36 1 36 x1 36 x2 36	3E5825 3E5826 3E5827 3E5828 3E5829 3E5830	\$0.85 .85 1.10 1.25 1.25 1.15	\$0.44 .44 .51 .63 .63	\$4.15 4.15 4.80 5.97 5.97 5.62
12-8 16-8 4-4 5-5 4-8 8-8	200 200 35 35 35 35 35	1N-2P 1N-2P 1N-2P 1N-2P 1N-2P 1N-2P	15 6 X 1 3 6 X 4 1 6 1 1 1 X 19 6 X 4 1 6 34 X 9 6 X 1 5 6 34 X 9 6 X 1 5 8 3 1 X 9 6 X 2 3 4 X 3 4 X 2	3E5831 3E5832 3E5833 3E5834 3E5835 3E5836	1.25 1.50 .75 .80 .85	.65 .72 .27 .29 .35	6.23 6.95 2.52 2.75 3.31 4.45

Tubular Condensers for Midget Sets Low Voltage Dry Electrolytics

Multiple section dry electrolytics in moistureproof fibreboard tubular containers. For midget set replacement. Container has tab at each end



for me	ounting.	Six inch	insulated flex	lble leads.	1		
Cap.	Peak	Polarity	Container	Stock	List	Your	Ten
Mfd.	Volts	of Leads	Size	Number	Price	Price	For
4-4	35	1N-2P	1 4x2 34	3E5837	\$0.85	\$0.27	\$2.52
5-5	200	1N-2P	1 4x2 34	3E5838	.90	.47	4.44
8-5	200	1N-2P	1 14x2 38	3E5839	.95	.51	4.80
8-8	200	1N-2P	1 16x2 38	3E5840	1.20	.63	5.97

Tubular Dry Electrolytics

Fibreboard Case—200 D.C. Working Volts

A.C.-D.C. midget set replacements. Tubular threboard containers, moisture-proof and hermetically sealed at each end, of the insulated flexible leads tinned for easy soldering. Single units have one positive, one negative lead each end, dual sections have common negative and two positive leads. Especially designed with higher working voltace limits than condensers customarily used in the midget sets. 6 Inch Leads.



Cap.	Container	Stock	List	Your	Ten
Mfd.	Size	Number	Price	Price	For
4 6 8 4-4 4-8 8-8	1 x 2 1 4 1 x 2 1 4 1 x 2 1 4 1 x 2 7 4 1 x 2 7 6 1 x 2 7 9	3E5841 3E5842 3E5843 3E5844 3E5845 3E5846	\$0.65 .70 .80 .90 1.15 1.25	\$0.29 .33 .37 .44 .56	\$2.78 3.15 3.53 4.15 5.30 5.94



Special Dry Electrolytic Condensers

In Fibreboard Containers 450 D.C. Working Voltage

Special value dry electrolytics of considerably better quality than usually offered at these prices. Full capacity and safely rated but not the same grade as Keystone Condensers. Mol. ture-proof containers. Six inch insulated wire leads.

Mrd.	Size Inches	Number	Price	Price	Ten For
2 4 8 4-4 8-8 8-8-8	2 1, x115 4x 54 4 1, x115 4x 34 4 1, x115 4x 34 4 1, x115 4x 34 4 1, x1 1, x17, 4 1, x1 1, x17, 4 3, x2 1, x17,	3E5860 3E5861 3E5862 3E5863 3E5864	\$0.65 .75 .95 1.20 1.50	\$0.23 .26 .30 .47	\$2.15 2.50 2.90 4.45 5.25



Special Dry Electrolytic Replacements Aluminum Containers-450 D.C. Working Volts

First quality condensers offered at a special low price. Conserva-tively rated and well-made but not quite equal to Keystone stand-ards. Container negative. Single units have lug terminal, dual sections have six inch flexible insulated leads. For single % in, hole mounting. Large locknut clamps unit securely to chassis base.

Cap.	Container	Stock	List	Your	Ten
Mfd.	Size Inches	Number	Price	Price	For
2	13% x25%	3E5855	\$0.65	\$0.29	\$2.75
4	13% x25%	3E5856	.75	.33	3.15
8	13% x4 14	3E5857	.95	.37	3.55
4-4	136 x4 16	3E5858	1.20	.54	5.10

Keystone By-Pass Condensers

Tubular Condensers



400 Volts D. C.

Linen Paper and Foil Type

600 Volts D. C.

These By-Pass Condensers represent an exceptional value at our new low prices. They are carefully made of the finest materials and in accordance the finest materials and in accordance with the most advanced principles of condenser manufacturing processes. We recommend this line to you for use wherever a strictly first-class unit at a moderate price is required. Metal foil and linen paper, wax impregnated. Hermetically sealed in tubular fibre cases. 1½ Inch timed leads, securely anchored. Approx. 2" long, 3%" to 1¼" Diam.

Working Volts		Working	Volts
Stock Num.	Cap. Mfd.	Stock Num.	
3D5400 3D5401 3D5402 3D5403 3D5404	.0001 .0002 .00025 .0005 .001	3D5428 3D5429	
3D5405 3D5406 3D5407 Price 3D5408 3D5409	.002 .003 .004 .005 .006	3D5430 3D5431 3D5432 3D5433 3D5434	Price 9C each
3D5410 each 3D5411 Lots 3D5412 of 3D5413 of 3D5414 10	.007 .008 .01 .02 .03	3D5435 3D5436 3D5437 3D5438 3D5439	I ots of 10 85c
3D5415 3D5416 3D5417 3D5418 3D5419	.04 .05 .06 .07	3D5440 3D5441 3D5442 3D5443 3D5444	030
3D5420 9c ea. 3D5421 9c ea. 3D5422 10c ea. 3D5423 12c ea. 3D5424 15c ea.	.1 .2 .25 .3 .5	3D5445 3D5446 3D5447 3D5448 3D5449	11c ea 17c ea 17c ea 18c ea 23c ea
Multip	ole T	ubulai	

Condensers

Metal Foil and Linen Paper

Paraffin impregnated, hermetically scaled in fibre cases. One continuous non-inductive winding; each section remains non-inductive. 1½" bare wire

400 D.C. Working Voltage

Stock | Container | Cap. Mfd. | Price | Each Sec. | Each

insulated stranded

.01-.01 .01-.01-.01

.01-.01 .01-.01-.01 .1-.1 .1-.1-.1

.1-,1-,1-,1 .1-,1-,1-,1-,1 .25-,25

By-Pass and

Filter

Condensers

1/2 Mfd. 300V D.C.

.1-.1

13,4x2,44 .1-.1-.1-.1 15,18x2,34 .1-.1-.1-.1-.1 16,6x2,34 .25-.25

600 D.C. Working Voltage Container Cap. Mfd. Price

Special Value

non-inductive winding remains non-inductive, common leads, 4" in wire section leads.

2 3 X 13 16 2 3 X 15 16 2 3 X 15 16

2 4 x X 15/16

3E5463

3E5464

3E5465 3E5466

Stock Number

3E5473

3E5474 3E5475 3E5476

3E5490

Best Quality Paper Type By-Pass Condensers



% x1 18 inches.

Metal Cased Popular among manufacturers, servicemen and

servicemen and devicements. Will give long and satisfactory service. Hermetically sended in metal containers. Metal foil elements. Paper insulated. Size %x %x %x 18% inches

Stock Number	Capy. I Mfds.	O.C. Working Volts	Your Price
3E5206	.05	400	14¢
3E5200	i	400	15¢
3E5201	25	400	19c
3E5202	.5	400	22¢
3E5207	.05	600	19¢
3E5203	l ii l	600	20¢
3E5204	.25	600	22c
3E5205	5	600	32c
3E5208	i l	1000	29c

By-Pass Condensers Lugs from End

Non-inductive "paper" c'endensers sealed in metal cans. Size 1 12x 3, x2 inches.

Stock	Capy.	D.C. Working	Your
Number	Mfds.	Voltage	Price
3E5210	1.	400	30¢
3E5217	2.	400	49¢
3E5211	.5	400	32¢
3E5212 3E5213 3E5214 3E5218*	.25 .5 1.	600 600 600 600	22c 31c 44c 72c

*Note-Supplied in size 2"x1"x2"

By-Pass Condensers Lugs from Side





Stock	Capy.	D.C. Working	Price
Number	Mfds.	Voltage	
3E5220 3E5221 3E5222 3E5223 3E5224	1. .5 .25 .5	400 400 600 600 600	300 320 220 310 440

Combination By-Pass Condensers



Non-inductive. "paper" conden-"paper" condensers scaled in metal cans. Small size. convenient for mounting in practically all Sets.

Size 1x3x13" Mfg. Centers 24".

Stock	Capy.	D.C. Working	Your
Number	Mfds.	Voltage	Price
3E5241	.11	400	26c
3E5242		600	31c

Combination By-Pass Condensers

Non-inductive "paper" condensers in metal cans. Size 34x117x2 Inches. Mtg. centers 1% inches. Size is convenient for mounting in practically any Set.

300V D.C. 300 V. D.C. working	Stock Num er	Cap. Mfd.	D, C. Volts	Your Price
voltage. Metal		,1-,1 ,1-,1-,1	400 400	27¢ 36¢
21 in. high, % in. Three mounting hole centers 1x	3E5240 3E5232	.1-,1-,1-,1 .25-,25 .25-,25-,25	400 400 400	52¢ 32¢ 49¢
2½". Solder lug tetminals are led, making wiring and soldering	3E5234 3E5235 3F5236	.55 1.11 .111	400 600 600	39c 37c 42c
5490— CE. EACH 19¢	3E5237 3E5238 3E5238	.2525 .252525 .55	600 600 600	38c 49¢ 52¢
ots of 10\$1.75	1	. ,		Well ell?

Potter By-Pass Condensers

Number

3D5000

3D 5018



metal cans. Designed to permit large capacities and high voltages in a minimum pace. High resistance paper dielectric, chemically impregnated. Size of can 後本弘太主義 inches. Mounting centers, 2急 inches.

Stock Num.	Code Num.	Cap. Mid.	D. C. Work, Volt,	Your Price
3E5030	A-401	.1	400	24c
3E5031	A-402	.25	400	27c
3E5032	A-403	.5	400	33c
3E5033	A-601	.1	600	27c
3E5034	A-602		600	32c
9		Bv.	Pass	and



Filter Condensers with End Lugs Non-Inductive

Type A. Size: 148x 34x2 inches. Mtg. Hole centers 132 and 232 inches.

Stock Num.	Code Num.	Cap.	D. C. Work. Volt.	Your Price
3E5040	A-404	1.	400	44c
3E5041	A-403	.5	400	33c
3E5042	A-602	.25	600	27c
3E5043	A-603	.5	600	39c
3E5044	A-1002	.25	1000	47¢



By-Pass and Filter with Side Lugs Non-Inductive

Type AA. Size 143x 34x2 inches (same size as Crosley RF by-pass condensers). centers

(0))	inche	s.		Nı
Stock ium.	Code Num.	Cap. Mfd.	D. C. Work. Volt.	Your Price	3 E 3 E
E5050 E5051 E5052	AA-203	1. .5 .25	400 400 400	44¢ 33c 27¢	3 E
E5053 E5054	AA-303	.5	600 1000	39c 47¢	3 E
	Cub C	d			

Cub Condensers



3" Leads, 2%" Long. ½" to 134" Diam.

improved fibre casing, having ferrules which seal the ends of metal ferrules which seal the the condenser. Non-inductive.

Stock Number	Mfd.	Volts	Price
3E5500 3E5501	.0001	600	EACH
3E5502	.0005	000	
3E5503	.001	600	12c
3E5504 3E5505	.002 .004	600	
3E5506 3E5507	.005	600	TEN
3E5508	.0075	600	FOR
3E5509	.01	600 }	\$1.10
3E5510 3E5511	.02	600	
3E5512 3E5513	.1	200 400	12¢ 15¢ 15¢
3E5514 3E5515	.25 .25	200 400	20c
3E5516	.5	200	20¢ 25¢
3E5517 3E5518	.5	400 200	30c
3E5519	i.	400	37c



_	400 400	27c	Stock	Cap.	Working Volts	Your Price
5	400 400 400 400 600	52e 32c 49c 39c 37c	3E5525 3E5521 3E5530 3E5522	.11 .2525 .0101 .0505	200 200 400 400	25¢ 37¢ 20¢ 25¢
5	600 600 600 600	42¢ 38c 49¢ World R	3E5526 3E5527 3E5523 3E5524	.11 .22 .2525 .11	400 400 400 600	28¢ 35¢ 42¢ 32¢



Easily wired in circuit. 4-inch securely anchored tinned wire leads. Covered with a tough durable "rubberwax" insulation. Moisture proof. 1%" wax" insulation. Moisture proof. to 2½" Long. %" to 1¼" Dia Capacity Working Woltage

400

Your Price

30 c

Size

3D5001 3D5002 3D5003 3D5004	.002 .004 .006 .006	400 400 400 600	12c EACH
3D5005 3D5006 3D5007 3D5008 3D5009 3D5010	.01 .01 .02 .02 .05	400 600 400 600 400 600	14c 14c 14c 17c 17c 17c
3D5011	1/10	200	15c
3D5012	1/10	300	19c
3D5013	1/10	400	20c
3D5014	1/10	600	30c
3D5015	K	200	19 c
3D5016		400	27 c



Compact Units In Metal Cans With 6-Inch Insulated Leads

Stock Num.	Code Num.	Cap. Mfd.	D.C. Work, Volts	Your
3E5075	XA-101	.1	200	15¢
3E5076	XA-102	.25	200	19¢
3E5077	XA-103	.5	200	22¢
3E5078	XA-201	.1	300	18¢
3E5079	XA-202		300	20¢
3E5089	XA-301	.!	400	22¢
3E5081	XA-401		600	26¢
Filt	ter or	16		- 4

By-Pass 1 Mfd. 300 Volts

Metal can size 1% in. wide, 1% in. high, % in. deep. 3C5491

19¢ YOUR PRICE, EACH Lots of 10. ...\$1.70 Special Value Tubular

Condensers Paper and Foil Type roll Type

Wax impregnated. Tubular fibre cases. 1½" wire
leads. 2½" Long. ¼" to 1" Diam.

Num. Mfd. Volta.

Num.	Mfd.	Volts	Price
3E5450		400	Ten Ass't. for
3 E 5 4 5 2 3 E 5 4 5 3 3 E 5 4 5 4	.02	400 400 400	47c 100 for \$4.15
3E5455 3E5456		200 200	6c 9¢
3E5457		400	10c 12c

Adjustable Mica



balancing variable con-denser sec-tions in sutions critical cir-

75c

27 c

perhete	rodyne	and	other	critica	
cuits.			bakelite	base:	size
% x 1 1%					
Stock		Cap.	Mfds.	List	Your
Num.		Min.	Max.	Price	Price
3C56	35	5	25]		
3C56	36	5	50 }	5 0 e	16c
3C56	37	5	100 }		



2½x2½". Solder lug terminals are pierced, making wiring and soldering

Certified Filter Sections and Mica Condensers

FLECHTHEIM

Non-Inductive Uncased **Filter Condensers**

Type 'N. U.-600 Volts D.C.



For continuous operating voltages up to 440 v. A. C., R.M.S.

The condenser wind-The condenser wind-ing is impregnated in a non-hygroscopic compound and the whole is wrapped in a waxed paper wrap-per, thus making the condenser absolutely condenser absolutely moisture-proof. Sun-

plied with rubber covered wire leads that won't pull out.

Stock	Cap.	Size	Your
Number		Inches	Price
3C5365	.10	2x11/6x 3/6	\$0.20
3C5366	.25	2x11/4x 1/4	.25
3C5367	.50	2x13/5 x 1/5	.32
3C5368	1.0	2x13/4 x 3/4	.45
3C5369	2.0	2x134x1½	.75
3C5370	2.0	4x134x 34	.75
3C5371	4.0	2x138x31/6	1.30
3C5372	4.0	4x17x114	1.30

Flechtheim Type H. S. M.



For continuous operating voltages up to 600 V. A.C., R.M.S. —1000 volts D.C.

For all amplifiers using type '71. '45. '46. '47, '10. '50 and similar heavy duty amplifier tubes. Metal containers, black finish. Fork type terminals. Consequentia

ish. Fork type ter-minals. Conservative rating. Over 1000 megohins per infd. Non-inductive, Flash breakdown over 3000 voits D.C.

Stock	Cap.	Size Inches	Your
Number	Mfd.		Price
3D5350	.05	2x13/6x11/6	50.67
3D5351	.1	2x13/6x11/6	.73
3D5352	.25	2x13/6x11/6	.81
3D5353	.5	2x13/6x11/6	.90
3D5354	1.0	2x136x136	1.21
3D5355	2.0	45 x23 x34 -	1.89
3D5356	2.0	215 x23 y	1.89
3D5357	4.0	45 x23 x136	3.02
3D5358	4.0	2x23 x23	3.02

Flechtheim Type AZ Midget Tubular Condensers



1000 v. d.c. 660 v. a.c., r.m.s. Ideally suited for use as pla Ideally suited for use as plato blocking condensers in low power trans-mitters; r.f. by-pass work; for coup-ling condensers in resistance coupled amulifiers.

amplifiers. Moistu	re proof	conta	iner.
Stock Cap. You	r Stock	Cap.	Your
Num. Mfd. Pric		Mfd.	
3C5320 .00005]	3C5334	006	
3C5321 .0001	3C5335	.0075	27c
3C5322 .0002	3C5336		
3C5323 .00025 } 160	3C5337	015	_
303324 .0004	3C5338		;
3C5325 .0005	3C5339		
3C5326 .00075	3C5340		
3C5327 .001 J		.04	
3C5328 .0015 1		.05	38c
3C5329 .002	3C5342		300
0.05000 000-			
3C5330 .0025 } 27c	3C5344		
3C5332 .004			1
3C5333 .005		.00	
303333 .005	3C5347	.1	1 (

BARGAIN Low Capacity Mica Condensers



Midget Type
Some
with lugs
and mtg.
holes.

FULT	FULT MEI - MICAMULD				
Stock Number	Cap.	Your Price			
3D5478	Mfd. .00007 1	5¢			
3D5479	.00006				
3D5480 3D5481	.00005	Each Ten for 45			
3D5482	.000035	Lots of			
3D5483 3D5486	.000025	50 Assorted \$1.95			

Potter Replacement Condensers Sections



The very highest quality line of con-The very highest quality line of con-densers on the market. Only the finest materials used in their manufacturing. Processed in the most scientific manner in one of the best equipped factories of its kind in the world Paper Di-electric impregnated with enduring compounds scaled in moisture-proof metal containers. These condensers guaranteed for rated voltages under proper working conditions.

Stock Number	Code Number	Cap. Mfd.	D. C. Test	D. C. Working Voltage	Size	List Price	Your
3C5150	104	1.	400 V	200	1 14 x 54 x 3 14	\$1.25	5 .69
3C5151	105	2.	400 V	200	34 x 2 x 4 18	1.75	.99
3C5152	107	4.	400 V	200	1 12 x 2 14 x 3 14	3.75	1.60
3C5154	305	2.	710V	400	1 x2 x43 ₈	3.00	1.20
3C5156	404	1.	1000V	600	19/6x111/6x43 ₈	2.00	
3C5157 3C5162 3C5163 3C5170 3C5171	405 507 603 707 803	2. 4. .5 4.	1000V 2000V 2500V 3000V 4000V	600 1000 1250 1500 2000	134 x338 x4 14 234 x4 12 x4 36 118 x2 18 x4 36 31 x7 x4 36 134 x3 12 x3 16	3.50 10.00 2.75 13.50 4.50	1.95 6.00 1.85 9.11 3.31

Moulded Bakelite Condensers

Micamold—Aerovox—Polymet
Tested at 750 volts D.C.

Combination Mounting



Case size 114" long. 1 %" wide. Lug mounting cen-

Midget

Type

Stock Number	Cap.	List Price	Your
3C5575 3C5576 3C5577 3C5577	.0001 .00025 .00035 .0005	30¢ 30¢ 30¢ 30¢	EACH 9C
3C5579	.00075	35¢	110
3C5580	.001	35¢	110
3C5581	.0015	35¢	130
3C5582	.002	40¢	130
3C5583	.0025	45¢	150
3C5584	.003	50e	166
3C5585	.004	50e	216
3C5586	.005	50e	186
3C5587	.006	60e	226

Sangamo Mica Condensers

in smooth brown bakelite Malded Extremely fine limits of accuracy. Will retain their capacity under all conditions. Absolutely water and damp proof. 1000 v. D.C. Test.

Stock Number	Cap.	List Price	Your
Number	Witu.	Price	Price
3 C 5605	.00005	\$.60	35 €
3 C 5607	.0001	.60	35c
3C5609	.0002	.60	35c
3C5610	.00025	.60	35¢
3C5612	.0005	.60	35¢
3 C 5613	.001	.60	35¢
3 C 5 6 1 4	.0015	.60	35¢
3C5615	.002	.65	38¢
3C5617	.003	.85	50c
3C5618	.004	.85	50c
3C5619	.005	.85	50c
3C5620	.006	1.00	59c
3 C 5621	.008	1.20	71c
3 C 5622	.01	1 40	82c
3C5623	.015	1.60	946

	ondenser	s Res	istor	Clips
For	mounting	grid	leak	Resistors
3 E 5	s Sangamo 629—PE	R PAI	R	oç

Complete Assortment Mica Condenser Pad Kit

35 Units—Assorted Sizes Micamold and Polymet Midget Type Mica Condensers as illustrated at left some with mounting holes in addition to lugs. Sultable as "pad" condensers in critical Superheterodyne tion to lugs. Sulfable as "pad" condensers in critical Superheterodone obsellator circuits. Moisture proof, altright construction prevents oscillator "drift" and reduces effect of unwanted stations "drifting". In after receiver has been tuned to destred station. Kit contains five each of the following:—00007 Mrd. 000035 Mrd. 000015 Mrd. 00005 Mrd. 00

PER KIT (35 units)

Standard Type Case Size long. 1 % " wide. Lug

Stock Number	Cap. Mfd.	List Price	Your
3C5590	.003	\$0.15	15c
3C5591	.004	.45	18€
3C5592	.0045	.45	22c
3C5593	.005	.45	24c
3C5594	.006	.55	26¢
3C5595	.0075	.65	28¢
3C5596	.009	.70	34c
3C5597	.01	1,00	35e
3C5598	.015	1.10	45c
3C5599	.02	1.25	54¢

w square Pigtail Type

Case size 34" square. 11/4" Leads

Number	Cap. Mfd.	Price	Your Price
3C5550 3C5551	.00005	25e	
3C5552 3C5553	.00015	25¢	EACH
3C5554	.0002 .00025	25 c 25 c	9¢
3C5555 3C5556	.0003 .0004	25¢	77
3C5557	.0005	25c)	
3C5558 3C5559	.00075	30¢) 30¢	EACH
3C5560 3C5561	.0015	30 e 35 e	12¢
3C5562 3C5563	.0025	4001	EACH
305563	.003	45¢)	15¢
	Midge	t Type	



Stock	Cap.	List	Your
Number	Mfd.	Price	Price
3C5565 3C5566 3C5567 3C5568	.0001 .00025 .00035 .0005	25¢ 25¢ 25¢ 25¢ 25¢	EACH 9¢
3 C 5 5 6 9	.00075	30e	10c
3 C 5 5 7 0	.001	30e	10e
3 C 5 5 7 1	.0015	35e	12e
3 C 5 5 7 2	.002	35e	12c
3 C 5 5 7 3	.0025	40e	14c
3 C 5 5 7 4	.003	45e	15c

Postage Stamp Type



Uncased Replacement Condenser Sections



Wax-sealed, paper dielectric. Guaranteed for one full year—free replacement when used under proper conditions. Scientifically designed, carefully built. Safety factor in excess of that required to withstand both R. M. A. and N. E. M. A. retest requirements. Pure linen paper dielectric.

"HANG-UP" TYPE Compound Coated with 8 inch leads tinned "push back" wire:

300 D. C. Working Voltage

Fach 2% x ½ x ¼ 2% x % x % 2% x 1x ½ 500 D. C. Working Voltage

Stock No. Capacity Mfd. Stock No. Mfd. Size In. Eac 3C5253 \(\frac{1}{2} \) \(\frac{1} \) \(\frac{1}{2} \) \(\frac{1}{2} \ Size In. Each 3C5253 3C5254 3C5255 19c 29c

Capacity Stock No. Mrs Price Each 28 c 36 c 50 c Size In 1/2

Case Renewal Condenser Sections

Consists of a wax scaled paper di-electric condenser section housed in a wax impregnat-ed cardboard box which protects
wax coating
around condenser
sections and preents deterlora-tion and damage

when not used with mounting straps. Chipping and resultant short circuits are eliminated. not inch insulated leads. Standard

R.M.A. guarantee. Your Price 400 D. C. Working Voltage 3 X1 5 4 X 9 /6 3 X1 15 16 X 7 3 X27 16 X 15 /6

600 D. C. Working Voltage E5305 .5 3 x115 4x ½ .43 E5306 1.0 3 x27 4x15 4 .62 E5307 2.0 4 4 x2 4 x1 4 .83 3E5305 Working Voltage
3 x27/6x|5/6
4 1/2 x2 1/1 x1 1/4
.8 800 D. C.

1000 D. C. Working Voltage 155310 .5 3 x27 xx154 .76

3 x27 + x15 4 4 1 5 x2 1, x 1 17 4 1 2 x2 14 x2 15

R.M.A. Standard Mica Condenser Color Code

Capacity of Mica Condensers is figured in terms of Micro-Microfarads. The first dot appearing on the condenser represents the first figure of the capacity; the second do represents the second figure and the third dot represents the number of chihers following the Meet time figures of the condensers of the second figure and the third dot represents the number of chihers following the Meet time figures of the second figures are second for the second figures of lowing the first two figures.

Color	The Figure	Code Color	Figure
Black	0	Green	5
Brown	1	Blue	6
Red	2	Violet	7
Orange	3	Gray	8
Yellow	4	White	9
Evam	plac I	Haratmatin.	46 -

Standard Decl- 1st. 2nd. mals. MMFDS Dot Dot $\begin{array}{c} 100 \\ 250 \\ 500 \\ 1000 \end{array}$ BrownBlack Red Green Green Black BrownBlack Brown Brown Brown Red .0001

New CONTINENTAL-IGRAD High Voltage Paper Condensers



New Type E Units

Cardboard Containers

Cardboard Containers
For replacing defective electrolytic sections in filter systems. Cardboard containers. same size as standard electrolytic units. Non Inductive. D. C. Working Voltage, 450—Peak, 600

Stock	Capy.	Size In.	Your
Num.	Mfds.	L. W. T.	Price
3E8900	8*	4 1/6 x 1 3/8 x 15/6	\$0.56
3E8901		4 1/8 x 1 3/8 x 15/6	.68
3E8902		4 1/4 x 1 5/6 x 1 1/8	1.12

Working Voltage 500-Peak, 800

Stock	Capy.	L. W. T.	List	Your
Number	Mfds.		Price	Price
3E8903	2*	416 x1 36 x116	\$1.10	\$0.65
3E8904	4*	416 x1 36 x156	1.35	.79
3E8905	6*	416 x1 34 x156	1.50	.88
3E8906	8*	418x153x118	1.65	.97
3E8907	4-4*	418x158x112	2.25	1.32
3E8908	8-8*	416x156x216	2.75	1.62

All values are equivalent to electrolytic condenser capacities of the same rating, due to improved filter action.

To Replace Electrolytic Units

Improved reception and freedom from future break-downs can be assured by replacing defective elec-trolytics with CONTINENTAL-IGRAD high-voit-age Paper Condensers. Higher voltage rating and great resistance to heat are some of the advantages they offer. They have the same outside dimensions as standard electrolytic Units, thereby allowing

Type IE Inverted Stud Mounting

To replace Electrolytics. Same size and To replace Electrolytics. Same size and appearance as standard electrolytic Units. Round aluminum containers. Non-inductive.

D. C. Working Voltage, 450—

Stock	Capy.	Size In.	Your
Number	Mfds.	Lgth.Dia.	
3E8909	4*	43/8 x 13/8	\$0.62
3E8910	8*	43/8 x 13/8	
	Workin	g Voltage,	

Peak 800			
Stock	Capy.	Size In.	Your
Number	Mfds.	Lgth. Dia.	Price
3E8912	4*	436 x 1 36	\$0.88
3E8913	8*	436 x 1 36	

Type UE Universal Upright Units

For replacing Electrolytics. Round aluminum cans. Same size and appearance as stand-ard electrolytics. Fits stand-ard ring Mtg. clamps. Non-

D. C. Working Voltage,

Stock Num.	Capy. Mfds.	Size In. L. Dia.	Your Price		
	8-8* 5-15* 8-8-8*	436 x2 16 436 x2 16 43 x3	\$1.18 1.97 2.06		
3 E 8919	9-9-18		2.94	-	IDA.



Number	Mfds.	L. Dia,	Price	Price
3 E 8 9 2 0	4*	436x136	\$1.50	\$0.88

D. C.	** O! K.	g , o.tuge, s		
Stock Number	Capy. Mfds.	Size In. L. Dia.	List Price	Your Price
3E8922 3E8923 3E8924 3E8925 3E8926	4* 8* 4-4* 8-8* 5-15* 4-4-4* 8-8-8* 9-9-18*	436 x 1 36 436 x 1 36 436 x 2 36 436 x 3	\$1.50 1.80 2.40 2.90 4.75 3.50 5.00 7.00	\$0.88 1.06 1.41 1.70 2.79 2.06 2.94 4.12
Values	220 00	vivalent to el	ectrolytic	con.

denser capacities.



Replacement Condensers

Uncased

Ideal for replacing "blown" condenser block sections in filter circuits or power units. Compact, rated safely.

400 Valt

Stock Cap.	Dimensions	Your
Number Mfd.	Ht. Wd. D.	Price
3D7524 .1 3D7525 .25 3D7526 .5 3D7527 1. 3D7528 2. 3D7529 1. 3D7530 2.	111/4 x 3/4 x 3/4 111/4 x 3/4 x 3/8 111/4 x 1/4 x 3/8 111/4 x 1/4 x 1/4 4/4 x 1/4 x 3/4 4/4 x 1/4 x 4/4	\$0.20 .26 .33 .59 1.00 .50 .70

3D7531 1 1114X 38X 38 50.25

3D7533 3D7534 3D7535 3D7536	.5 1. 2. 1.	111/6x15/8x 5/8 111/6x21/8x 3/8 111/6x21/x13/4 41/2 x13/8 x 3/2	.44 .68 1.15
3D7537	2.	414 x176x1	.88
	8	00 Volt	
3D7538	.1	111/6X 3/6X 5/6	.26

3D7540 3D7541	.25 .5 1.	435 x136x 35 435 x136x 35	.47		
1000 Volt					
3D7542 3D7543 3D7544	.1 .5 1.	416 x37 x 12 416 x37 x 12 416 x37 x 74	.29 .53 .79		

Cartridge Condensers

Compact service re-placement condensers.

3E8949 \$.11 3E7643 .11 3E7644 .11 3E7645 .11 3E7646 .13 3E7647 .14 3E8951 .24 3E8952 .38



3E8953 \$.12 3E7648 .12 3E7649 .12 3E7650 .14 3E7651 .21 3E8955 .29

and wi range of s sizes available for practically its. Non-inductive. High incircuits. sulation resistance.

200 1	olt		400	Volt
Stock Num.	Your Price	Capy. Mfds.	Stock Num.	Your Price
3E8929	5.09	.001	3E8943	\$.10
3E8930	-09	.002	3E8944	.10
3E8931		.005	3E8945	.10
3E8932		.006	3E7634	.10
3E8933		.01	3E7635	.10
3E8934		.015	3E7636	.10
3E8935		.02	3E7637	.11
3 E 8936	.10	.03	3E7638	.11
3E8937		.05	3E7639	.12
3E8938		i	3E7640	.14
3E8939		.15	3E8946	.16
3E8940		.25	3E7641	.21
3E8941		.5	3E8947	.32
3 E 5942		.0101	3E8948	.19
600			1000	Volt

.001 .006 .01 .02 .05 .1 .25



EROVO

Dry Electrolytric Condensers

Dry self healing. Dependable 525 volt D.C. peak voltage. Surge proof. May be mounted in any position. Complete with mounting rings.

Type E-Upright Mounting

Stock Number	Capacity Each Sec.	Size Dia. 11t.	List Price	Your Price
3D7547	2	13 x 25/6	\$1.35	50.44
3D7548	4	1 3 8 X 2 5 %	1.55	.50
3D7549	4-4	212x418	2.70	1.00
3D7550	5-15	212 X418	4.10	1.35
3D7551	6	13 g X 4 l g	1.80	.59
3D7552	6 8	13 H X 4 1/8	1.85	.62
3D7553	8-8	2 12 x4 1/8	3.25	1.06
3D7554	8-16	212X418	4.10	1.62
3D7556	10	13% x4 1/8	2.25	.91
3D7558	16	21/2×41/8	2.80	1.20
3D7561	2-4-8	3 ×41 g	4.10	1.70
3D7562	2-8-8	3 x414 3 x414	4.40	1.82
3 D7563	4-4-4	3 x41 g	3.95	1.50
3D7564	8-8-8	3 x414	4.90	1.59
3D7565	8-8-16	3 x41	5 85	1.88
3 D7566	9-9-18	3 x41%	6.70	2,20
3D7567	9-8-8-8	3 x416	6.55	2.12
3D7570	9-9-18-18	3 x416	9.00	3.09

Inverted Mounting Container-525 V.D.C.Peak

insulated type—is provided with insulating boss segregating se from chassis. Grounded type—Case grounds to chassis.

Stock Number	Stock Number	Mfd. Cap.	Can Size	List Price	Your Price
3D7571 3D7572	3D7580 3D7575	2	136 x 134 136 x 256	\$0.75 .85	\$0.44
3D7573 3D7574	3D7576 3D7577	6 8	1 34 x2 54 1 34 x3 14	1.00	.59

Replacement Electrolytics For A.C.-D.C. Midgets



Identical to the original units. Cardboard con-tainers (*) De-notes Common Terminal is

Positive. On all others Common Terminal is negative.

Stock Number	Capy. Mfds.	Size In. D. W. L	Your Price
Work	ing V	oltage 25	Volts
3E8956	5-5]	1 4x1 1/4x236	\$0.44
3E8957	10-10	1 1/4 x 1 1/4 x 2 3/1	.44

D-1001 10 1	2 /Mirr /Mirr /	
Working	Voltage 150	Volts
3E8958 4-4	1 14 x 1 14 x 2 1/4	.50
3E8959*4-4	1 14 x 1 3 x x 2 3 4	.50
3E8960 4-8	134 x 1 34 x 2 56	.65
328961*12-4	1 14 x 1 14 x 2 5/4	.76
3E8962 12-4	1 14 x 1 3 6 x 2 3 4	76
Washing	V-14 200	Vales

Working V	oltage 200	Volts
3E8963*4-4	134 X1 4 X2 36	.53
3E8964 4-4	11/x13,x25/g	.53
3E8965 4-8	1 4 x13 x2 3/6	.68
3 E8966 8-8-4	1 1 x X 19 6 X 4 3 6	1.06
3E8967 8-8-8	1 1 x x 19 4x4 1/8	1.12
3EJ968 8-8-16	1 18 x 19 76 x 4 16	1.23
3E8969 12-4	114 x 13 g x 2 5%	.76
3E8971*16-8	11 x X 19 4 x 4 14	.85
3E8972 16-8	1 % x 119 6 x 25 6	World R

Compact Electrolytics

In Cardboard Containers



Stock Number		Size In. D. W. L.	Your Price
D.C. W	orkins	Voltage 50	Volts
3E8974		14x114x23/a	29¢
3E8975		11/4×11/4×23/6	38€
3E8976		14x1 3 x25g	47¢
D.C. W	orking	Voltage 150	Volts
3E8977		11 6x 11 6x 2 36	35¢
3E8978	6	11/4x11/4x23/	41¢

3E8979	8	11/4×11/4×2*6	44
D.C. Wo	rkir	g Voltage 200	Vol
3E8980	1	11.4x11.4x236	32
3E8981	2	114x114x236	32
3E8982	4	11 4x11 4x2 34	386
3E8983	6	114x114x234	410

Ĝ	3E8984	8	11/4×11/4×23/6	47¢
2	D.C. W	rkin	g Voltage 300	Volt.
3	3E8985	2	11/4×11/4×23/4	35€
6	3E8986	4	11/4×11/4×234	41¢
5	3E8987	6	1 14 x 1 34 x 2 34	50¢
5.)	3E8988	8	14x134x25/8	53¢

Dry Electrolytic Condensers Cardboard Containers



Stock	Cap.	Size, Inches	Your
Number	Mfd.	L. W. D.	Price
3D7605	1.	232x136x 56	32¢
3D7606	2.	232x136x 56	38¢
3D7607	22.	232x136x136	65¢
3D7608	24.	414x134x134	70c
3D7609	26.	414x134x134	85¢
3D7610	4.	414x134x 54	44¢
3D7611	44.	414x,34x14	70c
3D7612	6.	41/4x13/4x 1/4	53¢
3D7613	68.	41/4x13/4x13/	85¢
3D7614	8.	41/4x13/4x 1/4	56¢
3D7615	88.	41/4x13/4x13/	88¢

By Pass Condensers



Metal Case Hermetically Dsealed. Nonwound. Size

Conserv.	atively	rated.		
200 V	olt		400 V	olt
Stock Num.		Capy	Stock Num.	
3E8989 3E8990	28¢	.05 .1	3E7500 3E7501	27¢ 29¢
3E8991 3E8992 3E8993	42¢	.25 .5 .11	3E7502 3E7503 3E7564	35¢ 44¢ 40¢
3E8994 3E8995	44¢	.2525 .111	3E7506	
500 V	Volt		600	Volt
Stock Num.	Your Price	Capy Mfds	Stock Num.	Your Price

3E8996 28¢ 3E8997 32¢ 3E8998 38¢ 3E8999 42¢ Metal Case By-pass Condensers

0.5



Type 61 Flat type metal case by-pass non-Inductive condensers. Dimensions 218"x118"

Stock Num.			Stock Num.	Your Price
3E7625	53¢	1.0	3E7511 3E7632	59¢
3E7626		.55	3E7512	65¢
3E7627		14-14-14	3E7513	71¢
3E7628		.555	. 1	
3E7629	62¢	.111	111	
		600 Vol	t	

Sprague Emergency Kit

CONDENSER

3E7729-List, \$5.50. YOUR PRICE, Only...

Sprague "600" Emer-gency Kit contains five most useful values of gency Kit contains five most useful values of electrolytic capacity. Dry cardboard case. Pigtall leads, type. One each of following: 8 Mfd., 6 Mfd., 4 Mfd., 2 Mfd., and 1 Mfd. Working voltage 475 peak 600 volts.

Double **Emergency Kit**

Contains two each of the following E.C. capacities; in separate cardinard cases with pigtail leads: 8 Mfd., 6 Mfd., 4 Mfd., 2 Mfd., and 1 Mfd. 475 volts working potential and 600 volts surge peak. Retail value, \$11.20. 3E7730-YOUR PRICE \$6.58

Individual Handy Units



As in Emergency Kit Mfg. type E.C. Small enough to be taped in pairs and occupy less space than original double units. May be

connected in series for 850 volt working potential

Stock Number	Cap. Mfd.	Size in Inches	List Price	Your Price
3E8450	0.5	2 1/4 x 17 /4 x	80.80	50,47
3E8451	0.75	2 1 6 x 17 6 x	.85	.50
3E8452	1	27 14X1 18 X 9 /4	.85	.50
3E8453	2	27 6X1 18 X 9 /6	.95	.56
3E8454	4	27 MX 1 38 X11 /6	1.15	.68
3E8455	6	27/6X11/4X11/8	1.30	.76
3E8456	8	27 4x1 14x1 34	1.35	.79

High Capacity, Low Voltage Cardboard Cased Condensers



Tubular type, with pigtail leads color-coded. E.C Designed to stand the hig midget A.C.-D.C. receivers. Sprague type H C. high temperatures of Dry Electrolytic. Dry

Stock	Cap.	D. C.	Length &	List	Your
No.	Mfd.	Volts	Dia. Inches	Pricc	Price
3E8457 3E8458		25 50	21/4 L.X 11/4 D.	\$0.60	\$0.36
3E8459	25	25	214 x157	1.10	.51
3E8460	25	50	234 x1176		.66
100 000				A .	

In rectangular packages for A.C.-D.C. sets 3E8461\ $4.4 + 150 + 2.5 \times 1.4 \times 1.05 \times 1.$ **AC-DC Dry Tubular Electrolytics**



Similar in appearance to above Units. Universally used in present receivers which operate directly from the line without a step-up power transformer. Will withstep-up power transformer. Will with-fame bigs tempera-ture of a usidget A.
C-D.C. receiver. Pig-tail leads of emerced push-back wire.
Cut shows typical example of Three Low with mounting stray.

Voltage Tubulars connected with mounting strap Used as substitute for exact replacement.

Stock No.	Mfg. No.	Cap.	Volts	List Price	Your Price
3E\$470	ST-22	2 4	200	\$0.60	\$0.36
3E8471 3E8472		8	200	.70	.54
3E8473	ST-122	12	200	1.05	.63
3E8474 3E8475	8T-162 8T-41	16	200 100	1.20	.72 .36
3E8476		12	100	.75	.45

Famous Sprague Midgets

Twenty million sold. Unexcelled as general by-pass and grid con-densers. Non-inducdensers. Non-inque-tive. Mounting hole



centers 2 inches.

TEST VOLTAGE—1000 VOLTS

Stock Number	Catalog Number	Capacity Mfd.	List Price	Your Price
3E7715 3E7716	MC-31 MC-325	.0001	\$0.25	\$0.16
3E7717 3E7718	M C-34 M C-35	.0004	.25	.15
3E7719	MC-21 MC-24	.001	.25 .25	.15 .15
3E7721	MC-25 MC-26	.005	25	.15
3E7723	MC-11 MC-12	.01	.25	.15
3E7725 3E7726	MC-15 MC-16	.05	30	.18
3E7727	MC-I	.1"	.35	,21

SPRAGUE

GUARANTEE

Sprague (E.C.) Electrolytic Condensers are Guaranteed

ore Guaranteed

For use on centinuous working voltage of 425 volts and will stand momentary surges as high as 600 volts. Power Factor (Watts divided by volts times amperes) in Sprague condensers is less than 10%. This means that you get the same filtering action with a Sprague 8 Mid. E.C. unit as with 12 Mid. or capacity in windinary electrolytic condensers. Therefore the actual cost of Sprague capacity is 331% % less than eminary electrolytic condensers cost you.

Dry and Wet Electrolytics (E.C.) In Cylindrical Aluminum Cans



DRY-Manufacturer's Type A.C. Mount in any position-Working Voltage 475 Peak 600.

Stock Number	Cap. Mfd.	Dia & ligt., in.	List Price	Your Price
3E7655 3E7656 3E7657 3E7658 3E7659 3E7660	2 4 6 8 10	1 x3 4 1 x3 4 1 x47 6 1 36 x47 6 1 36 x47 6	\$1.10 1.25 1.45 1.50 1.80 2.05	\$9.66 .75 .87 .90 1.08 1.23
3E7661 DRYM	16	Section S	2.30	1.38
DK I — M	uitipie	Section 2	ingle	Can

	Typ	e A.C.	_	
3E7662	8-8	1 36 x 47 /4	IS2.40 I	51.44
3E7663	4-4-4	138x476	2.80	1.61
3E7664	8-8-8	3 x4 1/4	4.00	2.41
3E7665	5-15	2 16 x4 16	3.35	2.01
3 E 7666	9-9-18	3 x444	5.80	3.48
3E7667	9-9-18-18	3 x435	8.15	4.89
3E786#	8-8-8-8	3 x4 16	5.35	3.21
3E7664	8-8-18-18	3 x415	7.55	4.53
3€767₩	18-18	2 14 x4 14	4.90	2.9

DKY—Invi	erted	Screw	Mtg.	Type	S.C.
3E767%	4	[1	x3	\$1.25	50.75
3E7672	6	1	x3	1.45	.87
3E7673	25	134	X47/18	1.50	.90
VET-500	Vale	DC	Peah	Tuna	WC

WET-500 Volt D.C. Peak-Aluminum can 4½ inches high, wil able vent. Self healing. Long life. with non-tamper.

Stock Number	Cap. 1	Dia.	List Price	Your Frice
3E8465	4	1	\$1.25	50.75
3E8466	6	1 1	1.40	.84
3E8467	8	1 1	1,45	.87
3E8468	10	13/6	1.50	.90
3E8469	12	13/8	1.55	,93

SPECIAL REPLACEMENT

Dry E.C. Multiple Units.
To be need where dual capacity units with special working voltages are employed. Aluminized pardboard casings.

Stock No.	Mfg. No.		D. C. Wolts	Size		
3E8480	· M-88	8-14	25-200	21x11x11	\$1.15	50.69
3E8481	₹M-44*	4-1		SINKID.		
3E8482	RM-55*	5-5	35	21x 11)	.85	
LE8483	M-55	5-3	25-200	2 x1 x1	1.05	.62
3E8484	OM-44	4-4		3 1x1 1x1		.87
3E8485	RM-144	1-3.6	300-100	24x 1D.	1 1.0G	.60
3E8486	KM-8W	8-8-8	150	3 x1 x1	2.75	1.65

*These numbers are in tubular containers,

& Dia.

Auto Radio Filter Condenser

SpragueTypeA.R.

Steel Jacketed Noise Priver condenser with standard mounting bracket permanently relided to the asclet. For use where temperature and heat rand perdinary condensers.

Cap.

Stock Number

3E7732



List Price \$0.80

Metal Cased By-Pass Condensers

objectives to the control of the con



Stock No.	Cap. Mfd.	Dimensions in Inches	Mtg. Cen.	1 ist Price	Your
3E7686	0.1 0.25	1 34 X 15 Ax 13 Ax 13 Ax 13 Ax	218	\$0.50	\$0.30
3E7688 3E7689	0.5 1.0	2 x 3, x 13 4 2 x 1 3, x 1	238	1.00	.45
3E7690 3E7691	.11	1 3 8 X 15 /6 X 13 M 2 X 3 4 X 13 /6	21,	.65	.39
3E7692 3E7693	.55	2 x1 34 x1 2 x 34 x13 2	2 3%	1.00	.60 51

Small Tubular Cartridge By-Pass

Non-Inductive "600" Peak Voltage, Tinned Pigtail Leads.

Sprague's small tubu-lar condensers are the most compact 600 volt most compa-condensers on Made on the



market. Made for use in spaces no other condenser of equal capacity and rating will fit. Impregnated moisture proof tube with ferruled caps 2nd secured pigtall leads.

Stock Number	Cap.	Length & Dia, in Inches	List Price	Your
3E7695	1000.	15 & L.X3 & D.	\$0.25	50.15
3E7696	.00025	38 X36	.25	.15
3E7697	.0004	7.6 × 3.6	.25	.15
3 E 7698	.0005	13 /4 X 3/8	.25	.15
3E7699	.001	1 15 /4 X3/6	.25	.19
3E7700	.002	15 x 3/8	.25	.15
3E7701	.003	1 x 1/a	.25	.15
3E7702	.004	1 x 3/4	.25	.15
3E7703	.005	15/6 X 3/8	.25	.15
3E7704	.006	1 1/2 x7/4	.25	.15
3E7705	.01	11 6 X7 6	.25	.15
3E7706	.02	11/6 X7/6	.30	.18
3E7707	.05	1 1/4 x7/4	.30	.18
3E7708	.06	15/6 E7/6	.35	. 21
3 E 7 7 0 9	.1	1 3 % X9 %	.35	. ,21
3E7710	.25	134 x34	.45	27
3E7711	.5	137 X76	.60	.36

Dry E. C. Cardboard Cased Condensers



With special mounting flanges and tln-ned push-back insu-lated leads. In at-tractive aluminized cardboard casings cardboard casings with orange and blue markings. Neat

Stock Number	Cap.	Size in Inches	List Price	Price
3E7675 3E7676 3E7677 3E7678 3E7679 3E7680	2 4 6 8 2-4 4-4	2%x11%x1% 45x13%x3 46x13%x1 46x13%x1 46x13%x1 46x13%x1 46x13%x1	\$0.95 1.15 1.30 1.35 1.65 1.80	\$0.56 .68 .76 .75
3E7681 3E7682 3E7683 3E7684 3E7685	4-6 4-8 6-6 6-8 8-8	4 14 x 15 16 x 15 16 16 16 16 16 16 16 16 16 16 16 16 16	1.95 2.00 2.15 2.26 2.20	1.1 1.1 1.2 1.2 1.2



Your \$8.90

4x7x3 in. 4x7x3 in. The Sprague Capacity Indicator increases the efficiency of any service laboratory. The Capacity Indicator, housed in a heautiful baketite gase with modern selector knobs, and convenient pin jacks, jacquitains the popular sizes of standard capacities of the first selector switch connects the non-inductive, paper-dielectric, capacities to the pin jacks, in the following order: 0.00025 Mrd. 0.001 Mrd. 0.00 Mrd. 0.00 Mrd. 0.00 Mrd. 0.001 Mrd. 0.00 Mrd. 0.001 Mrd.

FREE Sprague Condensers we will, upon request and as long as our supply lasts, include a Free copy of that handy volume.

SPRAGUE TELL-U-HOW CONDENSER GUIDE

New Hammarlund Double Spaced Midget Condensers

Widget Condensers

Wide spacing, special bearings and Indinatite make these condensers particularly suitable for ultra short wave receivers and transmitters. Air gap between plates them to the compact types of transmitters move an unch in vague. For tuning amplifier stages in crystal controlled transmitters and for neutralizers up to 210's and 50 watters. Also as tuners for 5 meter oscillator Streek.

Stock Num.	Code Num.	Max.	Min.	List Price	Your Price
	MC-35-X	35 mmf.	6 mmf.	\$2.25	\$1.32
	MC-50-X	50 mmf.	7 mmf.	2.75	1.62

Double Spaced **Dual Midget Condensers**

Designed for efficiency at ultra high frequencies for either receiving or transmitting. Wide spacing between plates materially aids frequency stability. Isolantite for insulation assures the low loss factor so necessary in 5 meter work. An ideal condense for compact 5 meter transmitters using tubes up to 245's or 210's in push-pull. Actual air gap between adjacent rotor and stator plates is .0713'. Midline shaped plates and special bearings provide easy and accurate tuning. Other specifications are standard except for omission of the shield plate.

Stock Number		List Price	Your Price
307238	Code MCD-35-X	\$3.50	\$2.06
(Capacity	per section 33 mfd.	max., 6	mmf. min.)

New Hammarlund Band Spread Midget Condensers



Designed for use as "band spread" tuning condensers for short wave receivers and for use in amateur band frequency meters. The "imik" section can be set and locked at any desired and locked at any desired and locked at any desired ing section to spread narfrequency ranges over the entire dial, regard-of the range of the band or the coils used.

less of	the range	Of the out	14 01 1110	*****		
Stock Num. 3C7240 3C7241	Code Num. MC-120-B MC-150-B MC-175-B	Tank Capac. 100 mmf. 100 mmf.	Tuning Capac. 20 mmf. 50 mmf.	List Price \$3.00 3.25 3.50	Your Price \$1.76 1.91 2.06	

Compensating Neutralizing Condensers



For use in circuits where a small, variable capacity is needed for neutralizing, com-pensating or as a vernier or balancing condenser. Fine pensating of as a vernice of balancing condenser. Fine quality. Excellent design and construction. Rugged. Accurate. Aluminum plates. Supplied without knob. Shaft diameter ¼ inch. Mounts in single ¾" hole.

Stock	Plates	Max. Cap.	List	Your
Number		Mfd.	Price	Price
3E7301	3	15	\$0.60	\$0.35
3E7302	5	30	.65	.38
3E7303	7	45	.70	.41
3E7304	9	60	.75	.44
3E7255 3E7256 3E7257 3E7258	11 15 18 20	80 100 125 140	.80 .85 .90	.47 .50 .53

Minimum Capacities from 3 to 5 mmfd.

Insulated Flexible Coupling

An insulated flexible coupling device for ganging condensers. Shpg. wt.,

3C7265-List. 60c. YOUR PRICE



Equalizer

A small neutralizing or bal-

15¢

A small neutralizing or bail conceins condenser, having an exceptionally wide capacity range. For equalizing the units of a multiple-tuning bidenser. Bakelite base mount, mica delectric and heavy phosphor-bronze spring plate. Minimum capity: 2 mnfds. Shng. wt. 6 oz.

C7266—18.35—2 to 35 mnfds. 3C7266-List, 50c. YOUR PRICE.....

3C7267—EC-80—20 to 100 mmfds.

Improved Hammarlund Midget Condensers

For use as short wave and ultra short wave tuning condensers. Designed to meet the strict demands of frequencies running in to 50 and 60 megacycles. Isolantite insulation reduces dielectric losses to and uniform efficiency under all conditions of temperature and humidity. A brush type four point wiping contact eliminates objectionable inductive reactance. Accurately fitted bearings at both ends of the condenser provide for long life, quiet operation and stability of calibration. Non-corrosive soldered brass plates eliminate wibration and effect lowest series resistance. All parts either soldered or riveted. End plates are of heavy aluminum and provisions are made for both single hole panel mounting and base mounting.

General Specifications: Plates are .0225" brass with .0245" airgap between plates. Standard condensers include stops and are made to increase canacity by clockwise rotation, Individually tested for breakdown on 500 volts A.C. and packed with 1½" bakelite knob. Quality fully guaranteed.

	Stock Number	Code Num. and MMf. Capacity	Plates	Min, Cap. (MMf.)	List Price	Your Price
ı	3C7215	MC-325M	43	12	\$3.50	\$2.06
1	3C7216	MC 250M	3.1	10	3.00	1.76
١	3C7217	MC-200M	27	10	2.75	1.62
١	3C7218	MC-140M	19	7	2.50	1.47
1	3C7219	MC-100M	14	6	2.25	1.32
ł	3C7220	MC-1008	11	6	2.25	1.32
ı	3C7221	MC-75M	11	6	2.00	1.18
1	3C7222	MC-758	11	6	1.60	.94
1	3C7223	MC-508	7	5	1.80	1.06
	3C7224	MC-358	5	4	1.50	.89
ı	3C7225	MC-20S	. 3	20	1.40	.82
	"M"N	lidline Plates.	"S"-	-Semi-	Circular	Plates.

New Hammarlund Dual

Midget Condensers



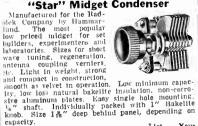
A high quality, small two-gang condenser. Their rigidity, low losses and careful construction provide for greatest electrical and mechanical efficiency tuning condensers. The entire condenser is built on a strong Isolantite base, including a shield plate between the stators. Other specifications same as the single midget condensers. Single hole panel mounting. Overall length behind panel is 3¼".

Number	Code No.	Price	Price
307230	MCD-140-M	\$4.00	\$2.35
307231	MCD-100-M	3.50	2.05
(100 mmf.	capacity per section)		



A high quality three gang condenser made in one of the best equipped plants by skilled workmen. Very separate and unusually efficient. Each unit has separate neutralizing device for micrometric balancing. Rigid stamped steel frame, endmium plated. Best quality aluminum plates. Each unit. 00035 capacity. Body is 7% in. long, 3% in. wide.

"Star" Midget Condenser



enpacity.			List Price	You
3D7286 3D7287 3D7288	.000015 mfd. .000025 mfd. .000050 mfd.	SM- 15 SM- 25 SM- 50	\$0.85 .85	\$0.49 .49
3D7289	.000100 mfd. .000140 mfd.	SM-100 SM-140	$\frac{1.00}{1.25}$.5

Quality .00015 Mfd. Midget Condensers



A high quality small size condenser. Especially designed for all types of short wave receivers and converters employing either a one or two-gang condenser. Rigid construction provides for electrical and mechanical efficiency. Accurately fitted ball bearings at end of condenser shaft provide for long life, quiet operation and stability of calibration. Both models have counter clockwise rotation, trimmers on left side, and a 1% long. 4" diameter shaft.

3D7284. Size: Height, 1%"; width, 2%'; depth, 1%". Four threaded size %2 mounting holes depth, 13%". Four threader in base. List Price, \$1.25. in base. YOUR PRICE

150 MMf. Dual Gang
Size: Height, 17½"; width, 3½";
Three thrended size 9½2 mounting
se. List Price, \$2.25. 3D7285. D. opth. in base

YOUR PRICE 3 Gang .00015 Mfd. Midget Condensers





circuit, grid input a n d plate circuit at the same time. Is constructed exactly like the popular one and two gang condensers listed above. Counter-clockwise rotation, trimmers on left side, and a 1%" long, 4" shaft.

150 Mmf. Three Gang

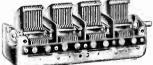
3E7283—Size: Height 1%", width 314", depth 314". Three threaded size 8/32" mounting holes in base. List Price, \$3.25.

Thordarson Vernier Condenser

Capacity .001 Mfd. (43 plates)

3D7307
List Price, \$4.50
YOUR PRICE
Completely shielded
against body capacity. Dust
hield protects plate.
Double cone adjustable metal bearing. Bearing secured
directly to the shielding base plate wilelectric. Lowest possible zero cal
delectric loss, Especially useful for the diciertic. Hard rubber insulation is used throughout. Lowest possible zero capacity and dielectric loss. Especially useful for the reception of long waves or for construction of wave traps. Supplied complete with vernier adjustment, knob and dial. Drilling template included.

4-Gang Condenser



3D7306 List Price YOUR PRICE

79¢

Shielded between sections. Heavy aluminum plates, \$\frac{5}{2}\$ inch diam steel shaft. Self adjusting bearings at both ends of the shaft. Smooth easy rotation. Heavy steel frame, cadmium plated. Width 3'". Hielkin, 3'". Leukin, 9". Shaft, 1\frac{1}{4}'' long. Capacity .00035 Each Section.

Hammarlund Padding Condensers



For trimming, aligning, compensating and padding purposes. A compact, adjustable condenser. The higher capacity units are used as oscillator series condensers. Bases a real isolantite. The phosphor bronze flexible plate is Adjusting serews have machine cut threads and self-aligning conical seats. Solder dipped terminals, Fixed plates are securely anchored.

Stock	Capacity	Mmf.	List	Your
Number	Min.	Max.	Price	Price
3E7260	10	70	\$0.50	29¢
3E7261	70	140	.60	35¢
3E7262	140	220	.70	41¢
3E7263	600	1000	1.00	59¢
3E7264	1000	1300	1,25	73¢

Quality Variable Condensers



The Condensers described on this page are the finest made. They are the first quality product of the originators of the variable Gang Condenser carrying a section with specially shaped plates for tuning the oscillator of Superheterodyne circuits, and the Company which supplies the majority of the largest nationally known Radio Set Manufacturers. Their long experience in this field is reflected in the superior workmanship and advanced mechanical and electrical features to be found in these fine units: Frames and shields of heavy cold rolled steel finished in bright cadmium plate, heavy aluminum plates, ball bearing shafts, new vernier mechanism; and extremely accurate calibration—capacity variation between gangs plus or minus 1%. There is a type for every is a type for every tween gangs plus or minus 1%. There is replacement or constructional need available.

Note: All Condensers Illustrated are of Clockwise Rotation.



Low Shield Superheterodyne Model

Special oscillator section at rear ity .000020 mfd. Maximum capacity of condenser for tuning the oscillator of oscillator section .000354 mfd. Minimum capacity of a padding system. For use with a 175 K.C. intermediate frequency. Maximum capacity .000020 mfd. Size of pater 23½ in. Length: 2-gang user with a 175 K.C. intermediate frequency. Maximum capacity of R.F. section .000365 mfd. Minimum capac-

Clockwise Rotation

Counter-Clockwise Rotation

High Shield Superheterodyne Model

Has special section at rear for tuning oscillator of superhelerodyne circuits without the use of a "padding" system. Designed for 175 K.C. internediate frequency. Capacity of R.F. sections, maximum: 000035 mfd. Size of pacity of R.F. sections, maximum: 000355 mfd. size of pacity of R.F. sections, maximum: 000355 mfd. system. Length: 2-gank 24%, 3-gang, 4%, 4-gang 554%, 5%

Clockwise Rotation

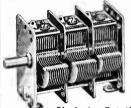
Stock Num. Trim- Your Price,

	oscillator section, maximum: .000354
	mfd., minimum: .00002 mfd. Size of
	end plate: 4x3 1 In. Length: 2-gang
	211", 3-gang. 4", 4-gang 514". %"
	ball bearing shaft.
1	Countage Clackwice Rotation

Stock Num. Trim- Your Price,

Stock Number 3D7350 3D7351 3D7352 3D7353	Num, Gangs 2 2 3 3	Trim- mers on: Right \ Left \ { Right \ Left \ }	Your Price, Each \$1.11	Stock Number 3D7356 3D7357 3D7358 3D7359	Num. Gangs	Right Left Right Left	Price, Each \$1.11
LowShiel 3D7362 3D7363 3D7364 3D7365	d T.R.F.	Models(Right Left Right Left	Capacity:.	000365 mfc 3D7368 3D7369 3D7370 3D7371	1. Max., .0	Right Right Left Right Left	fd.Min.) \$1.11 1.67

Number	Gangs	on:	Each	Number	Gangs	on:	Eacn
3D7374	2	Right	\$1.18	3D7380 3D7381	2	Right	\$1.18
3D7375 3D7376	3	Right	1.76	3D7382	3	Right	1.76
3D7377 3D7378	3 4	Left Right	2.35	3D7383 3D7384	4	Left Right	2.35
3D7379 High Shie	4 dT.R.F.	Left	Canacity	3D7385 .000365 mf	d. Max	Left .00002 M	fd. Min.)
3D7386	2	Right \	\$1.18	3D7392	2	Right	\$1.18
3D7387 3D7398	3	Right {	1.76	3D7393 3D7394	3	Right	1.76
3D7389 3D7390	3 4	Left Right	2.35	3D7395 3D7396	3 4	Left Right	2.35
3D7391	4	Left i	2.00	3D7397	4	Left	1



New Compact Condensers

m. 1

Superheterodyne and T.R.F. Models

SUPERHETERODYNE MODELS for use with 175 KC i.f.. Maximum capacity of r.f. section .000365 mfd., minimum .000016 mfd. Maximum of oscillator section .000275 mfd., minimum .000013 mfd. Covers 1800 to 535 KC. When used to cover this range the r.f. inductance should be 210 M.II. and oscillator inductance 166.5 M.H. Size of end plates 3 dex1 33". Length, 2-gang 2 73", 3-gang 3 3%" Ball hearing shaft %" diameter.

4.20	Clockwise Rotation				Counter-Clockwise Rotation			
Stock Number	Num. Gangs	Trimmers on:	Your Price, Each	Stock Number	Num. Gangs	Trimmers on:	Your Price, Each	
3D7310	2	Right	\$1.00	3D7314 3D7315	2	Right)	\$1.00	
3D7311 3D7312	3 3	Left Right	1.47	3D7316 3D7317	3 3	Right	1.47	

T. R. F. Models

Maximum capacity .000365 mfd. Minimum capacity .000016 mfd.
Clockwise Rotation | Counter-Clockwise Rotatio Counter-Clockwise Rotation

Stock Number	Num. Gaugs	Trimmers on:	Your Price, Each	Stock Number	Num. Gangs	Trimmers on:	Your Price, Each
3D7318	2	Right	\$1.00	3D7322	2	Right \	\$1.00
3D7319 3D7320	2 3	Left Right	1.47	3D7323 3D7324 3D7325	3 3	Right Left	1.47

Condenser Tunes from 1800 to 535 K.C. Two Gang Shaft 3% dlam. 13% long. 3 tapped mounting ing holes in bottom and in mounting feet on sides to it 352* thread. 24% long. 3.3% wide, 18% high. Maximum capacity of R.F. section .000365 mfd. Minimum capacity .000016 mfd. Maximum of oscillator section .000176 mfd. Minimum .000016 mfd. Stock No. Trimmers On Rotation

New 456 K.C. Condenser

STOCK NO.	rrinmers	On	T.	O(a(ton
3D7327	Left		Clockwi	se
3D7326 3D7329	Right		Clockwi	80
3D7329	Left		('ounter	Clockwise
3D7328	Right		Counter	Clockwise
YOUR PRICE				\$1.00
Each				21.00
			-	

2 Gang

2 Gang
456 K. C. Model
Vernier
6 to 1 Ratio
H as an extended
range of 1800 to 535
K.C. The high ratio
vernier device on the
shaft allows for fine
tuning on the low waves
as well as on the regular broadcast b an d.
% shaft.



shaft.		
Stock No.	Trimmers O	n Retation
3D7331 3D7330	Left Right	Clockwise Clockwise
3D7333	Left	Counter Clockwise
3D7332	Right	Counter Clockwise

Right 3D7332 Your Price

\$1.13

Single Gang Condensers

Low Minimum

Cadmium plated. End plate 3½x2½". Heavy aluminum plates. Wiping phosphor bronze rotor connections. Shielded minimum compensators with grounded adjusting screw. Steel shaft ½ inch diameter—ball bearings.

	ing	8.	
Stock	Cap. Mfd.	Plates	Price Each
Number 2D7250	.0001	6	59 c
3D7250 3D7251	.00015	8	69 c
3D7252	.00025	12	74c
3D7253 3D7254	.00036	17	78 c
3D7254	.00046	21	89 c

New 6 to 1 Ratio Vernier Variable Condensers

A new ingenious arrangement in the shaft of these condensers provides for a vernier drive which eliminates the use of costly vernier dials and still allows for critical tuning which is most essential with modern broadcast or short wave receivers. Ball bearing ½" shaft extends ¾". Distance from end of shaft to shield 1½". Construction details, physical dimensions, electrical specifications and applications same as those of the New Compact Variable Condensers listed above.

Superheterodyne Models

	Clockwise Rotation			Counter-Clockwise Rotation			
Stock Number	Num. Gangs	Trimmers on:	Your Price, Each	Stock Number	Num. Gangs	Trimmers on:	Your Price, Each
3D7334	- 2	Right	\$1.13	3D7338	2	Right) Left	\$1.13
3D7335 3D7336 3D7337	2 3	Right Left	1.60	3D7339 3D7340 3D7341	3 3	Right Left	1.60
301331	- 0	11.0	- D F	14 - Jala			

T. R. F	. Models	nter-C	lockwi	se Rota
1 61 12	3D7346	1 2		Right)

	Clockwis	e Rotation		Count	er-Cloci	kwise Kota	
3D7342	1 2	Right Left	\$1.13	3D7346 3D7347	2 2	Right\ Left	\$1.13
3D7343 3D7344 3D7345	3 3	Right	1.60	3D7348 3D7349	3	Right\ Left	1.60
Note. See	page 76	for dials	and escutch	eons for Vern	ier cor	idensers.	

Short·Wave Plug·In Coils

Short wave coils are not just cylinders wound with wire. These new Colls are the result of research by competent engineers. Wire correctly spared on each individual coil for efficiency—outperform other coils. A form with a solid backing for the winding insures the wire staying on the form as originally wound and preents a change of inductance. Higher frequency coils have plated wire. All coils are for use with a 140 or 150 mmfd. short-wave condenser.



Regular standard 2-circuit 4 prong base colls. P-imary and secondary on each coil. 15-200 meters. 4 coils to a set.

٠,	neters.	T COIIS CO	a sec.				
3	3E666	8-Ultra	Short	Wave	Coil.	Range	9.5
t	o 21 m	eters. 1	prong.			E:	3
١	OUR	eters. 1				J 2	٠,
3	3E668	-I -Broad	cast c	ils sa	me as	above	but
t	une 190	-550 mete	rs. 4	prong b	ases.	00	3~6
١	OUR F	-550 mete PRICE, Se	t of 2	Coils .		00	نود

5 Prong Coils
Regular standard 2-circuit 5-prong base. Primary
and secondary on each same as above but 5-prong
base interchangeable with band spread coils. 15 meters. 3F6670

-Set of 4 coils. YOUR PRICE \$1.47 3E6671-Broadcast colls same as above but tune meters. 5 prong bases. YOUR PRICE, Set of 2 coils

6 Prong Coils
Regular standard 3-circuit 6-prong coils. Primary and secondary and tickler on each coil. 15-200

-Set of 4 coils. YOUR PRICE \$2.04

3E6673—Broadcast colls same as tune 190-550 meters. 6 prong bases, YOUR PRICE as above but \$1.18

Set of 2 coils . Band Spread Coils

Short Wave. Low loss ceramic padding con-denser mounted on each coil. For use on the congested "ham" bands. Spreads all bands for convenient tuning with usual 140-150 mmfd. con-

	5 prong	bases.	
Stock	Range in	Stock	Range in
Number	Megacycles	Number	Megacycles
3E6674	14.0-14.4	3E6676	3.5-4.0
3E6675	7.0- 7.3	3E6677	1.7-2.0
YOUR PR-	ICE		59¢

Set of 4 colls\$2.35 Long Wave. Highly efficient hand windings Long wave. Aligny efficient hand windings. Used in any short wave receiver using .00014 S.W. tuning condenser. For use on the interesting transatlantic code, ship traffic, European broadcast, alrelone and weather report bands, etc. 5 prong bases.

Range in Stock Number Range in Megacycles Megacycles 3E6759 3E6760 15,1-15,4 11,7-11,9 3E6761 3E6762 9,5-9,6 5,95-6.15 YOUR PRICE 59¢ Each Coll Set of 4 colls\$2.35





New Band Spreading

5 Prong Coil Forms A high quality ceramic adjustable padding con-denser is mounted on top of each coil form. Size of form is the same as those listed above. 3E6695-5 Prong form with 80 mmfd. cond. 3E6696-5 prong form with 180

Price 50c.

NEW ALDEN SHORT-WAVE Coil Selector Unit For All 4, 5 and 6 Prong Coils

Use this new model coil selector in any receiver new or old and secure the utmost convenience in changing coils. Any coil instantly swings into circuit by turning the knob. All 4.5 and 6 prong coils are rigidly held by the specially constructed multiple combination 4.5. and 6 hoe sockets without adjustment of any kind.

Compact and Efficient

Knob and indicator plate mounted on the face of

Knob and indicator blate mounted on the face of the panel show what coil is in circuit. Single units have sockets for 4 coils. Two units can be mounted in tandem so that 8 coils can be individually thrown into circuit a pair at a time. Reliable self-cleaning pressure contacts provide trouble-free operation at all times. Two size 6/32 threaded mounting holes in bottom of unit allow unit to be firmly mounted. 81% knob shaft on unit has a 3% threaded bushing for panel mounting. Shaft extends ½" beyond bushing. See Page 200 August 34 Radio Craft.

New Antenna Trimmer Assembly



3E6698-List Price, 75c. PRICE. 44C 7 to 80 mmfd. Insulated Shaft

Extension Complete assembly for placing the antenna adjustment where it belongs—on the front panel. The long insulated extension shaft fits adjustment screw of trimmer condenser which mounts on back of chassis near antenna binding post. Collar and knob supplied. Entire assembly is 84% long. A high quality 7 to 80 mm/d. trimming condenser is used. Best grade of mirea and porcelain for base is used. The handlest thing in short wave.

Isolantite Short-Wave Coils



Wound on a non-hygroscopic ceramic material.

Wound on a non-hygroscopic ceramic material. High frequency losses are kept to a minimum. Eight moulded ribs on coll forms hold the windings so they are practically air core wound. Coils are for use with a 150 mind, tuning condenser.

4 Prong Short-Wave Coils
3E8085—Set of 4 coils. Covering from 16 to 217 meters. Individual Ranges of individual coils are 16-36, 33-65. 57-115, 108-217. 2 windings. List, 54.00. YOUR PRICE

4 Prong Broadcast Coils
3E8086—Set of 2 coils, 190 to 550 meters.
Ranges of individual coils are: 190-310; 300, 550.
2 windings, List, \$2.50. YOUR PRICE \$1.47

4 Prong Ultra Short-Wave Coil
3E8087--One coil with a range of from 9.5 to
25 meters. 3 windings. List, \$1.35.
79\$

6 Prong Short-Wave Coils
3E8088—Set of 4 coils, 16 to 200 meters.
Ranges of individual coils are: 16-38, 35-75, 73137, 135-200, 3 windings. List. \$5.00. YOUR PRICE \$2.94

6 Prong Ultra Short-Wave Coil 3E8090—One coll with a range from 9.5 to 21 meters. 3 windings. List, \$1.50. meters. 3 windings. List, \$1.56.
YOUR PRICE

SPECIAL VALUE Short-Wave Plug-In Coil Kit



Supplied in matched sets having uniform inducsupplied in matched sets having uniform inductance with accurate space-winding, incorporating the proper relation of tube-diameter to wire size. Wound on green, brown, black and red 4 prong bakelite forms covering from 16 to 217 meters, Ranges of individual coils are: 16-36, 33-65, 57-155, 108-217.

3E8091—Set of 4 coils. Complete with diagram and suggested deposits.

3E8091—Set of 4 coils. Complete and suggested circuits. List, \$2.00.



Illustration shows two units combined in Tan-Price is for single unit.

Single Unit Price

3E6697-Coil Selector. Complete with es-Cutcheon and knob.
No colls included.
YOUR PRICE **52**06

Short-Wave Plug-In Coil Kit



Four coils wound on low loss moulded bakelite. Cover wave band of 16 to 217 meters when tuned with a .00015 condenser. Supplied with 16 different circuit diagrams, instructions, and parts list.

3E2:274—Ultra Short-Wave Coil. Range from 10 21 meters. List, \$1.00. YOUR PRICE ______ 59¢

YOUR PHICE
Broadcast Colls. Range 190 to 550 meters. Individual ranges are 190-310, 300-550.
3E2276—Set of 2 Colls. List. \$1.85. \$1.09 3E2276—Set of 2 Coils. List.

6 Prong, 3 Windings
Have primary, secondary and tickler windings, 16 to 200 meters. Supplied with 16 circuit diagrams and instructions, 3E2272—List Price, \$3.75.
YOUR PRICE, Set of 4 Colls. 3E2270—Ultra Short Wave Coll.

9.5 to 21 meters. List, \$1.25.

YOUR PRICE

3E2271—Broadcast Colls. Range 190 to 550 meters. Individual Ranges 190-310, 300-550.

List Price, \$2.25.

\$1.32 YOUR PRICE .

Plug-In Coil Forms



- Called	4 Prong	5 Prong	6 Prong	7 Prong
Color	Stock	Stock	Stock	Stock
	Number	Number	Number	Number
Black	3C2277	3C2282	3C2287	3E2292
Brown	3C2278	3C2283	3C2288	3E2293
Red	3C2279	3C2284	3C2289	3E2294
Green	3C2280	3C2285	3C2290	3E2295
Orange	3C2281	3C2286	3C2291	3E2296
Net Fach	18c	20c	22c	26c

Isolantite Coil Forms Ribbed

Kibbed

Lowest loss. Especially effective on short waves. Has prongs in base which fit standard tube socket. Fermit instant change in circuit of coils for different wave lengths. Diameter 1% inches. Overall length 3 inches. Windling space 2½ inches long. Holes in body for leads and taps.



Hammarlund Isolantite Coil Forms

Especially efficient for short wave (high frequency colls). Lower leakage, less molisture absorption. Year tugged. Diameter 1½ inches. ½" wide monided decression for primary. 2 inch whelling space for secondary with moulded holes in form for tapping at any desired point Convenient ebonized cap.

List. \$1.00.

List. \$1.00. YOUR PRICE 58¢

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Page 84 THE RADOLEK COMPANY

R. F., I. F., and Antenna Coils, Chokes and Transformers

I. F. Transformers



A complete line

of all I. F. transformers necessary for new set design. Can be used in any combination

required for the I. F.

required for the List stages. The tuning con-densers are of the mica compression type, on Isolantite bases and are ad-justable from the top of the shield can. Leads are color coded. Diagram is furnished with each unit. The inductances are the lattice wound type mounted on dehydrated wood forms specially impregnated and impervious to moisture.

1. F. Coils in Large Size Shield Can Size 21/2"x3" high Mtg. Hole Centers 1111"

	mitg. Hole of	111013 118	
Double	Peak Frequency	Frequency Range	Single
Tuned	in Kilocycles		Tuned
3E6600	465	442-470	3E6604
3E6601	262	248-277	3E6605
3E6602	175	168-180	3E6606
3E6603	115	100-130	3E6607
YOUR PRICE E	ACH 84¢	YOUR PRICE EACH	.64¢

Center-Tapped For use with Wunderlich, 55's, 75's, 85's, 2A6's, etc.

YOUR PRICE F		PRICE EACH	.70¢	
3E6611	175 115	100-130	3E6616	
3E6609 3E6610	465 262	442-470 248-277 168-180	3E6613 3E6614 3E6615	
Double Tuned	Peak Frequency in Kilocycles	Range	Tuned	

I. F. Coils Regular Size Shield

high	ize 1½ x2¾" Mtg. hole ters 1¾"	Can size 1½ 'x1½' high Mtg. hole centers 1¼'		
Double	Peak Frequency	Frequency	Single	
Tuned	in Kilocycles	Range	Tuncil	
3E6617	465	442-470	3E6621	
3E6618	262	248-277	3E6622	
3E6619	175	168-180	3E6623	
3E6620	115	100-130	3E6624	
YOUR	044	YOUR PRICE EACH	64¢	

Center-Tapped For use with Wunderlich, 55's, 75's, 85's, 2A6's, etc.

Double Tuned	Peak Frequency in Kilocycles	Frequency Range	Single Tuned
3E6625 3E6626 3E6627 3E6628	465 262 175	442-470 248-277 168-180 100-130	3E6629 3E6630 3E6631 3E6632
YOUR PRICE E		YOUR PRICE EACH	.70¢

Antenna and Oscillator Coils For Superheterodynes



Lateral wound antenna, and oscillator coils for superheterodyno use. These can be used in pairs or the oscillator coil can be used in conjunction with antenna and R. F. coils shown in other listing. The windlings are dipped and have a 1" round bakelite terminal mounting panel. The broadast coils are wound on a \(\frac{1}{2}\pi \pi \frac{1}{2}\pi' \pi \frac{3}{2}\pi'' \pi \text{ special dovel while the combination whort wave and broadest coils are wound on a special \(\frac{1}{2}\pi' \pi \pi \frac{1}{2}\pi'' \pi \text{ dovel.} \)
For use with a .000365 mfd. (.00035) tuning condenser.

3E6633—Antenna	Broadcast	Coil	(1750	to 550
meters). YOUR PRICE, Each	Coil		<u></u>	42¢

YUUR	PKI	UE,	Eacn	Com					
3F66	34-	Ant	enna	Sho	rt	vave	and	Broadca	st
Coil (5	50 to	1500) and	1500	to	4000	K.C.)	571	ď.
YOUR	PRI	CE,	Each	Coil				579	۲
						C . 21			

Oscillator Coils

Broadcast 550 to 1500 K.C			EACH
Stock	To Secure I.F.	Stock	3E7 58-L
Number	Specified Below	Number	3E7 59-L
3E6635	465 Kilocycles	3E6639	YOUR PRICE
3E6636	262 Kilocycles	3E6640	EACH
3E6637	175 Kilocycles	3E6641	3E7160 H
3E6638	115 Kilocycles	3E6642	3E7161-H
YOUR PRICE, EA. 5	O¢ YOUR	i, ea. 65¢	EACH

Litz Wound Antenna and R. F. Amplifier Coils



We are showing a complete line of coils systematically listed so that the particular needs of the service man or set builder can be readily filled. Matched to a .000365 infd (.00035) variable condenser. This value condenser is used in the majority of sets that are in operation today. We recommend that a complete set of coils be replaced in a receiver in order to obtain maximum efficiency as it is immassible to have best results by just substituting one coil where the original inductance cannot be matched. In selecting coils of a particular classification. 1. c., one Antenna and one R. F., two R. F. only, or one Antenna and two R. F., etc., whatever and combination desired will be shipped in perfectly matched set of coils. Coils are precision machine wound and use the best of materials. Thoroughly impregnated and imperious to moisture. The proper relation between tube diameter and wire size has been efficiently chosen and, regardless of the size of the coil to be substituted, the particular size shown will make an excellent replacement. The difference between low impedance and high impedance coils, the high impedance antenna coil has a lateral or honey-comb winding directly adjacent to the secondary as furnished in all low impedance coils, the high impedance antenna coil has a lateral or honey-comb winding directly adjacent to the secondary. The high impedance R. F. has the lateral winding wound on a dowel inside the coil form. High impedance coils are necessary where screen-grid tubes are used in the circuits and furnish a maximum gain throughout the entire wave band. Litz coils can be readily substituted for Enamel and furnish approximately 20 per cent hisker gain and increased, selectivity over the broadcast band.

Shielded Litz Coils

The proper relation between the shielding and the coil insures a minimum of loss.

Can Size 1½, "x½," high.

Mtg. hole Centers 1¾".

3E6643—Low Impedance Antenna Coil.

3E6644—Kow Impedance R. F. Coil

YOUR PRICE

34¢ EACH

3E6645—High Impedance Antenna Coll. 3E6646—High Impedance R. F. Coll. YOUR PRICE 40¢ EACH

Unshielded Ant. and R. F. Coils



the same as those listed above except without shield. Supplied on a standard %" outside diameter by 24," high coil form. Mounting bracket and dowel with mounting screws supplied enable mounting of coil in any position. 3E7150 Low impedance Antenna Coil. 3E7151 Low impedance R. F. Coil. YOUR PRICE

EACH 3E7152 - High Impedance Antenna Coll. 3E7153 - High Impedance R. F. Coll. YOUR PRICE

34¢ EACH Solenoid Plain Enameled Coils

The same as above colls except have a plain enameled single layer winding. All dimensions are the same as for similar litz wound colls listed above.

Shielded Coils

3E7154—Low Impedance Antenna Coll. 3E7155—Low Impedance R. F. Coll.
YOUR PRICE EACH
3E7 56-High Impedance Antenna Coil.
3F7 157 High Impedance R. F. Coil.
YOUR PRICE

LAUII	
	Unshielded Coils
3F71	58-Low Impedance Antenna Coll.
3E7 1	59-1.ow Impedance R. F. Coll.
YOUR	PRICE 200
EACH	
3F71	60 High Impedance Antenna Coll.
3F7 I	60 High Impedance Antenna Coll. 61 High Impedance R. F. Coll.

Combination Short Wave and Broadcast Antenna and R. F. Amplifier Coils

And R. F. Amplifier Coils

We are showing the five most popular types of short wave coils for R. F. sets which will give sufficient variety to accomplish the majority of uses required in building combination short wave and broadcast sets. In all cases circuit diagrams are included with each coil to give a clear and concise method for replacing in old sets or building and changing over new short wave amplifiers. In cases where shunts are specified, this means an additional winding adjacent to the secondary to cover the short wave band. These are recommended for maximum efficiency in comparison to the tapped coils where the secondary winding, itself, has been tapped to provide a lower inductance for short wave funing. All these cover the wave lengths specified with a standard .000365 mfd.) variable condenser. condenser.

Unshielded Plain Enamel

75 to 550 Meters Unshielded high



Unshielded high imped-ance primary plain enamel secondary with additional plain enamel short wave shum so cover wave hands 75 to 200 meters and 200 to 550 meters complete with wirting diagram. Coll size % O. D. x 2% long. Coil size %" 0. D. x 2%" long.
3E7162—Antenna Coil.
3E7163—R. F. Coil.

YOUR PRICE Each Coil

Unshielded Bank Wound

80 to 550 Meters Unshielded high impedance primary bank wound litz secondary with tap on secondary for short wave covering wave lengths 80 to 200 meters and

200 to 550 meters complete with wiring diagram.

Coll size % 0. D. x 24 long.

SE7164—Antenna Coll Your Price

3E7165—R. F. Coll Each Coil... 42¢

Shielded Bank Wound



Shielded Bank vvound

120 to 550 Meters
Shielded high impedance primary bank wound little. Secondary tap on coil for short wave coverage covering 120 to 200 meters and 200 to 550 meters complete with wiring diagram. Coil size of shield can 1% "0. D. x 2½" long. Size of shield can 1% "10 meters 2½" high, two spade bolts for mounting with centers 1¾".

7 166—Antenna Coil } Your Price 47¢

3E7 | 66-Antenna Coil | Your Price 3E7 | 67-18. F. Coil | Each Coil.

Shielded Bank Wound

To to 550 Meters

Shielded high impedance primary bank wound litz secondary with shint winding of primary for short wave coverage. Wave length range 75 to 200 meters and 200 to 550 meters conjlete with wiring diagram. Size of coll form 1" 0. D. x 2½" high with two ½"s spade bolts for mounting centers 1½". Wiring diagram included.

3E7168—Antenna Coll 1 Your Price 3E7169—R. F. Coll 1 Each Coil... 52\$

High Gain Coil

High Gain Coil

80 to 550 Meters

High impedance special
short wave coil both primary and secondary for
lateral winding secondary
and short wave shunt using litz wire exceptionally high gain covering
80 to 200 meters and 200
to 550 meters wound on special dowels 1/4" diameter
x 11/4" long with 1" round bakelite lug panel, one
serew mounting. Wiring diagram included.
3E7 170—Antenna Coil 2 Your Price
596



S. W. Plug-In Octo Coils



Finest quality S.
W. Colls. Moulded
bakelite forms. Careful. accurate design.
UX sockets. Four
put colls. covering bands
16 to 30, 29 to 58.

to 110, 103 to 225 meters. YOUR PRICE. Set Four Coits...... \$1.47

3C6686—Broadcast coll range 200 to 550 meters. PRICE

Coil and Matched Condenser Kits

Scientifically Engineered

Radolek has correctly engineered the receiver that can be constructed from each coll kit listed on this page. Our engineers in collaboration with the engineers of leading coll and variable condenser manufacturers have scientifically designed these kits and actually built laboratory models of the completed receivers. Our tests have proved that these sets are the finest obtainable in their class. The coils have been especially wound and designed for the variable condensers specified for use

with each set of coils. Satisfactory performance can only be assured when the variable condenser we supply is used. Our organization realizes that coils are of no use to the set builder unless they are made up in matched kits and constructed to the exact specifications of the variable condenser with which they are used. We have done this and in addition are supplying all the Information and listing all the parts necessary to properly complete the receivers.

8 or 11 Tube Superhet Kit



175 to 550 Meters (1720 to 540 K.C.) 3D8616

Complete with Variable Condenser and 2 sets of diagrams for building either an 8 or 11 tube receiver.

and with them

10 K.C. selectivity can be constructed.

Great Distance Range

The receivers that can be built from these coils are truly masters of the air. They are capable of bringing in far distant stations with magic ease and at full volume. In addition to all the powerful stations located throughout the entire Western Hemisphere you will enjoy the thrill of pulling in the faintest of radio signals broadcast by hundreds of smaller and less powerful stations; police calls from all over the country can be easily received. The unusual selectivity of this receiver climinates interference from even high powered local stations. A colossal achievement of engineering skill.

These Head in 11 These Kit

stations. A colossal achievement of engineering skill.

Tubes Used in 11 Tube Kit

Designed for use with 1-56, 2-57, 4-58, 1-52, 2-2A5, 1-523 type tubes. A type 58 is used in the first R.F. stage and one as a first detector and another as an I.F. tube. A type 56 is used as an oscillator tube. A 55 as a second detector and A.V.C. tube operating as a full wave rectifier. A 57 as a squelch control and a type 58 used as a phase reverser for operating the 2-2A5's resistance-coupled in push-publ. The 5Z3 is a full wave power rectifier. Send for list of other parts required.

Added Features on 11 Tube Receiver

1. SQUELCH CONTROL—or noise suppressor for quiet tuning. Eliminates noises encountered between stations when tuning.

2. Resistance Coupled Push-Pull Amplification—Allows for an unusually wide audio frequency response.

3. Phase Reverser for Push-Pull stage.

Tubes Used in 8 Tube Kit

Designed for use with 1-56, 3-58, 1-55, 2-2A5, 1-5Z3 type tubes.

A type 58 is employed in the R.F. stage, also one is used as a first detector and another as an I.F. tube. A type 56 is the oscillator. A 55 is used as a 2nd detector and A.V.C. tube operating as a full wave rectifier and in addition as a first stage A.F. tube. 2 type 2A5 Pentode power output tubes and a 5Z3 rectifier.

A.V.C., Tone Control, Meter Tuning

The coils and circuits for both receivers are designed to incorporate automatic volume control, tone control and visible meter tuning. These features in addition to the expertly engineered chassis make these receivers the finest radio it is possible to build.

3D8616—Kit of 5 coils .000400 mfd.. 3 gang variable condenser, list of parts and 2 sets of diagrams for building either an 8 or 11 tube receiver.

YOUR PRICE\$5.95

Designed for construction on a size 17" long, 10" wide, 3" deep chassis base.

7 Tube Shortwave and Broadcast Superheterodyne



75 to 500 Meters (540 to 4000 K.C.) 308613

Complete with Variable

Complete with Variable Condenser
Tubes Used: 1-56, 1-57,
2-58, 1-55, 1-2A5, 1-80.
75 to 550 meters (540 to 400)
K.C.). Kit of 8 coils consisting of 1-Anienna and Irreselector coil. 1-Detector Input coil, 1-0s-cillator coil. 2-Intermediate Frequency coils peaked at 175 K.C., and 1-Short Wave Choke. These coils are all precision machine wound and with them a receiver coils received to coast reception can be obtained on the regular broadcast band. Foreign broadcast, police calls, ship to shore communications and amateur transmittings are all instantly available on the short wave band.

A.V.C. and Tone Control

A.V.C. and Tone Control

Circuits are designed for automatic volume control and tone control. Both the features are easily built into this receiver.

3D8613—Kit of 6 colls, 000365 mfd., 3 gang variable condenser, list of

and all diagrams. YOUR PRICE .. Designed for construction on a Chassis Base 1212" long. 9" wide, 21/2" deep.

Instructions-Diagrams-List of Materials **Cut Out and Drilling Template**

Three drawings are supplied with each coil kit. A Schematic wiring diagram, Pictorial wiring diagram and Chassis layout diagram. The pictorial wiring diagram supplied shows the connection of every wire in its exact position and relation to each part. All wiring is done under the chassis. The chassis layout diagram shows the exact position for with little or no supervision.

5 Tube Shortwave and Broadcast

Superheterodyne

75 to 550 meters (540 to 4000 K.C.) 3D8610 \$375

Complete with Variable Condenser Tubes Used 1-57, 1-58, 1-55, 1-2A5, 1-80.

Tunes from 75 to 550 meters (510 to 4000 K.C.). Kit of 6 colls consisting of 1-Antenna and Preselector coll, 1-Detector Input coil, 1-Oscillator coll, 2-Intermediate Frequency colls peaked at 175 K.C., and 1-Short Wave Choke. These coils are all precision machine wound and with them a receiver of unusual sensitivity and sclectivity can be constructed. Coast to coast reception under favorable conditions can be obtained on the regular broadcast band. Foreign broadcast, police calls, ship to shore communication and amateur transmittings are all instantly available on the short wave band.

A.V.C. and Tone Control

Circuits are designed for automatic volume control and tone control. Both these features are easily built into the receiver.

3D8610-Kit of 6 coils, .000365 mfd., 3 gang Variable Condenser, list of parts and all diagrams.

YOUR PRICE Designed for construction on a Chassis base 121/2" long, 8" wide and 21/2

5 Tube A. C., D. C. Superhet



175 to 550 Meters (1720 to 540 K.C.) Used: 2-6D6, 1-75, 1-43, 1-25Z5.

1-2525.

Kit of 4 coils consists of 1 Antenna
Coil, 1 Oscillator Coil and 2 Double
Tuned Intermediate Frequency coils
peaked at 456 K.C. These coils are
precision machine wound and with the
a receiver of unusual sensitivity and
selectivity can be constructed. Coast to
coast reception under average conditions
can be obtained. Police calls of many
of the larger cities are available. I
order to obtain the best results the
condenser we supply with the coil kin
must be used.

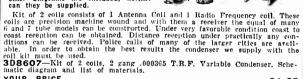
3D8608—Kit of 4 coils, 2 Gang
.000365 mfd. special superhet variable
YOUR PRICE

YOUR PRICE\$2.95

4 Tube A. C.—D. C. T. R. F.

175 to 550 Meters (1720 to 540 K.C.) Tubes Used: 1-6D7, 1-6E7, 1-43, 1-257.5.

A Schematic Diagram, and List of Parts are supplied with the 4 tube and 5 tube AC, DC coil kits. No other diagrams are included, neither can they be supplied.





Cut and Drilled Chassis Bases

Made of 18 cauge terne plate lead coated steel. Sides spot welded to corner posts. Each size listed Lid out, punched and drilled to fit component parts specified in lists of parts furnished with matched Condenser and Coli Kits listed above. The bright rust-proof finish of these Bases give thom a NEW professional superspane sensibly write. very professional appearance, especially suitable for custom-Set builders.

11 TUBE	8 TUBE	7 TUBE	5 TUBE
Size 10x17x3".	Size 10x17x3"	Size 9x12½x2½"	Size 8x121/2x21/2"
4D10905	4D10906	4D10907	4D10908
Your Price \$2.75	Your Price \$2.45	Your Price \$2.25	Your Price \$1.95

HAMMARLUND



Isolantite R.F. Choke

This low-loss radio frequency choke is designed particularly for short wave and utransmitters, but its emciency actually extends well above the regular broadcast positions well removed from stray R.F. fields, which together with its load characteristics, specially recommend it as a grid choke for multi-stage transmitters. A sectionalized isolantite spool carries the four windings which are moisture proofed and protected by radio frequency lacquer and a covering of Cellophane. Flexible leads and removable brackets permit any desired style of mounting. No metal screw passes through the choke to increase losses and distributed capacity. The choke measures 136/x15/m, has an inductance of 8 millinepries, a D.C. resistance of 70 ohms, a distributed capacity of 3 mmf., and a current carrying capacity of 125 milliamperes.

307203—Code CH-8

LIST, \$1.10.

YOUR PRICE

65¢

HAMMARLUND

Heavy Duty Transmitting Choke Designed for parallel feed in high power trans-



feed in high power trans-mitters operating in the 20, 40, 80 and 160 meter annateur bands. In these bands it has the excep-tionally high equivalent innedance of more than 500,000 ohms. Losses are

impedance of more than 500,000 ohms. Losses are negligible. Equally effective from 1500 to 15,000 and 5400 and between 8000 and 9000 kc. Inductance 2.5 mh. Distributed capacity less than 1.5 mmf. D.C. resistance 8 ohms. Maximum recommended D.C. (continuous) 500 milliamperes. Over-all size (without brackets) 1% diameter by 2% long 3EF7204—Chale CHECO.

3E7204—Code CH500. List, \$1.75. YOUR PRICE \$1.03

New HAMMARLUND



Midget R.F. Choke Invaluable for use where

space is at a premium.
So small in size and so light in weight that it can be supported by its own light in weight that it can be supported by its own leads. For use in any position where radio frequency filtering is desirable such as detector plate circuits, all B plus leads and all grid return leads. Mounted on a %" Isolantite core. Coils are impregnated to insure ruggedness as well as to minimize the effects of atmospheric changes. Tinned copper wire leads. Length across caps is 1\%". Diameter \%". Maximum recommended D.C. 125 milliamperes.

3E7200—Code CH-X. List, \$0.75.

YOUR PRICE44¢

HAMMARLUND



Improved Shielded R.F.
Choke
A new shielded choke for

A new shielded choke for general use in high gain circuits. The coil unit is completely shielded in an aluminum shell resulting in an aluminum shell resulting in permitting compact receiver thoroughly impregnated to prevent moisture effects. The multiplicity of pies provides both high inductance and low distributed capacity resulting in extremely high impedance to all frequencies within the short ware and broadcast hands. The mounting legs provided are on 14% centers. When mounting space is limited the legs can be removed and the choke mounted by means of two tapped heles on 1% centers in the aluminum bottom plate of the choke. The shield can measures 1½ high by 13% diameter. Connections made to terminals on side of can. Inductance 10 m.h.; D.C. resistance 65 ohms; current carving capacity 100 milliamperes. Stock Number Code List Price \$1.00.59\$



HAMMARLUND High Impedance R.F. Chokes

Have a large inductance with a very low distributed capacity. Very effective in both broadcast and short wave receivers. Suitable for detector plate circuits, B-plus and grid return leads and for R.F. filtering in general. Current carry-

ing capacity 60 milliamperes. 113" high by 118" diameter. Bakelite case

Your Price Capac. D. C. Res. Induc. Number 3E7201 85 m. h. 3 mmf. 215 ohms 3E7202 250 m. h. 2 mmf. 420 ohms \$1.18

HAMMARLUND Intermediate Transformers



Specially designed for experi-mental and replacement purposes. Their sensitivity, selectivity, and

Specially designed for experimental and replacement purposes. Their sensitivity, selectivity, and other characteristics are such as to make them equally satisfactory in superheterodynes employing either one or two stages of LF, in connection with any type of second detector. Made in six special types for broadcast wave, short wave and long wave receivers. All transformers are of the tuned grid, tuned plate type with lattice wound coils impregnated to prevent moisture effects. Litz windings are used in the 465 K.C. short wave transformers. Tuning condensers are the highest grade mice compression type mounted on Isolantite bases and adjustable from the top of the shield can be seen a superheterodyness of the tunes requiring split input circuits such as Wunderlieh tunes. 55's, 75's, 85's, 2.66's, etc. Aluminum hield cans measure 2½" outside diameter by 3'½" high. Mounting is by means of threaded lurs on 2" centers. Screen grid cap and mounting nuts included. Will tune 10 K.C.

Stock Number	Ccde	Peak	List Price	Your Price
3D7270	T-465	465 K.C.	\$1.65	97c
3D7271	T-175	175 K.C.	1.65	
3D7272	T-115	115 K.C.	1.65	

Center Tapped

3D7275 | T-465-CT | 465 K.C. 3D7276 | T-175-CT | 175 K.C. 3D7277 | T-115-CT | 115 K.C. \$1.65 1.65 3D7275 97c

Beat Oscillator

\$1.18 3E 7185 | 7BO-465 | 465 K.C. |

HAMMARLUND "Air Tuned"



HAMMARLUND "Air Tuned"

Will Tune 5 K.C. Each Side of Peak

Intermediate Transformers

Where 1000% efficiency and absolute stability are essential requirements, these new laboratory
type "air tuned" units are an absolute necessity. Tuned primary, tuned secondary type with both plate and grid colls of Litz wire. They are tuned to resonance by means of air dielectric variable condensers of sneetal design. The colls have the exceptional "Q" of 115, a coupling coefficient of 0.77% the transformers providing a gain in excess of 200 per stage together with unequalled selectivity. "Air-tuned"
units actually provide increased selectrity and sensitivity since the peak setting is constant regardless of temperature or atmospheric conditions and the I.F. amplifier is functioning at peak efficiency at all times. As used in the famous Comet and "Pro" these transformers are designed for 57's and 58's and other tubes of this type such as 21's and 35's. Center tapped units are available for tubes requiring split input circuits such as Wunderlich tubes, 55's, 75's, 85's, 2A6's, etc. The shield can is 24" diameter by 5" high mounted by two screws through the bottom of shield.

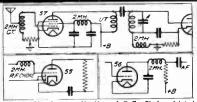
3E7186 3E7187 3E7188	ATT-175 ATT-465 ATT-525	175 K. C. 465 K. C. 525 K. C.	\$4.50 4.50 4.50	\$2.65 2.65 2.65
Stock Number	Code	Peak	Price	Price

Center Tapped 3E7189 ATT-175-CT 175 K. C 3E7190 ATT-465-CT 465 K. C 3E7191 ATT-525-CT 525 K. C

"Air Tuned"

Beat Frequency Oscillator

Employs air dielectric condensers and is tunable by means of a vernier condenser to which is attached a lever. By moring the lever one way or the other, a 1000 or 1500 cycle beat note (assuming the carrier is tuned precisely on the peak of the I.P. amplifier) is produced. When so adjusted a receiver will provide a remarkable degree of "single signal" selectivity for C.W. reception. 3E7193—Code ATO 465 K.C.
List Price, \$4.50. YOUR PRICE ... \$2.65



Circuit Showing Application of R.F. Chokes Listed in Column at Right.

"Imp" Miniature Size R. F. Coils







1 7/16" Square 134" High ally small aluminum shielded coils with out mounting. Designed for superheterodyne Unusually small aluminum shielded colls with spade holt mounting. Designed for superheterodyne and tuned radio frequency receivers and is being supplied at the present time for AC and DC receivers. Entirely new four bank "Litz" winding is used. Although these coils are extremely small three is no sacrifice of efficiency and they compare favorably with all coils regardless of size. At 600 K.C. the Interstage coil when measured in a single stage gain test with a type 58 tube proved a gain of 61 times input and at 1500 K.C. a gain of 65 times input. The four bank winding produces a low distributed capacity and permits a coverage of 540 to 1700 K.C. Especially constructed for use with .000355 condensers.

Stock Number 3D8600—One R.F. coil, One Ant. coil \$0.95 Unusually

3D8600—One R.F. coil, One Ant. coil \$0.95 3D8601—Two "One "1.35 3D8602—Three "One "1.75

Radio Frequency Chokes

For use on any Wave Length Broadcast, 10



Short and Long Wave Receivers

wire on bakelite form. Carefully
and accurately made.

Unshleided coils have solder
lugs securely anchored to bakelite form.
Shielded coils are completely shielded in aluminum case 13% diam. 18% long Insulated wire
leads. Single mount screw projects 3%.".

Unshielded		Sh	ielded
Stock Number	Millihenri e s	Stock Number	Millihenries
3D6650 3D6651 3D6652	80 60 30 } 42C	3D6660 3D6661 3D6662	80 80 30 } 52c
3D6653 3D6654 3D6655 3D6656	10 51/2 31/2 2 1/2 3 50 2 1/2	3D6663 3D6664 3D6665 3D6666	10 51/2 31/4 21/2 42c

Lattice Wound Mounted Chokes An R.F. Choke mounted on a bake-lite washer with two lugs for in-stallation and provided with an eye-let large enough for a 6/32 screw to be used as a center mounting. 0



Your Price Ea. 15¢ Your Price Ea. 22¢ Price Ea. 59¢

3E8648-60 mh. 3E8649-80 mh.

Radio Frequency Chokes and Untuned Transformer

Unshielded chokes and transformer
Unshielded chokes and transformers are wound on a ½"
by ¾" special impregnated
dowel form with a 1" round
bakelite wafer to hold the
mounting lugs. The untuned
transformer is supplied with
four 5" coded leads. Shielded
coils are in a 1½"x1½" high shield
can. Spade bolts have 1¾" mounting
centers. Single hole mounting by use
of extra length screw at the top of the
can. Shielded coils supplied with 5"
flexible coded leads. See Dlagram at left.

Unshielded R.F. Chokes

Stock	Inductance	For Circuit	Your
Number		Frequency	Price
3E8655	700 Microh'y	4000-15000 KC	11c
3E8656	2 Millih'y	1500-4000 KC	14c
3E8657	2 Millih'y	Cen. Tap. Ant.	15c
3E8658	4 Millih'y	456-1500 KC	160
3E8659	50 Millih'y	175-262 KC	340
3E8660	85 Millih'y	142 KC	620
3E8661	15 Millih'y	(UT) Untuned	386

	Shielded I	R.F. Chokes	
Stock Number	Inductance	For Circuit Frequency	Your
3E8662	700 Mleroh'y	4000-15000 KC	190
3E8663	2 Millih'y	1500-4000 KC	200
3E8664 3E8665	2 Millih'y 4 Millih'y	Cen. Tap. Ant. 456-1500 KC	24c
3E8666	50 Millih'v	175 KC	426
3 E 8667	85 Millih'y	142 KC	820
3E8668	15 Millih'y	(UT) Untuned	460

RCA Licensed ICA Complete Short Wave and Broadcast Kits Scientifically Engineered Instructions — Diagrams

wave kits are designed to give maxi-A stock quality. spread mechanical tuning.

A new line which incorporates every model of each of these receivers has Latest Engineering Development in been subjected to rigid tests in our short wave practice. All ICA short own laboratory as well as in outlying districts and have actually brought in num efficiency over the entire short wave and broadcast band. The stations are spread over the entire dial by use of a new principle of band pass highest sensitivity and the best audio

All necessary instructions and diagrams are supplied with each kit. A schematic diagram, pictorial diagram and chassis layout diagram are all included. The pictorial diagram are all included. The pictorial diagram will help the radio serviceman or dealer who has had no experience in the construction of short-ware receivers. This diagram gives an illustration of each part and the connections

Universal Mascot "1"

1-Tube Battery Operated



Tunes from #5 to 200 Meters

4F10775-List Price, \$9.95.

YOUR PRICE

Complete kit of all parts including chassis base and cabinet and four 6 prong colls. Less tube and hatteries.

An efficient one tube receiver designed for battery operation. An attractive highly polished black bake-lite cabinet is included with this kit. The tuning range can be extended to cover the entire broadcast band by the use of the additional colls listed below.

below. Efficiency and Compactness

The one tube receiver incornorates a new non-inductive regenerative control. The tuning is easy and allows a high degree of sensitivity over the entire short wave band. Brings in short-wave stations including politee calls, airplane calls, ships at sea, etc. Complete kit of parts includes bakelite cabinet, four 6 prons coils with three windings covering wave lengths from 16 to 200 meters. All necessary parts, hardware and wire. Packed in an attractive display box. Size of set 644" high, 5\%" wide, 2\%" deep.

Extra Coils for Above Kit

3E7175—Ultra short-wave coil. Wave length range 9½ to 21 meters. List Price, \$1.00. 59¢ YOUR PRICE

3E7176—Broadcast Coils. Set of 2. Wave length range 19 to 310 and 300 to 550 meters. List Price, \$1.85.
YOUR PRICE \$1.09

Batteries and Tube
4E10776—1 No. 6 Dry Cell, 1-45 Volt "B"
battery and 1-type 30 tube. YOUR PRICE \$1.64

Universal Mascot "2"



Tunes from 16 to Tunes 200 meters. 4E 1 0777— Ties Price \$17.50. ist Price \$17.50 YOUR PRICE

\$**10**29

Complete kit of prong coils, chas-sis hase, and One of the finest

panel. Less tubes and batteries, battery operated panel. Less tubes and batteries. One of the finest battery operated two tube short-wave receivers. Although designed especially for headphone recep-tion, when conditions are favorable moderate loud tion, when conditions are tavorable moderate low-speaker reception is possible. Requires only two milliamperes from 135 volts of "B" Battery which permits use of the smallest "B" cells and longest possible hattery life. Less than ½ ampere filament consumption from two No. 6 dry cells. Colls with convenient handle grips plug in from the front of the name!

convenient namine grips plug in from the tank of the panel.

Band Spread Tuning Control! Permits accurate tuning on the crowded Foreign bands. Controlled regeneration permits extraordinary sensitivity for weak signals. Uses 1-32 and 1-19 dual Triode giving the equivalent of 3 tubes.

Tubes and Batteries
4E10778—1-32, 1-19, 2 No. 6 dry cells,
1-4½ V. "C", and 3-45 volt "B" batteries. YOUR \$4.79

Tuning Range Extension Coils For Mascot 2, 3, 4, Tube Sets
Addition of these coils to the Mascot Kit Sets gires a range of 540 to 31500 K.C.
With Special Shields and Panel Grips;
3E7179-996 to 21 Meters, Ultra Short Wares,
List 1'rice, 54.00.

YOUR PRICE ... 3E7180 Two Colls for Broadcast Ranges, 190 to 310 and 300 to 550 meters.
List Price, \$7.50.

YOUR PRICE \$4.41

5 Tube Universal Mascot Kit

An A.C. all-electric set that combines receiver and power pack all in one unit. After completion of this receiver it is only necessary to plug into regular A.C. socket for operation. The Mascot "5" requires greater tuning ability than the less powerful receivers but the results which will be secured will equal the reception usually attributed to far more expensive and complicated receivers. This set is recommended for the short wave enthusiast who revels in the enjoyment which only perfect short wave reception can bring. Chassis size 7" high, 17" wide, 12" deep.

short wave reception can bring. Chassis size 7" high, 17" wide, 12" deep.

Tubes Used

This De Luxe Model Receiver uses one type '78

Variable Mu Screen Grid Pentode as R.F. Amplifier, one type '37 Triode as sensitive regenerator detector, resistance capacity coupled to one '77 high gain screen grid pentode audin amplifier which in turn is again resistance capacity coupled to one type '42 Pentode Power Outbut tube. One '80 type full wave rectifier is used in the power supply which is an integral part of the receiver.

Price List

4E 10783—Complete kit of parts consisting of: Out and drilled chassis base, 8-six prong colls with 3 windings, all necessary parts, hardware and wire. Less Tubes. Packed in an attractive display box.
List Price, 339.75.

YOUR PRICE

Optional Accessories

3E7183—Ultra Short Ware Colls. Set of 2. Wave length range 9.5 to 21 meters.

List Price, 34.00.

YOUR PRICE

3E7184—Broadcast Coils. Set of 4. Wave length range of coils 190-310 and 300 to 550 meters. List Price, \$7.50. \$4.41 YOUR PRICE 4E10784-Kit of 5 Tubes, 1-78, 1-37, 1-77,

YOUR PRICE



8 Coils Included

Masterful Performance

Masterful Performance

Single dial control of the R.F. and detector circuits is featured as well as band spread tuning for both stages also operated from one dial. An antenna compensating condenser is provided to insure perfect tracking of the antenna and detector circuits. Respectation control is also incorporated in this receiver by use of a non-inductive resistance in series with a fixed capacity. This system gives very smooth and precise control of regeneration. Connections are provided for phonograph pick-up to allow the reproduction of phonograph piccords from the loud speaker of this receiver. A head phone jack is also provided in the plate circuit of the '77 audio amplifier. The receiver can be used with either a magnetic speaker of vynamic speaker having a field resistance of 2500 ohms and a pentode '42 input transformer.

High Ouality Audio Amplification

High Quality Audio Amplification arrangement of the circuit is such that even

receive foreign signals can be built up to great volume. European as well as reception from many other parts of the world is consistently possible with this receiver. The type 12 tube with a gain of 220 delivers an output of 3000 milliwatts of



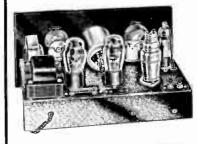
undistorted

The eight coils supplied plug in from the front panel into specially shielded cans. which thoroughly isolate coils from the tube circuits. A set of 2 coils for each of the following are furnished: the following wave bands

coils—16-38 meters, 2 coils—73-137 meters, coils—35-75 meters, 2 coils—135-200 meters. coils-35-75 meters.



View showing convenient plug in coil. View emphasis neat finished appearance,



Universal Mascot "4" Kit For 16 to 200 Meter Short Waves Requires 2500 ohm field Dynamic Speaker with output transformer for '42 tube.

ohm field Dynamic Speaker with output transformer for '42 lube,

All Electric—105-130 Volt 50/60

Cycle A.C.

A fascinating receiver kit to build—educational for a boy, entertaining for an adult. This kit includes all the latest improvements in amplification assuring hest short wave reception. (See the Radolek Trans Atlantic Aerial Kit especially suited for this receiver.) Illustrations show the professional appearance of the finished Mascot ""receiver. One 6FT Dual Pentode-Triode Tube, one 77, one powerful 42 Pentode output, with an 80 rectifier constitute the modern tube assortment in this receiver. While headphones may be used with receiver. While headphones may be used with this receiver. It is intended for use with a small dynamic speaker!

Panels size 7"x14" Chassis Depth 6%"......

Universal Mascot "4" Kit
14E10781—Complete Kit of Parts consisting
of all parts for the 3 tube model.
List. \$30.00. Less Tubes.
YOUR PRICE

4E10782—Tubes for Mascot "4", 1-6F7, 1-77, 1-42, and 1-80. \$**2**51

YOUR PRICE Universal Mascot "3"

For 16 to 200 Meter Short Waves Uses Magnetic Speaker or Headphones All Electric-105-130 voit Speaker of Headpinones All Electric 50 60 Cycle A.C.

Appearance similar to the Mascot "4". Employs 1-6F7, 1-79, and 1-80 tubes. Panel size 7"x14". Chasks depth 63;"

14E10779—Complete Kit of Parts, Less Tubes. List Price, \$22.50.

\$13.23

4E10780 Tubes for Mascot "3". \$2.10

Copyright 1934 by W. C. Brau

PRICE

Coil Shield with Base



Shield is 2 %" inside diameter x4 %" overall height. Grid lead hole in wall near top. Bases height. Grid lead hole in wall near top. Bases have oblong mounting holes to fit either 11th or 112 socket centers. Shield and base bright natural finish of 24 gauge aluminum.

3C6958-Coll Shield Code 0781-Basecode 0720. PER SET 10¢

Aluminum Coil Shields

2½" outside diameter 2½" overalt height. leavy 22 gauge metal inseres perfect grounding not eliminates interstage unched for standard



pade bolt mounting lugs.
Lugs not included, Bright 3C6959 — Coil Shield —Code 0319.

PRICE EACH 10¢ TEN FOR 79c Per Hundred ... \$6.50

IC6960—Same as above except 4" igh for longer coils.
Coll Shield—Code 0318.

.....12¢ ACH 98c PHUNDRED \$8.50 Aluminum Coil Shields

2点" inside diameter and 3" overall height. Holes for spade bolt mounting lugs. Bright

mounting lugs. Your Price Each . 8¢ Ten for 65c

len for 65 c 1%" inside diameter und 24" overall hei-ter und 2¼" overall height.

gauge mounting holes
in side. Bright finish.





Base locks to can forming connection that forming connection that will never vibrate nor come apart. Can is 2½" diam, and 2¾" overall height with base. No holes in can but hase perforated on bottom and side for leads. Bright natural finish, 22 gauge aluminum.

3C6961-Coll Shield

Universal Coil Shield



A shield of many uses. Heavy drawn aluminum top. Helghild, "Diameter 23", Base diameter 3.5", blues diameter 3.6", in ount in gholes. Solid friction fit between top and hase. 6 holes in base center for leads. etc. center for leads, etc.

3C6964-Your PRICE, EACH 19¢ Ten for\$1,48 Per Hun. \$12.25

8 Tube Chassis Base

Drilled for an 8 tube set. Reinforced welded corners. Bright rust finish.



bright proof finish. \$1.7 e 18" long. 1014" wide and 25%" deep. long. 1014" wide 4D10909 YOUR SPECIAL NET PRICE

.6¢

nd da

For use where space is limited or to replace spray-shield type tubes. Provides magnetic as well as electrostatic shielding. Made for both small and large size bulbs. Two parts of shield fit snugly around the tube and are firmly held in place by a clamp ring. Clamp ring and grounding clip furnished with each shield. Supplied with a chinney where shielding of grid cap is desired. A small slot in chimney admits grid lead. space is limited or to

Type ST-12
For new dome type (2A6, 2A7, 2B7, 6A7, 6B7, 6C6, 6D6, 6F7, 55, 56, 58, 75, 77, 78, 79, 89, etc.) tubes.
3E7107—With Chimney.
3E7106—Without Chimney.

Type ST-14 For large diameter dome type (24, 27, 32, 33, 34, 35, etc.) tubes.

3E7108-With Chimney. YOUR PRICE, EACH 7¢ 10 FOR 60c

One-Piece Shields with Base

For 82 Tubes

TEN FOR95c



Radio Metal Chassis Bases

Rustless—Stainless

Extraordinary Low Price for this Quality

Stock Number	Size Inches	YOUR PRICE Each
4E10912	10x12	50,89
4E10913	10x17	1.14
4E10914	10x23	1.45

Ideal for builting power amplifiers, Broadcast or shortwave receivers, autoradios or rest equipment. Special aluminum Radio alloy, with clean rustless non-tarnishing lustrons finish. Non-magnetic. Easy to work, drill and tap. Solders readily.

To not confuse these high grade

chassis with ordinary plated sheet steel jobs which are hard to work. These are brand new, clean undrilled bases made to our special design and order. All sizes are 3 inches deep and open on bottom. Enclosed top and four sides.

Aluminum Panels

Commer cially pure, hard tempered alumin um sheets. Natural bright polished fin-

Naw Ventilated

Tube Shields

For 55, 57, 58

Tubes Improved Non-

Rattle Type
Ventilated shell has three formed ribs which press against the side of the tube to hold it rigidly—dampens withration and microphonic disturbances.

phonic disturbances. Natural finish aluminum metal. A wide range of base mounting sizes. Cap height 1½" slotted for grid lead. Shell di-ameter 15%", height 3½". Overall height

Price 12¢

Ten for 95c Hund'd \$7.75

Save Space

Cost

Less

Bright

Rust-

Proof Finish

assembled 41/2'

Base Mounting

Centers

Standard Type

Ventilated Tube Shields

For \$5, 57, 58 Tubes Same specifications as tube shield described above except that ventilated shell

Radio Metal

Stock Number

does not have the extruded rib features for holding tube. Complete with base and slotted cap.

3D6950 1 2 3D6967 3D6951 1 4 3D6968 3D6952 1 2 2 3D6969

Price 10c Price Each Ten for \$0.80 Ten for . . 65c Hundred 6.70 Hundred \$5.75

Close Fitting Tube Shields

Alumi-num Mount-Stock ing

Number Centers

Aluminum

Stock Number

3D7110 3D7111 3D7112



	Size			
Stock		1.1	st	Your
Number I	nches	Pri	ce	Price
	7x10	\$1.0)2	\$0.49
	7x12	1.		.58
	7x11	1.		.69
	7x18	1.9		93
	7x21	2.		1.05
	7x21	2.		1.16
	7x30 4x36	3. 11.		1.43 5.47
3C7482 2	4 7 90	11.	10	0.47

Special size aluminum panels cut to your specifications. Any width or length. Thickness about A inch.

104E7485-l'er Square Foot.

NOTE: Minimum charge for specially cut aluminum panels per order \$1.25.

Perforated Steel Shield



Ten for 79 c

Radio Metal Shield 🔯

Provides superior shielding. Non-rusting. Fits all screen grid and detector tubes. 4½" high. 2" diam. Mounting hole centers 1½, 1½ and 1¾ inches. 3C6966—EACH .. 8¢

TEN FOR69c PER HUNDRED..\$4.75

Two-Piece Tube Shields



__12¢ EACH Ten for 98c | Per Hun. \$8.25

- Code

Copper Foil

Thin copper foil for shielding panels, cabinets, automobile bulkheads, etc. .005 inches thick. Any length supplied.

3C6997—6 in. wide. YOUR PRICE,	10¢
Per Foot	105
3C6998-81/2 in. wide.	

Per Foot 15¢

3C6999-12 in. wide. 20¢ Per Foot

NOTE: This foil will be cut to any length. Minimum hilling price on any one order is 50c, so order your money's worth.

Steel Chassis Bases



A high quality lead coated steel chassis base. As easy to cut or drill as other has as as offered at competitive ories. Does not have the lustrous finish and is not as easy to work with as the Radio Metal bases listed above. Ternplate is heavy and substantial. Supplied unfrilled. All sizes are 3 inches deep and open on bottom.

Size	Your Price
Inches	Each
10x12	59 c
10x17	77 c
10x23	86 c
	10x12 10x17

Corner Posts

For use with Chassis Bases. 3D6993. Per Set Posts, Screws and Nuts YOUR PRICE 29¢

PRICE

Heavy cast corner posts. Mount in corners of above chassis. They close the corners perfectly and make the entire job very solid and without the slightest "give". Three tapped holes on cach side. Drill holes in chassis and mount with \$52 screws supplied. Base of post also tapped to take screw coming through base on which chassis is mounted. Complete set includes: 4 Corner Posts; 24 \$52 screws for anchoring to any base.

Radio Alloy Shield Cans

All six sides made of h" thick non-rusting zinc-copper-cadmium alloy which has mium alloy
which has
superior
shielding
qualities. Attractive buffed silver
finish. Heavy
cast aluminum corner



num corner
posts drilled and tapped for %2 screws
which are included. Shipped knocked
down. Fasily assembled in a few minutes. Height each ean 6 inches.

			-	
306988 306989	7x14	3.50	2	.06
306988	8x10	3 50		.06
306987	6x12	2.75		.62
306986 306987	8x8	3.00		.76
306985	6x6	2.75		.62
3E6982		3.00		.47
3C6984	5x5	2.25		.32
306983		\$2.00		.18
Number	Inches	1'rice		Price
Stock	Size	l/ist		Your

Aluminum Corner Posts



Hulld your own shield boxes. In long aluminum corner posts grooved on two sides to fit h in. thick aluminum pleces and tapped at each end to fit %2 in. machine screws. Thickness of metal overall % in.

3C6979—YOUR PRICE,

18¢

Each Plece

3C6980—Same as above but not tapped. We ship any length specified by you. You tap ends to suit your own requirements. 20¢

NOTE: Minimum size order billing for special length aluminum corner posts is 50c i. c.—Four 15-inch pieces would be hilled at 50c, same as a single 12 inch piece.

RADIO **Convenience Outlets**

Brown bakelite plates in attractive, soft finish. Metal parts finished in nickel or bronze. Finest quality material workmanship, Fits standard o boxes. Mounting screws included. outlet



_ 39¢ PRICE

Aerial and Ground With A.C. Outlet

with A.C. Outlet
combining the popular
aerial and ground terminals with a single electrical A.C. outlet. Extensively used in rewire
jobs in homes, apartments, hotels or offices.
3E2416—List, \$1.35.
YOUR 62¢



DUPLEX A.C. Outlet with Aerial and Ground Connections

ඉම

17/

Aerial and ground outlet jacks with duplex electrical re-ceptacle—an A.C. outlet for the set and one for lamp, clock or utility requirements. Adapt-

able to any installation. 3E2417-List, \$1.25. YOUR PRICE

. 76¢ Spring Clamp **Binding Posts**



FACH

10 for 50c.
Per hundred, \$4.50.
er thousand, \$43.50. Per thousand, \$43.50. Insulated top. Spring clamp holds wire securely. %2 screw projects 14". Length over all 1".

Spring Clamp Binding Post Assembly 366207



12¢ Ten for \$1.10 Two auto-

matic, spring clamp, insufacted to p on bakelite strip 2" long, the wide, with mounting holes Ith" enters. Completely with soldering lugs-one grounded to chassis. Posts marked nant, and "gnd."

Non-Removable Bakelite Top Binding Posts 3C6113- Plain EACH

C6114 -Ant. C6115 - Gnd.	9¢ 1
C6116— + C6117— —	Per
C6118—Input.	Dozen (
C6119 -Output.	95c
Captions engraved	on polished

Diameter, ½ bakelite top. Size. %2 screw. 1/2

Polarized Aerial-Ground Outlet



A convenient device for connecting set to aerial and ground lead-in wires. Impossible to reverse connections. Black bakelite cap.

3C2245-List Price.

YOUR 24¢ PRICE

Double Binding Posts 3C6598 EACH Made of brass, polinickel finish. Has two lfor wires or cord tips, any thickness of panel. politshed



Bakelite Trio-Tap

Three connections from one outlet. Bake-lite body. Very strong. sturdy connection. Retails at 25c.

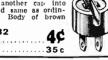
307027 Brown

Fach 60

Ten for 56 c

Outlet Plug Cap

Plugs cord in receptacle and has an additional re-reptacle on top for con-necting another cap into it. Wired same as ordin-ary cap. Body of brown bakelite. 3D7032



Edison Socket Adapter



EACH

Ten for

coun screw shell receptacle and pin type connector. Permits inserting lamp or screw plug at flush receptacle.

__11¢ EACH

Ten for95 c

CHIEF PROPERTY.

Two-Piece Attachment Plug

A sturdy, well de-signed, good quality composition plug. Brass blades with beveled

3D7019-EA. 3D7020-Caps Only

EACH





Cord Connector

Unbreakable. Easily wired into cord. For 110 volt lines. Standard size pin 3D7035—Each. 18C

Ten for\$1.59

Cord Connectors



For 110 volt service Overall length connections. Composition body length 2½". 3D7036—Each 16¢ Ten for\$1.49

Rubber Handle Cap

Strong, durable and conven-ient. Scientifically designed finger grip. Stiff, pliable, un-breakable rubber body.

3D7025—Black, Each 4C Ten for 35c

Green Back Bulb 50 Watt 115 Volt

Very rugged. Remended for use light is subject thration. Top of d. Recom to vi bulb where is finished in green.
Protects the eyes and
throws the light down.



3D7149-YOUR PRICE, 10c 10 for 75c

Laundry Iron Elements



Standard replace ment element for all 6 pound elec-tric such as Westinchouse.

3E7091-NET EACH

Double Flush Receptacle



Finest quality phos-Bakelite body. phor bronze cont standard pin caps. contacts. Takes

3D7037 Brown

Each I O c

\$0.95

Bakelite Flush Plates

Guaranteed genuine ikelite. Beautiful egghakelite. Be shell finish. Screws match.

Brown 3D7039. gle switch

3D7040. Duplex flush receptacle 6¢ EACH Ten for55c

Plug Fuses

Underwriters approved. Tested finest quality. Porcelain body. mica window Clear in Clear mica window in top shows at a glance if fuse is blown. For 110-125 volt current. The amperage of each The amperage of each fuse is clearly stamped



Insulated Staples



Per Box 11¢

Bell Wire

Size 18 copper wire insulated with paraffined I lb. cotton braid. Shpg. wt.. 3C2153 50 ft. coil12c 3C2154 100 ft. coil22c

Friction Tape



Best quality.
Cotton fabric.
Free from pinholes. Impregnated
with adhesive rubher compound. 307125-Four

Ounce Roll YOUR PRICE 3C7126 Eight Ounce 17¢

Nichrome Wire Lengths



3D7096 OA
EACH 8¢
Ten for
Colled nichrome wire, round size 22.
Each length is 600 watts at 110 volts.
Requires no further cutting and may
he stretched to any lengths required.

Heater Element



m. etc.
100% of grade colled nichrome wire wound on ceramic form. 110-120 colts, 600-660 watts.

Terminal Strip Assemblies

With "Screw and Collar" Ter-minals and Single Unit Lug





Genuine laminated bakelite strip
"thick, %" wice. Latest type Genuine laminated baketite strip.

" thick, %;" wice. Latest type screw and collar terminals with rigid-non-shift lux. Collar and lug is one single piece and mounted rigidly and securely through the terminal strip. Screws are brass nickel plated. Torus | Mount | Vous

inals	Centers	Price
2 3 4 5 6	2° 2° 214° 314° 4° 414°	10c 15c 18c 23c 28c 30c
	2 3 4 5	2 2* 3 2* 4 2½* 5 3½*



YOUR PRICE 8¢ Simplifies wiring and provides

Simplifies wiring and provides a ready means of mounting resistors. Center terms al may be grounded by mounting directly to chassis. May be used in several combinations as 2 insulated, I grounded terminal; or 2 insulated; or I grounded—I in-sulated. 1% inch long. Lugs tinned.

5 Terminal Strip



Five tinned lugs mounted securely on luminated bakelite strip 284" long. High insulation factor. Lugs widely spaced. Two lug mounting provides a simple, secure means of grounding any terminal by soldering short wire from either mounting lug to any terminal on the strip.

3D8161 10¢ YOUR PRICE...........

Screw and Lug Assembly



Genuine bakelite strip in" thick, 2" long, 1½" wide. Mounting holes 1¼" centers. Wide head cadmium plated screws on ¾" centers. Solder lugs riveted on, extend ½ inch.

Tugs Tricted	011.	CALOUNI	12	ancu.	
3C6208 PRICE EAC	н.			7	Ç
Ten for				59	(
Per Hundred				. \$3.9	Ę

Bakelite Current Tap



Two side outlets for attachment plugs and one Edison screw recep-tacle with uno-thread shade holder.

3D7031 "..... 11¢ EACH Ten for \$1.05





3E6151-5 prong. 10¢ YOUR PRICE

AIRPLANE TYPE 21/2" Dial



With Escutcheon and Lamp Socket 6-1 Ratio

COMPLETE 89¢ EACH

With Amber Face With Amber Face
3E6772—Clockwise.
3E6773—Counterclock.
With Green Face
3E6774—Clockwise.
3E6775—Counterclock.

Airplane type pointer. Positive acting, friction drive, no backlash. Illuminated translucent amber or green colored face with distinct indicating figures. Convex crystal lens. 3½" illameter embossed escutcheon. bronze finished. Fits 3" shaft. Clockwise scale is marked 0-10 in upper portion with lower portion for Kitocycles 550-1590. Counterclockwise is marked 10-0 and 1500-550 respectively.

Airplane Scale, Pointer, Escutcheon

Escutcheon and one dial face with two airplane pointers for mounting on \(\frac{\pi}{2} \) or \(\frac{\pi}{2} \) condenser shafts. Exactly the same face as supplied on the above dial scale.

1500 to 550 K.C. 550 to 1500 K.C. 1500 to 550 K.C. 550 to 1500 K.C. 3E6776 3E6777 3E6777 3E6778 3E6779 YOUR Green. Green. Amber. Scale 10-0. Green. Scale 0-10. Amber. Scale 10-0. Amber. Scale 0-10. 29¢

3½" Airplane Dial For Broadcast and Short-wave



With Escutcheon and Lamp Sockets Ratio 21-1

3E6792-\$1.45 EACH Short-wave and Broadcast

scales on dial face can be Illuminated Separateand Independently of each other.

Mounts on condenser permitting a full floating dial mounting. "Airplane" type pointer. Convex crystal lens. Translucent amber scale. Two lamn sockets are supplied. This permits broadcast and short-wave scale to be illuminated independently by connecting pilot lights to a section on the coil change switch. Unusually smooth drive, no backlash, 4% bronze finish escutcheon Fits 3% shaft. Supplied with 0-100 marking on broadcast scale. Lower portion or short-wave scale is marked only with divisions and can be accurately calibrated, by the builder.

New Dual Ratio For Short-Wave and Broadcast



Ratio 30:1 1: 3 hns Your Price 97¢

Short Wave Work



3E6782

65¢ Complete

Dial and escutcheon with pilot light socket. Extra high ratio 12 to 1. Friction drive, Full vision illuminated scale ling pointer. Bronze finish escutcheon wide, 24" high, Takes 3," shaft. with traveling pointer. Bronze fi



42¢ 3E6784-3E6785

Midget Dial

Extra Tuning Ratio 4½ to 1. For very nall sets. Scale 3" wide. Bronze finish. Escutcheon %" wide. 2½" high. Pilot light socket. Takes " condenser shaft. small sets. Scare 3 21/8" wide, 21/4" his 36" condenser shaft.

Spot Light Full Vision



68¢ 3E6787-3E6788-

47¢

Counterclock
Tuning Ratio,
4½ to 1. Light
travels with
pointer. Pilot
light socket inlight socket inlight socket inBronze finished. Escutcheon 4½" wide; 35s" high, Amber celluloid

Spring Friction Drive



Dial only, Each 3E6789 3E6790— Counterclock

3E6791-Escutcheon EACH 14¢

3E6771—As above with hole for 1/4" shaft and calibration 55 to 150. YOUR PRICE

DRUM DIAL

3E6800 Without Plate 3E680 ! -Escutcheon

Extra each

Full Vision. Illuminated. Insulated socket included but no bulb. Tuning ratio 7½ to . ½ inch shaft for knob; % inch hole for condenser shaft. Celluiold scale 6-100. Bronze finish escuticien plate 3¾ high, 2½" wide. Pits Marvelo Model 30.

Note:-"C" (Clockwise) reads 0-100: "CC" (Counter-Clockwise) reads 100-0. Both scale are also marked with kilocycle calibrations. Both scales





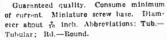
10¢

Miniature bass sockets for pilot lamps. Carefully insulated. Lug connection mountings as used in various types sets. No bulbs included. A. 3E6796—Utright clip mount.

3E6797—Bivet mounting. 3E6798—Reverse clip mount.

3E6799—With rubber grommet. Ten for.....78c—Per 100....\$7.25

Genuine G. E. Mazda Pilot **Light Bulbs**



Article Number	Shape	Volts	Amps.	TEN FOR
3E 6900 3E 6906 3E 6901 3E 6902	Tub. Tub. Rd. Tub.	2.5 3.2 3.8 6.3	0.50 0.35 0.30 0.15	54c
3E 6913	Tub.	68.	0.20	65c

Low Drain Pilot Lamps

Article Number	shape	Volts	Amps	Price Fach	TEN FOR
3E6903 3E6904	Tub. Tub.	2.	0.06 0.05	20c 24c	\$1.47 1.65

Imported Pilot Light Bulbs

Number	Volts	For	Hundred
3E6812	2.5	33c	\$2.45
3E 6813	3.8	33c	2.45
3E6814	6.3	33c	2.45
	Minhau E	22 D:La	



Victor R-32 Pilot Lamp

110 Volt, 10 Watt Inside Frosted Especially for Victor R-32 and Colonial Receivers. May also be used in con-tenuity tests to indicate open or short circuits. Intermediate base.

20¢ YOUR PRICE EACH

Walnut Knobs

Turned out of solid end cut genuine Walnut. All one piece. Finely finished. Solid brass, bushing with set screw. Fit all ¼ lineh shaft controls, including those with flattened side for push-on spring type knobs. Dimensions given are diameters. Heights all about ¾ inch.

Futuristic



306832 306830 306833 306831

Plain

Hexagonal









306839 306838 306835 La Rose







306847 3C6846 EACH 9¢

306843 306842 Ten for 76c Per Hundred \$7.25

(May be assorted)

Bakeliţe Knobs







3E68286¢ Finished in b

with wooden panels. Set screw.

3E6827—
Ten for 55c
Per Hundred
\$5.25
beautiful two-tone ll harmonize well panels. 4" shaft bakelite. White arrow pointer. STROW pointer.

Newest Bakelite Knobs







Newest patterns. Cleanly moulded of best quality All for 14" shafts. genuine bakelite.

Style A 1" across. 11" high. Walnut 306855

3D6856 Style B 14" diameter. %" high. For Midget Sets. Polished black finish.
3D6857 Style C 1" across. %" high. Polished

black finish.

3D6858 Style D with Pointer. 11/2" across including pointer. %" high. For smallest midgets.
Fine Walnut finish. 7¢48c

Drive Cables, Bands, Belts

For Standard Receiver Dials-Condensers Your

	Stock
Make of Set Model	Num.
Atwater Kent 35, 37	3E6862
Crosley 40s, 60s, 804	3E6876
Crosley 601, 602, 607	3E6877
Majestie No 1 70, 71, 72	3E6886
Majestie No. 2 70, 71, 72	3E6887
Philee All	3E6890
RCA Cord 16, 17, 18, 33	3E6893

We can supply dial cables for All Receivers. Many not in our listing are in stock and available for immediate shipment.

Bakelite Vernier Dial



Requires only one hole for condenser shaft and two small holes to secure dial to pauel. No gears to strip. No backlatth. Ratio 14 to 1. Size 24" wide. Translucent scale marked 100-0-100. Fits 4." shaft 3E6825-Black.

18c 18c 24c 14c

Page 91

3E6826-Walnut. TOUR PRICE, Each 42¢ Ten for\$3.95

alit 1034 by H'. C. Braun

PRICE

builder.









Complete with Escutcheon and Lamp Socket 3E6780 Scale 100-0. 3E6781 Scale 0-100. Batio of dial can be alternated from 30-1 to 8-1 by simply pushing in or pulling out on the series of t

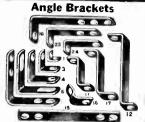
Full Vision Dial for Long and

3E6783

Not equal to domestic bulbs in length of life nor efficiency. All tubular shape.

3E6909-

Indispensable Hardware for Servicemen



panels, tubes, colls, grid leaks, etc. Width % inches.

Stock	Code	Size	Ten
Number	Num.	Inches	For
304810	1	1/2 x 1/2	90
3C4811	3	58 X 58	160
3C4812	4	34 x 34	196
3C4813	6	116 X1 16	26 c
3C4814	7	11/2×11/4	35 c
3C4815	10	1/2 x 2 1/4	366
304816	11	34 high	176
3C4817	12	2 high	396
304818	15	3 long	29 c
304819	16	3/8 x 7/8	Ĩ 6 c
304820	17	1 high	25 c
3C4821	23	1/2 x 1 1/2	296
3C4822	24	1/2 x 7/8	150
		76 78	_15c
C.b.		Dra al	

Sub-Panel Brackets



Strong light weight aummunicackets designed to accommodate subpanel transformers. Two sizes, 3C4823—2½ in. high x 6½ in.

YOUR PRICE.	Pair 24¢
3C4824-21/2	in, high x 11 in.
YOUR PRICE.	Pair 39¢



Brackets Nickel plate brass brackets especially suitespecially suitable for mounting power or audio transformers, chokes and condensers.

densers.
3D4825. Type
18. Mounting hole centers 21/4 YOUR PRICE

20¢ 3D4826. Type 25. Mounting hole

..... 30¢ YOUR PRICE. 4 for 3D4827. Type 26. Mounting hole centers 116". 40¢ YOUR PRICE. 4 for

Service Angle-Bracket Assortment 3D4829 YOUR 25¢

Fibre Washer Assortment



YOUR

100 piece assort-ment of fibre wash-

ers and ers. A complete range of sizes, Plain and shoulder types to fit number 4-6-8-10 serews and ½", %" and ½" holes.

Metal Tapping Screws Gimlet Point-Round Head

Round Head

Self-tapping monel serevs
that cut their own thread in
metal of any gauge and
drive home as securely as
a machine serew in a
a machine serew in a
serew—no mut or tapping required.
Ideal for replacing rivets, set screws
in stripped eastings, repairing sprung
spot welds or any type of construction.

Size No. 5! | Size No. 7.

Size No. 6 | Size No. 7

Stock Number	Price Per Gross	Length Inches	Stock Number	Price Per Gross
3D8175 3D8176 3D8177	30 € 32 €	1/4 3/8	3D8185 3D8186	32c 34c
3D8178 3D8179	35c 37c 40c	5/8 3/4	3D8187 3D8188 3D8189	36 c 38 c 41 c
Size N	o. 8		Size N	o. 10
3D8180	34 c	3/8	3D8190	40c
3D8181	36 c	1/2	3D8191	42c
3D8182	38c	5/8	3D8192	45c
3D8183	40c	3,4	3D8193	50 c
3D8184	42c	1	3D8194	55c

Self-Tapping Screw Assortment

Most popular sizes used by 6et manufacturers. Can be used for replacement on Majestic, Philco, etc. Ideal for general work. Does not redeal for general quire a nut. Consists of a sassorted sizes.
308195—List Price, 50c 29¢

Rubber Grommets



For insulating holes in metal plates on chassis, transformers and other Radio and electrical parts. Touch strong vulcanized black rubber. All for metal about & "thick." Stock Fit Inside Per Per Hun

Stock Fit Inside Num. Hole Diam. 3D4806 %" %" %" 3D4807 %" %" 3" 3D4809 %" %" %"" Per Doz. 15 c 17 c 19 c 21 c Hun. 59 c 64 c 69 c 74 c

3D4828. Assortment of 48 Rubber Grommets. 12 each of above size. YOUR

Rubber "Feet -Bumpers"

For use on bottom of cabinets, amplifiers, speakers, etc. lave received cavity for head of screw. Cannot scratch. Will support heavy weight without marring ordinary surface. For use with 6/32 or 8/32 machine screw and sizes 6 or 8 wood screws, 3D4792. % "diam. A" high 3D4793. %" diam. A" high.

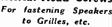
19¢ Per Dozen Per Hundred .. 95c

Machine Screw Washer and Nut Assortment

and Nut Assortme
Contains assortment of 100
6/32 Round head machine
serews from 14" to ½" long.
100 sets of nuts and washers
included. A very handy assortment for it contains the
thost necessary sizes of nuchine serews—furnished in proportions most com

monly used. 3D4837. YOUR PRICE

Ornamental Head Screws For fastening Speakers



Attractively embossed, Wide flat head, % inch diameter. Will not pull through wood.

ч	E	cuary 111	01176 1111	1511.
П	Stock	Length	Per	Per
.	Number	Screw	Oozen	Hundred
1	3D4794	3/4 "	15c	47 c
	3D4795	1"	17¢	61 c
- 1	3D4796	11/4"	190	75.0

Bronze Dial Cable



Right size, flexibility, and strength for any make drum dial. Six individual cables each consisting of seven fine strands of phosphor bronze wire are scientifically braited together and around a strong center fibre cord making a cable ba" diameter. Best quality cable made.

Spade Lug

Steel Cadmium plated. Flat or screw; threaded end size 6/32. Illustration is actual 6/32. size.

Rivet Clinching Tool

For Tubular Rivets

Every serviceman needs this handy tool for "driving home" tubular rivets. Tool is 4%" long—½" diameter, tapered at one end. Has special machined face which centers on rivet and when driven with hammer will turn the rivet body back against the material and clinches as securely as a power driven rivet.

For %" and &" body diameter tubular rivets.

YOUR PRICE. Each . 59¢

Stranded Phosphor



Braided Bronze Dial Cable

For Anchoring Shield Cans to Chassis, etc.

306592 TEN FOR 9¢ PER GROSS

Tubular Rivets

Rivets for replacement and Rivets for replacement and repair are a necessity for every serviceman. How often have you hesitated to drill out a rivet for a necessary repair because you were unable to replace it in a work-manlike manner. You can now replace rivets and make a clean professional job of it by using the special clinching tool listed below. These are the most popular sizes. Body diameter \$\frac{\pi}{a}\cdots\$ and \$\frac{\pi}{a}\cdots\$ of \$\pi\cdots\$ of \$\frac{\pi}{a}\cdots\$ of \$\pi\cdots\$ of \$ U

tubular rivets.

Nickel Plated Cap Screws Highly polished hexagonal head 32" across and 42" thick. Screw is 48" long with standard %2 thread.

3E6571-16c Package of 100

Escutcheon Plate Screws

Especially suited for use in attaching escutcheon plates to cabinets. The size offered is used most commonly and will fit with practically no exception every style of escutcheon plate. Length ¼ inch. 3106570. No. 1 Round Head Wood Screws.

Per Gross

Push Button Switch

3D6358. Open Circuit. YOUR PRICE EACH

Ten for \$2.50

0 Fine quality. Pearl center with polished nickel rim. Fits %" hole. Screw connectors eliminate soldering. Suitable for circuits up to 250 volts. 2 amps. Phosphor bronze contact. 3D6360. Same as above but for mounting in a %" diam. hole. List Price 75c.

Machine and Wood Screw **Assortment**



Contains 85 assorted lengths 6/32 nickel plated brass machine screws. Available in round head, flat oval Consists 10-%". PRICE

or 30-%", 20-%", 15-%".
10-1" lengths,
3D4831, Round Head.
3D4832, Flat Head.

Wood Screw Assortment Contains 85 assorted sizes round head, flat and oval head wood screws, nickel plated. 304834

24¢ YOUR PRICE

Condenser Sealing Compound

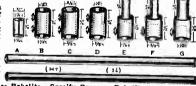
For 'sealing in' paper in sulated or dry electrolytic condensers on repair or special work. The proper compound chemically same as used by leading condenser manufacturers. Low melting point. Cools hard. Positively excludes moisture. Put up in a convenient size 1-lb. cake size 1½ r8½.

3D4838—Per Package ... 166

Transformer Sealing Compound
Good therme conductivity. Has the
quality of diliplacing developed heat
in transformers. Put up in a convenient size 2-lb, cake size 1½x8½.
304839.

Shaft Couplings, Reducers, Extenders

Shafting
Machined brass fittings
for coupling shafts of
uniform or dissimilar diameter; for extending
theostat, volume control volume control shafts. Extenor switch shafts. Exten-sion fittings are furnished to expand or reduce shaft diameter. Shafting is diameter. S available in brass



1	Supplied In Either Brass or Bakelite. Specify Brass or Bakelite on your order				
1	Stock Number	Style	Length	Description	Pric
	3D7290 3D7291 3D7292 3D7293 3D7294 3D7295 3D7296	A B C D E F G	% Long % Long % Long % Long l-'s Long l-'s Long l-'s Long l-'s Long	Hole I.D. O.D. Dial Bushing Hole I.D. O.D. Coupling Hole I.D. O.D. Coupling Hole I.D. O.D. Coupling Hole I.D. O.D. Coupling Hole I.D. O.D. Catender Hole I.D. O.D. Extender Hole I.D. O.D. Reducer Hole I.D. O.D. Reducer Hole I.D. O.D. Reducer O.D. Red	120 120 120 120 120
	3D7297 3D7298 3D7299 3D7300	H	6' Long 12' Long 6' Long 12' Long	M. Diameter Brass Shafting M. Diameter Brass Shafting M. Diameter Fibre Shafting M. Diameter Fibre Shafting	12c 18c 18c 28c

Screws-Nuts **Round Head Machine** Screws

Brass-Nickel Plated

	Size 6-32	
Stock	Length	Price
Number	Inches	Gross
306500	14	\$0.30
		.42
306501	1/2	
306502	₹.	.55
306503	1	.63
306504	11/2	.76
	2 1	1.05
3C6505		
3D6485 a	ssortment equal	quantities
of each above	lengths.	
PER GROSS		6 9 c

Steel-Cadmium Plated

Stock	Length	Price
Number	Inches	Gross
306525	1/4	.19
306526	34	ŽĬ
306527	1/2	.2 i
306528	á,	.24
306529	1.7	.27
300323	ssortment equal	
of each above	e lengths	•••
DED CDOS	S	24c
ren unus		

	Size 6-32	
Stock	Length	Price
Number	Inches	Gross
306530	rð.	.15
306531	1%	.16
3C6532		.17
306533	1/2	:is
3000033	3% 1 <u>%</u> 5% 3% 7%	:19
3C6534	78	:20
3C6535	74	:22
306536	·/8	.24
306537	1	.24
306538	11/4	.31
306539	1 1/2	.35
306540	1%	.42
306541	2	.45
306487 as	sortment equal	quantitles
of each above		
PER GROSS		36c
311000		

	Size 8-32	
Stock	Length	Price
Number	Inches	Gros
306542	¾	.25
306543	1/2	.28
306544	7∕8	.33
3C6545	1	.35
3D6492	11/8	
3D6493	11/2	.41
306522	2	.52
306523	3	1.35
306524	4	1.35

	ssortment equal	quantities
of each above	e lengths.	69 с
_	Size 10-32	
Stock	Length	Price
Number	Inches	Gross
306546	1/4	.30
306547	11/4	.45

Flat-Head Machine Screws

Brass-Nickel Plated Size 6-32

Stock	Length	Price
Number	Inches	Gross
306506	1/4	\$0.30
306507	1/2	.42
306508	3/4	.55
3C6509	1	.63
306510	11/2	.76
306511	2	1.05
306489 as	sortment equal	quantities
of each of abo	ve lengths.	-
PER GROSS		69 с

Steel-Cadmium Plated

Stock	Length	Price
Number	Inches	Gross]
306548	å	.15
306549	1/4	.18
306550	1/2	.20
306551	%	.22
3C6552	_1	.25
3D6490 a	ssortment equal	quantities
of each of ab		
PER GROS	S	,22c

Round Head Wood

	Screws Brass, Nickel Plated
Deoper thickness	for radio work.

Proper	thickness for	radlo	
Stock	Length	Size	Price
Number	Inches	Diam.	Gross
3C651		5	24 c
30651		5	27 c
3C65		6	36 c
30651		6	45c
30649	assortment	equal	quantities
of each o	f above lengtl	ns.	
PER GR	0SS		42 c



Handy Hardware Assortment, 900 assorted nuts, screws, bolts, washers, eyelets, lockwashers and grommets.

306584 YOUR PRICE

escutcheon screws, set screws, etc.; 150 assorted rivets and eyelets; 100 assorted fiber washers, and rubber grommets; 150 assorted brass washers, lock washers, solder lugs, eyelet lugs. Packed in near box with removable compartments or each assortment.

Bakelite Tubing

a real Bargain! Purchased separately, this assortment would cost over \$2.50. Contains all these type items the busiest serviceman would ordinarily use. Included are approximately: 125 assorted \$42 machine screws \$4" to 2" length; 100 \$\frac{1}{2}\$ nuts; 100 assorted \$432 machine screws \$4" to 2" length; 75. \$732 nuts; 100 assorted wood screws.

real Bargain! Purchased separately



Genuine bakelite or micarta tubing. Smooth polished surface. Natural finish. All tubing listed has \$\frac{1}{2}" wall which makes the inside diameter \frac{1}{2}" less than the outside diameter.

Length 3 Inches Outside Price

	ut to	Length	
3C7439	3 "	19c	1.80
307438	21/2"	17c	1.60
3C7437	2 "	15c	1.35
3C7436	11/2"	13c	1.15
3C7435	1 "	100	\$0.95
Number	Diam.	Each	For

Ally tolly to			
mum charge	is price	quoted	per foot.
Stock	Outside	Price	Four
Number	Diam.	Foot	Feet for
307444	1 "	35 c	\$1.30
3C7445	114"	40c	1.50
307446	114"	45 c	1.70
3C7447	134 "	50c	1.90
307448	2 "	55c	2.10
3C7449	21/4 "	60c	2.30
307450	214"	65c	2.50
307451	234 "	70c	2.65
307452	3 "	75c	2.80
3C7453	31/2"	80c	2.95
307454	4 "	85 c	3.25
3C7455	5 "	92¢	3.50
3C7456	6 "	98c	3.75

Hollow Bakelite Rods

Genuine Bakelite. Concentric hole. Supplied in 18 inch lengths. Longer lengths supplied at proportionate

Stock	Overall	Center	ness	Length
Number	Diam	Hole	Wall	Each
307465	3 "	å″	φ,	49 c
3C7466	% "	28 "	13'	59 c
307467	34"	1/4"	ià'	49 c
307468	3/8 17	1/8"	1/8	59 c
307469	3% " 1½"	14"	16'	49 c
307470		1/4"	1/8	59 c
Other siz	es supp	lied to	order	at pro-
portionate	prices.	\$1.5	0 M	(inimum

Thick- 18 inch

Order.

Solid Bakelite Rods Solid bakelite rods. Polished black

		n 18 inch	
Longer leng	ths sup	plied at p	roportion-
ate prices.	\$1.50	Minimum	Order.
Stock	Diam.	Price	Ten
Number	Inches	Each	For
307457	1/8	50c	\$4.25
3C7458	13	50c	4.25
3C7459	1/4	50c	4.25
307460	18	55c	4.75
307461	170	65 C	6.00
307462	16	75 C	6.90
3C7463	1/2	90c	8.10

Combination Rivet -Solder Lug

Rivet fits 3" hole. Illustration exact size. Plated with solder coating.
3C6585 PER HUNDRED. 29¢ Per Thousand\$1.95

Bakelite Panels



We supply best grade bakelite panels. Machine well without chipping.

Black :		A" Thick	
No.	Each In.	No.	Each
3C7420	\$0.59 7x10	307424	\$0.98
3C7421	.75 7x12	3C7425	1.18
3C7422		3C7426	1,38
3C7423	1.15 7x18	3C7427	1.77
	4 7x21	3C7428	1.95
	7.94	3C7429	2.15
Suppli		3C7430	2.35
only in		3C7431	2.55
in. size	7 x30	3C7432	2.70
	7x36	3C7433	3.20

Special Size Panels

NOTE: Minimum charge \$1.50 per

Hard Rubber Panels

Made of special compound having a rubber base. Can be drilled or cut without chipping. Will not warp. A perfect insulator for radio use. Smooth, clean edges. Thickness & inch. Average shipping weight, 3 pounds.

Black	Price		Wa!nut	- 11
Number	Each	Inches	Number	Each
3C7400	\$0.56	7x10	3C7408	\$0.68
3 C7401	.69	7×12	3C7409	.82
3C7402	.82	7×14	3C7410	.94
3C7403	1.03	7x18	3C7411	1.24
3C7404	1.19	7 x 21	307412	1.45
3C7405	1.35	7x21	3C7413	1.63
3C7406	1.51	1x26	3C7414	1.76
3C7407	1.76	7x30	3C7415	2.06

Lugs-Washers

Hexagon Nuts

Made of brass, nickel ated. Chamfered and countersunk for quick assembly work. Size



3C6520-Per hundred Steel-Cadmium Plated

	Elat M	achone
3C6558	10/32	35c
306557	932	20 c
306556	6/32	19c
3C6555	150	180
Number	Size	Hundred
Stock		Price

Flat Washers Made of brass, nickel plated. Fit size 6

3C6521—Per 210 hundred

Steel-C	aamium	Piatea
Stock		Price
Number	Size	H undred
306560	4	18c
3C6561	6	19c
3C6562	8	20c
306563	10	28 c
30000		

Locking Lugs and Washers



Insure permanent tight connections. When nut is tightened dow will not loosen regardless of tion or shaking. Tinned. down ther

3C6588-%" lug with #6 hole.
3C6589-%" lug with #8 hole.
3C6590-%" washer with #6 hole.
3C6591-%" washer with #8 hole.
Per Hundred 25c.

PER THOUSAND Flat Lugs

PER 100 18¢
Per Thousand
Flat lug with two holes. Illustra-
tion is actual size. Best tinned lug
on the market; makes soldering easy.
Punched from sheet copper-evenly

hot tinned, no bare spots. Vastly su-perior to electro plated or flashed lugs quoted at competitive prices.

Similar to above, but smaller. Very handy for small connections. 3C6587 18¢ PER 100

Shield Grid Clips-Lugs

Slips over grid terminal on top of shield grid tubes. Lug type solders, and ellip type ellips to grid. Made of spring steel to insure close contact with terminal. White metal coated to prevent rust.



3C2247-Clip type. 3C2248 -Lug type. ∷ IOc

3C2249 Loop type. .59c

Insulating Washers

For insulating equipment mounted on flat metal panels or

Flat Washers Hole Thick-Outside

umber	Diameter	Diameter
C6450 C6451 C6453 C6454 C6455 C6456	1 1/2" 1 77" 1 30" 1 30" 1 1/2"	**************************************

Ten for nese 南南南南 8¢ Per Hundred



Ten for

12¢ Per Hundred

95¢

Extruded Washers

Shoulders fit into manel holes, insulating shaft, etc., in passing through panel. Stor

nek mber	Outside Diam	Hole Diam.	Shoulder Diam.	Washer Thick	Raise
	1.14111	34.71	1/2 "	1 //	₽"
6458			2	18	132
6459	3/, "	3%"	1/2 "	À"	:ta"
		6 11	3/8	32"	₼"
6460	1/2 "	ñ."	78	12	32
	17.	14"	3/3 " 37 "	A "	₼"
6461	1/2	17.00	7 11	1 1/	à"
6462	16 "	1/8"	3/2	16	4.4

3C6462

333333

Servicemen's Supplies—Jacks—Plugs—Switches

Molded Bakelite Twin Tip Jacks



Fully insulated finest quality icks molded in genuine bake hosphor bronze positive contact phone tips. Wi quality tip ne bakelite. 'hosphor Widely Standard prome Ups. Widely spaced solder lugs tinned and plerced. Overall length 2", whith \(\frac{1}{2}\)". Mounting centers \(\frac{1}{2}\)". Will mount in our \(1\) \(\frac{1}{2}\)". Engraved "Speaker" or "Phone." Priced far below its actual value.

3D6356. Engraved "Speaker." 3D6357. Engraved "Phono." YOUR PRICE Each ... TEN FOR 35c

> Yaxley Push Button **Switches**

Same con-struction as Jack switches Jack switches except that in place of turn knob an insuturn lated push button is provided.
Contacts made and broken by is provided



pressure on knob. No indicating plate included. Non-locking type returns to original position when pressure released. Locking type, is automatically locked in depressed position and must be pulled back to return to original rosition. Single Pole-Single Throw

Makes Contact in Single Circuit. 3C6430—Code 2001. Non-locking. 3C6440—Code 2001L. Locking. List price \$0.90. 53¢ YOUR PRICE

Single Pole-Single Throw Breaks Contact In Single Circuit. 3C6431—Code 2002. Non-locking. 3C6441—Code 2002L. Locking. List Price \$0.90. OUR PRICE

Single Pole-Double Throw One circuit completed in up position, depressed position, first circuit In depressed position, first circubroken and one of contacts switched

broken and one of contacts and second circuit.
3C6432—Code 2003. Non-locking.
3C6442—Code 2003L, Locking.
List Price \$1.00, OUR PRICE

Double Pole-Single Throw; Open

Makes contact in two separate cir-its when depressed. Both circuits cults when depressed. Both circuit open in "up" position.
3C6443—Code 2004. Non-locking.
3C6443—Code 2001L. Locking.
List Price \$1.20.

70¢ YOUR PRICE

Double Pole-Single Throw; Closed

Breaks contact in two separate circuits when depressed. Both circuits closed in "up" position.

3C6434—Code 2005. Non-locking
3C6444—Code 2005L. Locking. 70¢ YOUR PRICE

Double Pole-Double Throw Two separate circuits closed in "ur Two separate circuits closed in "uposition. In depressed position, one contact from each circuit is connected to a second set of separate circuits. 3C6445—Code 2006. Non-locking. 3C6445—Code 2006L. Locking. List Price \$1.50. YOUR PRICE

Double Pole-Double Throw 6 springs—makes and breaks hoth leads of two separate circuits. Connects in second circuit before breaking first circuit and vice versa, 3C6447—Code 2008. Non-locking. List Price \$1.65. YOUR PRICE

Three Circuit

Three Circuit

Rreaks one circuit into two circuits.

4 springs, When button is up, two
center springs contact; when depressed,
2 center springs break and each makes
contact with an outside spring completing two new circuits.
326436—Code 2007. Non-locking.
(Also known as Code 2880.)
326446—Code 2007L. Locking.
List Price \$1.30.

List Price \$1.30.

76¢ | Has loop for attachin tinbreakable fiber barrel.

New Insulated Tip Jacks

Fine quality tip jacks with positive contact phosphor bronze spring. For any standard phone ip. Especially suitable for terminal strip and or making quick, easy connections to test equipment. Bakelite color coded caps.

Mounts in ¼ inch hole or will fit %" hole if used with extruded mounting washer listed below. Solder lug terminal.

3D6345 Green 3D6346 Red 3D6347 Black 3D6347 Brown

YOUR PRICE, Each TEN FOR 400 Per Hundred ...\$3.75

Fibre Washers to insulate jacks when moundameter ½ inch, extruded to fit % inch hole.

D6461. Ten for mounting on metal panel or chassis Diameter 3D6461.

Short Jacks

Smallest made. Sol-der lugs widely spaced. Heavy bakelite insula-tors eliminate leakage. Mount in % inch hole on % to & inch panels.

3C6366-No. 1-Open Circuit. List, 25c. Net.....

3C6367-No. 2A-Single, Closed Circuit List, 30e YOUR PRICE 18¢

Frost Gem Jacks

Very compact. Extend 1 inch inch of in panel. back Mount in single ha" hole on any panel not over ha" thick. Nickel plated. Solder lug connections. Two

washers included. 3C6396—Code -Code 953 Open circuit. EACH 3C6397-Code 954-Closed circuit. EACH 3C6398-Code 951-.19¢ Double circuit. EACH 3C6399—Code 955—

filament control. 20¢ EACH Extension



Ten for 55c Per hundred \$4.95 **Fahnestock Connectors**



own corners prevent turning. Hundred _...65č 3C2244—Double connector.

Per Hundred Flat Jack Plug 306364

VOUR PRICE EACH Body In in diameter, in thick Best for wall plate connection, indicated. Polarity

Standard Jack Plug



Moulded body 1% inch diameter with eyelet for anchoring cord

Two Way Jack Plug

3C6363 List Price YOUR PRICE 26¢ EACH Ten for w connections for two sets of with either tip or loop ends. loop for attaching stay cord.

Standard Tip Jacks

Solid brass, nickel Takes any plated. Takes any phone tip. Positive connection. Not insulated from panel. Requires ½" hole on panels of thicknup to ½". With nut and solder lug. plated.

on panels of thickness 3D6370 EACH

Ten for 35c. Fer Hundred \$2.75

Fibre washers to insulate jacks when mounting on metal panel or chassis. Diameter 1/2 inch, extruded to fit 1/8 3D6461. Ten for120

Yaxley Jack Switches



Small and om pact.

fount in 70 Mount in inch hole panels up to % inch thick. Insulated knob with Indicating pin

0

Lock nut, washer, etched indicating plate included. We then diam. shaft. Including lugs, they project 1½ inches back of panel. 1½ inches wide. 1½ to 1½ inches high. Rugged steel frame. Nickel plated. Perfect insulation. Sultable for all apparatus in low wattage circuits. set screw.

Single Pole-Single Throw 3C6420—Code 720. 2 spring. "On' and "Off," Makes and breaks one circuit. List Price 70c. YOUR PRICE 40¢

Single Pole-Double Throw 3C6421—Code 730. 3 spring. Connects input circuit to either one of two output circuits. List Price 85c. YOUR PRICE

3C6422—Code 732. 3 spring. Same as Code 730, except has center neutral position. List, 90c.
YOUR PRICE. 50¢

Double Pole-Single Throw 3C6423—Code 740, 4 spring. Makes and breaks two circuits. List, 95c. ____55¢ YOUR PRICE

Three Circuit
3C6424—Code 745. Five spring, two position contact. Two input circuits. Both connect to output in first position; in second position, circuit position; in second position, circuit one is broken, circuit two is also broken but input spring is connected to fifth spring, closing third circuit. List, \$1.10. 65¢ YOUR PRICE

Double Pole-Double Throw 3C6425—Code 760. Nix spring. Connects two input circuits to either of two pairs of outputs. List \$1.20. YOUR PRICE72¢

3C6426-Code 762. Double pole, double throw. Same as Code 760, but double throw. Same as Code with center neutral position, List, \$1.20, YOUR PRICE

Triple Pole-Double Throw 3C6427—Code 763. With cen neutral position. List, \$1.55. YOUR PRICE

Four Pole-Double Throw With 3C6428-Code 764. neutral position. List, \$1.95. YOUR PRICE

Push Button Switch

D. P. D. T.

6-Springs. Fully Non-corrosive pos-itive contacts informly tempered springs

retain Double their ir tension permanently. Double ow-double pole opens two circuits and closes two other circ in 34" hole. Terminal circuita lugs 3C6354 Non-locking | Price

50¢ Each 3C6355 Locking

S. P. S. T. Toggle Switch

A quality H & H switch with 8" stranded insulat-ed leads. Stand-ard 3s" bushing ard %" bushing is %" long and fitted with a locking ring. YOUR . 10¢ Ten for 75c

Rotating Type "Panel" Switch



Single Pole, Single Throw. Shaft takes knob. Threaded %" diam. mounting sleeve ½" long. Shaft extends ½" beyond Locknut included.

... 15¢ YOUR PRICE Ten for \$1.35

Solder Cord Tips

Brass.

Nickel Plated 306371 FIFTY FOR

Per hundred......25c Solderless Tip Plug

306368 YOUR PRICE, Each

4¢ Ten for 35c. Per hundred, \$3.25
Attached to cord or wire without soldering or use of tools. Positive Attached to cord or wire without soldering or use of tools. Positive connection. Fit above jack or any standard tip jack or jack assembly made of brass nickel finish.



Sure contact, nickel tip jacks mounted in bakelite strip, 2" long, 18" wide. Mounting holes 118" cen-

550

Three Jack Assembly 3C62O3—Plain. Each, 9c. Ten for

Yaxley Junior Jacks



Same con-struction as jack switch ex-cept has hole for receiving any standard any stance jack. Mount & hole panels not over

a" thick. 3C6405-Code 701. "Open Circuit." One insulated spring. List Price 40c.

..24¢ YOUR PRICE 3C6406-Code 702. "Closed Cir-Two insulated springs. cuit." Two

55c. YOUR PRICE 3C6407—Code 702A. Two insulated aprings. Same as 3C6406 Code 702, except has solder lug on frame. For use on insulated panels.

YOUR PRICE

3C6408—Code 703, "Two Circuit. Three insulated springs.
List Price 65c.

YOUR PRICE 3C6409—Code 703A. "Circuit versing." Three insulated springs List Price 65c. "Circuit Re-

\$1.15 | List Price 65c.

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cords with

Toggle, Rotary and Knife Switches

Toggle-Panel Switches

Miniature Size

Underwriters approved, 3 amp.; 125 V.—1 amp. 250 V. For controlling radio sets, small motors, lamps, meters, etc. Mounting sleeves and 34" diameter. Two locknuts included. Very rugged. Best quality. H. & 14. brand. Laminated bakelite or fiber insulation. Solder lug connections.

Single Pole—Single Throw



2 Connections
Makes and breaks
a single circuit.
Standard "ON" and
"OFF" switch. Standard 'ON' and 'OFF' switch.
Mounting sleeve 38"

Stock	Sleeve	Price	Ten
Number	Length	Each	For
3 C 6 3 0 0	7.	17c	\$1.58
3 C 6 3 0 1		21c	1.95
3 C 6 3 0 2		24e	2.10

Single Pole—Double Throw or Three Way

3 Connections

Can be used as Three way, or single pole double throw. Mounting sleeve \$2" dlameter.



Stock	Sleeve	Price	Ten
Number	Length	Each	For
3 C 6 3 0 3	14:	22¢	\$2.10
3 C 6 3 0 4		24¢	2.20
3 C 6 3 0 5		27¢	2.50

Double Pole—Single Throw



4 Connections Cuts two circuits in and out.
"On and "Off"
for two circuits.
Mounting sleeve diameter.

Stock	Sleeve	Price	For
Number	Length	Each	
3 C 6 3 0 6	12	24¢	\$2,20
3 C 6 3 0 7		27¢	2,50
3 C 6 3 0 8		30¢	2,80

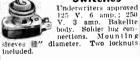
Double Pole—Double Throw

6 Connections Feeds two circuits into either one of two pairs of circuits. A new development of many uses. Mounting sleeve 18" diam-



Stock	Sleeve	Price	Ten
Number	Length	Each	For
3 C 6309	14.	44¢	\$4.25
3 C 6310		47¢	4.50
3 C 6311		49¢	4.60

Special Toggle **Switches**



Single Pole—Single Throw 2 Connections

	~			,,,,	
kes	and	breaks	8	single	circuit.
_					

Stock	Sleeve	Price	Ten
Number	Length	Each	For
3 C 6 3 3 5	74.	14c	\$1.30
3 C 6 3 3 6		16c	1.50
3C6337	78"	18¢	1.75

Double Pole-Double		Throw	
	6 Cenn	ections	
Stock	Sleeve	Price	Ten

Stock	Sleeve	Price	Ten
Number	Length	Each	For
3D6341 3D6342	14	28¢ 32¢	\$2.70

Rotary Panel Switches



Underwriters approved. For knob operation. 3 amps. 250 volts. Best quality. H.&H. brand. Cadmium brand. Cadmium plated lugs. Sup-plied with locknuts. Mounting sleeve %"
diameter. K n o b
Shafts extend 1" beyond threaded

Single Pole-Single Throw
2 Connections

Stock	Sleeve	Price	Ten
Number	Length	Each	For
3E6312	14	19c	\$1.70
3E6313		22c	1.95
3E6314		25e	2.25
C:!-	Dala D	ubla Ti	h-0111

Single Pole—Double
3 Connections

Stock Number	Sleeve Length	Price Each	Ten For
3E6316 3E6317 3E6318	₩. 1-2.	24c 27c 31c	\$2,20 2,50 2,95

Double Pole—Single Throw
4 Connections

ach	For
42¢	\$3.40 3.95 4.32
	36c 42¢ 46c ble T/

Stock	Sleeve	Price	Ten
Number	Length	Each	For
3E6322	14"	42c	\$3.95
3E6323	3/2	48¢	4.60
3E6324	1 1 1	51¢	4.95

Key Lock Switch

Double Pole—Single Throw 4 Connections

306315 Price Each 50¢



Makes and breaks one or two circuits by turn of key. Key removable when circuit is broken. Mounting sleeve \$3" diam. \$2" long. Attractive lock nuts included. Two keys supplied. Underwriters approved. 3 ann., 125 deep, 3" wide. \$4" long with insulation and lugs.

Multi-Polar Rotary Switches



A high quality snap action switch applicable to the wide variety of new elreuit requirements. All steel corresion proof frame. Bakelite Insulation. Silver plated. Low resistance omitacts of high grade spring phosphor bronze. 1. 2 and 3 pole switches are equipped with a standard %" bushing for single hole mounting. 4. 5 and 6 pole switches are equipped with 2 mounting lugs. Lug mounting hole centers 114", shaft extends 1". Switches are %" wide and 114" high.

Stock Number	Num. of Poles	Num. of Positions	Your Price
3D6288 3D6289	1 1	1 2	\$0.35 .45
3D6290 3D6291	2 2	1 2	.59 .65
3D6292 3D6293	3 3	1 2	.77 .87
3D6294 3D6295	4 4	1 2	.93 1.07
3D6296 3D6297	5 5	1 2	1.17 1.30
3D6298 3D6299	6	1 2	1.40

Porcelain Base Knife Switches



Glazed white porcelain bases. Copper contacts and blades with screw lug connections. Forcelain or composition fluger holds. Base lengths; S.P.—25, "; D.P.—35," Widths 1" and 2", Ruted 125 V., 25 Å. For concealed or open wiring.

3E6375—Single pole, single throw, Each	10¢
3E6376—Single pole,	13¢

3E6377-Double pole, 18¢ single throw, Each ..

3E6378-Double pole, 20¢ double throw, Each

Bakelite Base Knife Switches

Miniature Size

Base lengths; Double throw in ches:

Moulded baketite hase and ha Contacts and blades, brass n plated. Sultable for mounting panels, instruments, etc. Moundoles for screws or bolts.

Single Throw

Stock	Pales	List	Your
Number		Price	Price
3C6380	One	\$0.50	26¢
3C6381	Two	.70	
3C6382	Four	1.40	74¢
3C6383	Five	1.75	97c

Double Throw

3C6384	One	\$0.60	\$0.33
3C6385	Two	.80	.45
3C6386	Three	1.20	.65
3 C 6387	Four	1.50	.81
3C6388	Five	2.00	1.12

Minature Switches



DOSTS

Compact, neat, substantial. For base panel mounting. Bake-lite base 1½ in. long. Nickel plated blades and

3D6390 List, 20c. Single pole, single throw YOUR PRICE IOC -Single pole, double throw. 3D6391-3D6392—Double pole, double throw, List, 50c. YOUR PRICE 26c

Switch Levers

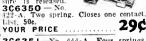
3C6595 With black knob. 10¢

Tapered polished knob. Nickeled Nickeled metal parts. Lever adjustable from 1% to 1% inch radius.

Non-Locking Push

Button Switch

Contact is made when knob is pushed in and is broken when pres-sure is released. 3C6350 — No.



3C6351-Nu. 444-A. Four springs. Makes two contacts. Makes to VOUR PRICE 41¢ List, 70c.

Yaxley Sectional **Rotary Tap Switches**



New design, ex-cellent construction. For general radio and laboratory test



For general radio and laboratory test circuits. Mount in fa inch hole on panels not over ¼ inch thick, Locknut holds switch securely in place. Contacts securely mounted on punched bakelite form. Phosphor bronze wiping contact arm makes continuous contact on ring lug and makes and breaks contact on ring lug and makes and paid quickly. Gaugs are rigidly clambed together on three posts and are regularly spaced ½ Inch apart but can be supplied with any desired spacing on these back of panel; one gang projects 2 inches back of panel; one gang projects 2 inches back of panel; one gang projects 2 inch. These are smooth working and solid switches. No weaving nor play even in multigang with wide spacing.

Single Gang

	Non			
Short'g	Short'g			
Type	Type			
Stock	Stock		List	Your
Number	Number	Points	Price	Price
YC1512	YC1612	2 !		
YC1513	YC1613	3 >	90c	53c
YC1514	YC1614	4		
YC1515	YC1615	5]		
YC1516	YC1616		95c	56c
YC1517	YC1617	7		
YC1518	YC1618			
YC1519	YC1619	9 >	\$1.15	68c
VCISIO	VCISIO	10		

	Twee	Gang	
YC1522 YC1523 YC1524	YC1622 YC1623 YC1624	$\begin{bmatrix} 2\\3\\4 \end{bmatrix}$ \$1.50	88c
YC1525 YC1526 YC1527	YC1625 YC1626 YC1627	5 } 6 } \$1.60	94c
YC1528 YC1529 YC1520	YC1628 YC1629 YC1620	8 9 \$1.90	\$1.12

Three Gang YC1633 YC1634 \$2.10 \$1.23

YC1533 YC1534 YC1535 \$2.20 \$1.29 YC1536 YC1537 YC1636 YC1637 YC1538 YC1539 YC1530 YC1638 YC1639 YC1630 \$2.50 \$1.47

C1542 C1543 C1544	YC1642 YC1643 YC1644	$\left.\begin{array}{c} 2\\3\\1 \end{array}\right\} 2.76	\$1.59
C1545 C1546 C1547	YC1645 YC1646 YC1647	$\left. \begin{array}{c} 5 \\ 6 \\ 7 \end{array} \right\} $ \$2.80	\$1.65
C1548 C1549 C1540	YC1648 YC1649 YC1640	8 9 10 \$3.1	\$1.82

Note: This type switch can be supplied up to 9 gang, 10 point, at prices proportionate to above.

Push Button Switch



Two position: locks in both positions. Contact is made when knob is pulled out. 3C6352 — No. 422. Two springs.

Closes one contact. List, 50c. 29¢

3C6353 - No. 444. Four springs. ses two contacts.



MAGNET WIRE

Finest quality. Uniform. Carefully inspected insulation. One continuous length only on each spool. Sizes are exact standard B & S gauge. Specifications conform to those given by leading manufacturers for radio apparatus, motor and generator windings, etc. Guaranteed.

WHITE DOUBLE COTTON COVERED WHITE SINGLE COTTON COVERED Price 8 oz. Net wt. Price Ft. per Spool Stock Stock Ft. per Spool Number Spool SIZE Number Spool 3E2100 3E2101 3E2102 3E2115 3E2116 3E2117 3E2118 $\frac{61}{96}$ $100 \\ 155 \\ 245$ 20 22 31¢ 33¢ 150 3E 2103 232 3E2104 3E2105 35¢ 43¢ 24 26 3E2119 3E2120 37¢ 48¢ 355 540 600 46¢ 54¢ 3 E 21 0 6 925 61¢ 73¢ 3E2107 1430 30 1210

NOTE: Magnet wire of any size or insulation and in any weight spools supplied at proportionate prices. Mini-mum size order accepted for any magnet wire not listed is \$1.00. Minimum order may be for more than one is 31.00. Minimum order may be for more than one kind of wire if desired.

We quote very low prices on 5 to 10 pound lots of a size.
Write for quotations.

PLAIN GREEN DOUBLE ENAMELED. SILK COVERED

Stock Number	8 oz. Net wt. Spool	Ft. per Spool	SIZE	Stock Number	Price 8 oz. Net wt. Spool	Ft. per Spool
3E2130	20c	62	16	3E2145	42c	62
3E2131	21¢	101	18	3E2146	45c	100
3E2132	22c	148	20	3E2147	47c	157
3E2133	25c	232	22	3E2148	55c	247
3E2134	27¢	402	24	3E2149	63¢	389
3E2135	29¢	640	26	3E2155	72¢	610
3E2136	32¢	1015	28	3E2156	81¢	955
3E2137	34¢	1610	30	3E2157	97¢	1480

Price 8 oz. Net Wt. Spool Price 4 oz. Net Wt. Spool 3E2138 3E2139 3E2140 \$0.38 .46 .59 .75 2550 4040 6400 \$0.71 .94 1.29 1.82 2.59 3E2158 3E2159 .75 | 10150 1.03 | 16050

Beldenamel **Antenna Wire**



Seven stra. strands. size 22 Enameled

Stock	Belden	Length	List	Price
Number	No.	Ft.	Price	
3E2381	8820	75	\$0.65	\$0.35
3E2382	8821	100	.85	
3E2383 3E2384	8822 8823	150	1.25 8.00	4.71

Belden Shielded Lead-In and Ground Wire

stranded conductor with heavy easystrip rubber insulation and overall
braid of fine tinned copper wire.

In service the shielding is grounded
to pick up disturbances and carry
them to the ground.

3E2391-No. 8856, 50 ft. No. 14
shielded. List, \$2.35.

\$1.35

snielded. List. \$2.35. YOUR PRICE \$1.35 3E2392—No. 8854, 250 ft. No. 14 hielded. List, \$11.25.

\$6.60 YOUR PRICE 3E2393—No. 8894. 50 ft. No. 16 hlelded. List, \$1.50. hlelded. List. ...88¢

Belden All Rubber Lead-In and Ground Wire

3E2396—No. 8851. 250 ft. No. 14 seven strand. List, \$4.25. \$2.50

3E2397—No. 8852. 50 ft. No. 16 seven strand. List, 50c. YOUR PRICE

3E2398—No. 8853. 250 ft. No. 16 seven strand. List, \$2.35. \$1.32



36-inch lengths. The correct size for all general purposes. Fits over sizes 14, 16 and 18 wire and can be used on size 12 wire with little stretching. Thoroughly saturated with a high quality wax impregnation.

3E2052—Red 3E2053—Black lengths for

Shielded Lead-in and Ground Wire



Size 18 stranded inner conductor. Rubber Insulated with outer braided shield of thmed copper wire. When used as lead-in, by grounding the outer shield, the tendency to pick up manmade static between aerial and receiver is practically eliminated.

3E2195—50 foot coil.

45¢ EACH 3E2196-100 foot coil. 88¢ 3E2194—250 foot coil. \$2.15 EACH

Lead-in Wire



Copper wire, rubber insulated. Used for lead-in and ground wire. Also makes good aerial wire.

Solid Conductor

44 1711	outer	Mewfiles broot	Graid.
Stock Number	Coil Feet	Per Coll	Ten Colls for
3E2165 3E2166 3E2167	25 50 100	.27	\$1.40 2.45 4.95
3E2168	1000		4.55

Stranded Conductor Rubber Covered-No outer braid.

Stock Number	Coil Feet	Per Coll	Ten Coils for
3E2169 3E2170 3E2171 3E2172	25 50 100 1000	\$0.12 .23 .45 3.95	\$1.05 2.05 4.20



used in radio. Best for short leads and ease of wiring. Belden 25-foot coils in carton.

YOUR PRICE

3E2040 Red. 3E2041—Green. 3E2042—Blue. 3E2043—Black. Per Coll 044 Yellow. 15¢ 3E2045—Gray.

Insulating Cement 3E2065— Per 2-oz. bottle..... 22¢

A transparent celluloid base cement for insulating and impregnating wires and colls.

Makes spider web, honeycomb, etc., colls self-supporting. No eapacity or absorption effects.

3E2188 26 100 22c 2.10 3E2056 Yellow 3D2061—W 3E2180 22 100 41c 3.80 3E2058 Green 3D2062—Gr 3E2059 Red 3D2063—Mr 4D2064 3E2059 Red 3D2064 3E2059 Red 3D2063—Mr 4D2064 3E2059 Red 3D2064 3E2059 Red 3D206

Universal Coil Winder



...\$4.35 YOUR PRICE YOUR PRICE
For winding Honey Comb, Spider Web
and Solenoid Coils of allferent widths
and diameters. Will use wire of different gauges. Accurate coils can be
made. Egulipped with necessary accessories for winding various types of
colls. Has a recorder with adjustable
pointer for counting number of turns.

65 strands No. 38 enameled wire. Will not stretch. Maroon cotton covered. 3E2385-125 ft.

Litz Wire

List, \$1.75. YOUR PRICE \$1.13

20 strands No. 38 enam, wire with double covering of silk.
3E2386—100 ft.
List, \$1.00. YOUR PRICE... 19¢

Bare Copper Wire



7 Strand Conductor

Number	Size	Coll Feet	Per	Coils
3E2175	27	50	9¢	\$0.80
3E2176	24	50	13c	1.25
3E2177	22	50	17¢	1.65
3E2178	27	75	13¢	1.25
3E2179	24	75	19¢	1.80
3E2180	22	75	25¢	2.40
3E2181	27	100	17¢	1.60
3E2182	24	100	22¢	1.10
3E2183	22	100	31¢	2.95

Solid Conductor 3E2184 | 14 | 100 | 28¢ |

Enameled Copper Wire

Stock	Equiv.	Coil	Per	Ten
Number	Size	Feet	Coil	Coils
3E2185	22	50	21¢	\$1.90
3E2186	24	75	24c	2.25
3E2187	22	75	35c	3.30
3E2188	26	100	22c	2.10
3E2189	24	100	30c	2.90
3E2190	22	100	41¢	3.80

Push-Back Hook-up Wire



Tinned copper wire, cotton serv-ed and covered ed and covered with a paraffined damp-proof braid. Simply push back braid when soldering. Then replace it.

YOUR PRICE

PER

Num. 20		pper Core
5 Ft. Rolls tock Num.	Color	100 Ft. Rolls Stock Num.
E1764	Red	3E1773
E1765	Yellow	3E1774
E1766	Blue	3E1775
E1767	Green	3E1776
E1768	Black	3E1777
E1769	Brown	3E1778
E1770	White	3E1779
E1771	Gray	3E1780
E1772	Maroon	3E1781

3E1772 Maroon YOUR PRICE 10¢ ROLL

ROLL 9 Rolls (One Each Color) for 85 c 9 Rolls (One Each Color) for \$2.95

Stranded Copper Core Num. 20 (10 strands of -30 Wire)

25 Ft. Rolls Stock Num.	Color	00 Ft. Rolls Stock Num.
3E1782 3E1783 3E1784	Red Yellow Blue	3E1791 3E1792 3E1793
3E1785 3E1786 3E1787	Green Black	3E1794 3E1795
3E1787 3E1788 3E1789	White Gray	3E1796 3E1797 3E1798
YOUR PRICE	Maroon	3E1799

12¢ ROLL

9 Rolls (One Each Color) for 99 c

PER ... 43¢ 9 Rolls (One Each Color) for \$3.68

Num. 18 Solid Copper Core 25 Ft. Rolls Stock Num. 100 Ft. Rolls Stock Num. Color 3E2000 3E2001 3E2002 3E2003 3E2004 3E2005 3E2006 3E2007 Red Yellow Blue 3E2009 3E2010 3E2011 3E2012 3E2013 Green Black Brown White 3E2008 3E2017

YOUR PRICE YOUR PRICE PFR .. 13¢ ROLL .. 47¢ ROLL 9 Rolls

9 Rolls (One Each Color) (One Each Color) for \$1.08 for \$3.85

Stranded Copper Core

Num. 18 (1	strands o	1 :30 Wire)
25 Ft. Rolls Stock Num.	Color	100 Ft. Rolls Stock Num.
3E2020 3E2021 3E2022 3E2023 3E2024 3E2025	Red Yellow Blue Green Black	3E2029 3E2030 3E2031 3E2032 3E2033
3E2026 3E2027 3E2028	Brown White Gray Maroon	3 E 2034 3 E 2035 3 E 2036 3 E 2037

YOUR PRICE YOUR PRICE 14¢ ROLL ROLL

9 Rolls (One Each Color) for \$4.05 9 Rolls (One Each Color) for \$1.18

"Spaghetti" Tubing



the best quality high grade 30-inch lengths. The best quality spaghetti made. Made of high grade cambric tubing impregnated with high insulation transparent varnish. Different colors can be used to mark different circuit. Don't be fooled by low price spaghetti with gelatin or cheap oil impregnation. We know of no other brand on the market to approach our stock spaghetti in quality and our price is positively the lowest for this grade of quality. 3E2055—Itlack 3D2060—Blue 3E2056—Vellow 3D2061—White 3E2058—Green 3D2062—Gray 3E2059—Red VOUR PRICE

59¢

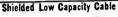
Shielded Low Capacity Cable



For Auto Antenna Lead-in and Short Wave Converters. Stranded copper conluctor size 18. Rubber insulated.
Jute or cotton filler over conductor with tinned copper shielding overall.
Extremely low capacity between conluctor and shield permits shield
rounding without loss of signal.
4E11065—¾" Outside Diam.

67¢

4E11066-%" Outside Diam





Rubber Jacket Overall
Outer rubber jacket insures Positive
Weatherproofing. Can be used for
Auto Antenna Lead-in or wherever a
low capacity cable must withstand clinatic conditions. Constructed like
above cable except enclosed in a heavy

rubber jacket. 4E11067-%" Outside Diam.

10 feet for 97¢ Shielded Low Capacity Weatherproof

Tubing



&" Inside Diameter and approximate-A" Inside Diameter and approximately %" Outside Diameter. Small outside diameter permits casy assembly
in corner post of auto as shield for
antenna lead-in. Excellent for shielding output of signal generators, or any
cables with a diameter of less than
A". Consists of a theroughly impregnated loom tubing covered with a finely
woren tinned copper shield.

4EI 1068—10 ft. coil.

466

YOUR PRICE . 100 feet for \$3.95

Shielded Ignition Cable



7 M/M shielded secondary high tension wire. For leads from plurs for coil, distributor to coil, etc. Conductor consists of 16 strands size 27, tinned copper wire, over which is evering of high tension rubber compound and a specially impregnated cotton braid. Overall is woven shielding of tinned copper wire. Very flexible. 65¢

4E11071-10 feet for



Shielded Wires for **Auto Radio Installations**

For "A" Battery Leads
Conductor is B & S size 12 equivaconjugation of 65 size 30 stranded
copper wires. Insulation consists of
two wrappings of varnish impregnated
cambric tapes over which is a woven
cotton braid. Overall is woven shelding
of tinned copper wire. Very flexible.

4E | 1069 — 10 feet for ... 52¢ 100 feet for ... \$3.90 For "B" Battery and Speaker Leads
4E | 1070 — Conductor is B & S. size 18 equivalent consisting of 15 strands size 30 copper wire. Insulation same as above. 10 feet for ... 34¢

Tinned "Bus" Wire

302067—Round, 10 13¢ 3022314 Lengths. (20 feet) ... \$1.05 3022316 wright 1924 by W. C. Braun

Radio Cables



Glazed Braid Overall

Each conductor size 18 of stranded copper wires, 4," rubber insulated and braid covered. Each covering is distinctively colored for easy tracing. Individual conductors are cabled together and covered with brown glazed braid overall. Very flexible.

Stock Num. 10 feet 100 feet

Stock Number	Cond.	for	for
	Conu.	8c	\$0.68
4D11000	2	180	1.54
4011002	3	22c	2.15
4D11003	4	28c	2.65
4D11004	5	34 c	3.10
4D11005	6	38c	3.70
4D11006	R R	48c 58c	4.45 5.10
4D11007	8	380	3.10



Shielded Covering Overall

Each conductor size 18 of stranded copper wires, & rubber insulated and braid covered. Each covering is distinctively colored for easy tracing. Individual conductors are cabled together and covered overall with woven shield of fine size tinned coper wires. Very flexible. Perfect electrostatic shield.

Stock	Num.	10 feet	100 feet
Number	Cond.	for	for
4D11020 4D11021 4D11022 4D11023 4D11024 4D11025 4D11026	1 2 3 4 5 6	17c 28c 35c 41c 50c 60c 70c	\$1.53 2.50 3.25 3.85 4.60 5.75 6.25



Woven Shield Covered With Glazed Braid Overall

Each conductor size 18 of stranded copper wires, o' rubber insulated and braid covered. Each covering is colored for easy tracing. Conductors cabled together and covered with close woven shield of fine size tinned copper wire. Over the shield is an outer of all purpose where shielded cable is required and not subjected to too much mechanical wear. For Auto much mechanical wear. For Auto struck, where cable night touch grounded metallic objects. Much noise is eliminated from reproduced program with its use.

Stock Number	Num. Cond.	10 feet for	100 feet for
4011030	2	\$0.33	\$2.92
4Ď11031	3	.39	3.60
4D11032	4	.46	4.30
4011033	5	.57	5.06
4D11034	6	.69	6.25
4D11035	7	.81	7.00
4D11036	8	.88	7.90



Rubber Jacket Overall

Each conductor size 18 of stranded copper wires, he rubber insulated, list incitively colored for easy tracing, individual conductors are cabled together and enclosed in outer water-proof super service rubber jacket overall. A very flexible and rugged cable that will withstand severe wear.

Num.	10 feet	100 feet
		\$2.19
ı š	37c	3.40
2 4	45e	4.00
		5.25
		6.25 7.00
6 8	86c	8.00
	Cond. 0 2 1 3 2 4 3 5 4 6 5 7	Cond. for O 2 24c I 3 37c 2 4 45c 3 5 57c 4 6 68c 5 7 77c



Woven Shield Covered With Rubber Jacket Overall

Rubber Jacket Overall

Each conductor size 18 of stranded copper wires, & "rubber insulated and braid covered. Each covering is distinctively colored for easy tracing, individual conductors are cabled to gether and covered over all with close woven shield of fine size timed copper wire. Over shield is an outer super-rubber Jacket providing a water-proof practically weaproof covering. This cable is recommended for theater, and outdoor service on P. A. systems, as microphone cable, extensions, etc. The finest cable made. Yery lexible. Will stand hardest use. Stock Num. 10 feet 100 feet

Stock Number	Num. Cond.	10 feet for	for
4011040	2	30c	\$2.50
4D11041	3	43c	3.85
4011042	4	55e	4.45
4011043	5	67c	5.75
4D11044	6	76c	7.00
4D11045	7	82c	7.50



Emergency or Temporary Microphone Cable

Microphone Cable

A 3-conductor cable constructed of No.
18 solid copper conductors. Concluctors are double cotton served, twisted together and covered overall with a paraffined cotton braid. Conductors are colored red, white and blue. Especially designed for thermor-relay circuits, oil burners and heat control devices but will make an excellent temporary cable for microphone current where the cable is not subject to any handling or abuse; should not be used for permanent installations. It will safely carry any current for increpione operation but insulation is too light for speaker circuits.

3522203-100 ft. roil.

3E2203-100 ft. roll. YOUR PRICE \$1.19

Note: Wire on orders for multiples of 10 feet or for more than 100 feet will be shipped in continuous lengths.

Extension Cords For Headsets and Loudspeakers



Fine Stranded Copper Wire Conductors. Each conductor rubber insulated and covered with cotton braid. Two such conductors laid parallel with braid covering over all. Cord tips each end.

Stock	Length 1	Price	Ten
Number	Feet	Each	For
302310	10	18c	\$1.71
3C2311	20	24 c	2,28
302312	30	35 c	3.33
3C2313	50	49 c	4.65
	ith Co.	nnecto	ir .
Stock	. (Cord	Price
Number	L	ength	Each
302314	20	foot	29 c
302315	30	foot	39 c

Analyzer Cable 8 and 9 Conductor



Has two heater leads of size 16 stranded tinned copper wire. Balance of conductors are size 20. All conductors are ectton served, covered with a \$\psi\$." rubber insulation, and a lacquer dipped color-coded cotton braid. Black glazed braid overail. Supplied in 5 ft. lengths, Longer lengths are available. Add 5c for each additional foot of 8 wire cable and 9c for each additional font of 9 wire cable. 3E8072 - 8 wire cable.

36¢

Price	3E8072 - 8 wire cable.	
29 c	3E8072 - 8 wire cable. 5 foot length	
54c	5 foot length	

Copper Shielding



For Use on Any Wire
This shielding is used on amplifiers, speakers, public address conduits, automobile radios and wherever it is desirable to climinate electrical interference. Forms perfect electrosatic and interference shield. The conductors are run through the sleeving and the sleeving is grounded. Very flexible; can be expanded to nearly double its original diameter, but the length is reduced proportionately. Friees quoted are for lengths of flat wire. Shortening of shielding when opened up to sizes we specify is about 25%, so order 25% more flat length than opened up length actually needed.

Natural Copper Finish

Stock

	Natura	ai Copp	CI III	11311	
Stock		Diam.			
Num.		Open	Flat	For	For
4 E I	1072				\$1.65
	073	½ in.	% in.		1.25
		36 in.	1/4 in.	20c	
	1075	¼ In.	3 tn.	I 5 c	.60
	Individ	ual Wi	res Ti	nned	
Stools			Wilde	10 ft	50 ft

Num. 4E11076 4E11077 4E11078 4E11079 Open 1 in. ½ in ¾ in. ¼ in.

Lead Sheathed Wire



Size 18 single conductor made up of tinned copper wire strands with 3½ inch rubber wall, over which is a 3½ inch lead sheath.

yz inch lead sheath.

The only absolutely perfectly shielded wire. Necessary for best results on Low Voltage transmission line transformers like the Ellim-O-Stat. Tube. etc., when used in locations near ignition systems for oil-burning furnaces. X-Ray and Electrotherapy high frequency apparatus and other similar devices generating intensive interference. May be used underground or in water. Will also improve reception on Auto Radio Sets when used in primary circuits of spark-coil. Overall diameter about \$\frac{1}{2}\$ inch.

3D2197-50 foot coll. \$1.25

3D2198-100 foot coll. YOUR PRICE\$2.18

Duplex Wire Lead Sheathed



Two conductor cable of the same specifications of the single wire listed above covered with a lead sheathing. Waterproof and weather-proof. Completely electrostatic shielded. Recommended as replacement for exposed wiring feeding small motors or light equipment. Eliminates primary radiation.

3D2199—50 ft. coll \$2-35

3D2200-100 ft. coil YOUR PRICE

Pigtail Wire

and another transfer and another

A braided wire cable made up of very fine threads of copper wire, which gives it extreme flexibility. Use it for making connections on your variable condensers, variometers, and switches and avoid high frequency resistance losses.

Parallel Lamp Cord All Rubber Covering



2 Conductors of No. 18 (41 strands of No. 34) wire with \(\frac{1}{4}\) wall of rubber, cotton braid over each conductor. laid parallel and covered overall with \(\frac{5}{4}\) wither jacket. Beautiful smooth brown finsh. Flat oval shape \(\frac{7}{4}\) wide, \(\frac{7}{4}\) withet. Illustration is actual size. Extremely flexible.

4E | 1049-10 foot length. 29¢

YOUR PRICE

Insulators Wall Insulator



For supporting wiring or instruments,
or may be used outside for supporting
lead-in or ground
wires. Glazed brown
porcelain. Nuts and
r s as shown. Dimensions:
inches. Shpg. wt. 8 oz.

3E2230 OUR PRICE 8¢

Aerial Insulators



3E2234-5 inches long.17c Insulator 3E2237-With 3 inch

21/2¢ Ten for 22c 100 Lots, \$1.95 3E2238-With 7 inch

Ten for 35c
100 Lots, \$2.75
For attaching lead-in or
ground wire to posts or
side of building. Center porcelain, mounted in alvanized screw eye. Shpg. wt., 4 oz.





3F2223-.....15¢ Per Hundred850



Porcelain Strain

Designed especially for insulating extra long aerials or guy wires. Extra strong. These insulators will help prevent antenna troubles. Shpg. wt., doztroubles. 5 3E2239—Each 5¢





Special tempered glass unaffected by heat or cold or other atmospheric con-ditions. Finest quality. Approximately



Insulator Porcelain Bods 2% in. high. Diameter % in. Heavy large screw. For outside work. 3E2236-10¢

DX Lifetime Aerials



Giant Aerials for Roof or Attic

4E10750 25 foot. (Has 125 feet wire.) \$1.69 List, \$3.95. Your Price 4E10751-50 foot. (Has 250 feet wire.) List, \$4.95. Your Price

List, 34.95. Tour rice

More selective and powerful. Superior to straight wire with any type set!

Gives effect of a long aerial in a confined space. Sharpens tuning, Nondirectional. Excellent signal strength. No. 7/24 stranded enameled copper
wire. Zine ring separators, assembled with two porcelain insulators, ready to
string up. 25 feet lead-in wire soldered to aerial.

Best Type aerial for short wave sets. This type used by army and navy.

Aerial Kits—Priced Right

STANDARD KIT CONTAINS:

50 ft. No. 7/26 stranded aerial wire; 25 ft. rubber covered lead-in wire; 1 approved light-ning arrester; 2 porcelain insulators; 1 ground clamp; 1 window lead-in; 2 porcelain nail



SPECIAL KIT CONTAINS:

75 ft. No. 7/26 stranded aerial wire; 50 ft. rubber covered lead-in wire; 25 ft. ground wire; 1 standard approved lightining arrester; 2 porcelain insulators; 3 porcelain nall knobs; 2 galvanized screw eyes; 1 window lead-in strip; 1 ground clamp; 1 instruction sheet.

3E2076-YOUR PRICE 63¢

Special High Frequency All-Wave Aerial Kit U.S. Signal Corps Pattern

A scientific aerial designed for permanent installa-tion with all-wave sets intended to receive European and American Broadcasts.

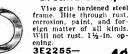
and American Broadcasts.

Kit includes 100 ft. Beldenamel No. 12 Solid
Copper Wire. 2-glass tension insulators, 2-standoff, 3" insulators, 1-low-loss Air-Gap Lightning
Arrestor, 1 Reinforced Ground Clamp, 1-Spring
Antenna Tightner and 1-Porcelain Lead-in Insulator. The 100 Ft. of solid wire should be
divided, 65 ft. for the lead-in and aerial, 35 ft.
for the ground circuit. This makes an ideal length for Trans-Atlantic
reception. The solid wire offers less impedance to High-Frequency signals
than twisted multi-strand wire. The non-inductive stand off insulators
eliminate the loss caused by looping the wire around the Iron core of NailIt-Knobs. The one piece solid aerial prevents noise from loose joints; the
spring aerial tightener reduces fading from aerial swaying.

\$1.29

YOUR PRICE COMPLETE

Ground Clamps



Each																			.49
Ten	for							,											350
Lot	of	100												٠	٠				3.14
	-	_	-	-	-	-	-	_	-	-	-	_	_	_	_	_	_	_	



Braided Ribbon Antenna

25 strands of copper wire braided into flat ribbon. 100 ft. contains nearly 1/2 mile of wire. Gives maximum cor tive surface radio waves. conducto

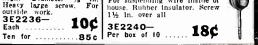
3E2240-



3E2298-Per 100 Ft. Coil. PRICE

Baby Insulator

For suspending wire inside of house. Rubber insulator. Screw 1½ in. over all



Filtered Aerial Wire



List, \$1.50. 302464 Your Price 86¢

60 Foot Coil

Designed on revolutionary principles. Filters and amplifies incompension of the principles and amplifies incompension of the principles of

"Super-Thru" Combined Radio Outlet, Aerial-Ground and Lightning Arrester

The only Acrial-Ground entrance fitting that is approved by the Underwriters Laboratories. Should be used in every first-class residential installation. Provides greatest convenience with maximum protection. All parts of molded Bakelite. Mounts through single % hole. No outlet box required. Fits any wall up to 15 inches in thickness. Inside-plate held by tension no screws. Special 15 inches in thickness. Inside-plate held by tension, no screws. Special polarized attachment ning will not fit electric outlet and can not be reversed in its own plate. Installation consists of a special Plug, inside wall-plate, and exterior Lightning Arrester. Connection from Inside plate to Arrester plate made by 12 gauge insulate wires which are furnished. Easy to install.

Arresters

Superior Arrester



A dependable air gap type arreste Porcelain case. Shpg. wt., 10 oz.

3E2207-Each Lots of 10 Lots of 100

Belden Bakelite Lightning Arrester



Moulded bakelite body, use inside or out of doo Reliable. Underwriters Suitable for doors. Stures standard. damage guarantee. lightning 3E2379-List, 25c.

14¢ YOUR PRICE Ten for\$1.29



King Arrester

Brach

Storm

28¢

Made of genuine bakelite. Non-air gap principle. For indoor installation. \$100.00 insurance policy a gainst lightning, for your radio set, goes with this arrester. Shog, wt. 1 pound.

3E2211—List, 50c. Your Price

Glass Arresters



Base of clear crystal glass. Carbon element held between brass conductors. Clearly visible. \$100.00 insurance with this arrester.

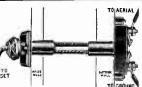
3E2224-List, \$1.00. 36¢

ELECTRO-STATIC



Has choke coil and condenser connected between aerial and set terminals which act as a static and noise reducer and filter. Sold with a \$100,00 free in-surance bond against lightning.

302463-List Price, \$1.00. 58¢ YOUR PRICE



Two Types-for Regular or Shielded Lead-In

3E22O5-Standard Type "Super-Thru' complete. 88c YOUR PRICE

3E2206—Special Type "Super-Thru" for use with Shielded Lead-In. List Price, \$2.15. \$1.25

Page 98

Radolek Noise Filter System New Tobe Model 33 Filterizer Kit



static.

Simply put up an aerial outside the field of interference, install one transformer at aerial and run shielded lead to second transformer installed in or near set. Connection from this transformer is to set aerial, shielding is grounded. Signal strength is preserved—even amplified, and long leading of several hundred feet are entirely when precessary to nuit. practical when necessary to put aerial in the clear. Many installa-tions of this system are giving ex-cellent results here in Chicago in locations where previously no Radio Receiver could be satisfactorily op-erated because of interference.

The complete kit includes:—
One highly efficient antenna stepdown auto transformer enclosed in
water-proof e op per case and
mounted on a special impregnated
blork; 60 feet of shielded winlead-in cable many. TRANSFORMER mounted on a special impregnated block; 60 feet of shielded wire lead-in cable which is soldered to antenna transformer; one step-up auto transformer for use at the Radio Receivers. Complete instructions included. Weatherproof. Easily and quickly installed.

Auto-Transformer Kit



Auto Transformer—co-ige lead-in transmission receiver. Step-Down Step-up A low voltage Auto to any receiver. Step-Down Auto Transformer—couples antenna to low voltage lead-in Transmission line. Mounted on insulating bar. Same as in above kit. 3E8514—Kit 2 pieces. \$1.95

3E8508-Step-Up Auto Trans-former only. YOUR PRICE ...95c 3E8509-Step-Down Auto Transformer only, YOUR PRICE \$1.05

Antenna Lead-in Window Strips

. 3 Duco impregnated web covered copper conductors. Waterproof insulation. 3E2470-12 inches long. F. 4¢ EACH 100 for .. \$3.25 Per Dez ... 54c: Per Doz ... 36c:

Multiple Outlet Assembly

Step-up multiple Auto Transformer with Fleron Plugs and receptacles and 6 Ft. of shlelded wire. May be used with Step-down Transformer for any number of outlets from two to 3E85 | 3— List, \$2.50. Your Price \$1.47

Antenna Lead-In With Screw

Terminals A new type lead-in strip with a screw and self locking terminal on copper strip. Webbing covering impregnated with Hygloss Duco.

3E2475—12 inches long. EACH 100 for .. \$4,95

Lynch Antenna Systems

There is a Lynch Antenna Kit for every type of home-operated Receiver; each will improve the reception of the type of Set for which it was designed, They eliminate "man-made" static and greatly increase signal pick-up and clarity. Every Set owner should have one... You can make many extra dollars by calling them to the attention of your customers.

De Luxe All-Wave Kit



For Cage Doublet and Transposed Transmission line. Guaranteed to give better results than any other Antenna when used with any

any other Antenna when used with any All-Wave, Short-Wave, or Broadcast Set Kit includes: 300 feet "HF-MHO" enameled short wave wire (light weight), 20 Transmission line), 10 Cage-Aerial Spreaders, 8 Navy standard Insulators, 1-Universal Coupler, and 1 double Lightning Arrester. Complete instructions with each Kit. 3E852!—List \$12.50.

.....\$7.35 YOUR PRICE

"No-Stat" Broadcast Kit

Combines high noise-reduction and pick-up efficiency on waves shorter than 200 meters. The Lynch Shorter Wave Doublet Antenna Kit comprises the following parts; 15 Lynch Transposition Blocks; 8 Lynch Commercial Type Insulators; 1 Lynch Doublet Coupler; 200 feet Special Lightweight Hi-Mho" wire

Short-Wave Kit

3E8522-List, \$6.00. \$3.53

Giznt Killer All-Wave Kit

For any All-Wave. Short-Wave or Broadcast Receiver. Closely approaches the performance of the more expensive kits and is far superior to any ordinary aerial. Consists of: 50' "Hi-mary aerial. Consists of: 50' "Hi-mary aerial. Consists of: 50' "Hi-mission line cable, 3 Antenna Wire. Strusted pair low impedance transmission line cable, 3 Antenna insulators, 1-5" Porcelain Tube, 1 Porcelain Screw Eyes. 2 Natl Knobs. celain Screw Eyes, 2 Nail Knobs.

3E8523-List, \$3.50. YOUR PRICE \$2.06

For noiseless operation and maximum signal strength on broadcast receivers. signal strength on broadcast receivers. Consists of: Antenna Transformer, Receiver Matching Transformer, 50' Shielded Lead-in Cable, 3E8520—List, \$6.00.

\$3.53 YOUR PRICE 3E85 19—Same as above except with 100' shielded Transmission Cable, List Price, \$7.00. \$4.12

All-Wave Kit

For use on all wave bands, Satisfactory tests have been made with Scott, General Electric, RCA, Stewart Warner and other high-grade all-wave receivers, Complete kit consists of: 15 Transposition Blocks; 8 Commercial Type Insulators; 1 Universal Coupler; 100 ft. "Hi-Mho" (Special high conductivity) Antenna Wire; 50 ft, "Hi-Mho" Enameled Transmission-Line Wire. Wire. 3E8516—List. \$6.50. \$3.81

A Shielded Antenna Lead-in Noise Suppressor System

3D8500-List Price \$5.45 \$321 YOUR PRICE

includes Outfit

Outfit includes one antenna filterizer transformer, mounted in weatherproof aluminum housing; 75 feet shielded lead-in wire; one Receiver Filterizer adjusted for matching lead-in impedance to the input circuits of different Radio Receivers. This new improved model is designed in accordance with proven principles. No matter what kind of outside noise is interfering with radio reception, the Filterizer Kit will provide effective relief. Installation instructions included.

Tobe Model 32 Filterizer Kit



Tobe Model 36 Auto Filterizer Kit

THEOFIZEF AIX

Keeps noise out of the auto radio by protecting the parts through which noise is most likely to enter. Consists of: (1) Aerial Filterizer with 10 ft. of Filtered Lead-in which eliminates motor noise from lead-in and permits use of aerial at rear of car beyond range of ignition interference. (2) Dome Light Filterette (3) Animeter Filterette to stop noises from low tension wires and electric car heaters. (4) Instruction Booklet.

3E8499—List Price, \$2.95.

\$1.74 \$1.74 YOUR PRICE



Noise Reducing Antenna Products

10¢

Transposition Blocks



YOUR PRICE EA. .. 5¢

10 for45c

Cage Aerial Spreaders

For use wherever a cage type of aerial is to be employed. Constructed of special molsture-proof glazed porcelain material. Electrical losses are reduced to a minimum.

3F8551-YOUR PRICE, EACH

Antenna Spreaders

Reduces elecleakage across the antenna insulators. ½" wide. 3E8576-3½" long unglazed 3E8577-6" long unglazed 10C

Price Each 10 for 90c 3E8578-3½" long glazed 3E8579-6" long glazed

Your Price Each

Airplane Insulator



Antenna Spring Tightener Takes up slack in Aerial, 3E2376—Spring only,

Universal Coupler

Complete with elec-trostatic shield. Permits the use of an un-grounded trans-mission line with any type of receiver without sacrificing the stability which grounding the chassis sometimes provides. Especially useful with

receivers. 3E8554 YOUR PRICE, EACH

74¢

Double Lightning

Arrester



For use on two wire tr For use on all two wire transmission lines.
Provides suitable protection for any receiver, if connected between the antenna and ground binding posts.

3E8555

YOUR PRICE, EACH 68¢

"Hi-Mho" Antenna Wire Excellent for All-

Wave Sets. High conductivity or low all resistance at all radio frequencies. Half the weight of with the same A-C resistance. The shorter the wave length the more effective "III-MHO" be-

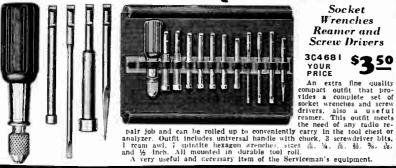
3E8556—Light Weight 100 Ft. List, \$1.00. 3E8557—Heavy Weight 50 Ft. I.lst. 75c. 46¢

3E8558-lleavy Weight 100 Ft. NET

See Page 142 for RCA World Wide Antenna 7¢ System.

FACH

Serviceman's Spintite Kit



Socket Wrenches Reamer and Screw Drivers

304681 \$350 YOUR

Genuine Spintite **Hollow Stem Socket Wrenches**



ı	tool steel.	Suitable for c	ont inuous	factory
		Size given is		hexagon
ı	inches. Sol	d singly or as	a set.	
•	Stock		Price\	304
١	Number	Size	Each	Com
	304682	r i b	30c/	set
ı	304683	1 /2	30c	Wren
	304684	₹A	30c)	Your
	304685	83	30c(
	304686	3/6	30c/	S 4
	3C4687	178	45c)	
	304688	1/2	45c/	

69 I seven Price

nut in

Special Socket Wrench Set



304652--Handle and Ave sockets. 59¢ YOUR PRICE

YOUR PRICE

A specially selected set of fire detachable sockets, together with a special tight-grip handle in which is set a sturely steel shaft firmly held with long steel ferrule. Fine quality steel sockets with very thin but strong walls. Stars: § A 3%. A and ½ luch for hexagonal nuts. Hollow stems take screws projecting not over § luch.

This is a special quality Set, worth more than the small difference in price between it and inferior quality, similiar Sets offered by others to create a low price impression.

impression.

Super Grip Screw Drivers Insulated Handles-Insulated Blades

The finest made and at bargain prices! Tight grip, moulded, polished black hard rubber handles. Offer perfect insulation. Hadlo sizes have slender hardened steel blades, diameter å inch. Heach the difficult spots. Blades en never get loose or turn in handle. Very strong and rugged. Every serviceman and have a complete set. Blade A diameter. Stock Blade Price 2224. gain prices!



Stock Number 3C4725 3C4726 3C4727 3C4728 3C4729 3C4730	Blade Length 3½" 4½" 5½" 6½" 8½"	17r1co Each 15c 17c 20c 24c 28c 32c	3E4731—Set of One of each size YOUR PRICE \$123
3C4726	4½"	17c	
3C4727	5¼"	20c	
3C4728	6¼"	24c	
3C4729	8¼"	28c	



4 in 1 Screw Driver

3D4745 YOUR PRICE, Per Set .. Four serew drivers. The three smaller ones nest inside large one when not in use. All have handles of large diameter to give secure grip and plenty leverage. Largest driver 6½" long, 5½" diameter handle. 2" hardened steel hade 2," diameter blade. Can be all railo screws from chassis anchors to smallest set screws. Nickel plated quality steel.

Hollow Stem Hex-Nut Wrenches

High quality tools. Have deep hollow in socket to take any ordinary projection of screw above nut. Fine tool steel shanks. Sockets of specially hardened tool steel. Shank and socket cadmium plated. Finely finished grooved wood handles, provide sure grip. Shanks securely set in handles to prevent turning. Every Radio Serviceman needs a complete set of all three styles. Our quotations represent big values.



Stock	For Her.)	YOUR PRICE EACH
Num.	Nuts	404
3E4711	it in.	120
3E4715	34 In.	•
3E4716	A In.	3E4719—Set of
3E4717	% in.	Wrenches Complete
3E4718	7 In.	604
3E4718 3E4712	1/2 In.	DYC



For Hex.
Nots
fe In.
14 In.
15 In.
16 In.
17 In.
17 In.
18 In.
17 In. Num. 3E4713 3E4720 3E4721 3E4722 3E4723 3E4714 19¢ 3E4724—Set of 6 Wrenches Complete \$1.05



With 90° Offset Shanks, 7" Overall Easily and quickly hardle buts in positions not accessible with straight shank werencies. Except for 90° bend in shank construction is exactly same as above.

Stock	For Hex.	YOUR PRICE EA	CH
Num. 3E4732 3E4733	Nuts in In. 1/4 In.	19¢	
3E4734 3E4735 3E4736	∄ ln. ⅓ ln.	3E4738—Compl Set of six wrene YOUR	
3E4737	16 In.	PRICE \$1.	0 5
			Ō

Hollow Handle Radio Wrench Set

The handlest tool in the serviceman's kit. Hollow handle holds screwdriver socket and 5 wrench sockets: size 4.". \$". %". %" and ½" all of which are included in set. Ideal for radio and general repeir use. Handle and shank are 7½ finches long. Handle is heavily knurled, providing good gripping surface. Finished in white nickel.

Burgess Flashlight Screw Driver



Puts the Light Directly on the Screw

combination flashlight and screw A combination flashlight and screw driver. Handle screws in dark places quickly and efficiently. Enables use of both hands. Large secure grip safety insulated handle. Fine tool steel blade handles all radio screws. Switch turns light off and on. Bulb included. Very Special Value! 3D4747—Screw Driver, Less Batteries. 59¢ YOUR PRICE

3D39-No I. Uni-Cell Batteries (2 Required)

SERVICEMAN'S Vest Pocket Screw Driver

Always ready! Clips into vest pocket like fountain pen. Same diameter as pen but only 3½" long closed. 5½" shaft of strong tempered steel. Blade positively will not turn loose. This tool, though very small, meets almost every possible radio requirement. Shockproof—5,000 volt insulation. Most convenient. Cannot cut hole in pocket. Adjustable clip. 3D4746—
YOUR PRICE, Each 1996 OPEN



Real quality tools to handle tiny screws in recesses. Tight grip, moulded polished black hard rubber handles offer perfect insulation. \(\frac{1}{2} \)-insulation and steen blades, small enough and strong enough for any radio set screw. Blade lengths 1\(\frac{1}{2} \), 2\(\frac{1}{2} \) and 3\(\frac{1}{2} \) inches. Blades will never loosen or turn in handles.

DeLuxe Super-Grip Radio Screw Driver Set Transparent

High Insulation Handles

Super quality, classy appearance. 15,000 voit test, unbreakable lusterous transparent non-inflammable handles. Molded to blade; will never loosen. Blades of fine hardened tool steel. Will handle tightest screws without bending or chipping. Blades are rust-proofed and highly polished. Vest pocket clip prevents losing. An extra-quality American made tool for the Professional Radio Serviceman. Blades 4%" dlameter; 1½", 24% and 34," long. Handles perfectly all types of machine screws, dial screws, small wood screws, etc. 3E4744—1'er Set of Three. YOUR PRICE

Maple Handle Screw Drivers



Substantially made to stand the gaff yet low in price. Handles are of white hardwood in natural varnish finish, fluted for sure grip. Blades of hardened and polished tool steel. Will not turn in handles. Extra heavy streel ferrules. Four Drivers with 6, 5, 4, and 3 inch blades. A set of these drivers will handle practically every machine and wood serew, except very smallest ones, used in Radio Service Work.



Holds Any Size Screw

Quickly places any type screw in spots not accessible with ordinary screw driver. Screw gripper holds screw limily while screw is being placed and instantly releases it when desired. Gripper slips along blade to upper end when not in use. Strong insulated unbreakable handle. Hexagonal tool steel blade &" diameter.

3E4741-3" 3E4742-4" 3E4743-10"	Blade, Each Blade, Each	25c

Screw Holding Screw Drivers



Utility Set

3C4701-Complete Outfit. OUR PRICE PER SET ...

.....\$1.95

Includes a motor arbor to fit ½ inch shaft, held by double set screws; chuck for drills up to ½ inch; 4 inch wire scratch brush; ½x4 inch emery wheel; 4 inch steel saw and two 4 inch cotton buff wheels. A handy set for the shop and well worth the price. (werall length 5%".

Polishing Head



Holds emery wheel up to 1" thick and buff wheel. Has chuck for drils up to ½". Pulley 1½" diam, for ½" round belt. Overall belght?". Shart length 8". Long bearings with oil cups. Sturdy cast fron base, well finished in red enamel. Two screw holes for fastening.



Saw Table and Guide

Accurately made and clamps onto our number 3 C 4 7 0 2 polishing head. Size 8x8 inches. Makes a complete cutoff saw-ling bakellte or wood panels. Neatly finished. Will make your polishing head of much more value to you. Adjustable guide with steel bar marked off as 6 inch rule included.

Ball Pein Hammers



3C4703-1 oz. Hammer. .. 15¢ YOUR PRICE 3C4704 10 oz. Hammer. Your Price....25c 3C4705-16 oz. Hammer. Your Price....32c



The best size for the radio serviceman. 7 inches overall length. Rounded and polished cutting blade 2 inches long. Very strong. Drop forged steel. Nicely finished.



Radio Wrench Set



304653 15¢ OUR PRICE

Set of three wrenches in leather case. For all hex nuts measuring ¼, ¾, ¾, ¼ and ½ inch with alligator jaw for odd sizes. Very handy. Every service man and set builder needs them. Shog, wt., 6 oz.

Spring Steel 72 Inch Rule



A new semi-flexible steel rule, which may be bent, twisted or folded in practically any manner and will always spring back to its natural form. The spring tape is so tempered and curved with the width of the rule that it holds its nearly rigid shape for all ordinary measuring purposes and may be bent or curved at will without damage to the rule. Rolls up in a compact bakelite case 2" diameter. 1" thick.

304535-VOLLE BRIGG.

Diagonal Jaw Nippers 304565

Price.... 49¢



For fine electrical and radio work. Made of hardened tool steel. Cuts wire clean in tight places. A high grade tool, tine polished finish. Well worth the price but not the equal of Kiein's for professional work. Size 5½ inches.

Long Nose Pliers

304566 Your



End Cutting Nippers

3C4659 56¢



Cuts wire and small screws in tight places. Drop forged steel. Hardened jaws. Guaranteed. Will stand lots of rough handling.

Genuine Mathias Klein Pliers The World's Standard of Quality

Klein pilers are made of the best fine tool steel, guaranteed the highest quality on the market. Do not confuse these instruments with low-priced pilers. Considering the quality and long life of Klein products, the values offered here are exceptionally good. Customers judge a serviceman by the quality of his instruments as well as by his work.

Klein's Narrow Nose Oblique Plier

Kleins Cat. No. 202

Cuts close, the

Cuts close, the marrow head per-mitting use in confined places. Knives periectly fitted so that they meet accurately at all points.

3C4750 3C4751

\$1.76

\$2.94

Klein's End-Cutting Plier

Klein Cat. No. 232

Has stout jaws and broad, cutting knives.
Useful on enclosed
work which cannot

which cannot reached with other type pliers. 304752

5½ inch. Each.....

Klein's Long Nose

Side Cutting Plier

Klein Cat. No. 203

Fine cutting assured. Knives carefully fitted. Body of the plier is hardened and tempered. Point is inch round.

304754

Each \$1.87 5 inch: 3C4755 6 inch. Each \$2.06

Klein's Side-Cutting Plier

Klein Cat. No. 201



For use on bare or insulated wire.

Handles fit hand, Powerful leverage and keen reinforced cutting knives, Adaptable for heavy cuting, Clearance for wire insulation back of knives,
3E4758 6 inch.

YOUR PRICE

\$2.20 **\$2.20**

Reamer

304601 YOUR PRICE

For enlarging drilled holes to proper size. Perfect for bakelite, hard rubber, wood, etc. Shpg. wt., 4 oz.



DOZEN\$2.08

Round shanks to fit hand or power drills. Made tool steel carefully hardened. of tool steel carefully he 3C4567. 1/2" cutter.

Insulated Side Cutting Pliers

59¢

Made of

Made of the quality tool steel with hardened jaws. Knurled opening permits firm grasp on screws, condenser and volume control shafts, etc. A very handy and useful tool for radio servicing and light electrical work. "5,000 volt" insulation on handles. Length 6½ inches. Jaws & inch wide.

Utica Flat Nose Stub Pliers

3D4666 YOUR PRICE

69¢

Flat nose pliers with short stub sure gripping jaws. Particu-larly handy when working in tight places. Made of the tool steel hardened and tempered. Well finished and potished. Size 5".

Special Thin Nose Pliers

3D4667 PRICE 34¢



Handy radio pilers with long thin Jaws for reaching into narrow places. Stub nose will hold nuts firmly. Knurled Jaws 13. Jong, tapered from 5." to M.". Overall length 6.4.". Drop forged steel. Brightly chromium plated. Handy

Close Cut Hack Saw

Cuts steel, bakelite, wood, etc. quickly and cleanly. Strong tight grip frame. 9 inch long saw blade. Gets into hard corners. Reaches many places ordinary hacksaw cannot touch. Blade very durable; almost unbreakable. Blade easily replaced. Very fine teeth, 19 per in.

3C4654—Frame with one blade.... 3C4655—Extra blades, Six for.. ...69c

Pistol Grip Hack Saw



3C4740 Lis

American made. Finest quality. A real bargain at our price. Not to be compared with the poor quality, imported saws selling at slightly lower price. Strong, adjustable to take 8, 10 or 12 inch blades. Moulded rubber handle. One 10" blade included.

Hack Saw Blades



8-in. Dozen. Your Price Your Price

Radio-Lectric Counter Sink 3C4657

17¢

For shaping holes in hard rubber, bakelite, fibre, wood, etc., to depress heads of flat head screws. Every service man needs this tool. Firm grip, grooved wood handle. Hardened steel blade. firmly set.

Magic Electric Pencil

Engraves and Embosses

Engraves and Embosses

An electrically heated scriber about the size of a fountain pen. Writes electrically, like embossing, line autiful colors—copper, gold, silver, green, blue, purple, on any material—silk, paper, metal, cloth, leather, wood, frosted glassware, celluloid, bakelite, etc. Reproductions can be made of drawings, designs, special lettering, nameplates, monograms, initials, emblems, etc. Very useful to Radio Servicemen for marking test panels. Radio Sets, tools, books, advertising materials, tube bases, etc. Enough embossing paper supplied to emboss hundreds of words. A wonderful tool. Will make a profit for you of many tlines its cost every month. Works on 100-120 volt A.C. or D.C. Heats quickly, Maintains even temperature. 8 feet cord, with attaching plug included.

79¢

79¢ YOUR PRICE

Page 101

THE RADOLEK COMPANY

Radio Serviceman's Tap and Die Set



Prices Greatly Reduced

3F4640 \$3.45 YOUR PRICE

Contains 5 taps and 5 dies for machine screws size 4-36, 6-32, 8-32, 10-24, and 12-24. Taps make fenale threads in holes drilled in metal. Dies cut male threads on rocks or wire to make screws. One Die Stock (holder) and one Tap Stock with screw driver included. Complete outfit is put up in wooden case recessed to take all parts of set. Very convenient for shop or portable use. Covers all screws regularly used in Radio and electrical construction.

Signal Portable Electric Drill

Chuck for Steel Drill Up

3E4647-YOUR PRICE \$14.95

A quality tool in every respect. Will meet every need of Radio Serviceman and Elec-Serviceman and Enec-trician, Powerful motor, Cast aluminum body and handle, 3-jaw

Cast aluninum body and handle. 3-jaw chuck, capacity up to 4". Heat-treated alloy gears enclosed in grease-tight chamber. Trouble-free switch. 8 foot heavy duty rubber covered cord with rubber plug. Weight only 6 pounds. For 100-120 volt A.C. or D.

Steel Twist Drills with 4" Shank 5/16 to 1/2 Inch

Fine quality carbon steel twist drills with turned down shank to fit \(\frac{4}{2} \) chuck. These sizes are a neressity for most auto radio installations. Very handy for drilling mounting holes in cabinets.

3D4620-\(\frac{1}{2} \) Inch
3D4621-\(\frac{1}{2} \) Inch
3D4624-\(\frac{1}{2} \) Inch
3D4624-\(\frac{1}{2} \) Inch

YOUR PRICE EACH85¢ 3D4625-Complete Set of 5 Drills\$3.95

HIGHEST QUALITY Alloy Steel Twist Drills

American Made

Made of alloy steel consisting in part of tungsten which makes these drills far superior to ordinary carbon drills. Straight shanks. Particularly intended for electric drills. Perfectly pointed, precision ground. Extra strong web prevents splitting of drill. Our rectly tempered to insure long life. Quality considered, our prices represent extra-ordinary values.

Hardwood Box. Sizes 10, 30, 16, 52, 10, 35 and YOUR PRICE

3E4564—Eleven drills in Flbre Roll. Sizes and 14 YOUR PRICE \$1.27

Tap Wrench with Drills and Taps



Set \$1.15 3E4560-

vvv v on each for 5a, 5a and three drills, serews. Wrench to hold taps and drills. This is the most practical set for Radio Servicemen. Enables you to drill and tap screw holes in any material. Drills can be used in ordinary hand drill if desired.

Circle Cutters

Round

3E4672-

For materials. Wi

3E4672—Extra cutter for either of above. 25¢

Adjustable from 1" to 4" 3E4673-YOUR PRICE \$1.95

Radio Servicemen's Tool Boxes All are of heavy gauge cold rolled steel, baked-on enamel green finish. Brass plated catches and lock with one key. Paneled sides, ends, top and bottom for rigidity and strength.



4E10901-YOUR PRICE 87¢

size for Very Handy Size Servicemen. Very strong and light. 14" long, 6½" leep, 6" wide. loose Removable loose tray with ad justable part! tions.

Cantilever Tray **Tool Box**

Tray Raises as Lid Is Opened 4E 10902-

PRICE 93¢

above

3E4674—Same as above but without beading Cutter

PRICE \$1.15

Heavy Duty cutting the heaviest of rlals. Will cut & cold rolled steel, & aluminum. Dashboards

atuminum. Dashbards of cars. etc.
3E4670—S q u are
Shank.
Your Price \$1.95

3E4671-Round

Shank. Your Price \$1.95

4E10903-Size 6x61/2x18"
YOUR

YOUR ... \$1.28

Tray is so fastened that as cover is raised tray is automatically lifted, permitting easy access to bottom compartment. Box has gold rule of full size scale on cover.



Radio Serviceman's Parts Box



4F10904-VOUR PRICE ... 59¢ Green enamel finish.

Brass hardware. Strong and durable. Keeps your delicate parts together and Insures them

against breakage. Handy size. Length 12%", depth 5%", width 6%". Lock and key included. Rounded corners. Movable tray.



Servicemen's Vises

Portable Model

3E4580-YOUR PRICE 49¢

Sturdily built, accuratel fitted. Machine cut ster screw. Folished jaws 1% wide. Red japan body. Con accurately in tool box. venient to carry 1. Shig. wt., 2 lbs.



Swivel Bench Model 3E4581-

YOUR PRICE ... \$1.35

Positive locking swivel base; holds fast at any angle. Double plunger rod guides. Machine cut steel screw, guides and handle. Knurled steel polished Polished steel 214" wide. Screws to bench. Polished and japan finish. Shpg. wt., 5 pounds.

Journeyman's Swivel Bench Model 3E4575-



\$2.48 Replacea ble hardened steel hardened jaw faces, knurled sur-

YOUR

rolled steel bar, screw and hadde. Pipe Jaws hold pipe ½ to 1½". Jaws open 3½" width 3". Switol base with improved lock, holds fast at any angle. Rugged anvil. The finest vise on the angle. Rugged anvil. The finest market for Radio and electrical work.

3E4675-YOUR PRICE44¢ **Automatic Feed Bench Drills**

Adjustable Panel **Boring Tool**

Cuts circular holes in bakelite, aluminum, or hard rubber panels for meters, tube sockets, bezels, etc. Adjustable from 36 in. to 3 in. diam. Fits any curpenter's brace. Shug. wt., 8 oz.

Needed in every Radio Shop. Takes all round shank drills up to ¼". Has adjustable, automatic feed which lowers automatic feed which fowers drill at rate determined by rutting speed. Machine cut gear pinions. Ball bearing. Finished in enamel—at o l parts highly polished. Overall height, 10 inches, Shug. Wt. 6 lbs.

YOUR PRICE .. \$1.85

Same as above, except larger. Overall height, 134". Chuck its round shank drills up to \$4". Shpg wt., 11 lbs.

3E4551-YOUR PRICE .. \$3.65

GOODELL-PRATT Drill 3E4600-Code. 800—Code. YOUR PRICE \$1.98 7740.

Two speed. Steel shank. Post-tive gear shift. Ball thrust bearing. All-steel chuck has three hardened jaws for holding straight shank drills 0-1/2 lnch. Crank and side handle of mahogany thished hard wood. Length 161/2 inches.

G. P. Hand Drills

All-steel chuck has three hardened jaws for holding straight shank drills 0 to 14 inch in diameter. Gear teeth

are machine cut. Black enameled malleable iron frame. Length 11%". OF 3E4602—Code 655. are YOUR PRICE \$1.20

3E4603—Code 4½. Similar to above. Has hollow handle which contains eight drill points. A to H in. List, \$2.70. YOUR PRICE, \$1.96 complete with drills\$1.96





A substantial drill with set of 8 drills from &" to &". An amazing Value! Drills wood, bakelite. An advision of the word of th

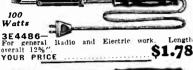
THE RADOLEK COMPANY

SOLDER-MASTER **Electric Soldering Irons**

Solder Quicker, Better, at less cost.
For 105-120 volt A.C. or D.C.
Give quick heat and long satisfactory service,
Quality and life are guaranteed. Any element
that proves defective when properly used will be
made good. Underwriters approved asbestos cords
Neat durable element holders. Cool, generous size
handles, Renewable tips and heating elements.



...97¢ YOUR PRICE



150 Watts 3E4487-For heavier Radio Electric and Garage work Length overall 13¼". \$2.69

YOUR PRICE.

Only

Extra Tips for Solder-Master Irons Your Price For 1ron Stock Size Each Num. 15 c 22 c 45 c 3E4488 3E4489 3E4490 55 Watts 100 Watts 150 Watts

Elements for Solder-Master Irons Your Price For Iron Size Stock Each Num 55 Watts 100 Watts 150 Watts \$0.35 .98 1.50 3E4491 3E4492 3E4493

SPECIAL QUALITY **Electric Soldering Iron** Popular Serviceman's Sizes



A large Radio manufacturing company formerly experienced much trouble with their electric soldering froms. So they put their highly trained Engineering Department on the job of building a long asting trouble free solder from Here it is! Jme of the finest ever made! And what a value! Bound to give long satisfactory service. (Absolute Guarantee on Heating Element for a Full Year of Use!)

Heats quickly, holds heat a long time. %," solld copper alloy tip. Fine quality 6 foot heater cord. Unbreakable rubber attaching plug. Follshed nickel barrel. Black rubberoid handle, Flist quality in every point! For 105-120 volteurent A.C. or D.C.

Extra Tips for Above Irons

\$2.58

Extra Tips for Above Irons
3E4783—For 75 Watt Iron, EACH 24c
3E4784—For 100 Watt Iron, EACH 29c

"ESICO" Constant Duty Soldering Irons



Used in the United States Navy and practically Used in the United States Navy and practically all the large radio and electrical factories throughout the country. Beautiful craftsman's tools. Perfect fitting hard drawn tinned copper tips, replaceable. One year guarantee. Grade A nickel chrome resistance wire wound on lava insulators eneased in blue steel one-piece case. Long life. Quick heat. Maintains a constant even temperature. 6 foot heavy duty cord with anti-kink rubber cable shield. Handle never gets hot. For use on 105-125 voit current.

on 105-	125 vol	t currer	nt.		
Stock		Tip	Length		Your
Num.	Watts	Diam.	Overall	List	Price
3C4785	65	34 "	101/2"	\$5.00	\$3.37
3C4786	100	3%"	1234"	5.50	3.85
3C4787	200	B/g "	14"	8.75	5.91
3C4788	350	76 "	141/2"	10.25	6.95

Leader Electric Soldering Iron



3E4774-Two Tip.

YOUR PRICE. Each 7 P. Sp.20
Well made. Very durable, 50 watt size. Guaranteed for 1000 hours; will last longer with proper use. Two solid copper Tips, one for very time work, the other ½" diameter for larger work. 5½ foot heater cord with spring protection at handle.

ESICO "Midget" and "Junior"



One piece blued steel cases. Rich dark m mandles. Replaceable arged copper 38" tips "A" nickel chrome elements wound on quality mica insulation. 3C4789 — "Midget" 65 Watts. mah tips, Graud on highest

\$1.29 Length 114" 3C4790-"Junior" 85 Watts. Length 1214" \$1.89



When not in use the hot tip is automatically suspended at sufficient distance from bench or table to make burning impossible. Heating element wound on mice insulated steel core, fitted into rust proofed steel tube. Underwriters approved cord 6' long, spring protected. Air insulated handle. Finest quality. Guaranteed service.

Watts	List	Your Price
55	\$3.00	\$2.06
75	4.00	2.74
100	4.75	3.22
	55 75	55 75 \$3.00 4.00

Extra Tips for "Blue—Comet—Balanced" Electric Soldering Irons

Stock Num.	For Iron	Your Price
3E4497	55 Watts	17 c
3E4498	75 Watts	27 c
3E4499	100 Watts	34 c

Soldering Iron Holder and Stand 3F4778~ YOUR PRICE, 59¢

A practical stand on which to rest your hot hen while on a service call. A protection for you and your customer and when the job is finished, no need to hang around waiting for Iron to coal. Set stick hot Iron into the holder, drop the outfit haven carrying case and go on your way. Saccessisted your carrying case and go on your way. Saves time and time means money. Efficiently insulated. Takes all Servicemen's size irons. 6½" long.

Sal-Ammoniac Cake For Cleaning Solder Iron Tips

Speedily cleans and brightens the soldering copper, causing solder to flow smoothly. In-sures good solid joints with minimum of resistance. Will last many months in continuous service. Most convenient to use. 3E4779-Per ½ lb. Cake



Socket Wrench Set and Screw Driver

3E4680-List l'rice YOUR \$2.50 YOUR \$1.47



any cuasas.

36", 3" hex. sockets.

Also one internal knurled socket to fit any 12 noint Double Hex. nut between sizes 36" and 36".

Knurled wooden handle with hexagonal shaft tuat serves also as a screwdriver. Metal parts hardened steel cadmium plated. All packed in substantial

Radio Blotorches

Combination Alcohol Blotorch 304800

List \$5.00. Your Price \$2.94

The finest quality torch. Produces a powerful 2200 degree blast with attached burner. One turn of thumb screw releases burner, producing 1700 degree heedle point flame. Cleaning pin attached to always cool handle ready for instant use. Made of extra heavy gauge brass nickel plates. Will last a lifetime. No adjustment necessary. Slze 7x14x23 inches. Windproof. For indoors or outdoors. Burns 3½ hours on one filling. on one filling.

Alcohol Blotorch

3C4801-List. \$3.25. Your Price \$1.91

A fast working torch. Starts in 20 seconds. Burns 2½ hours on one filling. Intended for indoor use. Suitable for all types radio and electrical work. Mechanically fool proof. Built to last a lifetime. indoor use.
a radio and proof. Built to last a lifetime.
Made of heavy gauge brass, nickel
Size 7x3¼x2 inches.

Duplex Alcohol Blotorch



3C4802-List, \$2.00 Your Price... \$1.18

List, \$2.00 Your Price...

A heavy duty torch with a Bunsen burner especially adapted for outdoor use and heavy soldering jobs. Bunsen burner can be detached if needle flame is desired. Flame adjustable from 1200 degrees. Size 654254114, inches. When Bunsen burner starts generating, primary tube is used as a handle. Burns 40 minutes on one filling.

Gasoline Blotorch 304803 YOUR PRICE

59¢ Uses gasoline. Entirely automatic. Quick priming. Perfect Bunsen flame over 2000 degrees. No pumping, no hlowing. Burns two hours on one filling. Generates its own pressure. For jobs requiring a melting, fusing, brazing heat. Very durable. A wonderful value. Size 2½x7½ inches. Nickel plated brass tank.

Kester Rosin Core Solder



Requires no flux as rosin has been moulded into the core of solder wire. Best for fine radio connections and electrical work. Makes strong, low resistance



3E4765—Per can. (3 to 4 ounces). List, 25c, YOUR PRICE 15¢

3E4766-1 lb. Coil. 56¢

3E4767-51b.Coll.\$2.75

WIRE SOLDER

Wire Solder 3E4768-1 lb. 59¢

A composition of tin and lead in proportions satisfactory for all Radio and Electrical soldering. Diameter about 14 inch. Very convenient for soldering in close quarters.

Kester Aluminum Solder

Flux Filled

Virgin metals properly alloyed. Hollow wire form with flux sealed within solder. Provides the fastest and most satisfactory method of soldering aluminum in any form. In can is in-cluded cleaning materials and instructions.



3E4763-Per can, List Price, 25c.

Ten for \$1.50

3E4764-Per Pound Spool.

Solder Paste

3C4770-2 oz. Can. Ten for 85c

A non-corrosive soldering flux. Makes a mechanical and perfect electrical connection.

Copyright 1934 by W. C. Braun

\$1.96



Neutralizing Tool Set

with Metal Nibs

POUR PRICE.
Polished black bakelite handles. Two tools One consists of a %" diam. 6" long tube on earh end of which are heavy brass nickel plated socket wrenches for % and ¼ inch hex nuts. The other tool fits inside the first tool and consists of a %" solid rod, one end of which has a strong screw driver blade, the other end is of special magnetic steel. Fits Majestic Model 70 and many others.

72¢



viceman needs these balancing in-This complete outfit provides every u will ever need to neutralize, balance the variable condenser or IFT secserviceman tool that you or re-align the variations of any receiver.

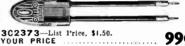
Seren pieces, providing 12 distinct tools, in-geniously designed to telescope into each other, forming four separate tools when assembled. At-tractive rest pocket carrying case included to conveniently hold all tools. Bodies are extra strong and made of fine quality hard rubber, fiber and bakelite. Polished nickel brass fittings.

Separate Tools Provide

Alligator side wrench. 6° Insulated Screw Driver with metal nib. Metal $\frac{4}{3}^{\circ}$ nut wrench. Metal $\frac{4}{3}^{\circ}$ nut wrench. $\frac{1}{3}^{\circ}$ nut wrench. $\frac{1}{3}^{\circ}$ nut wrench. $\frac{1}{3}^{\circ}$ insulated screw driver with metal nib. $\frac{1}{3}^{\circ}$ hex, slotted insulated wrench. Metal screw driver, $\frac{4}{3}^{\circ}$ hex, insulated wrench. Metal screw driver, $\frac{4}{3}^{\circ}$ hex, insulated not wrench. $\frac{5}{3}^{\circ}$ insulated screw driver with metal nib. $\frac{6}{3}^{\circ}$ insulated screw driver.

Detecto-Light

Neon Lamp Shows Live or Grounded Wires



YOUR PRICE
For sontinuity and circuit tests in Radio Sets and laboratory apparatus. Also for general electrical circuit testing.

Tests from 110 to 550 volts A.C. or D.C. Approximate voltage easily determined from relative intensity of neon lamp glow, and approximate cycles from frequency of flashes. On A.C. both electrodes glow; on D.C. only one glows which is the negative side. Moulded bakelite case protects neon lamp. Two heavily insulated leads 4" long with metal tips. Also usable as a pilot lamp on high or low amperage circuits. Convenient to carry in tool kit or pocket.

Short-O-Tester Circuit and Continuity Tested Lamp

3C4520-List \$1.50. YOUR PRICE

When test prod and tip are placed in contact with different points of a circuit, this tester will indicate whether circuit is open or closed. Fiber handle and test prod are 7½ inches long. Very fiexible insulated test cord with spring grip clip. 45 inches long. In top of handle is a miniature builb and battery. Builb lights when circuit is completed. By attaching clip to prod outfit can be used as a trouble lainp. Miniature base. Also locates open or shorted condensers, burned out resistors, high voltage low amperage current, variable condenser shorts. condenser shorts.

3C4521—Extra Mazda bulb, Each ... 9c
3C4522—Extra Battery, Each 8c

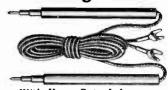


Pen Flashlight Without Mirror

28¢

But with Bulb and Battery 3C51— 3C51— YOUR PRICE COMPLETE Ten for.....\$2.48

Testing Leads



With Heavy-Duty Laboratory Sharp Point Ends

Ends. 3F4540 -Spade 42¢ YOUR PRICE, Per Pair 3E4541-Alligator Spring Clip Ends. YOUR PRICE, Per Pair ...

CIIP Ends. To the Control of the Con work, etc. With Phone Tip Prods

3E4526-3E4527— Tip Ends. Pair 3E4524— Alligator Spring ator S_I Enda Clip Pair ..

Polished lustrous high di-electric handles, 4" long (overall) %" diameter. One red, one black for polarity indicating. 50" long flexible cables in colors to match.

With Renewable Sharp Point Phono Needle Prods

3E4528-Spade 3E4533—Tip Ends. 36¢ Pair 3E4523—Alligator Spring Clip Ends. Per 42¢ Pair

Polished lustrous high di-electric handles, 4" long (overall) %" diam. One red, one black for political political form of the match. One has been called the match. Chucks hold needles which are easily renewable. Needle points enable accurate readings through insulation, and painted or rusty surfaces. With Slender Pencil Type

Sharp Point Prods

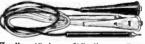


3E4542—Spade End 3E4543—Tip Ends. -Spade Ends. PER PAIR 3E4544-Alligator Spring Clip Ends. PER PAIR ...

Long, thin polished lustrous high di-electric handles 7" long (overall); one red, one black for polarity indicating, 60" long flexible cables in solors to match. Best suited Prods for ohmmeter and exploring service. Reaches otherwise inacressible points as between voice coils and speaker frame, sub-assembiles, etc.

Price,

With Sharp Point Prods and Insulated Spring Ends 3C4531



Handles 4" long, %" diam. Renewable sharp puint needles. One red, one black wire each 42" long. Spring clips with rubber insulating covering. With Insulated Spring Clip on Both Ends 304532

65¢

One red, one black wire each 42" long. Powerful spring clips on each end make connection in a jiffy. Rubber coverings over clips prevent shorts and shocks.

Shockproof Screwdriver Insulated Blade and Handle

Tempered steel blade \$\frac{a}{a}''x6\frac{y}{2}''\$ long, prote entire length with 1000 volt hard-rubber thon. Tight-grip hard rubber handle.

3E4748—YOUR PRICE

304506

YOUR PRICE

Pencil Type Test Prods

With Interchangeable Tip Ends New 6 inch test crods ily 1/4" diameter. Extra rong, high insulation only %" diameter. Extra strong, high insulation fibre handles. S pring prong ends provide a quick positive means of changing from one type of the contract.

changing from one type of this to ambient of the control of the co

YOUR PRICE. Per Set...... 78¢ Test Leads With Alligator Clips

Flexible wire test leads. Color coded red and black for positive and negative identification. Alligator Test Clips at each end provide quick positive method of making connections. Alligator clips have extra narrow jaws and very firm grip. Ideal for making contact in cramped, tight positions.

3D4410-12 inch, Pair

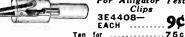
Alligator Test Clips

New type. Long thin jaws. Strong spring will grasp the smallest terminal lug

or lead with a tight, aure, positive contact. Barrel end will fit Banana Type Spring Contact Plug-in prongs or can be securely soldered to test cable. Length 2". width \(\frac{1}{2} \) with \(\frac{1}{2} \) with \(\frac{1}{2} \) with \(\frac{1}{2} \). Polished nickel finish.

3E4407-YOUR PRICE, Each Per Dozen3 ...35c

Rubber Insulators For Alligator Test



Long Test-Prod Handle With Sharp Point Phone Tip End

Hollow high di-electric insulated handle Hollow high di-electric insulated handle, 5½," long overall. ¾" diameter. Sharp point phone tip terminal. Will pierce insulation, rust, pitch and paint. Fits standard phone tip jack. Completely solderless, merely unserew phone tip and innert wire. Brilliant lusterous color coded handles. 3E8875—Red 3E8878—Green EACH.

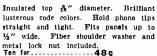
3E8875—Red 3E8878—Green 3E8876—Black 3E8879—Yellow 3E8877—Blue 3E8880—Purple 15¢ Ten for \$1.20

Short Test-Prod Handle

With Phone Tip End 💳 🖼 Hollow high di-electric insulated handle. 17%" long overall, %" diameter. Phone tip end, fits any standard phone tip jack. Completely solder-less. Merely unscrew phone tip and insert wire. Brilliant lusterous color coded handles.

3E8881—Red 3E8884—Green 3E8882—Black 3E8885—Yellow 3E8883—Blue 3E8886—Purple 6¢ Ten for550





3E8887—Red 3E8890—Green 3E8888—Black 3E8891—Yellow 3E8899—Blue 3E8892—Purple EACH 6¢

Solderless Tip Plug

3E6368-Your Price, Each ... 4¢

Braun

Ten for 35c. Per hundred, \$3.25
Attached to cord or wire without soldering or use of tools. Positive connection. Fit above jack or any standard tip jack or jack assembly. Made of brass nickel finish.

NOTE: See Page 94 for other Tip Jacks and Plugs.

1021 by W C

Test Prod Kit

With Interchangable Plug-in Tips



3E4415-List Price, \$2.00. YOUR PRICE.....

A complete set of 14 pieces insulated test prods of

A complete set of 14 pieces insulated test prods of long, short and medium lengths with interchangeable pluy-in type tips.

Provides the serviceman with the most efficient tools available for making quick positive connections from his test equipment to the "job" under inspection. These handy prods will reach into the most confined, tight spots to save you time. The "missing link" between the set and your test instruments, link" between the set and your test instruments and prods with narrow tight gripping jaws; a pair of insulated needlepoint tips for piereling insulation, checking continuity and making positive contact on corroded terminals; a pair of insulated plugs with universal tapered lugs which fit sizes 4, 6, 8 and 10 screws. A pair of insulated jacks are supplied.

Handles of prods are made of high insulation material. Solderless serve connections safely insulated by sleeve caps which fit securely over set screws. Three pair of prod handles with prong ends which may be instantly plugged into any of the interchangeable tips. Handle lengths are 4 inch. 2% inches and 1% inches overall. All pairs color coded red and black for polarity identification. Colors will not fade. Use flexible cable 3E2080, etc., listed below, for connections.

Insulated Binding Posts

With Jack for Banana Type Plug-in Prongs Built-in Head

New style for Analyzers, Ohm-meters, etc. Moulded, high di-electric, knurled grip, non-remov-able top. Standard recentacle for Banana type plug-in prongs built into stem. A transverse hole is provided under the screw top provided under the screw top

and plone tip connections. I. 1%" overall with top is up. Extends above panel when top is screwed fitted with %2 screw %" long and two Extends down

3E8857—Red 3E886D—Yellow 3E8858—Black 3E8861—Green 3E8859—Blue 3E8862—Purple 7en for 10¢

Standard Insulated Binding Posts With Color Coded Tops

Attractive colored, high di-electric, insulated top-diameter \(\frac{4}{n} \) Mounted on 10/32 serew \(\frac{5}{n} \) long. Metal washer \(\frac{1}{n} \) diam., \(\frac{1}{n} \) thick.

3E8863—Red 3E8866 Green 3E8864—Black 3E8867—Yellow 3E8868 Purple 48¢

Small Insulated Binding Posts With Color Coded Tops

Same as above but smaller. Top $\frac{7}{16}$ " diam., 6/32 screw $\frac{9}{8}$ " long. Metal washer $\frac{9}{8}$ " diam.

3E8869—Red 3E8872—Green 3E8870—Black 3E8873—Yellow 3E8871—Blue 3E8874—Purple 42¢

Flexible Cable For Test Leads

equivalent to size 16. Conductor is copered with cotton serving over which is a live rubber covering \$\delta''\$ (b) thick. Over this is a lacquer saturated tight cotton braid. Will withstand bished.

ing 55" (hick. Over this 18 a lacquer saturated tight cotton braid. Will withstand highest voltages encountered in radio test work. Available in red and black covering for positive and negative. 3E2080—Red 3E2082—Green 25 Ft. 3E2081—Black 3E2083—Pellow 3E2084—Purple 376

100 Ft. for.\$1.10 **Insulated Connectors**

For Banana Type Plug-in Tips and Prods

Securely and speedily connect any Tips or Prods having Banana Type Plug-in Prongs. Lusterous colored high di-electric insulated body, 1½" long, %" diameter.

3E8851—Red 3E8854—Green 3E8852—Black 3E8855—Yellow 3E8853—Blue 3E8866—Purple

Long Test-Prod Handle

With Banana Type Spring Contact Fits Plug-in Jacks



3E4417—Red 3E4435—Green 3E4418—Black 3E4436—Yellow 3E4434—Blue 3E4437—Purple Ten for .\$1.35

Medium Test-Prod Handle

With Banana Type Spring Contact Fits Plug-in Jack

Same construction as long test above. Length overall 2% inches. test-prod described 3E4419—Red 3E4439—Green 3E4420—Black 3E4440—Yellow 3E4438—Blue 3E4441—Purple EACH

Ten for \$1.08 **Prong End Adapters** For Test Prods with Banana Style Prongs

Adapters with high di-electric insulated handles. Connect securely. They give your test apparatus that extra degree of adaptability that enables many additional tests to be speedily made with minimum amount of connection changes. Every shop and laboratory needs several sets. One each—Sharp Point, Test Lug, Phone Tip and Alligator Clip included in set. Net Per Set of 4

3E8845 Red 3E8848 Green 3E8846 Black 3E8849 Yellow 3E8847 Blue 3E8850 Purple 20¢

Ten Sets for \$1.75

Insulated Plug-in Tips

With Banana Type Spring Contact Prongs

High di-electric insulated hol-low handle %" long. Solder-less screw connection. Pro-

Provides for connecting test wires into plug-in tip jacks.

Standard Plug-in Insulated Jacks

For Banana Type Spring Contact Prods and Tips

Takes above three types, prods and tips. Provides a secure low resist-ance connection, quick make and break. Fits panels up to %" thick. Shoulder washer included for metal panels.



3E4429—Red 3E8830—Green 3E4430—Black 3E8831—Yellow 3E8832—Purple 7¢ Ten for .63 c

Special Quality Plug-in Insulated Jacks Take Banana

Take Banana
Style Spring
Contact Prods

FACH 10¢

and Tips
tter design and construction than above
l Plug-in Jacks. Brilliant lusterous moul Better desig ard Plug-in Jacks. Brilliant lusterous moulded hi-di-electric insulated tops. Intended for better grade of laboratory apparatus. Fit panels up to thick

For Bakelite or Wood Panels

3E8833—Red 3E8834—Black 3E8835—Blue 3E8838—Purple For Metal Panels-Have Moulded Washers

3E8839—Red 3E8842—Yellow 3E8840—Black 3E8843—Green 5E8844—Purple 7en for 88 .88c

"Banana" Style Plug-in Spring Contact Prongs



Fit above two styles of jacks. Provide secure solid contacts. Easily attached to rods or sheet. Ef-ficiently provides for plugging-in many styles of

special apparatus.
3E4512—With unthreaded Shank, 1 %" Ten for.....

3E4513-With threaded Shank and two nuts 1 ft." overall. Ten for.....

Metal Jack For Banana Type Plug-in

Prongs



10¢

Universal Microphones



New Model XX Two Button

Stretched Diaphragm

Model "XX" confirms the reputation for qual-ity and performance that characterizes all Univer sal products. Every es-sential feature necessary

sential feature necessary to Insure superior performance and long, been incorporated in the design of this model. Only the non-essential "triumings" have been eliminated to enable this popular price. Faithful, truly natural tone. Pure Gold Contacts. Duralumin stretched diaphragm. 200 ohns per button. Very low hiss level. Scientifically Damped. Frequency range from 100 to 4500 cycles. Ruggedly built and finished in non-corrosive, polished chrome plate. Diameter, 2½ in. Overall thickness, 1 tn. Made in three degrees of sensitivity; 8. very sensitive; M. medium sensitive (standard) and D, highly damped. Specify type desired on your order. Specify type desired on your order, 3E2801—List Price, \$10.00.

Improved Model "KK"

Frame Turned from Solid Steel Bar





2 Button Professional Model

Model
Thin, compact, light in weight, with minimum hiss, a laboratory designed, built and tested unit for Broadcast quality or reproduction. A full fledged 2 button. A full fledged 2 button, natural toned precision instrument. The cord terminals a re hold securely by screws to metal anchors in the polished Bakelite houseway by

ing. Resistance 200 ohms per button. Frequency range from 40 to 5000 cycles. Diameter 21.".

Thickness 4". Weight 2 ounces.

3E2805—List Price, \$25.00.

\$14.70 YOUR PRICE

Model "ORO" Single Button

Single Button
An exceptionally efficient, small, low east microphone, 3½ In. high, Finished in highly polished nickelplate, 200 ohm carbon microphone with high sensitivity and reproduction. The button is solid 2½ karat gold faced giving it extremely long life. Furnished with 3-ft. phone the poord.

3E2815—List Price, \$3.00.



\$1.76 YOUR PRICE

Three Channel Microphone Mixer



A compact, portable, correctly engineered mixer. Will handle one, two or three 2 button carbon microphones, condenser microphones, low impedance phono pickups or talephone library and the property of the pr low Impedance phono pickups or any standard telephone lines or any combination of them. Mixing and fading can be done smoothly and silently without affecting quality or with out unbalancing channels. Constant impedance is maintained at all times throughout circuit by the use of constant impedance Tracks. Output is to 400 ohm line. Housed in black crackle finish steel housing engraved backline. Housed in black crackle finish steel housing, engraved bakelite panel, Size 4"x55\"x12". Net

hs. Shipping weight 12 -List Price, \$36.00. \$21.17 YOUR PRICE

Model "BB"

New Super Design

A superlative value for such a low price. Built to half-line precision. An idea of the ruggedness can be obtained by the fact that Model "BB" is 3 in. in diameter by 2 in. thick. Designed especially for voice olck-up, public address. Designed especially for tofice pick-up, public address work and for amateur broadcasters, experimenters, halls, ball rooms, speaker wagons, etc. Finished in wagons, etc. beautiful, h



wagons, etc. Finished in beautiful, highly polished chrome plate. Extra heavy 21-Kt. Pure Gold Spot Center, Duralumin Diaphragm and has a frequency range of from 70 to well over 4,500 cycles, 200 ohms per button. Owing to the large size and weight of model "BH", it is recommended that Model "L" desk stand be used for mounting instead of Model "K", especially when covers are used. Made in three degrees of sensitivity: S, very sensitive; M, medium sensitive (Standard); and D, highly damped.

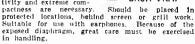
3C28O2-List Price, \$25.00. YOUR PRICE

\$14.50

Universal Model "Y"

Super-Sensitive Midget Microphone

Lighter, smaller and more sensitive than Model "W". Front face of microphone is the Model "W". Front taco of microphone is the diaphragm proper. Extremely sensitive. When placed in any hidden position it will pick up sounds and conversa-tions. Recommended for use where high sensi-tivity and extreme com-



3C2818-List Price, \$2.00. YOUR PRICE

\$1.18

Universal Model "W" Perfected Watch

EDGE VIEW



Model Microphone The smallest completely protected and workable protected and workable single-button microphone manufactured. Can be depended upon to give full quality performance. A favorite type for use in hidden positions such

as a detectophone, or on the coat lapel. Highly sensitivity, light BACK VIEW compact, 200 ohms, Equipped with Pure Gold Spot Center Diaphragm, completely enclosed, protecting it against injury during handling and use, in in dlameter. 14 in, thick.

3C2819 List Price, \$3.00. \$1.76

Universal "Handi-Mike" Single-Button



Intended for volce only. Has maximum volume with clear and clean cut speech reproduction. Beautiful polished plate finish. Equipped with an "off" and "on" thumb switch and 15-ft, cord. Scientifically constructed with gold faced by the condition of the condition Setentifically constructed with gold faced button. Mounted in sound damping, resilient felt. Overall length, 6 inches. Size of head, diameter, 2½ inches. Copy of booklet "Use and Care of Microphones," giving instructions and wiring hookup, accompanies each Handi-Mike.

302811—Model No. 200—Regular Model, \$10.00. Price.

Double-Button

An exceptionally clear, highly damped hand micro-phone, designed particularly for uses where clarity of reproduction plus general adaptability and por-tability are important requisites. Especially or reproduction plus general adaptability and portability are important requisites. Especially recommended where microphone must be used in close proximity to loud speakers. Switch breaks the circuit in the center conductor. Rugged construction. No delicate parts. 200 ohms per button. Finished in beautifully polished chrome plate, equipped with a 6-ft. silk braid covered cable.

3C2813-List Price, \$15.00. \$8.82

Suspension Rings

5 Inch

For use especially with Models
"A" "N" "BB" "KK"
"LL" or Torpedo Models, etc.
For suspending microphones
from ceilings or beams. Made
of solid brass. Beautifully inshed in highly polished chrome
plate. Size 5 in. diameter
by ½ in. wide by ½ in. thick
—8 suspension springs included.



3E2826 List Price, \$2.50. YOUR PRICE

61/2 Inch

Size 6½ in, dlameter by ½ in, wide by ½ in, thick. A larger ring for larger mikes, especially the extra heavy "IBF", "A", "IL" or Torpede Types—8 suspension springs included.
3C2827—List Price, \$4.00.

'rice, \$4.00. \$2.35 YOUR PRICE ...

Desk Type Mountings Model "K"

5 inches in diameter and is used for mounting Models "X", "A" or "KK" milerophenes on 4 points of suspension, using 8 springs. Base is set in a moulded rubber ring forming a cushion against vibration and preventing damage to polished surfaces. Finished in highly polished chrome plate. Entire assembly 8% in. high. 8 suspension springs included. Removable Placard Holder. List Price, \$4.00.

YOUR PRICE ...

3C2829—With Covers.
List Price, \$6.00,
YOUR PRICE \$3.53

Model "L" Desk Stand

For larger microphones such as the "BB" and "KK". Ring Dia., 6½". Has two lengths of interchangeable tub-ing which allow for heighth of either 10½" or 16½" as desired. Base Dia. 5". Pollshed chrome finish, 8 as 5" Pollshed chrome finish, suspension rings furnished.

3E2830-Without Covers. List, \$6.00. Your Price .. \$3.53

3E2831-With Covers. List \$10.00. \$5.88 YOUR PRICE ...



Banquet Stand

Same general construction as floor stand but 11 g h ter in welght. Adjustable from 18 in. to 65 in. hlgh. Base 7 in. in diameter. Top ring 64½ in. in diameter. Filnshed in hlghly pollahed chrome plate. 8 suspension rings included. Net welght 11 bs.

3E2832--List Price, \$12.50. YOUR PRICE

\$7.35

New Universal Floor Stand

Double estension. Adjustable from 28 to 66 inches. Base 7 inches diameter. Too ring 6½ inches, diameter. Elegant pol-ished chromium plated finish. Four point suspension. 8 microphone



Desk Stund
One piece die-casting, beautiful chromlum plate finish.
Ring 5 inches diameter. Overall height,
73/4 inches. Base 4
inches diameter with
soft rubber pad eover.
8 springs included.



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THE RADOLEK COMPANY

SHURE Microphones



Model 5B 2 Button A full sized 2 button mi-crophone. Large frame

A full sized 2 button microphone. Large fr a me makes possible the use of regular size precision adjustable buttons mak in g tone quality superior to that of units with smaller frames which can accommodate only the smaller buttons. Displaying adamoed to eliminate noisy vibration. Speaking voice clear and use of two huttons "push-puil" microphonic action is secured that eliminates "squawk" and barshness. Highly polished gold surfaced buttons. Screen in face of microphone eliminates need for covers on stand. Appearance enhanced by modernistic bevel edge. Highly polished and chromium plated. plated.

plated.

Operates best at 6 to 8 M. A. per button.

Limit of guarantee 21 M. A. per button Total internal resistance: 400 ohns, or 200 ohns per button. Frequency response 40 to 4000 cycles.

Diameter of verall: 33, inches. Diameter of frames.

Inches. Thickness overall 1, in inches. Shipping weight, 114, pounds. Packed with wiring diagram and complete instructions. (Not recommended for

3E2940—List Price, \$10.00. \$5.88

Shure Model 22B



2 Button Microphone Patents Pending

Patents Pending
A large size, high quality
2-button microphone for
public address systems and
amateur broadcasting. New,
glazed earbon button dises,
adjustable buttons, cathodesputtered glod spot
stretched dural diaphrasm
and clammed by a special
process. "Quickway" hooks
"quickway" hooks
to be a process. "Quickway" hooks

and claimed by a special process. "Quickway" hooks patents pending). Screen in the face of the microphone eliminates the need for covers on the stand, Modernistic, bevel edge design.

Operates best at 6 to 8 M.A. per button. Limit of guarantee: 30 M.A. per button. Total Internal resistance: 400 ohms, or 200 ohms per button. Frequency response 40 to 6,000 cycles. Dlameter overall: 3%." Diameter of frames. 3". Thickness overall: 1.6.". Shipping weight, 1½ bbs. Packed with wiring diagram, and complete instructions. Highly polished chromium inish.
3E2941—List I'rlee, \$25.00.

SHURE Model 40C **Condenser Microphone**

A high quality instrument. Excellent frequency response from 40 to 10,000 cycles. Chromfrom 40 to 10,000 cycles. Chromium plated head, Baked black enameled finished case, Susuension adapter for suspending unit from above and a threaded fixture for attaching to the standard Shure Stands is sup-

Electrical Specifications

Electrical Specifications
Employs two type 30 tubes for use with dry cell "A" and "B" supply. "A" current is 6 v., "B" current 180 v. at 3 M.A. "A" plus grounded; may be connected in standard mixer circuits without any changes Output level, minus 30 decibels which is higher than the average two-button carbon microphone, Connects easily on carbon microphone circuits by omitting center leg of the circuit. Special terminal strip provides either 200 or 50 ohm output impedance. A 12' shielded color coded cable is supplied. Dimensions: Transmitter head, 3" in dia including flange 34". "Case 4%" wide, "3" high, 13%" deep. The back of the case is easily removed to get quick aerees to the tube chamber. Instructions and wiring diagram included. Guaranteed for one year. Shog, wt. 8½ lbs.

\$\frac{32}{2}\frac{37}{2}\top Model 40-C with cable but less tubes and stand. List Price, \$67.50.

\$\frac{39.69}{2}

\$39.69 YOUR PRICE

SHURE Model 41-A Condenser Microphone **Power Supply**

Makes possible a completely A.C. operated condenser microphone. Ediminates a 11 batteries. Especially for use with the Shure Condenser Microphone, but may be used with similar current requirements. Provides a perfectly diltered D.C. for both filament and plate circuits of the head amplifler. No audible hum. Cover chromium plated. Base double baked black Japan. Input: 105-125 v., 60 cycles A.C. Output: Filament: 6 v. at. 06 amp. D.C. (two type '30 filaments in series). Plate: Adjustable. 200 v. maximum. 5 MA.D.C. A+ and B- grounded to case. 3D2939—Complete with plug for attachment to microphone cable, 6 Fl. A.C. cord, and one type '30 tube. List Price, \$40.00.

YOUR PRICE

Lots of Fun



Radio's Biggest Selling Specialties Connect to any Radio with Power Detector

Tell Your Customer—

About These Wonderful Entertainers

About Tress Wonderful Entertainers
Give your friends a thrill. Out in on radio
programs with personal comments, jokes, and
"wanted by polles" amouncements. Mind London amouncers. There is no limit to the possibilities of your entertaining in this cleerer manner. Try out your guests as "Broadcast" artists.
Enjoy their "mike" fright. Pens up dull partles.
Opens new fields of pleasure. Does not harm the
radio in any manner. May be left connected and

switched on at the microphone whenever you want to Interrupt program. Radio reproduction stops or becomes very soft while "Mike" is on. High internal resistance. No special conditions on the condition of the co special is on. High internal resistance. As a positive transformer required. Derives current from plate circuit. Furnished with long extension cord. Quality of reproduction with microphone held close to cheek compares favorably with ordinary radio announcements. Demonstrate on your regular control with the control of the contro

Little Mike



33/1" high. Metal case with push-button switch. Shockproof case finished in antique bronze. Complete with instructions. List Complete w Price, 75c.

3D2981-Your Price 45¢

EACH PER DOZEN \$5.10 PER DOZEN \$12.76

Studio Mike

Professional size microphone. Single button mounted in chrome nickel stand. 51," in diameter and 8" high. Furnished with a switch for continuous broadcasting.

3E2979—List Price, \$2.00. YOUR PRICE,

Desk "Mike" Stands

3D2992-5 inch ring. Overall height 6%". Base cast aluminum. For small

microphones.
List Price \$3.50. PRICE \$169

3D2993-6% inch ring. Overall height 8½". Heavy east iron base. For large interophones like models 90

microphones like : and 85. list Price \$6.00. YOUR PRICE \$245

Well balanced design. Hollow base with cord out-let rubber bushed. Hole for mounting 3C6335 switch (Page 95). Felted bottom prevents marring or scratching. Rich black crystalline finish. Eight springs included.

KELLOGG

Hand Microphone



3D2975-List Price, \$8.50. YOUR PRICE......

\$125

Shure Micro-Stan

Shure Micro-Stan
Automatic safety lock holds stand exactly at the height required without screws or nuts. Stand may be extended from 52 to 76 inches. Finished in rubber-tone black, double-baked Japan. Cable entrance in base. Microphene ring is of nickel-base ehromium in stanlard 6 inch size. Fitted with 8 rust proof springs and convenient "Quickway" hooks. Stand presents a neat, bright appearance after the hardest wear. Shipping weight 25 lbs.
3E2874—List Price, \$22.50.

\$13.23

Any Shure stand can be furnished without ring for mounting condenser, velocity or crystal microphones. Deduct phones. Deduct \$2.05 from quot-ed price when ordering without ring.

Shure Collapsible Floor Stand For Portable Systems

For Portable Systems
Gives firm, solid support. Tripod,
when extended, has a leg spread
from 23 to 33 Inches; height may
be adjusted from 43 to 105 incles; folds into a space 31"x
215" for easy transportation.
Equipped with standard 6 inch
chromium
springs

3E2875—List Price, \$18.50. PRICE\$10.88

Height can be adjusted from 13 to 18 inches. Weighted base has hole and open bottom for easy wiring. Chromium finished ring. 6 inches diameter. Is inch wide. 8 rust-proof springs included.

t. A.C. cord, and one type \$3E2876—List Price, \$10.00. \$40.00. \$23.52 PRICE \$5.

Telephone Type Desk Stands



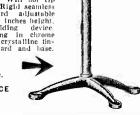
With 5 Inch Ring

Stand is 16%" high, 3D2994— List Price, \$8.00. YOUR \$3.05

Floor Stand

Broad tripod base per-Broad tripod base permits comfortable close to mike speaking. Built for hard service. Will not tip over easily. Rigid seamless steel standard adjustable from 40 to 66 Inches height. Poslitive holding device 6% inch ring in chrome tinish. Black crystalline finish on standard and base.

3D2996 List Price, \$15.00 YOUR PRICE ·850



Shure Adjustable Desk Stand

THE RADOLEK COMPANY

Copyright 1934 by W. C. Braun

PIEZO ASTATIC Crystal Microphone

o Background Noise No Batteries 3E2907-List

\$21.00. Your Price. EACH.....A new type of microphone

Your Price,
EACH.

A new type of microphone representing a great advance in the art of reproduction.

Can be moved about while in operation. Bumps produce practically no mechanical noise. Will operate equally well in any position. Practically indestructible. Abuse that would ruin any other type of microphone does not affect this unit. Frequency response is very uniform over the audible range. Itesonant points which are bothersome in other types of microphones are absent in this unit. No button current, field current or polarizing voltage required. Will not pack nor blast. No hiss or other background noise present. Gives a naturalness to voice and music that noticeably surpasses performance of any other type of microphone.

Requires No Special Transformers. High impedance output enables direct connection to grid input when used within 10 feet of amplifier. Does not require special type of line matching transformer when used at a distance from amplifier. Ordinary single button carbon mike transformer can be used, using secondary as primary connection to mike and primary for 200 olum line output. Output level is minus 60 D.B. Where sensitivity is not required a regular three stage amplifier gives sufficient gain to obtain tull output. For maximum sensitivity four stages of amplification should be used.

Housed in strong chromium plated case 3" in diameter, 1" thick. Microphone can be mounted in regular microphone ring by means of four hook eyes furnished. Comes complete with 6 foot of shielded cable and instructions for use.

Stand Mounting Adapter

Ribbon Velocity Microphone Kit



An easy to assemble, high quality directional microphone kit. Latest design. Employs a special aluminum alloy ribbon 0.00065" thick. rionen 0.00065" thick, suspended from bakelite yokes, in an intense magnetic field. The slightest vibration of slightest vibration or this ribbon in the mag-netic field, e a u s e s a current to be induced in the ribbon. Normal fre-quency response, 30 to quency response, 30 t 12,000 cycles. Direc

cue ribbon. Normal frequency response, 30 to 12.000 cycles. Directional effect is a great aid in reducing feedback from speakers located close to the "mike". Because of the extremely low impedance of the ribbon, a special low to high impedance of the ribbon, a special low to high impedance microphone and amplifier. The Ribbon-Velocity microphone develops about the same signal attenuth as the condenser type microphone necessitating a preamplifier of at least two waxes of resistance coupled triode tubes, before coupling to a standard two or three stage P. A. amplifier. Length assembled 614". Width overall 254". Depth 1". Complete instructions with circuits.

3D2970—Improved Ribbon Velocity Microphone Kit.

...\$5.88 YOUR PRICE 3D2971-Factory assembled Ribbon

Microphone. YOUR PRICE \$11.76

Special Ribbon Velocity Microphone Transformers

3D3940—Ribbon to grid circuit of amplifier. YOUR PRICE \$3.24



mounting 3E2972-List Price, \$6.00 **.......\$3.53** PRICE

Stand Mounting Adapter

Adapter for mounting Bruno Ribbon Microphone with case on any Shure stand listed page 12.

Amperite Ribbon Velocity MICROPHONE KIT

KIT ONLY WITH CASE BUT WITHOUT TRANSFORMER. 3E2850 ist. \$15.00.

List, \$15.00.
YOUR PRICE...
3E2851 — FACTORY ASSEMBLED AND TESTED
WITH HOUSING AND RIBBON TO 200 OR 500 OHM
LINE TRANSFORMER. List Price, \$25.00. YOUR PRICE \$14.70 =

A high grade ribbon microphone that comparea favorably in performance to high priced studio models. Considered superior to carbon microphones. No button current, field current or polarphones. Considered superior to carbon interophones. No button current, field current or polarizing voltage required. Absolutely free from hiss or other background noises. High fidelity of tone is obtained as frequency response is flat within one D.B. between 40 and 10,000 C.P.S. without production of resonant neaks. Directional characteristic makes it possible to reduce or entirely eliminate feedback. Undestrable outside noises are materially reduced. Output is -90 D.B. Two stage preampilder should be used to bring level up to a point where milerophone can be used with average public address amplifier. Ribbon is of specially treated aluminum alloy that is not affected by temperature or humidity. Housed in acoustically correct, sturdy bronze and steel case which provides complete sitelding. Matching transformers listed below fit in base of mike case. Bottom of case has fitting, threaded ½° pipe size for mounting on stand. Complete instructions with diagram for two stage preamplifier are included.

New Model RAE Ribbon Mike

Similar in appearance and general characteristics to above microphone, but has wider frequency range and is therefore more suitable for studio work. Completely assembled with 200 ohm, output transformer.

3E2860—List Price, \$35.00.

.....\$20.58 YOUR PRICE.....

Ribbon Microphone Transformers

Especially designed—high permeability transformers to match the Amperite Superior Microphones. Due to small energy pickup, properly matched and designed transformers are very necessary. These transformers exactly lit Into base of micro-

phone case.
3E2854—Ribbon to Line
3E2855—Ribbon to Grid
3E2856—Line to Grid
3E2857—l'late to Line
3E2857—l'late vo Line

Stand Mounting Adapter
Adapter for mounting Amperite Ribbon microphone on any Shure stand listed on page 107.
352.2871 60¢ YOUR PRICE.....

Amperite Superior Condenser Microphone Kit

A truly professional microphone. Made with micrometer accuracy and tested over the entire audible range. No hiss—no back-ground noise. Reproduction is life - like. Excellent for public address, radio or recording.

Specially annealed duralum-inum diaphragum—stretched so

Specially annealed duratum-inum diaphragm—stretched so that resonant point is far above audible range. Diaphragm comes mounted. Fully enclosed, protected against dust and climatic changes. Complete kit of parts with instructions for assembly of interpretable and making of pre-amplifier. Subjectives phone and making of pre-amplifier, weight, 4 lbs.
3E2865—Kit Only. List, \$8.00.

YOUR PRICE.....

3E2866 Condenser microphone, fabled and tested. List Price, \$10.00. factory

3E2867—Special super-sensitive studio type. factory assembled and tested.
List Price, \$15.00.

List Price, \$15.00. **S8.82**

Universal Condenser Microphone With A.C. Operated Pre-Amplifier

3E2810 List, \$84.00. YOUR



\$49.39 Less Tubes Assembled, ready for use as shown, 2.

PRICE

fler using 2 type 230 tubes. Plugs into 110 V. A. C. 50-60 cycle socket. No hum or ripple. Frequency response from 70 to 7,000 cycles, audio output level—40 D. B., greater than from a carbon microphone and can be fed into same transformer or input. Brown Crackle finish, 25 ft. rubber covered shielded cable furnished.

Radolek Special

Two-Button Microphone Value With Quality

3E2974-YOUR PRICE.

YOUR PRICE.

A fine quality double button microphone selected by us after exhaustive tests of this and other makes and offered to you as an unbeatable microphone value. Carefully constructed without frilis that do not add to performance. Do not compare this with punch press microphone is not a toy but a well made and earefully assembled instrument that gives long and trouble free service. Button contacts 24 Kt. gold. Frequency response 50 to 4,500 cycles. Button impedance 200 ohms total 400 ohms. Frame 2½" diameter and ½" thick. Finish is highly polished chromfum plate. Will give fair results with music but for best musical reproduction we recommend Model 77 Electro Volce.

Model "100" Series Electro-Voice Microphones

3E2900.A-Extra Sensi tive for recording.
3E2901-D-Standard Me-Sensitive. 3E2902.B-M e d i u m

3E2903.C-Heavily Damped. 3E2904-E-Special

for Reducing Feedback.

Per Button.)

Model "77" Electro-Voice

3E2905-List Price, \$18.00.

PRICE\$10.59 Reproduces music

Reproduces music with smoothness, depth and brilliance. The shadings and inflection of speech are preserved together with clean-eut articulation, High quality double-button type, adaptable to broadcast remote, public address and amateur work. Diaphragm is heat-treated-duralumin, perfectly stretched and is protected by symetrical cast grill. The contacts are 24 Kt, gold applied through an exclusive patented process, guaranteed for life against "peeling" or imperfect contact. Contacts may be cleaned hundreds of three without injury. New type buttons are longer lived and reduce background noise. Dampling plate is ground perfectly flat and lapped in by hand, insuring free-dom from "peaks" in the response, Response is substantially flat from 35 to 6,500 C.P.S. Stze 23, "x1½". Extra heavy polished chromium finish. Weight 1 lb. Matches standard input transformer per Button. 23, "x1½". Weight 1 lb. Weight 1 lb. Matches standard input transformer 200 ohms Per Button.)

Bruno Condenser Microphone Kit



3E2998-Condenser miero-YOUR PRICE .. \$2.94

3E2999—Condenser microphone assembled.

Complete Easy-To-Assemble Kit. Heavy Cast Metal non-resonant shell, Special sensitive 0.0012" annealed aluminum alloy diaphragm. Bakelite Insulated, machined brass stator plate. All necessary mounting rings and insulation. Assembly stretches diaphragm taut. Frequency response up to 5.500 cycles. Excellent low note plek-up. Maximum diameter 34". Depth 14". Assembly instructions included. Must be used with "head" amplifier within a few inches of microphone. Has many advantages over carbon "mike" in uniform pick-up and tone quality. No carbon "hiss."

Thordarson Line Matching **Transformer** T6048

Couples 500 Ohm Amplifier Output Line to Voice Coil of Dynamic Speaker Employs the Universal System of Ratio Matching of Impedances

3D4360 List Price \$3.00. YOUR ... \$1.76

Permits use of from one to six speakers (using a transformer at each speaker) at full volume, or from two to 12 speakers (using a transformer for each 2 speakers) at half power.

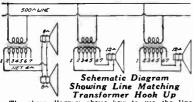
The use of these transformers provides the only satisfactory method of coupling to a single amplifier, several dynamic speakers at widely distributed points. In addition the distribution of power may be adjusted (see diagram below) so as to reduce feetheak difficulties.

Specifications: High inductance primary: 7 tap secondary so arranged that speakers with voice colls having impedance values between 2 and 16 ohms and be balanced to the 500 ohm line with any sombination of speakers—1 to 6 at full volume—2 to 12 at half volume. Transformer is 2" high; 24" wide, 24" deep. 15 watt working capacity—25 watt peak. Complete instructions included.

Thordarson T6125 Transformet

Thordarson 16125 Transformer
Universal Single Tube to 500 ohm Line
Matches above transformer in appearance. Has
primary terminals and six secondary ratio taps to
provide for coupling any of the following tubes to
a 500 ohm line: 2A5, 11, 42, 47, 89, 59, 46, 45,
50, or 2A3, class "A". 15 watt working capacity,
22 watt peak. Diagrams included.
3D4361 List Price \$3.00
\$1.76 YOUR PRICE

Thordarson T6126 Transformer Universal Push Pull Tubes to 500 ohm Line Matches above transformer in appearance. Has center-tapped primary and five secondary ratio taps to provide for coupling any of the following tubes in push-pull to a 500 ohm line: 2A5-41-42-89, 47, 59, 46, 45, or 50. Class "A". 15 wat working capacity, 25 watt peak. Diagrams included. 3D4362. List Price \$3.00 YOUR PRICE \$3.00 \$1.76



Transformer Hook Up
The allove diagram shows how to use the line
matching transformer with two 8 ohm dynamic
speakers operating at half power close to a micro
phone to greatly reduce possibility of microphone
feedback. Diagram also shows how to connect in
the same circuit, two 12 ohm dynamic speakers
operating at full volume at distant points, employing two additional transformers. Tays permit
matching of speakers with various volce coll
impedances, and provide for biancing a number of
speakers to a 500 ohm line. Many other combinations may be arranged to achieve distribution of
power and volume. Complete instructions included.



Mixing and Line to Line Transformer

To be used in construction of mixing panels used for public address, centralized radio, re-cording or broadcast equipment. Mounted in shielded case to pre-vent hum pickup. Frequency characteristic essentially flat from 50 to 10 000 cycles

	9	50 to 10,000	
Stock Number	Primary Imped. Ohms	Secondary Imped. ohms	Price Price
3E3856 3E3857 3E3858		200 or 50	\$4.00 4.00 4.00 2.35 4.00 3.00 1.76

Tube to Line Output Transformer

For use particularly in matching output tube of microphone pre-amplifier to low immediance line. Two lead primary matches single tube such as 56, 37, 27, 884, 30 etc. Mounted in shielded case to prevent hum pickup. Frequency characteristic essentially flat from 50 to 10,000 cycles.

3E3859—To couple any one of above tubes to 200 or 50 cbm lite.

sentially flat from 50 to 10,000 cycles.
3E3859—To couple any one of above tubes t
200 or 50 obm line.
3E3860—For coupling to 500 or 125 obm line.
List each 33.00.

YOUR PRICE, EACH\$1.76

Microphone Transformers



Thordarson Single Button

Single Button
For use from single button microphone to grid. Turn ratio is 1-64. Primary impedance, 200 ohms; secondary impedance, 100,000 ohms. Primary 1). C. resistance is 3230 ohms. Expecially designed for use with Universal Baby, QRQ Mike, Handi-Mike, Model "A", or any other single button microphone light class construction; completely shielded. 3C4345—Thordarson Type T-2357.
List \$3.00, YOUR PRICE..........\$1.77

Double Button

Double button—from microphone to grid. Turn ratio is 1-22. Frequency curve is exceptionally flat from 30 to over 7000 cycles. Center tapped primary is 400 obms impedance oversil. Secondary impedance is of the order of 200,000 obms to match grid of practically any amplifier input tube. Matches impedance of all standard type, carbon, 2 button microphones. button microphones. 3C4346—Thordarson Type T-3020. List, \$5.00.

\$2.94 YOUR PRICE

Broadcast Microphone Transformer Thordarson Type T-3180

Double button microphone to grid. Turn ratio is 1-27. Center tapped primary is 100 ohms impedance overall. Secondary impedance is 300,000 ohms to match grid of practically any amplifier input tube. One of the finest microphone transformers ever bullt. Precision made-real Thordarson quality. Matches impedance of all standard carbon type 2 button microphones.

3C4347—List. \$8.50.

YOUR PRICE \$5.00

Used by many of leading broadcasting stations. Primary and secondary wound in sections to reduce distributed capacity, and insure perfect balance between the halves of the windings.

Radolek Double Button Microphone Transformer



Turn ratio 25 to 1. Impedance ratio 625 to 1. Frequency curve is exceptionally flat from 60 cycles to 5000 cycles. Primary is split 200 ohms each side and is spilt 200 ohms each side and the recondary inpedance is of the order of 250,000 ohms at 60 cycles and 3 volts A.C. Primary D.C. resistance is 43.6 ohms. Secondary D.C. in primary balances out. Primary inductance 2.02 henries, secondary inductance 4.02 henries.

tion 496 henries. Matches impedance of all standard type, carbon, 2 button microphones. Full shelded in a black enameled steel case. Insulated color coded 6" leads out of bottom. Size: 2% high, 2" wide. 2\%" deep. Mounting hole centers

3D3949 YOUR PRICE \$1.19

Line to Tube Universal **Input Transformers**

Tired for counling circuit to an Used for coupling circuit to an amplifier input using practically any type input tube. Also for directly coupling single button carbon microphone, condenser or dynamic microphone, low impedance phonograph pick-up, low the companion of the coupling of the pedance phonograph pick-up, low impedance radio output, or other low impedance line to the am-pliffer input. Mounted in shield-ed case to prevent hum pickup. Frequency characteristic essen-tially flat from 50 to 10,000



cycles.			_	,1,1 -
Stock Number	Primary Imped. Ohms	Secondary Crid Ohms		Your Price
3E3862 3E3863	200 or 50 500 or 125 500 or 125 200, 400, 600 or 800 ohm	Sgl. 100,000 Sgl. 100,000 P.P. 200,000 Sgl. 100,000	4.00	\$1.75 2.35 2.35 2.35

Ribbon Microphone Transformers

Practically flat frequency response from 40 to 10,000 C.P.S. Case fully shielded to prevent hum. Primary exactly matches output of ribbon mi-

3E3865—Secondary impedance 200 or 50 ohms for use when mike is operated at a distance from preamplifier.

preamplifier.

3E3866—Secondary impedance 100,000 ohms to match grid input of practically any tube for use when microphone operated within 10 ft. of preamplifier. List Price Each \$3.00. YOUR PRICE. EACH \$3.00. \$1.76

Jefferson



Single Button Turn ratio 1 to 64. Impedance ratio 1 to 4000. Windings completely shielded in black enameled pressed steel housing. Binding post connections. For 200 ohm single button microphones. Size 25%" bigh, 2%" wide, mounting holes

2%" centers. 3C4290 ('ode List Price \$2.00. Code 467-261. PRICE

_____ **\$1.**18 Double Button

splendid fully shielded A splendid fully shielded single or double button microphone transformer. Extra heavy insulation to prevent capacity losses within windings and to increase frequency resones. Matches standard 2-button 200 ohm microphones or when using ½ the primary winding will match a single 200 ohm button. Size 2%". 2%"v2%" high. Mounting centers 2%".

3E4271—467-263.



\$1.47 PRICE

Jefferson Phonograph Pick-Up Transformer



Designed for coupling low impedance phonograph pick-up (on order of 700 olms @ 1000 cycles) to grid of amplifier. Turn ratio 1 to 30. Windings completely shielded in black enameled pressed steel case. Binding post connections. Size 2-8," iigh, 2\frac{1}{2}" wide. Mounting hole centers 2\frac{3}{2}". Designed for coupling

3C4292—Code List Price \$2.00. YOUR PRICE

\$1.18

Microphone Input Transformers

A fine quality microphone A fine quality microphone transformer. Proper design and proper ratio. The same model extensively used by manufacturers of P. A. aystems. Core size \$\frac{3}{8}x\left|^{\infty}\$. Overall size \$2\frac{3}{8}\tilde{''}\$ high, \$1\frac{3}{8}\tilde{''}\$ eenters. Japanned steel frame around core. Solder lug connections. For use with standard 200 ohm per button microphones.



3C4220-For single button "Mike." YOUR PRICE

3C4221-For two-button "Mike." YOUR PRICE

94¢

78¢

Three Contact Sockets and Plugs

3C2945-Plug with Porcelain Base PER SET 89¢

larized Bakelite Connector 3C2844--Microphone Cable Po-



\$1.47

Microphone Plug prong polarized, Bakelite cap.

302947--List Price 65c. 39¢ YOUR PRICE





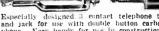
PRICE

Microphone Receptacle

Receptable for three prong polarized microphone plug. Fits standard switch box. Plate is brown bakelite, size 23.4"x13". No plug included.

3C2946 List Price \$2.00, PRICE

Microphone Plug and Jack



Especially designed 3 contact telephone type plug and jack for use with double button carbon microphone. Very handy for use in construction of mixing panels due to compactness.

3E2845—3 conductor plug only, List 75c.
YOUR

44¢ PRICE 3E2846-3 conductor jack only, List 50e

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Copyright 1934 by W. C. Braun

New Webster Electric Pickup

Reproduces Standard and New Slow-Speed "Long Play-ing" Records Unequalled briland fidelity Advanced design achieves full nat ral reproduction Detachable counter-balance to reduce the needle weight for the new slow-speed records available

Recreates the latest transcriptions with the full depth and broad range of the original orchestration. Is extremely sensitive and has unusual uniform response over the entire scale of musical frequencies. Instrumental and vocal recordings are faithfully reproduced with a minimum of mechanical and background noise. Reproduces all standard records with perfect fidelity and is especially designed to respond without mechanical or electrical lag for the new 32½ R.P./M. slow-speed long playing records. Righly finished in beautifully soft golden bronze. Equipped with a 17½ Cobalt magnet, cold rolled steel pole pieces and "A" metal stylus. Suitable for playing all 10" and 12" records.

at slight additional

Less Volume Control

Less Volume Control
3D2951. Model 15A. Standard High Impedance Type. 17,000 ohns at 1000 cycles. For use with a 50,000 ohn volume control for uniform response. For accentuation of base response and the suppression of highs, a 10,000 ohn control may be employed. List,\$10.50. \$4.65 YOUR PRICE

With Volume Control
3D2950. Model 15A. Standard High Impedance. 17,000 ohms at 1000 cycles. With a 50,000 ohm volume control built in the base.
List Price \$11.00. YOUR PRICE

Low Impedance Model 3D2952. Impedance 200 ohms at 1000 cycles. Less volume control. List, \$11.50. YOUR PRICE

3D2953. Impedance 200 ohms at 1000 cycles. With volume control built in the base. YOUR PRICE

Model 17A High Output Pickup

Model 17A High Output Pickup
Designed for radio receivers and amplithers having
low gain. This pick-up gives an average output
of 4 voits so that ample volume may be secured for
record reproduction.
Equipped with a 35% Cobalt magnet, "A"
metal stylus and "A" metal pole picces. Size
and appearance same as above model.
3D2954. Model 17A. Standard High Impedance Model. 17,000 ohns at 1000 cycles.
With Built-In Volume Control. List \$14.50.

YOUR \$8.34

PRICE

3D2955. Model 17A. Low impedance Model. 200 ohms at 1000 cycles with built-in volume control. List, \$16.50. \$8.94

Counterbalance

For above Webster pickups. Correct pressure for perfect reproduction of the new 33½ R.P.M. records. 3D2956—List Price, \$2.00. \$1.05 YOUR PRICE

Diskadapt Turntable Dual Speed Adapter

For Any Phono-Motor Two Speed -33 1/3 and 78 RPM Shift



12" Turntable

This new device fits any phonograph or phonomotor and adapts it for playing both the new slow-speed and standard records. Consists of a 12 inch turntable and concealed speed reducing mechanism. Mechanism is simple, foolproof and durable. Installation is practically instantaneous—merely remove the old turntable and drop the Diskadapt in its place. Two screws secure the lever guide plate.

14D10870. List Price \$6.00.

Improved Automatic Record Changer

Plays and Changes Automatically Eight 10-Inch or Seven 12-Inch Records

or Seven 12-Inch Records

Dual Speed 33 ½ or 78 R. P. M.

This is the lowest priced high grade dependable Record Changer ever offered. Plays and changes a stack of eight 10" or a stack of seven 12" records automatically. Just start the motor and you have practically continuous reproduction of from 30 to 60 minutes duration. Will not get out of order and will give years of trouble-free service. Will not miss records. So reliable that it is suitable for highest grade combination Radio-Phonograph or Automatic coin operated machines. So compact it is suitable for portable systems. Minimum overall space needed, length 11", width 15", height above plate 5", depth below plate 3¼". Improved 2 Speed Inductive Type Motor

15", height above plate 5", depth below plate 3\footnote{1} \text{Type Motor} Plays 78 or 33\footnote{1}_A R.P.M. records. Lever shifts from one to other, simply and instantaneously. Any record can be rejected. Repeats last record until switched off. No changes required for playing manually. Simply change for 10" or 12" records. Specially designed pick-up damped for best quality reproduction. Finished bronze. Volume Control and on-off switch included. Shipping weight 26 lbs.

Automatic Stop
Automatic Stop Switch can be supplied for \$3.00
net extra. Other voltages and frequencies supplied
to order at slightly higher prices.

Webster New Model 10B

Reproduces Standard and Slow-Speed "Long Playing" Records
An ingenious arrangement has

An ingenious arrangement has been built into the base of this new pickup to provide equally good reproduction standard 78 R.P.M. and "long playing" 33\3 R.P.M. records. Equipped with a knob in the base which adjusts the needle weight from 5 ounces for standard records to less than 3 ounces for the Wilson Blay. to less than 3 ources
for the "Long Playing" records. Marvelous idelity of tone
—flat response curve
from the lowest to
the highest musical
frequencies. Extremely sensitive.

Equipped with frequencies. Extremely sensitive. Equipped with 17½ (* Cobalt magnet, cold rolled steel pole pieces and "A" metal stylus. Lustrous bronze finish. Sultable for playing all 10 and 12" records. Supplied without volume control.

3D2957—Model 10B. High Impedance 17,000 ohms at 1000 cycles. List, \$16.75.

\$8.95 YOUR PRICE______

3D2958—Model 10B. Low Impedance. 200 ohms at 1000 cycles. List, \$17.50. \$9.45 YOUR PRICE ...

Model 4DB 16" Pickup

3D2960. Low Impedance Model. at 1000 cycles. List Price, \$24.50. 200 ohms \$13.22

Piezo ASTATIC Crystal **Phonograph Pickup**



3E2965-8" tone arm for playing 10" and 12" records. List Price \$15.00.

3E2966—12" tone arm for playing up to 16" records. List Price \$17.50. \$10.29 YOUR PRICE

YOUR PRICE

This type of pickup is considered superior to the magnetic type because of better fidelity and more even frequency response. Frequency response is essentially flat from 30 to 8000 cycles without resonant peaks. Needle scratch and surface noises are at a minimum. Two volt output is higher than obtained with most pickups. Will operate practically any two stage amplifier at full power output. High impedance output connects direct to grid input of any amplifier. For control of volume a .5 meg control is necessary. True accentuation of low or high frequencies can be accomplished by connection of resistors in parallel or series. Due to exceptionally light weight of pickup and pressure of only two outness at head this unit is suitable for reproduction of 33% or 78 R.P.M. records without adjustment or weights. without adjustment or weights.



• Efficient • Compact

-For 110 volt 60 cycle YOUR PRICE \$30.87

· Foolproof

Same as above but plays and changes eight 10" records automatically and 12" records manually.

14E10869— List Price \$45.00. YOUR PRICE ...

illustration shows sug-gested method of mounting either of the above changers.
This type of mounting is suitable for



New Green Flyer Governor Controlled Induction Phono Motor Dual Speed 33½ - 78 R.P.M.



For "Long-Play" and Standard Records For "Long-Play" and Standard Records New induction type electric pionograph motor which will play both the new type slow speed and the standard high speed records. Instantly shifts from low speed 33½ R.P.M. to 78 R.P.M. by simply moving lever. Centrifugal type governor speed control with wide range provides a positive means of accurate speed adjustment and maintenance of uniform speed on supply line with fluctuating voltage.

INDUCTION MOTOR-No brushes or INDUCTION MOTOR—No brushes or commutator—silent operation, absolutely no radio interference. Ruggedly built, heavy east frame, oversize self-lubricating bearings, silent running machined gears sealed in oil. Floats freely on rubber suspended mounting bracket to dampen any trace of vibration. Runs cool in operation and will not overheat in enclosed cabinet. Equipped with automatic stop switch, dial, escutcheon and pointers finished in statuary bronze. All mounting hardware included. Mounts in 81st5%" cut out. Overall dimensions of motor 81st75%" cut out. Overall dimensions of motor 81st755%" cut out. Overall dimensions of motor 81st755%" cut out. 31st7564". For operation on 105-120 volts 60 cycle. 14E10863—Complete with regular 12 Inch

14E10863—Complete with regular 12 Inch turn table. List Price, \$16.50. YOUR PRICE \$060

With New Type Weighted Turntable and Automatic-Stop Switch
14E10865—Complete with new type spectweighted 12" turnable which is absolutely contained to good reproduction with the slow spectrosery automatic step with the land with the slow spectrosery. speed Automatic-stop switch included \$11.40 PRICE

For 6 Volt Operation

For operation on 6 volt storage battery or any 6 volt circet current source. Especially sultable for portable public address service. Has same mechanical and operating characteristics as motor described above Current drain 2.8 amps. 14E10864—Complete with regular 12" turntable. List Price, \$25.00.

table. List Fine.
YOUR PRICE
14E10866—With weighted turntable and automatic-stop switch.
\$15.95

Green Flyer - 78 R.P.M.

Green Hyer - 18 R.P.M.

Single Speed—Governor Controlled
Induction Phono Motor

Same construction as above. Furnished with
10" turntable and complete mounting hardware.
No automatic stop included. Motor is rubber
suspended from mounting plate. Mounts in cut
out 64" "144" Motor dimensions 614" "315"—
suspends 3" below baseboard. Mounting plate
6%" x514". Mounting hole centers 3"x414". For
105-120 voil 60 evice A.C.
14D10367—List Price, \$13.00.

\$6.75

SHURE Condenser Microphone

Bullet Type with Pre-Amplifier



Condenser Microphone, with Two Stage Pre-am-plifier, two type '30 tubes, all enclosed in Bullet type Microphone. case, 12 foot cable and suspension adapter.

3E2878-List. \$60.00.

YOUR PRICE

For Use in Broadcast Stud-ics, Sound Rec-ording Studios and Public Ad-

dress installa-Free from hiss or other background noises tions. Free from hiss or other background noises which are present in carbon button microphones. Frequency response is exceptionally good from 35 to 10.000 cycles. Sensitivity is such that distant sounds which do not affect other type of microphones can be picked up with case. Output level of Pre-amplither above that of carbon mike. Sensitivity and frequency response remains constant over wide variation of atmospheric conditions. Condenser head is on swivel when allows 90 degree turn, permittling use of mike directly overhead if desired. Hook is provided for overhead suspension. Threaded base allows mounting on any Shure microphone stand listed on page 107. Current requirements 6V at 60 Ma.; 180V at 3 Ma, which can be supplied from power supply listed on page 107. Thead is finished in chromium plate and suspended from baked rubber black finished case. Head 3" dia, case 3%" dia.

Overall height 11%", shipping weight 6% lbs. Output impedance 200 or 50 ohms, please specify which is desired.

Microphone Springs

Loop ends. Tempered spring steel. Heavy cadmium plated finish to prevent rusting. 302949—Eight for ... 22¢

Pregrooved Aluminum Discs



For Home Recording

Universal pregrooved, aluminum dises assure a greater volume, brilliancy and durability. Discs are

and durability. Discs are double faced, permitting recording on both sides. Available in four sizes—6 in., 8 in., 10 in, and 12 in. diameter. Records may be made with ordinary blunt home-recording needle and play back with wood or fibre needles.

Stock Number 3C2862 3C2863 3C2864	Size 6 in. 8 in. 10 in.	List Price \$0.30 .50	Your Price 18c 30c 44c
3E2861	12 in.	1.00	59c

Blank Aluminum Discs

No grooves. Can only be used with recording heads that cut their own grooves.

Stock Number 3C2886 3C2887 3C2888	Diam. 6 7 10	Playing Time 1½ min. 2 min. 3 min.	List Price 25c 35c 50c	Yc Pri 17 23 33
Ctools		Approx.	Ties	,

Victor Home Recording Record Blanks

Cellulose	Coated	1 Al	umi	nun	Disc
3C2893-N	eedles per	okg.	of 8		<u>-25с</u>
3C2892-13		per	pkg.	of	1-62 c
3C2891-	" record	per	pkg.	of	2-68 c
3C289O— t	" record	per	pkg.	10	4-68C

3E2883-12" Aluminum base record. Collulose both sides. Not pregrooved.

YOUR PRICE, EACH

Blank Celluloid Discs 3E2884-6" record-Each In 100 Lots, Each 71/2c

Microphone Stand



3E2885-12"

Microphone Stand
Amazing Value! All Metal
54" Microphone Ring Stand
for Desk Use. For Single or
Double Button Suspension Type
Microphones. 8" high. Fine
appearance. Fibre snap switch
in base economizes on microphone current and stops unwanted conversation pickup between numbers or announcements. Very light weight.
Stamped base.
Has 8 suspension springs.

302980 YOUR PRICE, Only

Phonograph Record Recorder

Consisting of: Center spindle; cutting head; threader; hardware; swivel arm. No needle included.

Complete Cutting Outfit

Impedance Number 3E2880 3E2881 3E2882 of Cutter

YOUR PRICE

4000 ohms

Practical Recording Device for Recording Favorite Radio A Practical Recording Device for According Favorice Radio Programs, Musical accompaniments, Home Morie Sound Effects, Transcription Programs, Advertising Talks, Campaign

It must be used in conjunction with a microphone and am-philier. Record is made on a specially prepared disc revolved by any ordinary phonograph motor, and can be replayed on any standard phonograph.

Easy to Install and Operate

Easy to Install and Operate

One single %2" hole is all that is necessary to mount it.
In recording, it is only necessary to move the arm to the
center of the record and throw the lifting lever to the down
position. This starts the recording which evenly grooves the
record. 96 grooves per inch are cut which allows as long a
playing time as standard phonograph records. The recorder
may be operated at either 78 or 333 R.P.M.
Recorder makes records that are outstanding in quality and
are comparable to standard transcription records. Records are
practically free from brekground noise and needle gratet. For
best results use our stock number 14010660 amplither
listed on pure 115 logether with Crystal, Velocity or Condenser Microphone.

Input Control and Mixer

For P. A. Amplifiers
Handles Microphone, Phonograph and Radio Inputs

Handles Microphone, Phonograph and Radio Inputs

A complete microphone, phonograph and radio, mixer and fader, in a neat, fully enclosed and shielded Impressive appearing black enameled metal case. For coupling any portion of microphone, phonograph or radio signals to any Public Address Amplifier using a high impedance input. Contains: (1) double button microphone transformer; (2) 4½ volt microphone button-microphone transformer; (2) 4½ volt microphone button-microphone transformer; (2) 4½ volt microphone transformer; (3) indicating milliammeter with switching arrangement to indicate current on each button of microphone; (4) microphone current control; (5) microphone volume, fader and mixer control; (7) quick change switch for shifting from radio to phonograph or radio-volume, fader and mixer control; (7) quick change switch for shifting from radio to phonograph or radio-volume fading simultaneously from zero to full volume on phono or radio san be accomplished. Mising of the microphone while fading simultaneously from zero to full volume on phono or radio can be accomplished Alising of the microphone input using voice into a musical background from phonograph or radio can also be accomplished at any volume level desired. One or two single button microphones may be substituted for the double button microphones to be operated from two different points, as in debate work or for soloist with orchestra at a distance.

Careful, accurate engineering together with the use of properly designed component parts make this a highly effected unit. Best quality of reproduction with greatest possible volume, from input signals available, are assured. By grounding metal case, complete shielding effect is provided. If a shielded microphone she is also grounded to case, any transient currents that may be picked up by a long microphone cable can be climinated. Case size 8v10x3 inches. All connections and controls plainly marked. Mounting botton provided for wall mounting.

4D10700-List 1'rice. \$30.00\$ **1 1 65** MAN 501 Schematic Hookup of Control and Mixer

Duralumin Diaphragms

For replacement in any make, stretched diaphragm type microphone. 24 karat cathode sputtered pure gold snot center on each side. 0018 thick. Heat treated. No harmonic distortion. Size 4 inches dia. Can be trimmed to fit. 3C2933—List Price, \$5.00.

3C2933—List Price, \$5.6

3C2934-001 Duralumin Diaphragm, Without gold snots. Size 4x4" for condenser microphone. List \$1.00. YOUR PRICE

Gold Spotted Buttons

For replacement in any make microphone. Pure 24 karat gold spotted. Standard size % inch diameter. Fitted with %2 screws. 3C2935—List Price \$1.25. YOUR PRICE

Carbon Granules



repack

granules

Carefully selected and highly polished. Acid treated to reduce ash con-tent. Will stand higher curburning. V tent. W contains sufficient double-button carbon

microphones 3D2930—Size No. 100. Higher sensitivity and higher background noise. Provides best quality reproduction but packs quite easily.

3D2931-Size No. 80. Best general purpose granules. Lower hiss, good quality reproduction and does not pack easily.

3D2932—Size No. 60. Best for sound trucks and hard usage. Low hiss, more freedom from packing, fair quality reproduction.

List Price Per Visi \$1,00.

Universal Recording Lead Screws



Exact. accurately machined lead serew. Used with properly weighted pickup and diamond or sapphire recording needle. Cuts and records simultaneously. Spaces 80 lines per inch. Only one hole required for mounting. Complete with guide, sines and outboard hearing. For 10 or 12 inch records. Records 152836—List Price, \$10.00.

YOUR PRICE \$5.88 3E2837—For 16 inch Records. Records 100 lines per inch. Cuts from inside to outside. List Price, \$15.00. YOUR PRICE \$8.82

Recording Needles

Sapphire points. For use with above Recorder. 3E2894—For cutting and recording on ungrooved aluminum record blanks. \$2.06

YOUR PRICE ... 3E2895—For recording and reproducing on pregroused Victor or celluloid recording discs. YOUR **S2.06** PRICE

3E2896—For cutting and recording on celluloid blanks, ungrooved \$2.82 YOUR PRICE

THE RADOLEK COMPANY

RACON HORNS and UNITS



14D10225—Regular: Equipped with metal headed edge, metal ferrule and suspension ring. Adapted for 34"—18 inch threaded unit. For Indoor use only. Weight, 6½ lbs. Indoor use C List. \$22.00.

YOUR PRICE

14D10226—DeLuxe: Equipped with metal beaded edge, east aluminum ferrule and suspension ring. For indoor or temporary outdoor use. Weight, 7 bs. List, \$27.50.

YOUR PRICE \$25.88



Dynamic Baffles

Combination baffle and exponential air column for dynamic speakers. Increases volume and improves tone. Made in four sizes; all available for any size dynamic speaker. In ordering state diameter of speaker.

18x30 27x27	Depth, inches 10 24	List Prico \$13.20 33.00	Your Price \$ 7.76 19.40
36x36	24	44.00	25.87
41+14	2.1	49.50	28.11



Dynamic Baffle for Cone Unit

Correct acoustical

Regular: For indoor installations or for temporary use out of doors

Stormproof: For indoor or permanent outdoor installation. 14E 107 | 3-List Price, \$18.00.

YOUR PRICE \$10.58

Note: We supply any type Racon Horn at discount of 40-2% from list price. Send us your order for any horn not listed.

Public Address Cone Unit For Use With Above Trumpet



6" Cone Diameter Has the power handling capacity of the dynamic unit yet retains the full rich tone of a cone speaker. Adapted for use with directional bafficial to the state of
use with directional baffle in installation where sound must be transtance. Oversize field coll and correct spacing of voice coil with reference to field make this unit exceptionally sensitive giving a high ratio of acoustic output to electrical input. Cone is made of an especially tough paner that will handle enormous rolume without breaking down. Extremely flexible spider allows full movement of cone yet keeps it perfectly centered at all times. Will handle 15 watts continuously and 30 watts peak. Voice coll impedance 6 obins. V. C. diam. 1½ "Overall size 6½" dia. by 5¾" deep. Shipping weight, 10 lbs. 14 E 1071 6—With 1000 ohm field dissipating 10 watts in field. Can obtain field supply from Radolek 6, 15 or 30 watt A.C. Ampillers.

14E 107 17—For 6-8 Volt field excitation for use with Radolek Battery Amplifier. Draws 1½ amperes at 6 volts.

amperes at 6 volts.

Page 112

Electro-Dynamic Horn Units For Use on Trumpets or Theatre Reproducers

Super-Giant

Type B Diaphragm
1000 ohm field for 110 V. O.C.
excitation. 15 ohm voice collimpedance at 1.000 cycles.
Continuous operating capacity
25 watts. Peak load capacity
50 w atts. Park load capacity
to watts. Park load capacity
continuous operating capacity
to watts. Peak load capacity
continuous operating capacity
we will be the finest
quality reproduction 1s required. Weight 20 pounds.
14D10235—List Price, \$66.00.
YOUR PRICE



Master

1000 ohm field for 110 V. D.C. excitation. 15 ohm voice coil impedance at 1.000 cycles. Continuous operating capacity 20 watts. Peak load capacity 50 watts. Lightweight hi-powered unit especially suitable for portable systems and permanent installations where heavier units are not required. The perfect reproducer. Weight 13½ pounds. 4D10237—List Price, \$44.00. \$25.87

Junior

1000 ohm field for 110 V. D.C. excitation. 15 ohm voice coll impedance at 1,000 cycles. Continuous operating capacity, 15 to 20 watts. Weight 11 pounds.

4D10238-List Price, \$35.75. PRICE\$21.00



Type A 1000 ohm field for 110 V. D.C. excitation. 15 ohm voice coil impedance at 1,000 cycles. Continuous operating capacity 5 watts. Peak load capacity 18 watts. Peak load capacity 18 watts. Weight 61/4 pounds.

4D10239-List Price, \$24.75. YOUR \$14.55

High Frequency Tweeter

Built to meet the latest requirements for wide range reproduction. Covers frequency band from frequency band from 3000 to 10,000 cycles.



3000 to 10.000 cycles. When used in conjunction with dynamic speaker giving good low frequency response high fidelity reproduction is obtained over the entire audio band. Fleid resistance 1000 chms for 110 volt D.C. operation. Voice coll impedance 15 chms and will handle 5 watts continuously with 7 watts peak. Size 63% long overall. Horn bell 3% dia.

4E | 07 | 4-List Price, \$27.50. \$16.17

For coupling above speaker and low frequency dynamic speaker to 500 ohm output of amplifier. On path cuts off sharply at 3000 cycles for low frequencies. The other path is from 3000 cycles up for high frequencies. Shipping woight 3 lbs. 4E107 15—List Price, \$20.00. 4E 1U/15—List Price, \$20.00. \$11.76

All of the above horn units can obtain field supply direct from the Radolek 6, 15 or 30 watt A.C. Amplifiers. 6 volt fields for obtaining field current from storage battery can be supplied at no extra cost. Specify field desired when ordering.

Magnetic Speaker Chassis

83%" Diameter 4D10450 \$189 PRICE .

The unit is of the bal-The unit is of the baranced armature type and is magnetically and mechanically centered. Will stand 0.7 watt power input without rattling. An ideal speaker for original installation in battery set or for use as an extra extension speaker, with sets using dynamic speak-



sets using dynamic speaker. An excellent speaker for use in public address systems in schools and hotels or for call systems. Makes an ideal magnetic unit to use in the walnut cabinet shown on page 41. Perforated rigid steel frame with mounting holes in outer diameter. Excellent tone quality with true fidelty. D. C. resistance of speaker winding 1000 ohms. Diameter 8%". Depth 4%". No cord included.

Outdoor Speaker Housing Weatherproof Spun Copper

14D10720 \$7.50. Your S441 A s p u n door speaker housing with huilt-in baf-de. Designed

cupying a space not over 11" diameter and not over 5½" depth. The most suitable speakers occupying a space not over 11" diameter and not over 5½" depth. The most suitable speakers ochousing on the market for any outdoor use, as in parks, skating rinks, dance pavillons, beer gardens, and "over the stdewalk" store advertising. Special oiled Masonite Presswood bafft with copper mesh "bug" screen over speaker opening. Arranged with special quick mounting slots for "locking" speaker into place. Weatherproof vent hole at top of housing for speaker leads and air circulation. No "boom" or resonant distortion. Four rigid eyelets for use with wir suspension. Effective baffle area equal to 30 square inches. Operates best when used 12 to 15 fee above ground level. Overall diameter 16½". Boddiameter 11" tapering to 8". Height overall, 7½"

W att Electrodynamic Unit

A departure in power unit design which em-bodies the most valubodies the most valu-able characteristics of flat and cone shaped able characteristics of flat and cone shaped diaphragms. Extraor-dinary flat response over the entire range of speech and musical frequencies. Occulto 18

over the entire range of speech and musical frequencies. Quality is unusually natural and brilliant. New one piece diaphragm of special light alloy is shaped to form its own core for the voice coll shaped to form its own core for the voice coll voice coil and diaphragm located for maximum sensitivity and assembled as an interral unit Capacity 25 watts input not to exceed 15 voice coll simpediance—I ohms. Fleid requires 1.5 amps at 6-8 voits Transformation. Precisely built. Pot has durable the capacity contained by the containing plated. Wt. 15 lbs. 14D10240—Without Coupling Transformer. List \$49.25.

\$29.55 YOUR PRICE

6 Foot Aluminum Trumpe Single or Double Throat 30 in. Bell Demountable into four section with felt washers be tween equipped with cast aluminum re-inforced 30" bell rim. Proper acoustic design to reproduce the full wide range response. Brilliant tone. Strong, light and weatherprofit [4D 10219—Single Throat Horn for One United the Price, \$55.00.

\$29.40 YOUR PRICE -Double Throat Horn for Two Units

14D 10220-110 List Price, \$65.00. YOUR PRICE

Victor and Columbia Many Popular Current Recordings 4E 10736—Assortment 70125 records.

PRICE \$255 Sold only in assortments of 25 records each. All records are genuine Vic-tor and Columbia prod-ucts. Not seconds. No

ucts, Not seconds. No factory rejects are chuded. Perfect recordings by famous Columbia and Victor artists. Foxtrots, Waltzes, Vocals, Tangoes, Bands, Marches by Paul Whiteman, Ted Weems, Na t Shikkret, Victor Salon Orchestra George Olsen, Jesse Grawford, Gene Austin, Fann Brice. Duke Ellinston, and others too numerot to mention. We ship these records to you in the exact assortments we receive from the factory. Will not be possible for us to state at any tin exactly what numbers are included in each assortment.

Use for Public Address Applications
Although these records are not last minute releases there will be many eurrent popular number Especially suitable for sound truck work and automatle phonograph service.

Copyright 1934 by H. C. Bra

Jensen Electro Dynamic **New Auditorium Speakers**

Baffle Opening 12"-Cone Size Overall 13 %"



These fine reproducers are 400% more efficient These fine reproducers are 400% more efficient than conventional types. Addling one of them to an amplifying system is the equivalent of them to an amplifying system is the equivalent of using type 50 tubes instead of 45's, or using 845's in the place of 50's. They provide the most economical means of greatly increasing the power output of the system without adding to the cost of the amplifier itself. Capable of carrying 15 watts, continuously (30 watts peak load) with perfect fidelity at any volume level. Voice Coll innedance 8 ohms or 200 ohms at 400 cycles. Diam, of voice coil 246". Ship, Wt. 57 lbs. for A.C models and 48 lbs. for D.C. models Power dissipation of field 33 watts; voice coil 15 watts. Ht. overall 13-22/32, depth 8%".

Three Exactly Engineered Models

Series M designed for general use. Uniform response characteristic from 30 cycles up. Particularly recom-30 cycles up. Particularly r mended where the reproduction music is the chief requirement. reproduction

Series V intended chiefly for Voice reproduction most efficient in the upper frequencies and somewhat less efficient in the low frequencies. Very desirable for theatre and public address systems.

Series L used mainly in conjunction with "Tweeter" speaker for "wide range" sound reproduction. Best ef-ficiency in the lower frequencies and somewhat less efficient in the higher frequencies.

All types available for use with any output tube combination or any line impedance—Be sure to specify tubes used and how they are connected, when

"D.C." Type—For field excitation from Amplifier. Supplied with 3,000 olim resistance field—the correct resistance for Radolek 15 and 30 watt A.C. Amplifiers. Other field resistances can be supplied to your specifications. No input transformers incorded.

8 ohm Voice Coil 200 ohm Voice Coil

Less output transformer. List Price, \$48.50. YOUR PRICE\$3327

Number

Series

"D.C." Type,—For field excitation from 6 volt battery.

ohm Voice	Coll 200 o	hm Voice Coil
Number	Series	Number
4E10300 4E10301 4E10302	V M L	14E10303 14E10304

Less output transformer. List, \$48.50.

YOUR PRICE\$33.27

"A.C." Type

Field excitation from rectified 105-120 volt 60 cycle A.C. supply. Rectifier unit with type 82 tube included.

8 ohm Voice	Coll 200	ohm Voice Coil
Number	Series	Number
14E10306 14E10307 14E10308	V M	14E10309 14E10310

Less output transformer. List. \$73.50.

Output Transformer

Output transformer to match 3 ohm voice coll speakers listed. 4E10318-List Price, \$3.00.

YOUR PRICE\$50.43 YOUR PRICE\$176

OXFORD AUDITORIUM Super Dynamic Speakers



Particularly designed for Public Address use where a large amount of power output must be handled to produce best quality reproducbe handled to produce best quality reproduction of both voice and music. New one piece cone with speedal resilient micrata spider maintains the voice coil in perfect alignment regardless of expansion or contraction of cone disphragm with temperature changes. Voice coil impedance 8 ohms. Exceptionally wide frequency response especially when mounted on large baffle. Speaker voice soils can be connected direct to output transformer of amplifier when used not over fifty foet away. When used at greater distances it is advisable to use 500 Ohm line matching transformer 3E 4360—Listed on page 40 to comple speaker to 500 ohm output tap on amplifier.

Concert Auditorium

These models have a pleasing depth and brilliance of tone which is only possible because of the intense mag-netic flux provided by the extra large

Voice coil handles 15 watts continuously with 24 watt peak. Voice coil innecdance 8 ohns. Fleid should have 15 watts for best operation.

Sizes

Sizes

12½" Concert Height 12½" depth
1½". baffle opening 11". Wt. 14½ lbs.
14" Concert Height 14". Depth
1914" baffle opening 12½". Net 14" Concert Height 14". De p 10½", baffle opening 12½", weight 16½ lbs. Ship. wt. 19 lbs.

weight 16½ lbs. Ship. wt. 19 10s.

Prices D. C. Types
For field excitation from amplifier.
Concert Models supplied with 1500 ohm resistance field. Junfor Models supplied with 1000 ohm resistance field, other field resistances can be supplied to your specifications. No outrut to your specification transformers included.

Stock Number	Model	List Price	Your Price
14E10631			\$8.50 5.85
14E10632 14E10633	14" Concert 14" Junior		9.85

Output Transformer

Output transformer to match voice coil of A.C. or D.C. Oxford speakers to any output tube combination or line impedance. Be sure to specify to used and how they are connected. 4E | 0645—List, \$2.00. YOUR PRICE

Junior Auditorium

Junior Auditorium

Same construction as Concert Speaker, but uses a smaller field and is therefor not quite as sensitive as the Concert model. Recommended for installations where several speakers are to be used to divide bower from amplifier. Voice coil handles 10 watts continuously and 15 watts peak. Voice coil impedance 8 ohms. Field should dissipate 10 watts for best operation.

Sizes

12½" Junior—Height 12½" depth 8", haffle opening 11", net weight. 9", haffle opening weight. 13 lbs.

\$14" Junior—Height 14", depth 9".

14" Junior—Height 14", depth 9". baffle opening 1216", net weight, 1114 lbs. Shipping weight, 14 lbs.

Prices D. C. Types For field excitation from 6 volt battery.					
Stock Number	Model	List Price	Your		
14E10636 14E10637			58.50 5.85 9.85		
14E10638	14" Junior	22	6.95		

Prices A. C. Types
Field excitation from rectified 105-120
volt 60 cycle A.C. power supply. Rectifler unit with type 80 tube, in-

Stock	Model	List	Your
Number		Price	Price
14E10640 14E10641 14E10642 14E10643	1212 Junior 14 Concert		\$13.05 11.25 15.75 12.85

New Jensen Ortho-Dynamic Series

cluded.

Number

14E10312

14E10313 14E10314

The Speaker without Transient

The Speaker without Transient Distortion—25% More Efficient than Ordinary Speakers

An exceptionally fine reproducer for either public address or radio uses. Resionse curve unusually flat from 30 to 5500 C.P.S. 12 watts input continuously, 18 watts peak. Field 15 watts average. Minimum 12 watts. Voice coil diameter 2". Voice Coil impedance 8 ohms or 200 ohms at 400 cycles. 200 ohm voice cell connection can be used with amplifiers having 200 ohm output tap when speaker is located at a distance of over 50 feet from amplifier. No intermediate transformer is necessary. Ship, wt. A.C. Model 34 lbs. D.C. Models 27 lbs., Conc diameter 12". Overall height 12%", depth 7%". "A.C." Type

Field excitation from rectified 105-120.

Field excitation from rectified 105-120 voit 60 cycle A.C. power supply. Rectifier unit with type 82 tube included.

8 ohm Vole	Coll 200	ohm Voice Ceil
Stock Number	Series	Stock Number
14E10332 14E10333 14E10334	V M	14E10335 14E10336

Less output transformer. List Price, \$51.50.

\$34.35 VOUR PRICE

Number Series 14E10320 14E10323 14E10324 14E10321 14E10322 Less output transformer, List Price. \$34.50.

\$23.67 YOUR PRICE For field excitation from 6 volt battery.

"D.C." Types

For field excitation from Amplifier. Supplied with 1500 ohm resistance field—the correct resistance for Radolek 15 and 30 watt A.C. Amplifiers. Other field resistances can be supplied to your specifications. No input transformers included.

8 ohm Voice Coil 200 ohm Voice Coil

8 ohm Voice Coil 200 ohm Voice Coil Number Series Number 14E10329 14E10330

14E10326 14E10327 14E10328 ess output transformer. ist Price, \$34.50. List Price, \$34.50. YOUR PRICE\$23.67

Available for use with output tube combination line impedance. Be sure to specify tubes used and how line they are connected when order-

Input Transformer Transformer to match 8 ohm coll speakers listed. 4E10338 YOUR PRICE \$1.37

NOTE: The Three Series listed cor-respond to those described above, un-der the New Auditorlum Model.

ROLA Permanent Magnet Dynamic Speaker



Requires no field current. Especially designed for use in public address installations where it is impractical to supply energy for the field coil. Sensitivity and tone fidelity are comparable to that of the linest dynamic speakers. Vital parts shielded against the entrance of metallic particles and dust. An entirely new construction of the magnetic core gives greatly increased flux density and greater power bandling capacity. Welded construction white is used throughout. Connections can be madedirect to voice coil or if used on 500 olm line use matching transformers listed on page 109,

Model PM6

Model PM6
Voice coil impedance 3 ohms, power handling capacity 5 watts continuous. Overall depth 3 % in. Baffle hole projects % in. from edge of cone. Overall depth 3 % in. Baffle hole should be 5½ in. diam. Shipping weight, 8 lbs. Less transformer. 4E10620—List Price. \$10.00

..... \$5.75 YOUR PRICE PRICE

Model PM8

Voice coil impedance 2 ohms, power handling capacity 6 watts continuous. Overall cone diam, 8\frac{1}{2}\text{ in. Magnet 2 or overall cone of the 6\frac{1}{2}\text{ in. Baffle hole should be 6\frac{1}{2}\text{ in. In diam. Shipping weight, 11 lbs. Less transformer. 4\text{EIO621}—List Price, \$12.00. YOUR

\$6.75

Jensen Concert Model D9 Speaker

Voice coil dia, 1", impedance 9.4 thon for best operation. Size 11%" ohms. Capable of carrying 6 watts power continuously (9 watts, peak load). Field coil necessitates 5 watts minimum and 10 watts maximum dissipation.



YOUR PRICE

D Your Own P.A.AMP



Easy to Assemble and Wire

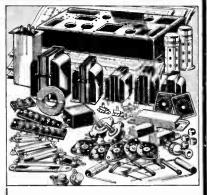
Point to Point wiring, color coded Resistors, plainly marked Condensers and a convenient roomy chassis to work in.

Educational—Profitable

Educational—Profitable
Building an amplifier: Testing It with your own voice, adding the little touches that distinguish custom-built products, proudly showing it to your customers,—it's the most fascinating experience in the radio business.
Eollowing the design as you solder each wire in place, you see the reason for its position, the part it plays in the tinished circuit. You learn more about an amplifier by building one than all the text books on the subject could teach you.
Make a Triple Profit: On every Radiolek P.A. system you build, you profit by your mark up on labor, the resale of the parts at list price and the sale of accessories which should accompany every installation. Our low prices provide you with ample margin for profit and at the same time permit you to bid competitively for amplifier business.

Big Market For P. A.

Build Radolek P.A. Amplifiers in your spare me. Turn out these fine professional ap-Build Radolek P.A. Ampliflers in your spare time. Turn out these fine professional appearing ampliflers and add \$20 to \$50 a week to your income. Every merchant, every place of entertalment, ball-parks, races, political gatherings, schools and churches need public address ampliflers. Are you ready to supply their needs? Many men are renting ampliflers and including their own services for every big gathering. You tow can be on the 'sidelines' at the big football games, the Interesting sports events, at all the big banquets when you rent your Radolek Custom Built P.A. system and personally operate it.



Every Part You Need

Plus a generous supply of hardware and wire. You need only a screw driver, pliers and soldering iron to build these kits.

6 Watt Battery **Amplifier Kit**

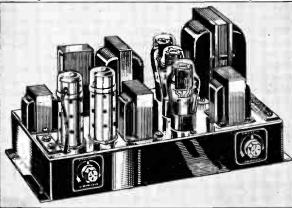
Amplifier Kit

For 6 Volt Battery operation with
either Genemoter or "B" batteries.
Plenty of output for sound trucks,
For location where commercial nower
supply is not available. Push-Pull 42
tubes. Two or three 6 volt field
speakers are recommended.

Input to the 6 want battery operated
amplifier is of the high Impedance
type exactly like that shown for the
15 and 30 want amplifiers. Employs
tone and volume controls. Reoutres
tomplete technical details of this
amplifier as a finished manufactured
unit is given on page 120. Kit is
supplied with instructions for building.
14E10694—Complete
klt less Tubes.
\$14.50

KIT less Tubes. YOUR PRICE \$14.50

114E10695-Same with Ray-YOUR PRICE. \$17.45



Push-Pull2A3-15Watt A. C. Power Amplifier

A. C. Power Amplifier

For 115 Volt, 60 Cycle A.C.

This powerful amplifier, capable of
delivering 15 watts of audio hower
to a battery of dynamic speakers is
the most popular type kit Radock
offers. It is easy to assemble and
smooth in operation. Independant of
its filter circuit, it supplies 30 watts
of D.C. for dynamic speaker fields.
Completely described on page 117
as an assembled unit.

Kits contain every part for the
amplifier proper—speakers, microphones, input mixers and wire should
be selected elsewhere in this catalog.
Remuires 1-57, 1-56, 1-523, and
2-2A3 tubes.

14E 10697-Complete

Tubes. YOUR PRICE \$24.50 14E10698 Complete with matched Raytheon \$28.90



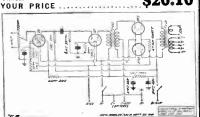
15 Watt Battery Kit

For your sound truck! A powerful amplifier kit for use with a Genemotor "B" supply and 6 volt storage battery. Excellent for all mobile installations where regular A.C. suppy is not available. Amplifier regulars 1-39, 1-37 and 2-2A3 tubes. 72 D.B. gain. 15 watts output. For complete technical description, see page 120 where the saine amplifier in finished tested form is listed. Not includes amplifier essentials only.

Kit includes amplifier essentials only.

14E10696—List Price, \$32.50. Amplifier Kit. \$16.50 PRICE

14E10691—Complete Kit Parts for 15 Watt Battery Amplifier with Four Matched Raytheon Tubes. \$20.10



Schematic 15 Watt Battery Amplifier

FEATURES of Radolek P. A. Amplifier Kits

- Heavy steel chassis base, drilled to exactly fit each part supplied with the kit. Finished in tough baked on black enamel.
- Dlack enamel.

 Smooth tone and volume control on each amplifier.

 Best quality filter condensers and power transformers.

 Oversize choke inductances.

 Practically uniform audio output over the widest frequency range of any similar type amplifier.
- Lowest hum level of any commercial type power am-
- plifier.
- pliffer.

 Complies with all fire and underwriters requirements.

 Etched metal indicating plates for the volume, and tone, controls.

 Ample provision for ventilation.

- Amplie provision for ventilatien.
 Simplified circuit for external connections,
 Complete plans with values of all parts supplied.
 Matched parts, designed to work together with the
 satest possible efficiency.
 Each kit supplied complete with every item just as if
 ourselves intended to build it.

5 Watt 2B6 Amplifier Kit

For 115 Volt 60 Cycle A.C.
Complete Kits Less tubes and speaker,
14E 10692—List, \$24.40.
YOUR PRICE.

With Arcturus Tubes and 8½" Matched Speaker 114E10693 -List. \$35.25.

More than twice the power and volume of radio receivers using push-pull 45 tubes! You must hear this amplifier to appreciate its amazing performance. You must build it yourself to get the real thrill out of using it. When you sell it, you make the regular manufacturer's profit along with the normal markup on the parts and accessories. Centertapped transformer for singe or double buttom microphone mounted on deck of chassis. Complete technical details of the finished amplifier appear on page 122.

Any four to six watt, 2.500 ohm field dynamic speaker with a 216 matching transformer is suitable for this amplifier. For operating several magnetic speakers on a 500 ohm line, we recontinued use of a 3:1 step-down output transformer.



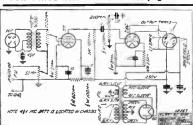
Parallel P. P. 30 Watt 2A3 Kit

The Biggest and Best Amplifier Kit you can build! See Page 119 for 'echnical details of assembled amplifier. Circuit diagram supplied in large blueprint form with tions for building. Requires 1-57, 1-58, 1-523, and 4-2A3 tubes. For 115 V. 60 Cycles A.C. 14E10683 Complete Par. P. P. 2A3 Kit less tubes and shield.

tubes and shield.
YOUR PRICE \$33.50

114E10684—Same with seven matched Ray-

\$40.00 YOUR PRICE



Highest Efficiency at Lowest Cost 6 WATT A. C. "P. A." AMPL

- Two Stages
- Push Pull 2A5'S
- Improved Class "A"
- Tone Control
- Five Out-Put Taps
- Master Volume Control
- 10 Watt Speaker Field

Finest Quality

Finest Quality
At Low Cost
This amplifler is very similar in design to the 15 watt job shown on the opposite page. Quality of reproduction is In every way equal to the 15 watt, the big difference being in output capacity. At maximum power, amplifler will cover indoor audiences of 600 people or about 3000 square feet outdoors. These figures are conservative and are based on tests made with high noise backgrounds. Under ordinary noise conditions about twire this coverage can be expected. Amplifler will operate one single large dynamic speaker or two or three smaller ones, or one dynamic horn unit; or 12 magnetic speakers; or 100 headphones; or any proportionate combination of them. When using one dynamic speaker, it can be placed in front of the audience; or three dynamic speakers can be placed back to back in the center of audience, to give a more even distribution of sound.

Carrying Case For 15 Watt Amplifier

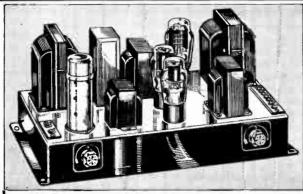


14E10673 List Price. \$12.50. YOUR PRICE

\$5.75

Holds amplifier with or without shield.

out shield be bolted permanently to bottom tray or left loose as desired. Extra room for carrying control unit and microphone in addition to amplifier. Strongly reinforced, rigid laminated ply-wood construction. Handsome black leatherette covering.



Amplifier Characteristics

1.-6 Walts undistorted Power Output to speaker voice coils:-2.-Supplies 10 watts for thousand ohm field plus 10 watts for thousand ohm feld coils (enough for one large dynamic with 1000 ohm field or two smaller ones in parallel with 2,060 ohm fields):—3. — Two Stages with four tubes, 1-56 transformer coupled to 2-2.A5's in push-pull. Type 80 Rertifler:—4.—60 D. B. Gain at 1000 cycles:—5. Practically Flat Frequency Characteristic Curve within 3 D. B. Fush four stacking plus 1. — Two Stages with 3. Fush four stacking plus 1. — Two Stages with four truber feel impedance 200,000 ohms:—7. — Master impedance 200,000 ohms:—7. — Master control with eithed metal indicating plate:—8.—Combined Tane Control with erched metal indicating plate:—8.—Combined Tane Boaked-On Black Enameled finish:—18. — Correll height 7"; Base width 9: 18 and 500 ohms. Connections brought wit, 20 lbs., ship. wr., 35 lbs.

For Microphone or Phonograph

For Microphone or Phonograph
Amplification
Phono-pickup, of high impedance type,
may be connected directly to amplifier
input. When using microphone it is
necessary to use a control unit like
stock number 4E10700 described on
a ge (11) or suitable microphone
transformer. Control unit can also
be used for mixing or fading rhonograph with microphone.

Master Volume Control
Gives complete control over all faputs.
Tone control and On-off switch comfone control and Union switch com-bined, is mounted on amplifier chassis. Beautifully etched control plates are mounted under both volume control and Tone control on-off switch.

out to bakelite strip with values engraved at each binding post:—10.—1.1 volts input signal required to obtain maximum output:—11.—Hum level less than 10 milliwatts (almost below the audibility point)—12.—Plower Consumption 98 watts:—13.—Power Supply required 105-120 volts. 50-60 cycle A. C.:—14.—81x foot super service con-

For Recording

Extremely low hum level and straight line fidelity characteristics make this amplifier particularly desirable for recording Programs, Sound effects for recording Programs, sound effects for Broadcasting purposes, home talkies, advertising talks, political speeches, etc. Fine results can be obtained if balance of equipment used is of good quality.

Heavy Duty Chokes

are built into amplifier. D.C. dynamic speaker field coils are not a part of the filter system in this amplifier. No external chokes or resistors ever required.

14E10660—Factory wired, laboratory tested without tubes. List Price. \$45.00.

YOUR PRICE

\$2150

14E10661-With four Raytheon matched Tubes. 1-'5' List l'rice, \$50.00. 1-'56; 2-2A5's; 1-'80 \$2400 YOUR PRICE

For installation in recording studios, clubrooms, small auditoriums, small call systems, lodge halls. De Luxe phonograph installations, school rooms,

Layout and schematic diagrams giv-ing all essential specifications and in-formation are included.

Carefully Designed

Highest efficiency is engineered into every minute detail. Ample ventilation keeps operating temperature at lowest keeps operating temperature at lowest point. All transformers, chokes, mail titter condensers and voltage ampillier tubes are fully shielded. The skillful engineering and careful design have reduced hum so low that hum noise is practically inaudible even within a few inches of speaker with volume control full on but with no input connected. All wiring and parts easily accessible. Layout diagram, showing exact position of each wire and part, together with schematic hookup, are furnished. All parts used are standard. Diagram gives all essential specifications of each part, climinating guess work in replacement all essential specifications of each part, climinating guess work in replacement and making repairing quick and easy. In addition to the diagrams a com-prehensive instruction sheet for the assembly of a high quality sound system is included with each anniliter.

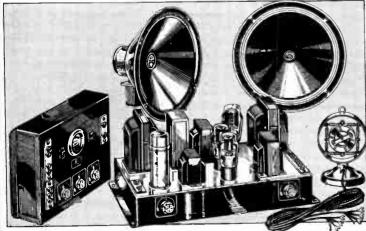
Installation Shield For 6-Watt Amplifier 14E10672— List Price. \$8.00. YOUR PRICE

\$4.60

lleavy sheet met a l perforated shield. Should be purchased with each

amulifier complete system. Prevents tampering with unit or theft and accidental breakage of tubes. Enhances appearance and adds greatly to value of amplifier.

Components for Complete 6 Watt "P. A." System



Equipment Included

watt Amplifier, described above:—Four Raytheon List Price, \$90.00, ubes, 1-56, 2-2A5, 1-80:—Input Control Panel Tubes, 1-30, 2-2Ab, 1-80:—input Control Fanel (fully described on page 111):—Two 11 Inch dynamic cone speakers:—Ten foot 2 conductor shielded microphone cable:—Ten feet single conductor shielded microphone cable:—Ten feet single conductor shielded but with Inversal Floor Stand and Shure cable for connecting Input Unit to Amplifier. Fine quality double button carbon microphone with eight (List Price, 5125-00.)

S62.70 springs and microphone desk stand.

14E10662-Complete Outfit

YOUR PRICE

For 105-120 Volt 50-60 Cycle
A.C. Current Supply
For store advertising, call systems, inter-office communica-

For store advertising, call systems, infer-office communication, valdeville acts, restaurant order systems, churches, lodge halls, etc. Especially adapted for average sized automobile or truck sound installations. Volume and qualified of reproduction are such that voice and music will attract attention and be distinctly understood for a city block in testidential districts. The 100 watt Powerack converter listed on page 124, obtaining power from car motor can be used as amplifier power source—System at maximum outout has sufficient volume to cover an indoor audience of 900 people or an outdoor area of about 4000 square feet. May be installed wherever 105-120 volt 60 cycle A.C. is available. Microphone or phonograph can be amplified through this system. Master volume control is mounted on classis, giving control over all inputs.

Mixer Unit Gives Perfect Control

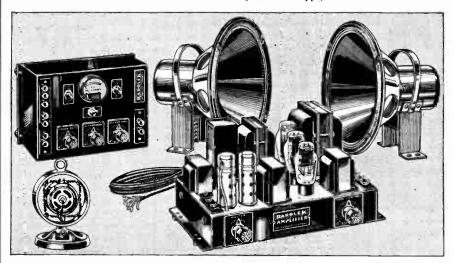
chrough this system. Master volume control is mounted on chassis, giving control over all inputs.

Mixer Unit Gives Perfect Control

Input centrol unit is supplied for connection of above sound seurces to amplifier. Meter and switching system is incorporated in input unit for reading current on either probably buttons of microphone. Controls on unit enable mixing or fading from microphone to phonograph. A pleasing and novel effect can be obtained by providing a musical background for voice. This feature is a splendid advantage for home entertainment or advertising stunts. Output is tapped for various connection combinations to speaker voice coils or 500 olm line. Two 500 ohm field dynamic speakers are supplied obtaining their field supply direct from amplifier. Two additional dynamic sneakers may be used and placed back to back with speakers in system to give a more thorough coverage of the area to be supplied with sound. They must obtain their field supply from an outside source such as A.C. line or 6 voit storage battery. Heavy duty chokes are built into amilifier, hence D.C. dynamic speaker fields are not a part of filter system. This makes it possible to substitute up to 12 magnetics or 100 headphones in place of dynamic speakers. Without connection of external resistors or chokes, magnetics or headphones can also be used in conjunction with dynamic speakers in any proportionate combination. Speakers meeting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistance drop in the connecting wires used and the resistan

How to Plan A Complete 15 WATT "P. A." SYSTEM

For 105-120 Volt 60 Cycle A.C. Supply



Make BIG PROFITS. Sell and Rent P. A. Systems for DANCE HALLS

ATHLETIC FIELDS • AUDITORIUMS

• CHURCHES

• SCHOOLS

Sell a complete amplifier! Your customer will want more Sell a complete amplifier! Your customer will want more than just an amplifier—results are what will bring you quick payment and profits. "COMPLETE, ready to use" should be your sales slogan. Essential parts of the Radolek 15 Watt system are listed on this page. In addition you will need wire, additional mirophones on large installations, phono pickups, phono-record turn tables, remote monitor speakers, "T" pad attenuators where speaker control is desired. Everything you may need is listed in this catalox. Allow yourself a generous profit on every item you sell. Your market includes Auditoriums, Parks, Churches, Schools, Refectorics, Ballrooms, Theaters, Hotels, and Dance Orchestras. Prove that P.A. increases a clients business.

Profit from Rental. Many Radio Servicemen through tental of P.A. equipment increase their profits. Excellent markets for rental service are County Fairs, Political Meetings, Real Estate Sales Promotion, Pootball Games, Pep Meetings and special advertising projects for retail merchants. \$10 to \$25 per day is the usual charge for use of a Two speaker 15 watt ipb with attendant.

Mobile Advertising. Sound truck advertising has become one of the best types of Promotion publicity available. A panel truck with space for advertising banners and the Radolek 15 watt amplither can be rented for \$25 to \$100 a day. Excellent for parades, political promotion, merchandise advertising and picule entertainment.

Complete Ready to Operate

powerful public address system particularly suited for installation in auditoriums, automobiles, and trucks auditoriums, automobiles, and trucks lodge halls, churches, large store advertising systems, theatres, etc. An ideal system for sound truck installation. Sound can be heard clearly and large call systems, athletic fields, distinctly understood for up to about two city blocks under favorable noise conditions. When usel for auto histallations, fan belt driven 130 to 175 watt Auto Fan Belt generator is used for 110 volt A.C. nower supply. At for 110 volt A.C. nower supply. At maximum power, system will give volmaximum power, system will give vol-ume to cover indoor audiences of 2500 people or about 10,000 square feet out-doors. These figures are conservative and based on tests made with high noise karkgrounds. Under ordinary noise conditions, about twice this con-erage can be expected.

For Microphone or Phonograph Microphone and phonograph inputs can amplified through this system, High impedance phonograph pickur can be connected directly to amplifier. When using microphone, an impedance matching device is necessary. Input control unit is supplied with system for this purpose and is arranged for the most convenient connection of all the most convenient connection of all inputs to amplifier. Meter and switches are incorporated in input unit for reading current on either or both buttons of microphone. Variable resistor regulates microphone current. In addition current control is mounted on microphone stand for easy regulation of current. Prevents danage to microphone and assists in controlling feedback.

troning reequack.

Tone control mounted on amplifer allows complete variation of tone. Also assists in reducing feedback and compensating for room acoustics.

Complete Control Over-all Inputs

Two volume controls on the Control
unit are inter-connected to enable
mixing or fading from microphone to
phonograph. A pleasing and novel
effect can be obtained by providing a
musical background for voice. This
feature is a sulendid advantage for musical background for voice. This feature is a splendid advantage for home entertainment or advertising stunts, Two auditorium D.C. dvnamic speakers are used for sound output, they obtain their field supply from amplifier. Heavy duty chokes are built into amplifier, hence dynamic speaker fields are not used as part of filter system. This makes it possible to substitute up to 130 magnetic cone speakers or 200 headsets in place of dynamic speakers, without connection of external resistors or chokes. Magnetic eness or headphones can also be used in conjunction with dynamic speakers in any proportionate combination.

Portable P. A. Speaker Housing



14E10486\$1050 Case is divided diagonally and will house two speakers When put together case is only slightly larger than ease

175 Watt Generator For Auto Public Address



Supplies 175 watts of 110 volt 60 cycle A.C. Operates off Fan belt. Provides very satisfactory current supply for above system. See page 124 for comdescription.

YOUR PRICE \$38.22

- Three Stage 15-Watt Amplifier
- Five Raytheon Tubes
- Input Control Panel Two DC Auditorium Dynamic Speakers
- 50 Ft. Shielded Microphone Cable
- Shielded Input Cable
- Double Button Carbon Microphone
- Microphone Stand All These Component Parts

ONLY!

Equipment listed above. 14E10674-List Price, \$139.00. YOUR PRICE.

Amplifier used is completely described

Ampiner used is completely described on page 117.

Speaker and microphone cables are listed on page 97.

500 ohm line to speaker voice coil transformers listed on page 109.

Optional Equipment



Installation Shield

Is recommended for use with complete system. It adds to appearance of installation and gives

extra protection. Allows plenty of ventilation to amplifier. Listed and de-scribed on opposite page. Allows

Mike and Stand Mike and Stand
The above system will
give excellent results in
practically all cases, but
where better reproduction
is required we recommend
the use of a higher quality microphone. The balance of the equipment is
suitable for the very best
systems.

systems.

Shure Model 22B Microphone and floor stand instead of mike and stand listed above.

3E2942—List Price, \$35.00.
Your Price, \$12.65

Available at this price only when purchased with above system. Add \$12.65 to the total purchase price \$69.50 specified.



Amplifier Carrying Case

For use in transporting amplifier from
one installation to another. Bottom
tray is so constructed that amplifier
may be attached permanently. All
controls and connections are readily
available. Will fit 30, 15, or 6 watt
amplifier with or without installation
shield. With amplifier in case there
is enough additional room for carrying control unit and microphone.
Beautiful black fabrikoid covering.
Solid Laminated plywood construction
throughout, strongly reinforced corners
and handle. Positive blinge fasteners;
Stze 21%" long, 11%" wide, 12%"
high. Amplifier Carrying Case

14E10673-14E10673-112.50.

Nour Price, \$12.50. \$5.75

15 WATT "P. A." AMPLIFIER The General Purpose Model Best for 80% of Your Jobs

For 105-120 Volt. 50-60 cycle A. C. Operation

- Three Stages
 Push-Pull 2A3's
- Five Tap Output TONE CONTROL
- Hum Free Operation
- Master Volume Control
- Improved Class "A" Prime
- 30 Watt Speaker Field Supply

14E10670-Factory wired. Laboratory Tested.

List Price, \$60.00. YOUR PRICE

14E10671—With five Raytheon matched Tubes 1-57, 1-56, 2-2A3, 1-5Z3.
List Price. \$68.85. 1-57, 1-58, 2-2A3, 1-5Z3, List Price. \$68.85. YOUR PRICE \$3190

For Every Type Installation

Ample volume for 2500 people: Will provide good sound coverage for conventions, Ample volume for 2500 people: W111 provide good sound coverage for conventions, school auditoriums, large refectories, county fairs, ball-rooms, athletic fields, and other locations where plenty of volume with good clarity is required. Economical and efficient. Easy to install permanently or for part time use. Excellent for use with hotel installations having a speaker in each room. Extensively used in schools and colleges for 'pep' meetings and experimental work. The splendid tone characteristic of this amplifier adapts it for "sound" movie installations and for sound recording studios. Uses the new 2A3 tubes, (superior to old type '50 tubes). Improved class "A" prime, giving the high efficiency of class "A" prime, giving the high efficiency of class "A". Over 75 DB gain. Only .015 volt input required for maximum output. Splendid for use in sound truck employing 175 watt fan-belt driven generator described elsewhere.

Handles 8 Dynamic Speakers

Provides 15 watts of power for speaker voice coils. This output can be used to operate 3 large dynamic speakers or 8 smaller ones or 3 dynamic horns or 30 magnetic cones or 200 headsets or any proportionate combination of them. When using 3 large dynamic speakers they can dising a large dynamic speakers they can be placed in front of the audience. 8 smaller dynamic speakers can be placed back to back in the center of the same size audience to give a more even distribution of sound. At maximum power, amplifier will give to give a more even distribution of sound. At maximum power, amplifier will give volume to cover indoor audiences of 2500 people or about 10,000 square feet outdoors. These figures are only approximate as definite information cannot be given due to varying conditions under which equipment is used. Where prevailing noise levels are low a larger coverage can be expected.

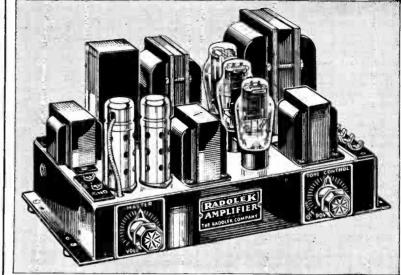
Installation Shield



\$4.60

Heavy sheet metal perforated Heavy sheet metal perforated shield. Provides periet to mechanical protection. More than enough ventilation to keep amplifier at proper operating temperature. Fils amplifier smugly. Baked-on black enamel finsh. Adds a professional appearance to any installation that will easily bring you \$8.00. additional.

You should sell this shield with every Amplifier. It is well worth the additional investment to your customer.



Amplifier Characteristics and Specifications (10) Only .015 volts input signal required to

15 Watts undistorted Power Output to speaker coice coils.

(2) Supplies 30 watts for 1000 ohm field coils (enough for three large dynamics). Connections provided for one, two or three separate speaker

fields.

(3) Three Stager with five tubes, '57 resistance coupled, to '56 transformer coupled, to two 2A3's in push pull. 523 Rectifier.

(4) 77 D.B. Gain at 1000 cycles,

(5) Practically Flat Frequency Characteristic Curve within 2 D.B. from 50 to 8,000 cycles,

(6) Input impedance 200,000 ohms.

(7) Master Volume Control with ctclied metal indication plate.

(6) Input impedance 200,000 onms.
(7) Master Volume Control with ethed metal indicating plate.
(8) Tone Control and On-Off Switch Combined.
(9) Gutput Impedance Tapped at 3, 6, 9, 15, and 500 ohms. Connections brought out to bakelite strip with values engraved at each binding post.

(10) Only .015 voits input signal required to obtain maximum output.
(11) Hum lewel lower than encountered in average good quafity A.C. Radlo (this is the lowest of any amplifier we have ever observed).
(12) Power consumption 150 watts.
(13) Power Supply required, 105-120 volts, 50-60 cycle A.C.

(15) Power Supply required, 105-120 volts, 50-60 cycle A.C.
(14) Six foot super service power connection cord with unbreakable rubber attaching plug.
(15) Renewable Glass Fuse in power supply.

(16) Bottom protecting plate with four rubber feet entirely encloses base.

(17) Ample provision for ventilation.
(18) Rich Baked-on Black Enameled finish.
(19) Overall height 8"; Base width 9"; Length 16"; Height 2\%".

(20) Net weight, 25 lbs., Shipping weight, 40 lbs. Built for Heavy Service

For Microphone or Phonograph Amplification

Phonograph may be connected directly to amplifier input. When using microphone it is necessary to use a control unit like stock number 4E10700 described on page 111, or sultable microphone Transformer. Microphone transformer, is not mounted on chassis because this is primarily bad engineering and should

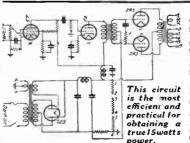
mounted on chassis because this is perimarily bad entineering and should be avoided wherever possible. The hum level in our amplifiers is so low thex it is barely audible within a foot from speaker with full output. This low hum level can be maintained only when lipput transformer is mounted at leas: a foot away from chassis and out of power transformer field. Construction of amplifier makes it much norre convenient for the hookup of multi-mixer elrenits. Master volume control gives control over all injutis-Combination tons control and on-off switch mounted on amplifier chassis. Connections for out-puts of 3, 6, 9 or 15 ohm impedances, permitting the proper connection of dynamic speaker or sneakers of any voice coil impedances. Separate winding of 500 ohms impedance provides connections for one or more headphones or magnetic speakers, or for Dynamic speakers when used at a distance. Soo ohm Speaker Line Matching Transformers for use with a number of dynamic speakers on the 500 ohm line sutput listed on page 109.



Finest Quality-Carefully Engineered

Finest Quality—Carefully Engineered
Power Input line is fused with
standard tubular glass fuse—All parts
mounted on strong, rigid non-rusting
alloy metal. Entire unit finished in
rich baked-on black enamel: layout of
component parts insures high-erficiency—Ample ventilation keeps
operating temperature at lowest
point. All transformers, chokes,
main filter rondensers and voltage
amplifier tubes are fully and separately shielded.
We do not attempt to lower the quality and save
a few cents by placing all parts under a single
shield which would make the unit suscentible to
overheating, mechanical vibration, hum and electrical feed-back, (Motorbouting). All wiring and
parts easily accessible. Layout diagram, showing
exact position of each wire and part, together with
schematic mokup, are furnished—All parts used
are standard—Diagram gives all essential specifications of each part, making repair work quick
and easy. and easy.

Wide Range Frequency Response: Cathode Ray Oscillograph tests proved that the output of this amplifier was linear over practically the entire audio range and free from distortion harmonics within the rated output.



Simple Efficient Circuit

Simple Efficient Circuit

The outstanding feature of the circuit of this Amplifier is the unique method of securing bias voitage for the Push-Puil 2A3 power tubes. This is accomplished through a 410 ohm section of the bleeder resistance; the bias resistance carrying a constant current of 100 MA in addition to the 53 MA for the 2A3's. A pecularity of the 2A3 tubes is the increase in plate current with strong signal inputs. The design of the Radolek amplifier bias circuit makes an increase in power tube plate current such a small portion of the total current flowing through the bias resistor as to not appreciably recince the effective power output.

Field current supply is 300 voits at 100 Ma. or 30 watts across 3000 ohms resistance. Three tans are incorporated one at each 1000 ohms. The combinations of power for speaker fields are many. The fields of as many as ten dynamic speakers of the smaller type can be handled efficiently.

STADIUM "P. A." SYSTEM 30 Watts—For Maximum Coverage

Made Up of Radolek Standard P. A. Units

Units Included

Three stage 30 watt amplifier (See opposite page).

Seven matched Rav theon tubes 1 4.2A3's, 1.5Z3. 1-57, 1-56.

Input control panel. (See page 111.)

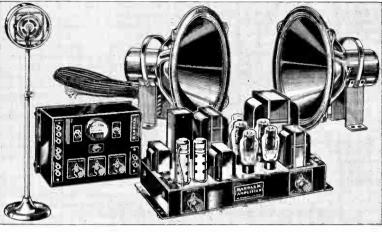
Two 141/2" auditorium dynamic cone speakers. dynamic cone speakers. (See page 113.)

High quality \$25.00 list double button carbon microphone.

Microphone floor stand with eight mounting springs.

Ten foot shielded microphone cable.

Ten foot shielded connecting cable.



Used for

Stadiume

Conventions

Race Tracks

Dance Halls

Dinner Clubs

Large Churches

Athletic Fields

Political Rallies

Large Auditoriums

Store Call Systems

Large Sound Trucks

105-120 60 Cycle A.C. Supply

Auditorium Dynamic Speakers

Auditorium Dynamic Speakers
The two speakers furnished are of the highest
quality. See page 113 for complete description.
Will handle the tremendous output of the ampliner with a full natural tone. Use of extra heavy
field coils in speaker construction together with
clever engineering design makes these speakers
many times as sensitive as the average unit. Speakers
can be used up to 1000 feet away from amplifier,
if 500 ohm line connection on amplifier is used.
500 ohm line matching transformers are not furnished with system. See page 109 stock number
2F4360 for suitable transformer. When using
speakers within seventy-five feet of amplifier con-500 dim line matering transformers are no variabled with system. See page 109 stock number 2E4360 for sultable transformer. When using speakers within seventy-five feet of amplifier connections can be made from amplifier direct to voice coils. Speaker fields are 1500 ohms and obtain current supply from amplifier.

PRICE

30 Watt Stadium P. A. System As Illustrated and Including Units as Specified Above

described. 14E (0688-List l'rice, \$199.00. YOUR PRICE

For Portable Installations
Use 14E10485 speaker housing listed on page
116. When system is used in a permanent installation use as large a speaker baffle as is practical. To obtain the best volume and quality of reproduction from this system do not use a baffle which has an effective area of less than nine square feet.

Our Finest and Most Powerful **Public Address System**

Particularly suited for large installations requiring great amount of power with highest quality tone. a great amount or power with highest dustry tone. Frequency response of system is exceptionally flat. Dance Halls and Auditoriums will find this system well sulted for permanent installation. Ideal for use in DeLuxe sound truck installations. Sound can be heard clearly and distinctly understood for about six city blocks under favorable noise conditions. six city blocks under tavorable noise conditions. At maximum output using the two giant dynamic speakers included, the system will cover indoor audiences of up to 8000 people, or an outdoor area of about 25000 square feet. All connections are plainly marked making it easy to correctly and quickly assorble cream. semble system.

3 Channel "P.A." Rack and Panel

For Centralized Installations in Schools, Hotels, Clubs, Etc.

A complete assembly of all parts on a neat and convenient rack for permanent installation. Equipment included consists of 6 tube and convenient rack for permanent installation. Equipment included consists of 6 tube
radio tuner, two speed phonograph motor and
plekup, two microphone mixer, 30 watt power
amplifler, speaker switching panel and monitor speaker. All units are interconnected
for the most flexible and efficient operation
of all or each part.

The Radio Receiver is a 6 tube dual wave
superheterodyne. Complete description of set
sent on request.

Built-in Phono-Motor and Pickup plays
both 33% and 78 It.P.M. records. Specially
weighted 12" turntable gives smooth operation on slow speed records. High quality
pickup perfectly balanced gives best results
on either speed record. Automatic stop and
switch also included.

Three Channel Mixing Panel provides two
channels for microphones and one for phonograph or radio. Complete description is
given in next column.

graph or radio. Complete description is given in next column.

30 Watt Power Amplifier is three stage modified class "A" prime unit. Complete technical description of amplifier is given on page 119.

20 Speaker Switching Panel for remote control of all or any one We connect this panel to suit your r installation. When placing your sneaker. particular installation. When placing your order be sure to state the quantity of each

Master Volume Control provides volume ad-justment over all three channels. Master Tone Control controls tone from bass to treble for all three channels.

Complete as described with set of matched Raytheon tubes: 2-58's, 1-2A6, 1-2A7, 1-2A5, 1-56, 1-80, 1-57, 4-2A3's, 1-5Z3.

14E10690-List Price, \$390.00.

YOUR PRICE ... \$19500

We are prepared to supply complete Public Address Rack and Panel equipment to meet any requirements. Send us the specifications on your next job. Our engineering department will be glad to give you quotations and all assistance necessary. Our efficient laboratory and manufacturing facilities assure you of quality merchandise and we assure you of a price on which you can make a handsome profit.

3 Channel Input Control & Mixer For Public Address and Broadcast Work



Mixer and Fader

A high quality unit for mixing and fading the outputs from two microphones and phonograph or radio. Connects directly to grid of first input tube on amplifier. Three distinct input channels are provided. Two channels are for carbon microphone or low impedance phonograph pickup or for condenser, velocity or crystal microphones when used with preamplifier. The third channel is for connection of high impedance phono pickup and radio with switch for changing from phono to radio. The three channels can be faded from one to the other or mixed to any desired degree. Separate transformer and T pad volume control is provided for each imput channel of high impedance to match grid of input tube on any amplifier.

Microphono Current Control A separate microphone current control is provided for the two microphone in

A separate microphone current control is provided for the two microphone in-

put channels. 0-25 milliammeter in conjunction with four toggle switches indicate the current on each microphone button. Switches can also be thrown so as to read current drain for both buttons at once. Switching arrangement is very simple and gives absolutely accurate readings. 2-4½ colt "C" batterles are mounted inside case and furnish merophone button current. All connections to unit are made through extrastrong moulded bakellte sockets. Metal case provides perfect shielding. All parts are grounded so that there is no hum pickup from this unit. To prevent hum, shielded cable should be used for connecting to amplifier input and for conceting high impedance inputs to control panel. Case is of 16 gauge steel finished in durable baked black enamel. Beautifully etched metal indicating nlates are mounted under each control. Case size 7½" deep, 6" high. 17½" wide. Shipping weight 16 lbs. put channels. 0-25 milliammeter in

Prices

Complete with Triplett meter.
4E 10701—
List Price, \$43.90.
YOUR PRICE\$21.95

Complete with Readrite meter.
YOUR
PRICE \$ 1 60 4E10702-

Copyright 1934 by W. C. Braun

Page 118

30 WATT "P. A." AMPLIFIER Tremendous Power with Flawless Tone

For 105-120 Volts 50-60 cycle A. C. operation

- Three Stages
- Tone Control
- 5 Tap Output
- Master Volume Control
- Parallel Push Pull 2A3's
- Improved Class "A" Prime
- 30 Watts Speaker Field Supply **Prices**

14E10685-Factory wired; Laboratory tested;

List Price \$75.00. YOUR PRICE

14E10686-With With Seven Ra 56, 4-2A3, 1-5Z3, Raytheon Matched tubes, 1-57, 1-56 List Price \$88.35. YOUR PRICE \$44.00

Layout and schematic diagrams giving all essential specifications and information are included.

For Microphone and Phonograph Amplification

Amplification

High impedance phonograph pickup may be connected directly to amplifier. Microphone connections are made through suitable matching transformer. The above connections can be made and controlled through input control units described on pages 111 and 118. Master volume control and etched metal Indicating plate are mounted on amplifier. Control gives complete volume variation for all input signals. Combination tone control and on-off switch with etched metal indicating plate are also mounted on amplifier. Tone control allows accentuation or attenuation of lows and highs. This feature is useful in assisting to eliminate amustic feedback or to compensate for poor room acoustics.

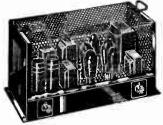
For All Large Installations

Adapted for fields, Adapted for very large installations, such as athletic fields, auditoriums, conventions, aviation fields, large deluxe call systems, large hotel installations, political gatherings, etc. A very powerful sound truck installation can be made with this amplifier, using the 180 watt Fan Belt driven Automobile Generator. Systems for large theater installation, can also be very satisfactority and ampliner, using the 150 wait read the drien Automobile Generator. Systems for large theater installations can also be very satisfactorily and economically built up around this unit. At maximum power this amplifier will give sufficient volume to cover indoor audiences of 8000 people or about 25,000 square feet outdoors. These figures are conservative and based on tests made with high noise backgrounds. Provides 30 watts for speaker volce coils. This output can be used to operate 5 large dynamic speakers or 12 small dynamic or kinematic units or 5 dynamic horns or 30 magnetic conservation of them. When using 1 to 3 dynamic speakers they can be placed in front of the audience or up to 12 dynamic speakers can be placed audience to give a more even distribution of sound.

For Greater Output

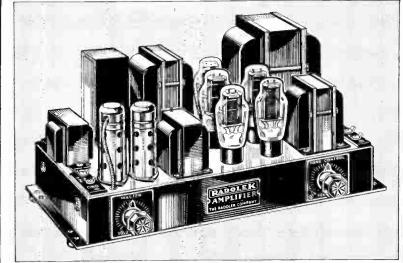
Two or three of these amplifiers can be connected in parallel to obtain 60 or 90 watts total output at a much lower total cost than a single amplifier of such output using 845's or similar tubes. Coverage at 60 watts would be 16,000 people indoors and 60,000 square feet outdoors.

Amplifier Installation Shield For 30 Watt Amplifier



14E10687-List Price \$10.00. YOUR PRICE

\$475 Heavy sheet metal perforated shield provides perfect mechanical protection and allows ample ventilation for amplifiers. Fits amplifier perfectly. Baked-on black enamel finish. You should sell this shield with every amplifier. It is well worth the additional investment to your customer.



Amplifier Characteristics and Specifications

30 watts undistorted power output to speaker voice colls. Supplies 30 watts for 1000 ohm field coils

gh for three large dynamics).

Three stages with seven tubes, "57 resist-

stages with seven tunes, 37 resistance coupled to 56 framsformer coupled to 56 framsformer coupled to four 2A.78 in parallel push pull. 572 rectifier.

4. 82 D.B. Gain at 1000 excise.

5. Practically Flat Frequency Curve within 2 D.B. from 50 to 8,000 excises.

curve within 2 D.B. from 50 to 8.00c.

6. Input impedance, 200.000 chins,
7. MASTER VOLUME CONTROL
with etched metal indicating plate.
8. TONE CONTROL and on-off switch combined, with etched metal indicating plate.
9. Output impedance tapped at 3, 6, 9, 15, and
500 ohms. Connections brought out to bakelite strip

with values engraved at each binding post.
10. Gnly .01 volts input signal required to ob

tain maximum output.

Tremendous Power with Finest Tone

Tremendous Power with Finest Tona-Quality
This amplifier gives more undistorted power than has ever previously been obtained from an equivalent combination of tube. The added power frequency response, and ablity to operate at very lew volume without distortion more than outweights any advantage that class "B" or full class "A" prime operation may have. Gives the same sweet and pure reproduction that could formerly be obtained only by the use of four 250 tubes, in straight class "A" combination. The characteristics of the awallifier are such that it will faithfully reproduce all voice and music, including that of the new wide range sound-films. wide range sound-films.

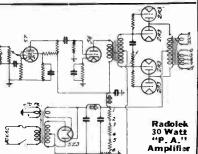
> Amplifier Carrying Case rplifier Carry For 30 Watt Amplifier
>
> Laminated plywood sover
> Laminated plywood sover
> the durable Fabri-



ed with durable Fabri-koid. Completely describ-ed on page 116.

14E10673-List Price \$12.50. \$575

YOUR PRICE



11. Hum level lower than encountered in average good quality A.C. Radio, (This is the lowest hum level of any amplifier we have ever observed.)
12. Power consumption, 180 watts.
13. Power supply required, 105-120 volts, 50-60 corpts. A.C.

cycle A.C. 14. Six foot

14. Six foot super service power connection cord with unbreakable rub-

connection cord with unbreakable rubher attaching plug.

15. Renewable Glass Fuse in power
supply.

16. Bottom protecting plate with
four rubher feet entirely encloses base.

17. Ample provision for ventilation.

18. Rich Baked-on Black Enameled finish.

19. Overall height 8½"; base width 9", length
20", height 2".

20. Net weight 32 lbs., shipping weight, 50

20. Net weight, 32 lbs., shipping weight, 50 lbs.

Very Finest Construction

Heavy duty chokes are built into amplifier. D.C. dynamic speaker field colls are not a part of the filter system in this amplifier. While this type of construction adds considerably to the cost, very best filtering action is provided for any make D.C. speaker and in addition no external chokes are ever required, as are necessary on most other amplifiers, when they are used with A.C. type dynamic speakers, magnetic speakers, dynamic speaker units or

ers, magnetic speakers, dynamic speaker units or head sets.

All parts mounted on strong, rigid, nonrusting alloy metal chassis. Layout of component parts insures highest efficiency. Ample ventilation keeps operating temperature at lowest point. All transformers, chokes, main filter condenser and voltage amplifier tubes are fully shielded. Skillful engineering and design have reduced hum so low that hum is practically inaudible even within a few linches of speaker with volume control full on but with no input connected. Layout diagram, showing exact position of each wire and part, together with schematic hookup, are furnished. All parts used are standard.

Portable P. A. Sneaker Housing

Portable P. A. Speaker Housing



Will House 8" to 14" Cone Speaker 14E10485-List

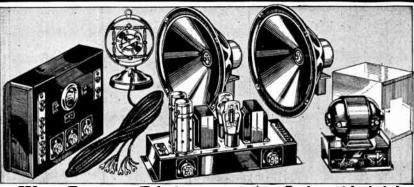
Price \$7.00. YOUR

\$475

Durable Fabrikoid covered case with metal corner guards. Designed for use with all types of indoor and outdoor public address equipment. Ample baffle surface

Ample baffle surface for excellent tone reproduction. For mounting all standard sizes of dynamic and magnetic speakers between R" and 14" diameter. Copper screen protects cone from bugs and dirt. Button Fabrikold flap over speaker opening for protection of cone against weather. Extra strong wood frame. Thoroughly impregnated to resist moisture. Specify size of speaker opening desired when ordering. Dimensions, 15"x15"x11". Refer to page 116 for listing of two speaker carrying case.

BATTERY "P. A." SYSTEMS Equal A.-C. Outfits in Power, Tone & Economy



Watt Battery PA Systems

Used Where Power A. C. is not Available
Especially suited for call systems, political gatherings, auditorlums, store advertising systems, window display demonstrations, etc. This is the idea system for a low cost efficient Automobile Sound Installation where coverage of an average city block in residential districts is all that is needed.

At maximum output has sufficient power to cover an indoor audience of 600 people or an outdoor area of 3000 square feet, These figures are conservative, and based on tests made with high noise backgrounds. Under ordinary noise conditions about twice this coverage can be expected. Can be completely operated by one 6 voit storage battery, when used with our public address 'B' power supply, stock number 4£10196 on page 125. The tube filaments of course, obtain their voitage direct from storage battery. If a 'B' supply generator is not desired, 6—45 voit "B' batterles may be used.

Equipment Included

6 Watt. 3 stage Class "A" Battery Operated, Push Pull Amplifler; High Quality Double Button Carbon Microphone with eight springs and stand; Two 11 inch Dynamic Speakers; Input control unit (completely described on page 111); 10 foot 3 conductor shielded microphone cable; set four matched Raytheon tubes; 1-39, 1-37, 2-42.

14D10655—Complete system as speci-fied above with "B" Supply generator to operate from 6 volt storage battery. \$6600 List Price \$136.00.

14010656—Complete system as specified above with 6-45 volt "B" Batteries. in place of generator.

List Price \$108.00. YOUR PRICE

6 Watt Battery Amplifier Only

14D 10657—Without tubes. List Price \$27.50. \$16.50

14D10658—Complete with four Ray-theon Tubes: 1-39, 1-37, 2-42. List Price, \$33.40. theon Tubes List Price, YOUR PRICE \$19.45

6 Watt Battery Operated Amplifier Specifications Class "A" Output

1. 6 Watts undistorted Power Output to speaker voice coils:—2. Three Stages with four tubes, '39 tube resistance coupled to '3' Transformer coupled to two 42's in push pull

3. 72 D. B. Gain at 1000 cycles:

Practically Flat Frequency Characteristic

Curve within 3 D. B. from 50 to 8000 cycles

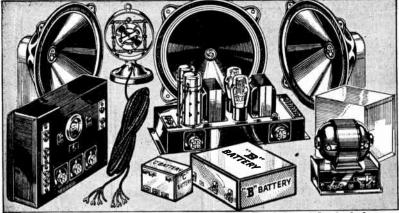
5. In put impedance 200,000 ohms:

Master Volume Control with ctched meta Master Volume Control with ciched meta indicating plate —7. Combination Tone Control and no-off switch —8. Output impedance Tapped at 3, 6, 9, 15 and 500 chms. Connections brought out to bakelite strip with value engraved at each binding post —9. Only .0 voits input signal required to obtain maximum output:—10. Power consumption 2 ampere for filament, 87 MA. for plate;—11. Power Sup ply, 6 voits for filament, 270 voits for plate—12. Bottom protecting plate with four rub ber feet entirely encloses base:—13. Riel Baked-on Black Enameled finish:—14. Over all height 7½", base width 6", length 14" height 2½":—15. Net weight, 9 lbs. Ship ping weight 16 lbs.

All parts mounted on strong, rigid, non rusting steel chassis. Layout of componen parts insures highest efficiency. Transformer and voltage amplifier tubes are fully shielded doing away with any residual hum. All wing and parts easily accessible. Layout dia gram, showing exact position of each wir and part, together with schematic hookur are furnished. All parts used are standard Diagram gives all essential specifications cach part, eliminating gueswork in replace ment and making repairing quick and easy



15 Watt Battery Operated PA Systems



For Microphone and Phonograph

volume control is mounted on amplifier ving control over all inputs. Input control ects sound sources to amplifier. Meter and Master volume control is mounted on amplifier chassis giving control over all inputs. Input control unit connects sound sources to amplifier. Meter and switching system are incorporated in input unit for reading current on either or both buttons of microphone. Controls on unit enable mixing or fading from microphone to phonograph. A pleasing and novel effect can be obtained by providing a musical background for roice. This feature is a splendid advantage for home entertainment or advertising sunns. Master advertising stunts.

This system is particularly well adapted for sound truck installations. May also be used for athletic fields, fairs, outdoor gatherings of all kinds, large store advertising systems, large call systems, etc. At maximum output, system has sufficient power to cover an indoor audience of 2.500 people or an ostdoor area of 10,000 scuare feet. These figures are conservative and based on tests made with high noise background. Under ordinary noise conditions, about twice this coverage can be expected.

Equipment Included

Used Where Power A.C. is not Available
15 watt 3 staze Class "A" Rattery Operated
Push Pull Amplifler: High Quality Double Button Carbon Microphone with eight springs and
stand; three 11½ inch Dynamic Speakers; Input
Control Unit (completely described on page 115);
10 foot 3 conductor shielded microphone cable;
Set four Matched Raytheon Tubes; 1-39, 1-37,
2-2A3; 1-45 volt "C" battery; 1-22½ volt "C"
battery.

Prices Complete Outfits
14D10677—Complete system as specified above with "B" Supply Generator to operate from 6 volt storage battery.

storage nattery.

List Price \$165.00.

YOUR PRICE

14D10678—Complete system as specified above with six 45 volt 'B' Batteries in place of generator. List Price, \$137.00.

\$71.50

Amplifier Specifications Class "A" Output

Class "A" Output

1. 15 Watts undistorted power output to Speake voice colls:—2. Three Stages with four tubes, "3 resistance coupled to "37 transformer coupled t two 2A3's in push pull:—3. 77 D. B. Gain a 1000 cycles:—4. Practically Flat Frequency Characteristic Curve within 3 D.B. from 50 to 8,00 cycles:—5. In put impedance 200,000 ohms:—6 Master Volume Control with etched metal indicating plate:—7. Combination Tone Control and on-0 switch:—8. Output impedance Tapped at 3, 6, 515 and 500 ohms. Connections brought out to bakelit strip with values engraved at each binding post:—6 Only olf5 Volts input signal required to obtain maximum output:—10. Power supply required, 6 volts fr. filaments, 300 volts for plate, 62 volts: ("blastit. Power consumption, 5.6 amperes for filament 50 to 100 MA. for plate, no drain on "("battery:—12. Bottom protecting plate with four rubber feet entirely encloses base:—13. Ample provision for ventilation:—14. Rich Baked-On Black Enamele finish:—15. Overall height, 7", base width 7", length 14", height 2½":—16. Net wt., 9 lb: Ship. wt. 16 lbs.

Output is direct to voice coils of speakers of 500 ohm line. Speakers used obtain field suppl from 6 volt storage battery and take 1½ ampere each.

Price Amplifier Only

| 15 Watt Battery Operated | 14D | 10675-Factory wired, laboratory tester without tubes. List Price \$32.50. \$19.50

14D10676—Complete with 4 Matched Raythco tubes, 1-39, 1-37, 2-2A3.
List Price \$43.20. tubes, 1-39, 1-37, List Price \$43.20. YOUR PRICE ...



Moderate Power RADOLEK "PONY" "P. A." AMPLIFIERS with High Quality

3½ Watts Output 2A5 Power Tube

14E10650—Factory wired Laboratory tested amplifier. Less tubes.

List Price, \$20.00. YOUR PRICE.....

\$065

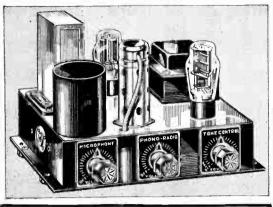
14E 1065 | --With three Matched Ray-theon tubes 1-57, 1-2A5, 1-80. List Price, \$23.95. 70UR PRICE......\$11.65

store advertising call systems, inter-office promunications, telephone booster, school classrooms, restaurant installations, small dances, social gatherings, racing returns, etc. At maximum power, 5 watt 2186 amplifier will cover indoor audiences of 200 people or about 2000 square feet outdoors. At maximum power 3½ watt 2A5 amplifier will cover Indoor audiences of 150 people or about 1500 square feet outdoors. These figures are conservative and are based on tests made with high noise backgrounds. Under ordinary noise conditions about twice this coverage can be expected. Provides 3½ or 5 watts 0 utput to roice coil. This output can be used to poperate one D.C. speaker and one A.C. Innamic speaker or 10 magnetic speakers or 40 headsets or any proportionate compination of any of them. Field current supply 3 watts through 2500 ohm resistance. Speaker field is used as part of filter system in amplifier.

Mixer and Fader

Three controls are mounted on amplifier, one of whileh is used to control microphone input volume, one for controlling volume of phonograph or other high impedance input and one for combination tone control undernoof switch. Beautifully eiched control plates are mounted beneath each control plates are mounted beneath each control plates are mounted beneath each control in conjunction with one another. The voice with a muiscal background can be used for many novel effects, for home entertainment or for special advertising features. Fading from one Input to the other is also accomplished quite easily.

For 105-120 Volts 50-60 Cycles A.C.



- Microphone Input
- Phonograph Input
- Tone Control
- Speaker Field Supply
- Mixer and Fader
- Two Stages

Characteristics and Specifications

Of 31/2 Watt 2A5 and 5 Watt 2B6 Amplifiers

- 10.

- Of 3½ Watt 2A5 and 5 Watt 2B6 Amplifiers

 Power Output to Speaker Volce Coils: 3½ watts for 2A5 Model. 5 watts for 2B6 Model.

 Supply field current for one 2500 ohm field speaker.

 Two stages with three tubes.

 52 D. B. gain at 1000 cycles with 2B6 Model; 60 D. B. gain with 2A5.

 Practically Flat Frequency Characteristic Curve within 3 D. B. from 50 to 8000 cycles.

 Inout impedance 400 ohms center tapped for microphone. 50,000 obras for pheno pickup and other luputs.

 Dual Volum- Controls and Mixer, etched metal plate.

 Cembination Tore Control and on-off switch.

 Output impedances 5000 ohms from plate of 2B6 tube; or 7000 ohms from plate of 2A5.

 Only 1 volus input signal required for maximum output. Hum level lower than in average good quality A.C. Radio, Power Consumption 45 watts.

 Power Supply required, 105-120 volts, 50-60 cycles A.C. Six foot super service power connection cord with unbreakable rubber attacking plug.

 Bottom protecting plate with four rubber feet entirely encloses base.

 Rich baked-on black enameled finish.

 Overall height 6%"; base, width 7", length 11", height 2%".

5 Watts Output 2B6 Power Tube

14E10680 Factory wired laboratory tested amplifier. Less tubes.

List Price, \$25.00. YOUR PRICE.....

065

Conservatively rated at 5 watts, actually as high as seven watts can be obtained with only slight distortion which is not objectionable. Triode Type of tube construction is responsible for wider frequency response than is obtainable from the pentode 2.A5. These features with greater power output greatly offset the slightly higher gain that is obtained from 2.A5 tubes.

2.45 tubes.

Universal Input
Microphone Input is through transformer mounted on ampillier chassis. Transformer is of special construction so as to reduce residual hum to a minimum. Current for either single or double button microphone is supplied by 4½ volt "C" battery mounted inside ampilier. This battery will last about 3 months operating an average of 5 hours ner day. Phonograph and additional high impedance inputs are direct to grid of 57 tubes with volume control connections are conveniently made to plug-in sockets and jack. Output is direct from power tube and proper matching transformer must be used externally with speaker. Jack for plug-in of additional magnetic speaker is also provided.

Finest Construction

All parts mounted on strong, rigid, non-rusting alloy metal chassis—Entire unit finished in rich baked black enamel—Layfinished in rich baked black ennunel—Layout of component parts injures highest efficiency—Ample wentilation keeps operating temperature at lowest point—Transformers, main filter condenser and voltage amplifier tubes are fully shielded—Skillful engineering and design have reduced hum to a very low point—All wiring and parts easily accessible—Layout diagram, showing exact position of each wire and part, together with schematic hookup, are furnished—All parts used are standard—Diagram gives all essential specifications of each part, eliminating guess work in replacement and making repairing quick and easy.

described at top of page. Microphone included with both systems is a fine quality single button Kellogg hand microphone. A high grade \$12.00 list two button microphone with desk stand can he supplied instead of hand mike if desired. Allow \$6.95 extra when placing order. Carrying Case is strongly reinforced and covered with handsome black grained Fabrikold. Two septively in small automobile installations using the stock number 4E 10801 desorthed on page 124 to stock number 4E 10801 desorthed on page 124 amplifier described above and Raytheon tubes 1-57. 1-285. 1-80. 14E 10652

14E10652

amplifier described above and Arcturus tubes 1-57, 1-2B6, 1-80.

14E10682— List Price, \$61.75. YOUR PRICE.....

Portable 'P.A.' System

For Small Indoor and Outdoor Audiences

For store advertising systems, home movies, political gatherings, parties and similar small audiences, this type of sound equipment is ideal. For window demonstration work this system affords immeasurable advantages over the old method of using printed eards for delivering the advertiser's message.

Equipment Included with 31/4 and 5 Watt Portable P.A.

System

-2A5 two stage class "A" amplifier—2.33 two stage crass amplifier is included with 3½ watt system, 2B6 two stage class "A" amplifier is included with 5 watt system. Both amplifiers are fully described at top of page.

\$29.75

Samplete with 5 watt 2B6 and Arcturus tubes 1-57.

\$29.95

\$29.95

\$29.95

Cables—30 feet of shelded microphone cable connection of mike to amplifler. 20 feet of speaker cable cance from amplifler. Tubes—Three Raytheon tubes 1-57, 1-24, 1-80 are supplied with 3½ watt system. Three Arcturus tubes 1-57, 1-28, 1-80 are supplied with 5 watt system.

Tremendous Volume

Tremendous Volume

5 watt system has enough volume to cover an indoor audience of 200 people or an outdoor area of 2000 square feet. 3½ watt system will cover an indoor audience of 150 people or an outdoor area of 1500 square feet. These figures are conservative and under favorable conditions greater coverage can be expected. An additional dynamic speaker may be operated to give more thorough coverage. This speaker must obtain field exclusion from external power source. Amplifier turnishes field current for one 2500 ohm D.C. dynamic speaker. Excellent baffling is provided for speaker by case. Sufficient cable is furnished with system so that speaker can be moved and used up to 20 feet away from amplifier. Speaker can be moved and used up to 20 feet away from amplifier. Speaker can be moved and used up to 20 feet away from amplifier. Speaker can be used up to 50 feet away if desired by adding additional cable. Input connections are for microphone and phonograph or other high impedance input. Microphone leads Input connections are for microphone and phonograph or other high impedance input. Microphone leads may he run up to 75 feet away from amplifier. High impedance and phonograph input leads should not he over 15 feet long. Microphone transformer is mounted directly on amplifier. Microphone current is supplied by 4½ volt "C" battery mounted in amplifier for single or double button microphone. See desdouble button microphone. See deription above for further details.

Page 121

Quality, Compactness are Featured in This 6-WATT PORTABLE "P. A." SYSTEM

For 105-120 Volt 50-60 Cycle A. C. Highest Quality - Newest Design Unequalled Value

- 3 Stage Push-Pull
- 5 Newest Type Tubes
- Completely Self Contained
- Variable Tone Control
- Complete Mixer and Fader
- Microphone Transformer
- Microphone Current Supply
- 20 Watt Speaker Field Supply
- Microphone and Phonograph Input Separate Volume Control for Mike

and Phono Equipment Included

Completely enclosed and shielded 3 stage 5 tube Push-Pull 6 Watt Amplifier with built-in Controls, Fader and Mixer: Twelve inch Dynamic Speaker with fifty feet super service 3 conductor rubber covered connecting cable: Full 6 Watt Ampilier with the Miller William Speaker with fitty reed Mixer: Twelve inch Dynamic Speaker with fitty reed super service 3 conductor rubber covered connecting cable: Fine quality Two Button Carbon Microphone with eight springs and Stand, also 10 feet shielded microphone cable (Two button Hand Microphone of same quality may be substituted if preferred). All enclosed and mounted in strong, durable, Fabrikioid covered separable, two section carrying case 184% mide, 164% high, 124% deep; 5 Raytheon Matched Tubes, 2-56, 2-2A5, 1-5Z3.

Meets Every Requirement types of public gatherings—club meetings, funeral services, entertainment, amouncing athletic events, large store advertising, etc. Provides sufficient volume for indoor audiences up to 600 people or coverage of outdoor area of about 3000 square feet.



In-Built Control Panel

In-Built Control Panel

The outstanding features of the six watt amplifier are the inbuilt Tone Control, Microphone Current Control, Microphone Volume Control and Phonoscraph-Radio Volume Control. The volume controls are Interconnected so that input signals may be faded or mixed into each other in any desired ratio, giving announcements a professional smoothness by eliminating abrupt breaks in background music, Mixing and fading system is very complete and simple in operation.



The range of response provided by this amplifier is so wide that a Tone Control is not essential, but one is furnished so that low notes may be accentuated when desired. Also it may be employed in some instances to reduce or eliminate "feed-back," and to compensate for acoustical defects of a room.



fects of a room.

Microphone current is read on an 0-25 milliammeter mounted on panel, and controlled by 1500 ohm rheostat. Two switches are mounted on side of amplifier for use, with meters, in measuring current on each microphone button. For further convenience, an additional microphone current control is mounted on the base of the microphone. In addition to adjusting current properly, these rheostats can be used to a limited extent for climinating acoustical "feed-back".

Extra Speakers May Be Added

Mounted speaker has 50 foot cord attached and, if desired may be operated even further from the amplifier. When may be operated even further from the amplifler. When an additional speaker is necessary for more complete coverage, or for reproduction in an adjoining room, it is simply plugged into the amplifier. This convenient feature, exclusive with Radolek, is arranged by mounting two speaker output sockets, ready for instant use, on the amplifier. When only one speaker is in operation, a dummy plug is used in the second socket. The speaker furnished with the system is so wired that it can be used alone or with a second speaker without change in wiring of either amplifier or speaker. The speaker listed below is wired for use with this amplifier as a second speaker. peaker

speaker. This is positively the best engineered, best built, most complete, best performing P.A. system of this type ever offered. Careful planning and long experience in manutacturing have held the price down so that this system is by far the most desirable outfit on the market at anywhere near its price. You can depend on this equipment for completely satisfactory performance.

Ready to operate. System can be set up and placed in operation in three minutes. No tools, no "fiddling" around. Just insert plugs, turn on current and the System is ready for work. Very convenient for use in automobiles equipped with fan belt driven A.C. generator.

Amplifier. Complete as described with Raytheon Matched Tubes.

YOUR PRICE



6 Watt Portable Amplifier Characteristics

6 Watts Undistorted Power Output to speaker voice coils.

2. Supplies 20 Watts for 2500 ohm field coils

(enough for two dynamics). Either one or two speakers can be plugged in without changing

3 Three Stages with five tubes, '56 resistance

3 Three Stages with five tubes, '56 resistance coupled to '56 transformer coupled to two 2A5's in push pull. 5Z3 rectifier.

72 D.B. Gain at 1000 cycles.

5. Practically Flat Frequency Characteristic Curve within 3 D.B. from 50 to 8,000 cycles.

6. Input innedance 400 ohns center tapped for double button microphone and 50,000 ohns for phenotropy is resulted.



durable. Attrac-tive Black leather grained Pabricoid covering. Two sections held togeth-er securely with four clasps. Metal protected corner Leather carrying handle. Speaker Speaker Is covopening is covered with wire mesh screen.
Weather - proof nuse. Overall size

very strong and durable. Attrac-

flap folds back when outfit is in use. 12%" deep. 18%" wide, 16%" high

7. Microphone Volume Control and Phonograph or Radio Volume Control interconnected to allow mixing or fading of input.

8. Microphone current control and meter with two switches for reading current on either or both members have been proceeded.

both microphone button

Variable tone control (a distinctive feature).

Etched metal indicating plates under controls and switches.

11. Output npedance 500 ohms,
12. Only .07 volts input signal required to obtain maximum output.

13. Hum level lower than encountered in average good quality A.C. radlo (this is the lowest of any amplifier we have ever observed).

14. Plug in receptacles for all connections. Bakelite plugs included.

15. Power consumption 22 waits:—Power than the properties of the plug included.

upply required. 105-120 volts, 50-60 eyele

16. Six foot super service power connection out with unbreakable rubber attaching plug.

17. Renewable Glass Fuse in power supply.

18. Back protecting plate entirely encloses amplifier.

Ample provision for ventilation.

19.

Rich Baked-on Black Enameled Finish. Overall height (without tubes), 81/4" 431", 16" long.

43,", 16" long. Net weight, 24 lbs., shipping weight,

Portable Electric Dual Speed **Phono Motor** With Electric Pickup

With Electric Pickup

A high quality unit designed to match the above 6 Watt Portable P.A. System. Can be quickly changed flom 32½ to 78 R.P.M. with simple transmission gear lever. Powerful induction motor with nanually compensated governer for exact speed adjustment on any voltage between 195 and 120, 60 cycle A.C. Estra heavy 12" weighted turniable for constant speed regulations—acts as a flywhead on the motor. Automatic stop. New model Electric pickup with built-in volume control. High impedance type. Light, strong, metal bound, black fabrikod covered carrying case. 17½" wide by 11%" deep. Height with top closed 7". Furnished complete, ready to operate with 6 ft. A.C. cord and 6 ft. phono coupling cord. Works with all tasdels of Radelek Ambilifiers and other makes having over 35 D.B. gain with high impedance input circuits. 14E10710—Complete Portable A.C. Electric Bual-Speed Phono Motor.

14E10711—Sam. volt D.C. Motor, List Price \$45.00.

14E10710 Complete Portable A.C. Electric Bual-Speed Phono Motor.
List Price \$45.00.

YOUR PRICE\$250

14E10711—Same model wit volt D.C. Motor.
List Price \$49.50.
YOUR PRICE -Same model with special 6



Portable P.A. Speaker for 6 Watt Portable

A high quality, extra heavy duty Dynamie Speaker mounted in a durable Fabrikold covered earrying case, size 15"x15"x11"
Particularly designed for use as second Speaker with the above 6-Watt System. Speaker cone size 12½". Field resistance, 2500 ohms; will dissipate up to 10 watts. Voice coil, 8 ohms; handles 10 watts without overloading. Input Transformer matches output of above Portable Amplither when used with speaker furnished in System. 50 ft, rubber covered super-service cord with polarized plug for quick connection to Amplifier supplied. Speaker Plug replaces dummy plug furnished with Amplifier, Impossible to connect incorrectly. No changes in wiring necessary. Case equipped with match corner guards, leather handle, copper screen to protect Speaker, and button Fabrikoid flap cover opening for protection against weather.

14E10667—List, \$25.00.

THE RADOLEK COMPANY

Copyright 1934 by W. C. Brau



Individual Volume Control

Individual Volume Control
The volume on each microphone can be Individually adjusted by the director to the proper level
to obtain the desired results. Vaudeville teams
depending upon "gags" and "patter" for the
effectreness of their ard should use this portable
system. It will enable them to reach everyone
in the largest audiences without straining their
toices. Public speakers and political campakyners
will find their work made easier. They can address very large audiences and obtain the same
effect as if they aidressed the same audience
in smaller groups. smaller groups.

Easy to Install and Operate
Anyone who can eperate an ordinary house
radio can set up and operate this system. Mo
tools nor technical knowledge is needed. Entire
system can be set up or taken down in three
minutes time. All connections are by olugs,
and snekets and are so arranged that it is impossible to put any plug into a wrong socket.
All tast is necessary is to place microphone and
speakers, plug taem into designated sockets plug
power cord inte 105-120 volt 70-80 cycle A.D.
socket, turn on the power switch and you are
all set to broadcast. Either one or both microph-nes can be used as desired and individual
volume controls eive control over each microph-one
Either ome or both speakers can be used as
desired without any change in wiring. Easy to Install and Operate

Power Amplifier. Four stages, using 8 tubes:—2.58's in first stage resistance coupled to 2.56's Power Amplifier. Four stages, using 8 tubes; 2.58% in first stage resistance coupled to 2-56 sresistance coupled to 1-56 transformer coupled to 2-286's push pull, 523 rectifier. New and orkinal design eliminates motor boating (prevalent in high gain amplifiers) and hum. Three channel input is for two crystal mikes, and crystal piono pickup or other high impedance input. Connections are through 3 polarized suckets and also binding post strip. Separate volume controls are incorporated for each channel. Intercounceting of controls allows mixing or lading input control panel or other input device necessary. Two controls supply perfect too regulation for both high and low frequencies. Ected metal indicating plates are mounted under each control. Speaker field supply is for 4-000 ohm fields at 10 watts in each field. Connections are brought out to 8 terminal binding post strip. Output and field connections for three speakers are brought out to three receptacle socks terminated on side of appuller. Sockets are an **John Speaker field supply is for 4-1000 ohm fields at 10 watts in each field. Connections are brought out to 8 terminal binding post strip. Output and field connections for three speakers are brought out to three receptacle sockets mounted on side of amplifier. Sockets are so wired that one, two or three speakers can be used as desired without change of internal wiring of are pilifier. When only one speaker is used dummy plug is inserted in other sockets instead of speaker plug, Output connections are also brought out to 9 terminal binding post strip and tapped to give practically any impedance between 1 and 18 ohms and in addition 250, 500 and 1000 ohm taps are supplied. Output level indicating meter is D'Arsonval movement type.

Two 12½" cone Auditorium Dynamic Speakers included are the extra large capacity Concert Tipe, built to carry enormous volume. Described on page 113 under stock number 14E10630. They are mounted in convenient speaker. They are mounted in convenient speaker. They are mounted in convenient speaker. Two Crystal Microphones with Floor Stands included. Stands are adjustable in height up to 5½ feet. Base is 12" in diameter and welghs 18 lbs., giving a good solid foundation which makes stand difficult to knock over. Completo stand is finished in highly polished heavily plated chrome. The Plezo Astatic crystal microphones supplied are ideal for portable use. They give quiet reproduction over a wide range of frequencies and are very rugged in construction. Will stand up under abuse that would ruin other mikes. Each microphone is equipped with 30 feet of shielded rubber covered cable and unbreakable rubber plug.

Rugged Carrying Cases
The complete system with exception of mike stands is completely assembled into two cases for early transportation. Cases are rigidly constructed or wood with reinforced corners and carrying handles. Covered with beautiful black grain Fabriciol. Will stand years of hard usage. Speaker Carrying case. Size closed 15% wide, 15% deep 13" high. Net weight with amplifie

Prices For 105-120 Volts 50-60 Cycle A.C.

For 105-120 Volts 50-60 Cycle A.C.

Operation

15 watt portable P. A. System complete as described including:—Four stage 8 tube Amplither with tubes and carrying ease; 2-Astatic Crystal microphones with stands and connecting cables; 2-12½ inch Auditorium Dynamic Speakers in separable case, with connecting cords; wiring diagram and instructions.

14F10679 List Price, \$275.00. YOUR PRICE.....

Amplifier only with output level meter and 8 matched Arcturus tubes. Operates on 105-120 volt 50-60 cycle A. C. returus cle A. C. 4E 10699→ 4E 10699→ 170,00.

\$4900 YOUR PRICE.....

POWERACK-110 Volts A.C. In Any Car

POWER A CK

4E10802-100 Watt Model. \$26.46 YOUR PRICE

14E 10803-175 Watt Model. \$38.22 YOUR PRICE

14E10805—Special Mounting Bracket for V-8 Fords. List, \$8.00. YOUR PRICE

Runs on the Fan Belt

Runs on the Fan Belt

A complete power plant that runs directly on the motor fan belt. Generates 95-125 volt 50/180 cy. A. C. for the operation of A. C. Radio Sets, P. A. Ampliffers, upholstery vacuum cleaners, portable fans, neon signs, camp lighting, etc. within its power rating. Especially suitable for sound trucks and motor boats. Positively no drain on battery. No commutator or slip rings. Ball-bearing rotor. Very ruggedly constructed. Easy to install. Comes complete with forged brackets for mounting on engine block, double outlet box, 6 ft. armored cable, shielded field cable with rheostat and switch, and full directions for installing.

NOTE: These are the new Model Poweracks deriving their field excitation current from both the output of the charging generator and the third brush. Much better voltage regulation than previous, cheaper models which are suit-

\$38.22 than previous, cheaper models which are suitable only for the operation of neon-signs. For those who require Powerack for neon-advertising and other uses not demanding good voltage regulation, the less-expensive Powerack models are available.

PHILCO 9F, 10, 5T replacements MAJESTIC RCA · Victor

5.29 2.06 2.06

2.20

2.20

3.23

2.06

2.65 2.79 2.06

2.79

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4.75

3.50

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5.00 4.85 3.50 3.75

3.75

3.50

3E8533 3E8531 3E8531

3E8562 3E8534

3E8562

3E8543

3E8541

3E8531

3E8532 3E8562 3E8531

3E8539

3E8531

3E8531 3E8536

3E8542 3E8563

3E8531 3E8564

3 E 8 5 4 5

3E8545

3E8531

Exact Replacement VIBRATOR UNITS

Automobile Radios

ı	General El			replace	
1	While these physically, for	Vibrators are to or the Sets list		are bi	
1	provements of	ver the original	s electric	ally an	d will
	Make	Model	Stock Number	List Price	Your Price
ı	Atwater Kent	424,534 666	3E8530 3E8545	\$5.50 3.75	3.23 2.20
1	Audiola	345 346 347	3E8546 3E8547 3E8548	4.85 3.75 4.85	2.85 2.20 2.85
	Arvin	10A,15,20A, 20B,25,30A 35,45	3E8531 3E8549	3.50 3.75	2.06 2.20
ĺ	Belmont	660 660 670	3E8533* 3E8531 3E8545	9.00 3.50 3.75	5.29 2.06 2.20
	Bosch	45,79 140,150	3E8545 3E8534	3.75 5.50	2.20 3.23
	B.O.P. (Buick)	1 Unit Non Sync. 2 Unit Non Sync	3E8531	3.50	2.06
ı	Olds - (Pontiae)	1 Unit Syne, 2 Unit Syne	3E8536	5.25	3.09
ı	Clarion	100	3E8531	3.50	2.06
-	Chevrolet	1 Unit Non Sync 2 Unit Non Sync 1 Unit Sync 2 Unit Sync	3E8531 3E8536	3.50 5.25	2.06
ı	Colonial	150,164	3E8545	3.75	2,20
	Crosley	99,102,103	3E8538	5.75	3.38
ı	Emerson	667,965	3E8560	4.85	2.85
	Erla (Sentinel)	602 5500	3E8539 3E8561	4.75 3.75	2.79
1	Fada	101,102,104B	3E8531	3.50	2.06
	Ford-Maj. Ford-Zen.	Vibrator Vibrator 1933 1934	3E8540* 3E8545 3E8531 3E8545	9.00 3.75 3.50 3.75	5.29 2.20 2.06 2.20
1	Gen, Elect,	K34,M40,M41	3E8541	5.50	3.23
	Grebe	61R	3E8531	3.50	2.06
	Gulbransen	V6Z2,Z6Z1	3E8531	3.50	2.06
	Hudson Terrapiane	\$50HD,650HE 660TD,661TE	3E8531	3.50	2.06

116,116A

54 44,66,77 Twin 6, Twin 8

M34

50

Z6Z1

Z6W1

4136

1121,1122 1171 R112

4036,2035 4037,4038

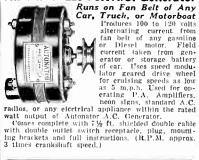
26U1 V6Z2,Z6Z1 Series 6U

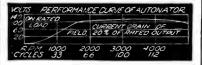
7.460.462

Supplied with transformer and condenser

5,6,9,10,11, 700,800,EF, Elim.,EGElim.

Autonator 110 Volt A.C. Generator Runs on Fan Belt of Any





Stock Number	Watts	Min.	Max.	List	YOUR PRICE
14E10830	50	10	60	\$32.50	\$23.88
14E10831	100	60	120	37.50	27.56
14E10832	150	120	170	47.50	34.91
14E10833	250	170	275	80.00	58.80
14E10834	350	275	400	99,50	72.95
14E10835	450	400	600	125.00	91.87

Speed Modulator For Sound 14E10836-List Price, \$35.00. Trucks \$25.72 YOUR PRICE

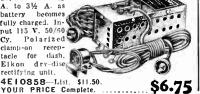
Knapp Auto or Radio **Battery Charger** 4E10857 YOUR \$4.95

Made for Radolek by Mallory. Keeps storage battery in any car fully charged. The in-creased demand upon the car battery

upon the car battery by new electrical devices such as fan driven heaters, autoradio, eigar lighters, spot lights and sleet shields often tax the generator beyond its normal capacity. Takes just a few minutes to hook it up to any car. No holes to drill. Attach the clamp-on receptacle to the dash and connect one lead to the ammeter and the other one to ground. Hang up the charger in the garage and plug it into the dash receptacle at night. Will boost up the battery overnight. No more hard starting in cold weather. Start off in a flash every morning. Charges radio batteries too. For 105-120 volt 50-60 cycle A. C.

Mallory Elkon 5½ Amp. Charger For Auto Batteries

Tapers from 51/2 A. to 31/2 A. as becomes battery fully charged. Input 115 V. 50/60 Polarized clamp-on recep-tacle for dash. Elkon dry-dise rectifying unit. 4E10858-List.



Janette Rotary Converters

Compact, dynamically balcompact, dynamically bal-anced rotary converters which change direct cur-rent to 110 volt, 60 cycle A.C. for the operation of A.C. radio sets and appliances within the power range of the converter. Laminated steel polo pieces and steel frames. Double wound armature.

Perfect Radio Reception

These converters are equipped with a special filter which prevents converter interference from reaching the radio. If converter is not for use with radio. deduct \$7.00 if filter is not wanted.

	D.C. to	110 V	. 60 C	ycle A	1.C.
Stock		Output			
Number	Type	Watts	Amps	Price	Price
14E10815		80	5.4 \$	38.50	\$ 26.41
14E10816	CA-20-F	110	6.5	41.50	28.47
14E10817		150	8.5	46.00	31.56
14E10818	C13-F	300	15.0	64.50	44.25
14E10819	CB-12-F	400	19.0	99.00	67.91
14E10820	CE-12-F	600	24.0	133.00	91.24

110-115		to 110	V. 60	Cyc	le A.C.
Stock	M fgrs.	Output	Input	List	Your
Number	Type	Watts	Amps	Price	Price
14E10821	CA-25-F	80	1.3 8	38.50	5 26,41
14E10822	CA-20-F	110	1.9	41.50	28.47
14E10823	CA-18-F	150	2.4	46.00	31.56
14E10824	C-13-F	300	4.0	64.50	44.25
14E10825	CB-12-F	500	6.4	93.50	

Carter Genemotor "B" Supply



4E10138-Model 32A For 32 Volt input

4E10139-Model 6A For 6 Volt input.

Majestic

Motorola

Phileo

RCA-Victor

Simplex

Stewart-Warner

Truetone

United Motors

Wells-

Wilcox-

Wurlitzer

Zenith

Gay

List. \$22.50 YOUR PRICE \$13.23 Either Model

Small precision built Motor-generators which operate from 6 V. or 32 V. Input to furnish "F" supply for battery operated Radin Receivers. Consume very little power, only about 15 watts. Both models have taps at 22. 45, 67, 90, 125, and 180 votts. Special ball-hearings require no olling. Will last for years. Built-in filter system. No trouble to connect. Complete instructions furnished for connecting.

Ward-Leonard Automatic Battery Charge Regulator



3E8570-YOUR PRICE \$2.05 Increases the charging rate of the car generator by cutting out a resistance in series with the 3rd brush each time the radio is turned on. This system avoids overcharging the battery with the generator set high as is the case in the majority of car radio installations. Regulator connects to the radio side of

radio installations. Regulator connects to the radio side of the radio switch. When set is turned on a high resistance relay closes a switch shuttling the resistor in series with the third brush of the generator. All necessary hardware for installation and complete instructions. erator. All necessary hand complete instructions.

Page 124

Pioneer Gen-E-Motor Compact Units

To Replace Vibrator Type Auto Radio "B" Units Operates from 6 Volt Battery Noise-free in Operation
Extremely Easy to Install
Fits in Chassis Housing of Most



Replaces Vibrator Units in Following Auto Sets

Airline General Electrie Majestic 116-66 Arcadia Motorola 88-61 Audiola Belmont RCA

Bosch 150-160 Solar Cadillac Travalon True Tone Ford 114 Gulbranson Wells-Gardner Fits in Chassis Housing of muss.

Auto Sets
Install one of these rotary Units in
the place of a faulty or inoperative
vibrator type "B" supply and note
the improvement in the operation of
the Auto Radio. Provides a uniform voltage and will eliminate noisy
and weak reception prevalent in
most vibrator type Auto Receivers.
No circuit changes necessary to install. Extremely compact—only 44"

2%" deep. Rehigh, 5½" wide, 2%" deep. Requires no adjustment, no attention, quires no adjustment, no attention, no oilling, and no servicing. Uses original filter system of vibrator Unit which it replaces. In shielded metal case. Complete instructions for installing furnished. 4E IO 198—Model JW-25, delivers 225 volts at 50 M.A. Battery drain, 3.8 Amps. List, \$13.00. \$7.64

4E10199—Model JW-50, delivers 250 volts at 50 M.A. Battery drain 4.2 Amps. List, \$13.00. \$7.64 PRICE

Pioneer Auto "B" Supply Motor Generator-Dynamotor

Motor Generator—Dynamotor

New compact dynamotor type Auto "B" power supply. Motor generator operates from the 6 volt car battery and generates smooth filtered humless D. C. current. High voltage and constant current output operates the radio with plenty of "punch" and power. Reduced in size the new "Pioneer" will fit under the seat of most cars. May be mounted in any position. Size overall 278" high, 5%" wide 5%" long. Weighs only 10 lbs High voltage output—200 volts at 40 milliamperes will operate the largest auto sets. New type hrushes and ball bearings never require adjustment or oiling. Terminal strip provides casy means of hooking up. Completely encased and shielded by formed steel housing.

sed and	shielded by	formed stee	el housing.			
Stock	Output	Milli-	Inter.	Battery	List	PRICE
Number	Volts	Amps	Tap.	Drain	Price	
4D10190	180	30	None	1.95 amps	\$18.00	*1058
4D10191	200	40	None	2.75 amps	18.00	
4D10192	180	30	90	1.95 amps	18.50	\$10.78

For 32 Volt Farm Plant 4D10194 135 volts at 30 M.A.; tapped at 67½ volts. List Price, \$23.00.

YOUR PRICE \$13.52

4D10195—180 volts, at 30 M.A.; tapped 22½, 45, 67½, 90, 135 volts. List Price, \$25.00. \$14.70

Special for Sound Trucks
Standard 6 volt Input, 12 or 32 volt
supplied to order,
4D10196—265 volts at 75 M.A.;
tapped at 75 V. List, \$31.00.
YOUR PRICE\$18.23

4D10197-300 volts at 100 M.A.; tapped at 100 volts. List, \$34.00. YOUR PRICE \$19.99

New MALLORY Elkon Auto "B"



Elkon Auto "B"

—New simplified design—uses no tubes

Eliminates "B" Batteries entirely

—Delivers 200 volts at 40 to 50 M.A.

—Highest electrical efficiency

—Only 2 amp. battery drain (Approx.)

A power supply for any auto radio.

Furnishes constant voltage and current.

Superior filter eliminates feed-back
and interference. New type self-rectifying Elkonode used employs an entirely new application of vibrator principle which creates the A.C. and
rectifies it all in one unit. Simplified
construction eliminates servicing. Has

built-in relay. New small size, only

2%x6%x7½". Mounts in any position. Comes complete with all cables,
ready to install. ready to install.

	Spe	ecifications Mall	ory Elkon "B" Units
Stock Number	Type	Maximum Output in M. A. at 200 Volts	Make and Model Set (And others requiring same voltage)
4E10105	10	40 to 45	Motorola 6 tube (1930); Model 38 (7 tube 1931); Model 47A (7 tube 1932)
4E10108	11	35 to 40	Roamio Model 92 (1931) Majestic 110 (1931)
4E10112	HP	35 to 40	Philco 41 (7 tube 1932)
4E10113	11PC	35 to 40	Bosch 9-20 (1931)
4510116	12P	30 to 35	Philes 38 (7 tube 1932)

List Price, \$17.50. Complete including cable.

\$10.29

List Price, \$17.50. Complete including cable.

YOUR PRICE (Any Type)

When ordering for Sets other than those specified above, give make of Set with number and type of tubes used, also "B" voltage.

Mailory Replacement Elkonodes

Self-healing Rectifying Elkonodes for all Elkon Eliminators.

4E | 0 | 20 — For all Type 10s

4E | 0 | 21 — For all Type 11s

4E | 0 | 22 — For all Type 12s

List (any Type) \$7.00.

\$4.12

YOUR PRICE EACH

\$4.12 PRICE

New Carter Super Genemotor



With Built-In Filter—New Compact Size

Smallest Auto "B" Ellminator made.
New reflex filter system and motor
design motor field coils used for
chokes. All filter condensers are located in motor housing. No outside
filter needed. Ideal for replacing unsatisfactory "B" Ellminators and "B"
batteries. Easy to install, nothing
to take apart and put together. Will
run in any position. Gives the old run in any position. Gives the old Set more pep. Operates on 6 volt car battery. New silent ball-bearings never need oiling. Size 2% high, 4" wide, 5" long. Fully guaranteed.

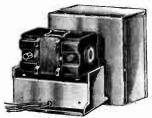
4EIO140-Model 1580A \ List 4EIO141-Model 1585A \ \$16.50 YOUR PRICE, EITHER MODEL

		-				
Stock	Model	Input	Output	Output	Inter.	Drain on
Number	Number	Volts	Volts	M. A.	Tap	Battery
E10140	1580A	6.3	180-200	30-50	90	2.2 Amp.
E10141	1535A	6.3	135-150	20-40	67 %	1.7 Amp.

Carter Sound Truck Genemotor

For 6 Volt and 12 Volt Input

The most reliable and reconomical power supply for operating Class "A" and Class "B" Ampliners. Motor designed especially for light voltage output. No input filter choke is furnished as none is required unless a radio is operated from same battery. Ball-bearing motor and output filter in one case 4½" "86" 86%" "high. Leads for connecting and full directions furnished. reliable and most conomical



		F	or 6 Vol	t Input		
Stock	Model	Output	Output	Battery	List	YOUR
Number	Number	Volts	M. A.	Drain	Price	PRICE Ea.
4E10130	3500	350	100	10 Amp.	\$35.00	\$2058
4E10131	3100	300	100	9 Amp.	35.00	
4E10132	5075	265	75	5.5 Amp.	32.50	\$1909
4E10133	2565	225	65	4.5 Amp.	32.50	

Stock	Model	Output	Output	Battery	List	YOUR
Number	Number	Volta	M. A.	Drain	Price	PRICE Ea.
4E10134	3500-B	350:	100	5.5 Amp.	\$37.50 }	\$22 <u>05</u>
4E10135	3100-B	300	100	4.5 Amp.	37.50 }	
4E10136	2565-B	225	75	2.5 Amp.	32.50	\$19.33

Multi-Tap Auto "B" Supply

Multi-Tap Auto

Up to 250 Volts 50 M.A. "B"

Power from 6 Volt Car Battery
An Improved full-wave vibrator Type "B"
Power Unit for Auto Radies that supplies
90 v. 135 v. 180 v. or 250 v. at various taps—suitable voltages for servicing
over 90% of all Auto Sets now in use.
Vibrator has over size contacts for long
life. Floated in sponge rubber to insure
quiet operation. Free from hum and R.F.,
disturbances. Electrostat ally shielded
transformer. All chokes and condensers
of thest quality. However in cables and instructions ready for quick, easy installation.

4E10125—Tube Rectlifier Type. Complet



4E10125-Tube Rectifier Type. Complete with type 84 Tube. List, \$15.00. YOUR PRICE

\$8.82



RADIART Auto "B" Supply

Provides constant, quiet, dependable "B" current for any Auto Set from the 6 volt storage battery. Efficiency amazingly high, delivers a maximum output of 180 volts at 45 M.A. Draws approximately 2.2 amps. from battery. Voltage is always peak and well filtered. Entirely automatic. No rotary parts. Requires no attention. Vibrator sealed in vacuum. Non-polarized full-wave output. Housed in eadmium plated steel case size 7x3x43/4 inches. Easy to Install. Complete with tube.

4E10100-List, \$17.50.

Emerson Auto "B" Supply

Completely enclosed in dust-proof steel case. Full size filter in hase. Motor-Generator mounted to hase through rubber shock-absorbing bushings. Delivers up to 180 volts at 40 M. A. Drain on sterage battery only 2 maps Has low voltage tans at 67½ and 40 V. Overall size, 7%" long, 4%" wide, 6%" high. Electrical efficiency about 100%. \$11.46 YOUR

Radio Batteries High Grade-Full Voltage



size, long life batteries are made by the makers of one of the finest and best known of the finest and best known brands. Buy this private label battery of us and get exactly the same quality that is offered in a well-known advertised battery, but at our bargain price a real saving for you. Actual usage will more than prove our claims.

Every battery is full voltage, positively fresh stock and will give extraordinary long service. They are ruggedly built and thoroughly tested. Each cell is scaled individually before being individually before being pitched, giving full insula-tion against short circuits. Compact, space-saving and hum-free—a line that we are proud to recommend and that you will be pleased to handle,

Standard 45 Volt "B" Six for \$4.95

exceptionally fine quality and ful 45 volt "B" battery, A big. An exceptionary nne quarty and powerful 45 volt 'B' battery. A big, burly battery which is sold under an advertised brand at a much higher price. While low in price, do not cenfuse this battery with many inferior batteries selling elsewhere at the same or even higher prices. These are qual-ity latteries. Size: Ht., 7", Wd., 8", ity latteries. Size: Ht., 7", Wd., Depth, 3". Shipping weight, 11 lbs.

Giant 45 Volt "B"

3DII-List, \$3.75. YOUR PRICE, Each Six for \$7,18

A giant in power. Almost twice the capacity of the standard 45-volt size. Especially made for the multi-tube sets that draw more current and require an extra heavy, oversize battery. You and your customers will find them most economical in the long run. Extra profits for you. Upright only. Size: Ht. 7". Wd. 8", Dpth. 4". Shipping weight, 14 lbs.

41/2-Volt "C"



One of the finest "C" batterles made. High-test. Long-life. Will maintain their rated toltage for long continuous use. New stock. Size 1½ x2 ½ x4. Shpg. wt., 2 lbs.

2C15-List, 50c. NET EACH 19¢ Ten for \$1.79

221/2-Volt "B" & "C"



A quality battery that will give long, uniform current flow. Heavily insulated cells. New stock, Upright only, Size, Ht. 3". Wdt. 4½". Duth. 2%". Shpg. wt., 6 lbs.

2014—List. \$1.75. YOUR PRICE, Each. 74¢ Five for \$3.50

No. 6 Dry Cells



These Dry Cells are made under the most rigid specifications, built up with the highest grade ma-terials. High amperage, 1½ volts. They have remarkable strength and last-

ing qualities. Meets every radio need. Wt., 3 lbs. radio need. Wt., 3 2C13-No. 6, List, 60c. YOUR PRICE,

Ten for \$1.98

2-Volt Radio Storage Battery



3E | 6-List Price, \$6.55. YOUR \$395

A 2-volt 19 plate storage battery. Gives 300 operating hours at ½ ampere on a single charge. Very steady uniform voltage. Voltage can never hecome age can never become high enough to blow the tubes or shorten their life. Designed for

their life. Designed for long life and economical long life and economical standard storage battery plates $\frac{1}{2}$ "thick, their rout and bolt terminals. Size 7¹⁴x¹t¹x²y¹x⁴.

Elkon 5,000 Hour "B" Rectifier

Used to Replace Tubes
Replaces rectifier tube in "B" Eliminator. Dry. solid, rugged, self-healing. Just replace the fragile 1,000 hour tube with this sturdy 5,000 hour rectifier.
3E85-For "B" Eliminators using HI type tubes.

VOLE

Eveready Air Cell "A" Battery 3E49-



For "Air Cell" Receivers

An air depolarized, constant voltage, non-recharge-An air depotarized, constant votage, non-technique able primary battery, especially designed and guaranteed ONLY for use as the "A" Battery for Alf Cell Receivers. High capacity of 600 ampere-hours is sufficient for at least 1,000 hours operation. At average use of 3 hours daily, it will take a whole year to use up the 1,000 hours battery life.

Uses a liquid electrolyte, but is shipped dry. Can
be activated for service by filling with water at any time after manufacture and still deliver its full quota of ampere-hours. Length 13½ inches; width, 6% inches; height overall, 10 inches; weight, dry, 25 pounds; filled with water, 37 pounds.

Electronic Converters 32 Volt D.C. to 110 Volt A.C.

Will Operate A.C. Radio from 32 Will Operate A.C.
Radio from 32
Volt D.C. Farm
Light Systems
100 Watt
Capacity

Generates 110 volts 60 cycle volts 60 cycle A.C. from power derived from farm light volt farm eapacity, sufficient to op-erate practically a n y A.C. or A.C.-D.C. Set u 5 Amps at full 1



Set using full load. to 10 tubes. 5 Amps at full load. Employs uned interrupter and heavy duty power transformer. Fully filtered for quiet operation on Italio. Will also operate small A.C. household appliances such as induction fans, drink mixers, etc., though not recommended for healting appliances or electric clocks. Only ominoring part. Requires no oilling. No polarity to observe. Has receptacle for Radio plug. Off-on toggle switch and variable input adjustment to compensate line drop. Compact case, 7%" long, 6" wide 34," high.
4E10845—Taist. \$25.00.
\$14.70 Employs tuned interrupter

YOUR PRICE

\$14.70 32 Volt "A" Eliminator

For Farm Lighting Plants

3E4456—For 2 voll ('30, 31, '32, '33) tubes. 3E4457—For 6 volt ('36, '37, '38, '41, '42, '43) tubes. List Price \$6.50. PRICE \$3.82

Connects to 32 volt ne. Will reduce cur-Connects to 32 roll line. Will reduce current to proper voltage for 2. 4 or 6 volt tubes. For any set using not over 5 amperes "A" current (not over 12 tubes of "36 series, any number of "30 series). Serves also to regulate line voltage. Meter indicates voltage to set. Adjustable resistance. Switch to turn current on and off. 6 feet cord with attaching plug. Connections for Genemotor.



"A" Eliminator for 32 Volt Farm Plants

When plugged in 32 volt socket will de-iiver 6 volts D.C. Ellminates storage bat-sery and charger. Specify number of tubes used and type. When pilot light is used consider it as one 201a tube. Nothing to wear out or replace.

Amp.

Amp. List Price, \$2.00. YOUR PRICE

Ward Leonard Battery Charger For 32 Volt Farm Plants

Charges 6 V. Storage Batteries
Vitrolim Resistors with standard Edison
screw base for use in series with radio and
other type storage batteries while heling
charged from 32 volt farm lighting plants.
One resistor required for each 3-cell battery under charge. Has many advantages
over lamp-banks because it is especially
designed for the service and has a permanent ohmic value, 6,4 ohms, 140 watts,
5 Amperes, List, \$2.25.
3E4455—
VOUR PRICE
\$1.32

Readrite Battery Tester

Nickel plated brass cases, with glass face. Long insulated cords, with contact prod



3E2695—Storage Battery Tester. Indicates condition of battery and when to charge.

3E2696-0-50 volts "B" Battery Test Meter. 54¢

3E2697-0-50 volts; 0-40 amperes. Combination "B" amperes. Combination and "A" battery tester

EACH 82¢

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BURGESS BATTERIES

New Reduced Prices! Our Large Sto



Super "B"

No. 22308-45 Volts

3C2 | -Retail Price \$1.95.

\$1.48 YOUR PRICE, Single Lots..... IN SIX LOTS, Each

Height 8", Width 54", Depth 3%". Weight 10 pounds. Terminals at +22% and +45 volts. Shelf life well over one year.

"B" for Oscillators, Ohmmeter, V.T. Voltmeters and Portable Sets



No. 5308 45 Volts

3E32-Retail Price, \$1.15. YOUR PRICE Single Lots

86¢

IN LOTS OF FIVE.

5308 is standard equipment in hundreds of test instruments. It matches in height and depth the standard No. 6A battery and is about twice as wide as one 6A. Taiped at 22½ and 45. Weight 3% lbs. Shelf-life. over 8 months. Size 6%"x4¼"x2¼".

"C" for Test Equipment No. 5156 221/2 Volts



3E30-Retail Price, YOUR PRICE Single Lots

64¢

IN LOTS OF FOUR. Each58c

Tapped at —3, —4½, —16½, —22½. Excellent for Olumeters, small serice oscillators, as well as for "B" replacement in portable receivers, noise locators, etc. Used extensively as "C" battery for 120, 51, 71A tubes on 135 voits. Shelf file over 8 months. Size 2¾"x4¾"x2¾". 414.

Midget "C" for Oscillators



No. 4156 221/2

3E27—Retail Price, 80c. YOUR PRICE. Single Lots IN LOTS OF TEN, Each55c

The smallest of the 22½ Volt "C" hatteries for use with one or two tube test oscillators or in portable two tube short-wave receivers. 3%"x2"x2½" high. Six month shelf life.

No. 5540-71/2 Volts

3E29-Retail Price. 55c. YOUR PRICE Single Lots

41¢

IN LOTS OF

TEN, Each. 37¢ For 7½ volt olumneters and as a selective source of "e!" Blas. Choice of 1½, 3, 4½, 6, and 7½ volts. Brass posts and one flexible terminal, 2¾"x 4"x1"g".

No. 21308-45 Volts

3C20-Retail Price \$2.50. \$1.89 No Fire Lots, single lots \(\frac{1}{2} \) N FIVE Lots, Each.....\$1.71

He ight 8", Width 8\%", Depth 4\%". Weight 15\% pounds. Terminals to give +22\% and +45 volts. An oversized "B" battery designed to give maximum electrical capacity for sets of high current drain. Extremely rugged construction. The size that real radio fans want. Shelf life well over one year.

Standard "C" No. 2370-

4½ Volts
3E28—Retail
Price. 35c.
YOUR PRICE
Single Lots

26¢

IN LOTS OF TEN, Each 24c

The longest life "C" bias battery made—service of two years not unusual with this sturdy little power unit. Used in many test oscillators as the source of filament current, but should not be expected to supply more than one 60 M.A. Tube on intermittani service. These batterles are produced with remarkable uniformity and are excellent in test equipment. Four brass terminals, for Pos. Neg. 1½, 3, 1½ volts. Size 3"x4"x1%".

Ohmmeter "C"

No. 5360 41/2 Volts 3E33-Retail Price, 35c.

YOUR PRICE 26¢ Single Lets

In LOTS OF TEN.

Each ... 24c

I'sed in Jewell and Weston Analyzers, and in majority of ohnmeters requiring 4½ volts. Extremely long life on internitrant 1 milliannere drain, Used in Zentin, Operadio, and RCA battery radio sets as "C" bias. Size 2½x2½x½%;".

Test Set and Flashlight Batteries

FLAT 532-4½ Volts Same Size as Eveready 703



3C36—3 cell. Size 2%x 2%xig inches. Brass con-tact springs on top. Re-tail Price 30c. FLAT 432 Same Size

as Eveready 751

3C37-3 cell. Size 21/4 x214 U37-3 cell. Size 2½x2½. Brass intact springs on top. Retail Price

YOUR PRICE

Uni-Cells



For Flashlights or Test Instruments

For two, three or five cell tubular flashlights and various types of test instruments. About 1% instruments. About 1% volts per cell. Our great volume sales mean new, fresh stock—always.

3C38—Standard No.
Type. Size 114x23 inches YOUR PRICE, TEN FOR ..

3C39 Baby No. 1 Tubular Type. Size 1x17k inches. Retail Price 10c. TEN FOR

Standard "B" **Batteries**



No. 10308-45 Volts

No. 2308-45 Volts

3C23-Retail Price, \$1.50 YOUR PRICE, YOUR PRICE.
Single Lots
IN LOTS OF FIVE Each 6/c
Height, 8", Width 84", D op th
3%" Weight 9 pounds, "Ferninals
to give 4-29½ and 4-15 volts. Occupies minimum table space, Recommended for sets drawing 10 milliamperes or more. Shelf life over one
vers or more. \$1.15



No. 2156—22½ Volts 3C26 Retail Price, 90c. YOUR PRICE,

gulrad.
NOTE:—Dimensions are given
on all batteries in the following
order:—height, width, depth.
Dimensions are overall and include terminals on top of bat-



No. 1040 3 Volt "A" Battery Pack

S VOIT "A" Battery Pack
For use with 2 volt radio receivers.
Requires no recharging; no servicing;
no filling with water; nothing to pulli
no creeping or dangerous Itquids. Will
give 400 hours of service at "hours
per day on ½ amnere load. Has remarkable recuperative powers. Rasy to Weight 15 pounds. Size 12 %"x

3E40 Retail Price, \$3.20. \$2.32 Single Lots

IN LOTS OF FOUR, Each .. \$2.11

Auto Radio 45 Volt "B"

No. 2305 3034

Retail Price \$1.45

YOUR PRICE. \$1.48 Single Lots .

mobile radi

No. 21305-45 Volts

Police Radio Type
3C35—Retail Price \$3.35. \$2.54
YOUR PRICE, Single Lots

IN LOTS OF SIX, Each....\$2.30 Height 8"; Width 84"; Depth 442", Weight 15 pounds. Terudinals dive give 4224 and +45 volts. For extra long life. Shelf life over one year.

A Battery—6A Dry Cell

Standard I 1/2 Volt
Standard I 1/2 Volt
SC3 1—letail Price 40c.
YOUR PRICE, 30¢
IN LOTS OF 25
Each

Its construction specially adapts it for use on the filament circuit of a Radio using dry cell tubes. Re-covers rapidly during a short period of rest. Size 2½x6 inches. Weight, 2 lbs. 2 oz.



Burgess Ben Hur Batteries

Burgess-A fine precisely Built by Burgess—A fine precisely constructed full voltage battery. Con-tains the famous Burgess long life mix. Finest grade insulation provides full projection against internal shorts, Ideal for service replacements. Each battery carries the Burgess name.

No.281Standard 45volt"B"

Upright type with 22½ and 45 volt tap. Height 8", width 8½", depth 3½" weight 9 lbs.

3½" weight 9 lbs.

3E43—YOUR PRICE in unit 3E43-Y

76¢

> No. 1081 Heavy Duty 45 Volt "B"

Upright type with 22½ and 45 vo terminals. Height 8", width 8½ depth 4½", Weight 12 lb., 2 oz. 3E44—YOUR PRICE in unit PKG. 0F SIX, \$1.01

Single Lots \$1.11

No. 11 Unit Cell Fits all "baby tubular" flashlights. Size 1" diam., x 1%" long. YOUR PRICE, 10 fer



No. 21 Unit Cell

Fits standard and tubular flashlights. Size 1½" diam, x 2¾" long. 3E46

41/2 Volt "C" Battery
Height 2%", width 2%", denth 1%".
3E47—YOUR PRICE in unit
Pkg. of Ten.

Single Lots20:
No. 6 Dry Cell

General purpose ignition, telephone and "A" battery Ht. 6 %". Wt. 21/4

shlights. 3E48—YOUR PRICE in unit Pkg. of 25, EACH Single Lots20c

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Elkon Replacement Rectifier



The official replacement unit for Majestic "A" eliminators. May also be used on following eliminators: Mayolian, Elkon, Philco, Webster Krapu Gon-Han, Erron, Printee, Webster, Knapp Gen-eral Inst., Metro, Fada, Bernard, Sentinel, and Briggs & Stratton. 3 lbs.

charger, Shpg. wt., 31/2 3C70-Type XB16. List, \$7.00. YOUR PRICE

\$3.73



Manufacturers' Type Rectifying Unit

The "B" B-L full wave rectifying elements are particularly suited to the use of manufacturers of requiring rectified currents.

All are full wave. Made for such devices as dynamic speakers, "A" powers, battery chargers, railroad stenals, etc.

railroad signals, etc.

railroad signals, etc.

Type B-12 is for such "A" powers as Acme, Sterling, Areo, Stewart, France, Galvin, Greene-Brown, etc., and for such chargers as Braun, Knight, Valley, Webster, etc. Output 1 amp. at 6 V.; 2.5 amp. at 4 volts.

3C60—Type B-12.

List, \$4.50. YOUR PRICE

Type "B"-16 is for Greene-Brown type D. Norden Hauck No. 3A, Tobe Deutchman, Webster, Valley type, DMA, etc. Output 2 amp. at 6 V.; 1 amp. at 8 volts.

3C61—Type B-16.

List, \$5.00. YOUR PRICE

\$2.94

Elkon 5,000 Hour "B" Rectifier



79¢ YOUR SPECIAL PRICE ...

Radio Battery Cables



Stranded ductors, rubber insulated and covered with fabric, R. M. A. color code 5. tenth of the cod

Contract of the last		coded.	5 ft.	length.
Stock	Conduc-			Your
Num.	tors	Llst		Price
302317	5	\$0.50		25 c
302318	6	.60		29 c
302319	7	.70		32 c
302320	8	.85		40c
3C2321	.9	1.00		45 c
302322	10	1.10		50 c

31/2 Foot 4 Conductor Cable

Stranded size 18 rubber covered con-ductors, cabled to-gether with a cotton braid overall. Standard battery elips are attached on two ends. 3D2330



YOUR SPECIAL PRICE

Porcelain Sockets For Neon Glow Lamps



YOUR PRICE, EACH 28¢

Quality porcelain sub-panel socket for candelabra base neon glow lamps. Top of socket mounts fush with panel. Screw terminals. Used in short check-ers, continuity testers and other test apparatus.

Edison Medium Screw Base Sub-panel Mounting

Porcelain sub-panel socket for standard Edison base neon glow lamps. Same style and mounting as socket listed above. Serew terminals for making connections.



Cleat Mounting 3E7118-YOUR PRICE, EACH .. 10¢

Cleat mounting Edison base por-celain socket. May be mounted on baseboard for experimental work. Serew terminals allow easy changing of hook-ups.

Tungar Type Rectifier |

Tubes



3E865-A. 0.6 amps., 7.5 D.C. volts. Uschielly in small chargers for trickle charging volt batteries. FII. 1.8V.-6A. Used

\$175 List Price \$4.00. YOUR PRICE ...

3E866—B. 2 amps., 75 D.C. volts. Has 3 connection screw base, is used in small home chargers. Fil. 2V-12A. List Price \$4.00.

YOUR PRICE

3E867—C. 2 amps., 30 D.C. volts, Anode connection is made at the top. For use in older type single battery chargers. List Price, \$4.00. \$1.90 YOUR PRICE

3E868-D. 6 amps., 45 D.C. volts. A low voltage bulb used in chargers having a fixed output, also in Exciter Lamp Rectifiers for Motion Picture applications. Fil. 2.2V.-18 Amp.

List Price \$8.00. YOUR PRICE.

\$3.95



Neon Glow Lamps

Genuine G.E. neon gas lamps that glow with a brilliant orange-red radiance. Both electrodes glow on A.C. One remains dark on D.C. Operate on extremely minute current. Used in tube checkers for Interaction of the control of the cont

3D7119—Midget 1/4 Watt. Candelabra Base Pear Shape Clear Bulb. 25" diameter. Replacement for Weston and other tube testers employing neon short tests. For 105-125 volts, A.C. or D.C.

PRICE, Each
TEN FOR S3.25

3E6912—Medium ½ watt. Standard Edison medium srew base. Clear Globular Bulb, 1¼" dlameter. Electrodes shaped like half cylinders. Approximately 5/100 candle power. For 105-125 volts A.C. only.
YOUR PRICE, EACH
TEN FOR S3.25

3E7 [20—Medium ½ Watt. Same as above but with skirted candelabra base.
YOUR PRICE, EACH
TEN FOR S3.65

3E691 I—Medium watt. Standard Edison medium screw base. Clear Globular Bulb, 1¼" diameter. Approximately 5/100 candle power. Central cylindrical electrode surrounded by wire spiral electrode. For 105-125 volts A.C. or D.C. YOUR PRICE,

36\$

TEN FOR \$3.25
3E7 | 22—Same as above with skirted candelabra base. A.C. or D.C. 105-125 volts.
YOUR PRICE, EACH \$41¢
TEN FOR \$3.25

3E712!—Medium wat Standard Edison medium screw base. Clear Globular Bulb. 1½" diameter. Electrodes shaped like half cylinders. For 200-240 volts A.C. or 1).C. YOUR PRICE, EACH TEN FOR \$3.25

3E6910 2 Watt Standard Editson medium serew base. Clear pear Shaped Bulb. Dlameter 1%". Electrodes in shape of split disc. Approx. ½ candle-nower. For 105-125 volts A.C. or D.C. Most popular size for night-light, advertising, exit indicator, strobescope, and signal

3E7123—Same as above with Red Bulb. 3E7124—Same as above with Yellow Bulb. YOUR PRICE, Each TEN FOR\$4.50

Replacement Cells for Wet "B" Eliminators

FOR USE WITH PHILCO-WILLARD-USL-VESTA

and EXIDE ELIMINATORS For replacing exhausted cells in electrolytic B units. Glass jar, size 1½x1½x6 inches high is complete with electrolyte and screw top holding two electrodes. Ready for instant service. Exact size used in eliminators listed above. Guaranteed by the manufacturers to give satisfactory service in B eliminators designed for them. Come in sets of four in carton. 3C65—List, per set of four, \$4,00.
YOUR NET PRICE, \$1.60 Per set of four.........\$1.69

Wet Cells for "A" Eliminators

CORRECT TYPE FOR PHILCO SOCKET POWERS

For power units using electrolytic recttilers to charge "A" batteries.

3C66 "Type AA. Large Nize 7" high, width 6", depth 4". For all 6-volt Phileo Eliminators. List, \$4.00.

\$1.79 YOUR PRICE

3C67-Type A. 8" high by 4" diameter. Small jar for 4-volt units. For all 4-volt Phileo Eliminators.

List, \$3.00. YOUR PRICE...... \$1.39



Connectors 3C2449 YOUR PRICE, Each., 18¢

Battery Terminal

Has binding screw teet contact always.

Universal Battery and Radio Clips





No. 45—Pec Wee Clip. For Radio Test Work. Teeth on both jaws which mesh. Jaw spread 3/8". Length 1 1/6". Cadmium plated. With screw.

3D2448-Each, 4c. _____30¢ TEN FOR

Type 24A-25 amp. Capacity. For radio storage "A" batteries. Teeth on one jaw and notch on the other; fits round battery post. 17 lb. spring. Jaw spread, 1 in. Lead coated. 3% in. long. 3C2442-Positive (+).

3C2443-Negative (-). Each 8cPer box of 10, 65¢

Type 21A-50 amp. 33 lb. spring protected by a copper shunt. Jaw spread, 1½ in. Lead coated, 3% in. long.

3C2444—Positive (+) 3C2445—Negative (—). Each | 6 c Per box of 10, \$1.35

Type 11A-100 amp. Capacity, 38 lb. spring. Jaw spread, 11/4 in. Lead coated, 5% in. long.

Rubber Insulators

For Use with Universal Battery Clips



Protect against electric shock. Fored, half black to indicate polarity. Furnished half

Auto Radio Running Board Aerial

4D10179-List Price \$3.25. YOUR

PRICE

This Flap Increases Pickup 200%.

New weatherproof aerial designed to mount under the running board of any car. Aerial wire is molded inside of flexible, weatherproof rubber strips 3%" wide. Two strips are mounted parallel on rustproof supporting plates. Overall width 8 inches, length 2 feet 7 inches. An additional 6 spring takes up all slack—will not sag or drag. inch portion of each strip extends to a point just Flexible—will not crush.

RUNNING BOARD

Auto Axie-to-Axie Antenna



Casing Casing
Low mounting position provides great capacity effect to ground, Gives utmost sensitivity, with clear signals with a minimum of interference. Electrostatic shelding effect of car frame and body tends to reduce disturbance caused by passing cars. Consists of closely woven wire webbing moulded in tough waterproof flexible rubber 6 ft. long x 4 inches wide. Two strong web fabric straps with self-grip buckles for attaching. A strong syring takes up any slack, 33 inch rubber covered lead-in. 4E 10180—List, \$2.25.

Axle to Axle Moto-Aerial



49¢ YOUR PRICE Metallic conductor, enclosed in 53 inch long waterproof fabric envelope with a 36 inch web strap or chain on both ends.

Lynch Noise Free Auto Antenna TO ANTENNA POST Systems KIT A-3 3E8526— List. \$9.50. YOUR PRICE

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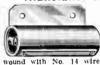


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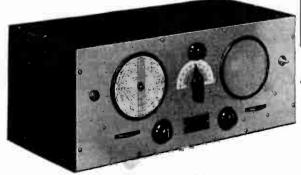
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The "SKYRIDER" is a complete,

death to sell it.

The "SKYRIDER" is a complete, self-contained Short-Wave Receiver—
it is not a converter. Its efficiency on short-waves is much greater than that of "Dual-Wave" and "All-Wave"
Receivers because it is designed and built for the specific purpose of covering only the wave lengths between 12

and 200 meters (25,000 to 3,100 KC).

Doubtless, there are many men in your locality who have looked longingly toward the fascination of shortwave reception, with all its alluring novelty, but have hesitated to give up their good broadcast Receiver.

Easy to Operate
The "SKYRIDER" was designed for
the man who demands the same simplfcity of operation in the short-wave Set he buys as that of his broadcast Receiver. There are no troublesome plug-in cols to change since its four wave-bands are selected by means of a conveniently located Knob on the a conveniently located Knob on the face of the panel. A Continuous Band Spread adjustment, also on the front panel, extends the tuning spread of any frequency 25 times that of normal. This permits the selection of stations no ordinary Receiver could locate. There is also a sensitivity control which, when adjusted to maximum, permits the reception of continuous wave code signals.

The over-all efficiency of this Receiver is such that good volume on practically all of the powerful shortwave stations in the world may be expected in any location where such programs are heard on the most expensive types of Receivers.

pensive types of Receivers.

Technical Features

The "SKYRIDER" is all-electric. Operates from 110-120 volt 50/60 cycle A.C. Entirely self-contained with A.C. Entirely self-contained with Dynamic Speaker and specially filtered Power Pack in one crackle-finished steel case size 7½"x7½"x17". Bright metal front panel. Has jack on front panel for plugging in headphones or extra speaker. Tubes used: 2-6D6s, 1-6C6, 1-42 and 1-80. Autodyne R.F. circuit having an extremely high signal sensitivity and an amazing freedom from ordinary noises which are encountered in heterodyne. which are encountered in heterodyne Receivers. The stage of tuned R.F. ahead of the autodyne detector prevents interference with other Sets. Dual gain controls, one for audio volume and one for controlling the regeneration of the detector. Specially designed coils of "square" proportions. Coupled coils are interwound.

4E10785—"SKYRIDER" complete with laboratory matched Tubes.
List Price, \$70.00. \$2095 YOUR PRICE.....

The Radolek "COMPANION"



With NEW TYPE TUBES

• • • 14E10953-Retail Value, \$21.25. YOUR PRICE Single Lots

Lots of Three Ea. \$9.95

175 to 550

Meters

For 105/120 volt 50/60 cycle A.C.

Efficient 4 Tube TRP Circuit

Illuminated

Genuine Walnut Cabinet Tubes Used: 1-2A5, 1-57, 1-58, 1-80

Tuning from 175 to 550 meters, it brings in a majority of the Police Calls and thereby provides its user with endless hours of thrilling entertainment. Its improved TRF circuit is designed to take full advantage of the new type tubes which it uses and develops Sensitivity and Stectivity not ordinarily found in Sets of this Type. The Dynamic Speaker used is of good quality, free from rattles and distortion on any votume.

Genuine wainut cabinet, si 14%" high, 12" wide, 9" deep.

Radolek "UNIVERSAL" AC-DC RECEIVER



Operates on Practically Any Form of Commercial Current

4E10950-

Retail Value, \$19.50.

YOUR PRICE With Tubes In Single Lots

Lots of Three Ea....

\$9.50

Speaker provides excellent Tone Quality and ample volume for all ordinary requirements. The New Type Tubes used have much better performance characteristics than the older types and develop results comparable with those of previous five and six tube Sets. Tubes used, 1-78, 177, 142 1.575 Sets. Tubes us. 1-77, 1-43, 1-25Z5.

Walnut Cabinet

The attractive Cabinet has walnut front and top, beautifully finished in two-tone, hand-rubbed Amertwoican walnut. Gracefully curved top and off-set ends. Overall size 10 ¼" long, 7 ½" high, 5 ¼" deep. long,

efficient Dynamic|The Radolek "UNIVERSAL" performs with equal effi-ciency on 110-120 volt direct or alternating current, 25, 50 or 60 cycles. Has great power for its size and is ideal for use as a "spare" Reserver. So compact it fits in anywhere and so portable in anywhere, and so portable that it can easily be carried from place-to-place and put

in operation wherever suitable current is available.

An efficient **Dynamic**Speaker provides excellent tone quality and ample volume for the suitable current of the suitable current for the suit tone quarry and ample volume for all ordinary require-ments. The **New Type Tubes** used have much greater effi-ciency than the older types and develop results which are comparable with that of previous five tube Sets.

usage and come back to you, ready for the next customer. pyright 1934 by W. C. Braun

The "COMPANION" is an exceptional value at our low price of \$10.20, complete with tubes. We have intentionally priced this Set below its actual ralue to enable you to meet any and all competition in the low price pracket. With its unusually good tone muality and genuine wainut cabinet, the "COMPANION" will give you a big advantage over the usual run of

blg advantage over the usual run of 1-tube competition. Or, if you wish to use this Receiver in rental service, tt will stand-up under the severest

NEW PHILCO

EVERYONE'S A PROSPECT

Your sales possibilities are unlimited! Practically everyone you know can be sold a new PHILCO Auto Radio. There is a real sales story for every class of motorists. Here are your best bets and the sales stories you should give them:



FOR TOURISTS

Motor along lakes, among hills or through the countryside—enjoy fine PHILCO music!



FOR SALESMEN AND DOCTORS

A great companion! Long trips seem much shorter with a PHIL-CO in your car!



FOR BUSINESS MEN

On your way home from work, hear the latest news, market reports and the finest entertainment!



FOR FARMERS

A PHILCO in your truck will pay for itself by imparting last minute market prices and weather reports!



FOR CAMPERS

Camping trips, outings and picnics are more enjoyable when you have a PHILCO in your car!



FOR SPORTSMEN

No matter where you are, a PHILCO provides a grandstand seat for your favorite sports broadcasts!



FOR TAXI OR BUS

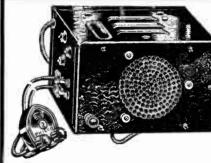
Happy passengers mean increased business. Music and entertainment make the longest journeys pleas-



FOR BOATS

In rough seas or calm, a PHILCO will provide the same fine reception that you enjoy on land!

The Finest Biggest Profit Line



Phileo's newest sensation—the most desirable Auto Radio ever produced at this low price. Superheterodyne circuit. Operates entirely from car storage battery. Has new full-wave Vibrator type "B" supply using a type 84 rectifier tube. Special input and output chokes in the vibrator circuit prevent engine ignition noises entering Receiver through this portion of circuit. Power supply requires no adjustment. 3 gang ball bearing Tuning Condenser. Efficient AVC maintains uniform volume intensity. Dynamic Speaker. "B" Supply, Speaker, and Chassis housed in steel case, 94" wide, 64" high, 74" deep. Mounts underneath cowl. Illuminated Tuning Control mounts on either side of steering column. Comes complete with 6-spark plug Suppressors, 1-distributor Suppressor, 2-Filter Condensers for Ammeter and Generator, 6-Philco Tubes and instructions for installing. Tubes used: 2-44s, 1-75, 1-77, 1-42 and 1-84.

MODEL 11

SIX-TUBE SUPERHET

14E10161—Phileo Model 11. Complete as described. List \$39.95. Dealer's Price \$26.70, Less 2% for

CASH NET PRICE \$2617

- Superb Tone—Full, Rich and Clear.
- Tremendous Power to reach all occupants of the car.
- Extreme Sensitivity.
 Sharp Selectivity.
- Everything in one compact Unit.
- Easily and Quickly installed under the dash, out of sight and out of the way.
- Dynamic Speaker.
- Automatic Volume Control that eliminates blasting and reduces fading.
- Attractive Tuning Control.
- Illuminated Dial.
- Illuminated Dial.
 Yale Lock to prevent unauthorized use.

MODEL 700

SIX-TUBE SUPERHET

14E10162 Phileo Model 700. Complete as described. List, \$49.95. Dealer's Price, 29.95, Less 24 for

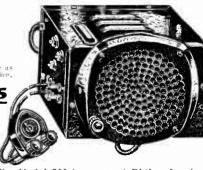
CASH NET PRICE ... \$2935



Large-size Dynamic Speaker for rich, full

- Tone.

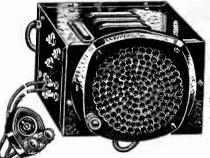
 4-Point Tone Control which enables the user to adjust to the requirements of any program.
- Automatic Volume Control.
- Trememlous Power for open-car driving.
- Uniform performance over any road at any speed.
- Everything in one Unit. 1034" wide x 634" high x 8" deep.
- Easy to install, only 3 holes needed.



The Model 700 is a recent Philco development offered in response to the demand among lealers for a 6-Tube Superhet of better performance characteristics than those of the popular priced Model 11. It employs essentially the same circuit with further refinements which fully justify the additional cost. A larger and more efficient Dynamic Speaker—the Model "S"—provides greater power handling capacity and improved tone. Illuminated Airplane Dial mounts on either side of steering column. A Four-step Tone Control effectively reduces static. Built-in Tube rectifying "B" Eliminator. One unit construction. Tubes used: 2-44s, 1-6A7, 1-75, 1-42, and 1-84. Size 104" wide, 64", 'high, 8" desp. Mounts underneath cowl. Comes complete with 6-Spark Plug Suppressors, 1-Distributor Suppressor, 2-Filter Condensers and 6-Philco Tubes.

AUTO RADIO!

Most Complete In all the World



MODEL 10

SIX-TUBE SUPERHET

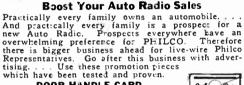
14E10160 Phileo Model 10. Complete as described. List, \$59.50. Dealer's Price, \$35.70, less 2% for CASH.

The Philco Model 10 is an ideal "sellip" from the Model 700. Since it can easily be sold wherever its superiority over the lower priced Model 700 is lemonstrated, why not pocket the substantially greater profit from the scale? The Model 10 is truly the finest 6-Tube Superhet ever designed for automobile ise. No feature which could possibly ideal to its desirability has been overooked. Automatic Volume Control at the very best, New Type full-vision, indirectly illuminated Airplane Dial, High filiciency built-in "B" Eliminator with ube rectifier, 4-point Tone Control. One-unit construction, and a manmoth Philco Model "K" Dynamic Speaker are ill combined to produce an Auto Receiver with greater undistorted output han any 6-Tube Auto Set at this low price. Excellent Selectivity and Sensitivity assure country-wide reception. Tomes complete with 6-Spark Plug Suppressors, 1-Distributor Suppressor, 2-Filter Condensers and 6-Philco Tubes (2-44s, 1-6A7, 1-75, 1-42, 1-84).

- Larger Dynamic Speaker; Model "K".
- Airplane Dial; full vision tuning.
- 4-Point Tone Control Effectively reduces static disturbances
- Improved Automatic Volume Control.
- Power and Tone compares with modern A.C. Sets.
- Uniform performance under all conditions.
- Everything in one Unit.
- Easy to install under cowl. Container size 10%" wide, 6%" high, 8" deep.



RANKS .



PUBLIC ACCEPTANCE

DOOR HANDLE CARD

The door handle card, shown at the left, has always been a popular promotion item. Place them on the handles of parked cars or on the door knobs of homes. Prices quoted cover cost of cards imprinted with your name and address, FOB Rochester, N. Y.

3E3270-500 for \$3.75

1000 for.....\$5.85

SECRET INK LETTER

The newest thing in letters for circularizing your customer list. Hustration at right shows the latter before and after dipping in water. The curlosity of your prospect is immediately aroused upon receiving the letter and of course he follows instructions and dips it in water. The "secret ink" then appears and he reads the entire sales message you are putting over. Your address is also printed in "secret ink". Prievs FOB Worthington, Ind.

\$4.00

\$4.00 3E3271—100 for

250 for \$7.00; 500 for \$10.00; 1000 for \$15.00

POSTCARDS

The most economical way for reaching old customers and new proscustomers and new pros-pects. Use this series of a postcards to get the butiness. If yos-sible obtain a list of automobile owners in your section and send them all a card cach week for 3 weeks. week for 3 weeks. Prices imprinted FOB Rochester.

3E3272— 250 eael of \$3.20



500 each of 3 cards....\$4.90

BASEBALL SCHEDULE

The baseball schedule is sure of being preserved and referred to often. Space to stamp your hame or you may order them imprinced with your name and address. Practically all big league games are now on the air and every baseball fan is a good prospect for a PHILCO Auto Set. I'rlied uniraprintee. Imprinting 1,000 or less \$1.00 estra. PDB Chicago. \$1.00

500 for \$1.55; 1000 for \$3.90

EDS A

PHILCO

DIALIS & HAMI

MODEL 800

SEVEN-TUBE SUPERHET

Improved A.V.C. 4-Step Tone Control. Class "B" Amplification.

5-Watts Output. Built-In Filter. Built-In "B" Eliminator,

Airplane Dial.

Indirectly illuminated. Over-size Type "K". Dynamic Speaker.

The finest automobile Radio ever built by the orld's greatest manufacturer of automobile adios. With it you can dominate the quality Auto Radio business of your locality. Get whind this model and push it.

wehind this model and push it.

The Model 800 is a super-performing 7
Tube Superheterodyne which provides reception

ctually equal to the best home operated Ze
elvers. It contains every practical develop
ment ever made for use in Auto Sets and its

remendous 5-watt class "B" output provides

unfficient volume for all driving conditions.

Delta as fast or as slow as you like the being Drive as fast or as slow as you like, the bril-iant performance of this fine Set will never

The perfectly balanced superheterodyne circuit of the Model 800 provides unsurpassed Selectivity and Sensitivity. Like other Philico Models it is easily installed underneath the cowl of any car; requires only 3 holes. The case which contains Speaker, Chassks, and "B" Supply measures 10%" wide, 6%" high, 8" deep. Comes complete with 6-8park Plug Suppressors, 1-Distributor Suppressor, 2-Filter Condensers and 7-Philico Tules; (2-44s, 1-6A7 1-75, 1-37, 1-79, 1-84).

14E 10163—Phileo Model 800 complete as described. List, \$75.00. Dealer's Price \$40.50. Less 27 for CASH.

PRICE

Asks No Odds in Performance!

14E10150—Radolek 6-Tube Aut Radio complete with RCA Tubes, Spa Plug Suppressors and Condensers for cylinder cars. List, \$42.50.

This new Radolek 6-Tube Super-Auto Radio on the most compact Auto Radio on the market. The case which contains Chassis, Dy-namic Speaker and "B" Eliminnamic Speaker and "B" Elimininator measures only 8¾" wide, 6" high, 6¼" deep. Copper plating inside prevents rust and increases its shielding properties.

The Circuit

The Circuit

Advanced engineering plus a well planned layout, plus the best materials obtainable have resulted in the best possible performance as well as compactness. A 3-gang Tuning Condense with tandem-offset vernier drive which prevents creeping is one of the main features. The following latest type Tubes are used: A type 78 in the first R.F. stage followed by a 6A7 Mixer-Oscillator. A stage of double tuned L.F. employs another type 78 which in turn is coupled through a single tuned I.F. transformer to the diode plate of a type 75 second Detector.

Automatic Volume Control The type 75 Tube provides AVC for both the R.F. and 1.F. Tubes. The Hi-Mu triode portion of the 75 is resistance coupled to a type 41 Power Pentode which drives a very powerful, high-grade Dynamic Speaker.

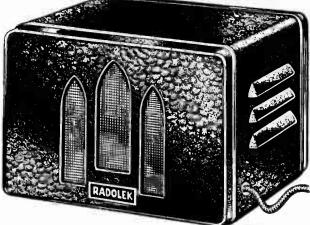
Full-Wave Power Pack

The Power-Pack uses a full- wave Vi-brator and a type 84 Tube for full-wave rectification. This assembly is mounted on the chassis deck where it is easily accessible for adjustment.

Airplane Dial

An illuminated Airplane Dial of new design is accurately calibrated in kilo-cycles with large white figures on a black background. Very easy to read day or night.

This new Radolek Auto Set is the easiest to install—only one hole to drill and only two connections to make: Ammeter and Antenna. Feature this Set for full Profits for yourself.

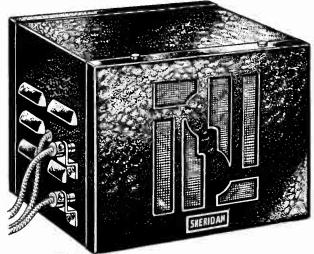


- Complete in ONE Unit
- Superheterodyne Circuit
- Automatic Volume Control
- Dynamic Speaker
- Illuminated Airplane Dial Vernier Drive Kilocycle Calibration
- Combination Volume Control and Locking Device
- Fits All Type Cars
- Easiest Auto Radio to Install Single Hole Mounting Only Two Connections



Airplane Dial

Every Sale a Satisfied Customer!





Airplane Dial

New Type Tubes: 1-6D6, 1-6A7, 1-75, 1-41, 1-84

- Superheterodyne Circuit
- Automatic Volume Control
- Airplane Dial
- Dynamic Speaker One-Unit Construction
- Easy to Install
- Works with Any Type Aerial
- Marvelous Sensitivity
- Ample Selectivity Plenty of Power
- Furnished Complete Ready to install

14E10151—Sheridan 5-Tube Superhet
Auto Set complete with 5 Sylvania Tuhes
and Spark Plug and Generator Suppressors
for 6-cylinder Cars. List, 337.50.
YOUR SPECIAL PRICE
The SHERIDAN 5-Tube SuperThe

het is the lowest-priced, satis-factory Auto Radio we know of. L is a good leader for you and will be very popular among those of your customers who do not care to invest in a six or seven Tube Set.

6 Tube Performance
In performance the SHERIDAN is equal to older 6 and 7 Tube Auto Sets. This is due to the use of the new multi-purpose Tubes which are actually

multi-purpose Tubes which are actually two Tubes in one envelope. Excellent Selectivity and Sensitivity have been secured through the employment of scientifically engineered ultra-high gain coils and the use of five tuned circuits. A type 41 Pentode Power Tube delivers 1.2 watts to the Dynamic Speaker and provides enough volume for all ordinary requirements. all ordinary requirements.

Automatic Volume Control
The New 6A7 and 75 combination
Tubes provide Automatic Volume Control action which tends to maintain
the volume at a constant level regardless of signal strength; also to
counteract fading.

The Chassis, Dynamic Speaker an "B" Supply Unit (Full-Wave, Tub Rectifier Type) are contained in a sub stantial crackle-finished steel case siz The" deep. 94" wide, x 74" high This case mounts underneath the cow This case mounts underneath the cow by drilling only one hole. The Remot Control mounts on either side of th steering column and contains an at tractive Vernier Driven Airplane Dial and Combination off-on switch an-Volume Control. The Volume Contro Knob has a key base and is remov able, acting as a protecting lod able, acting as a protecting loca against unauthorized use of the Re acting ceiver.

ceiver. Easy to Install
The SHERIDAN is very easy to instal and can be successfully placed in operation in any car within a few moments. This simplicity of installation enables you to sell the Receiver "in stalled" without searfficing your profits No aggressive Radio Dealer or Service man can afford to neglect the marke which already exists for a thoroughly good Auto Radio at a low price anhere is a Set with which you cadominate this rich market. Order on of these Sets TODAY and begin NOV to cash-in on this big field.

75-5⁵ COMPLETE WITH TUBES New Low Priced Set That's in Step with the Times 11111111 Here is a vastly improved 4-Tube Receiver that will make a timely sales leader for you. Order in a few, place them on display and see how quickly they will sell themselves. The Radolek 4-Tube Dual-Wave Re-

Latest Circuit-New Type Tubes Illuminated Vernier Drive Dial

Accurate Kilocycle Calibrations Smooth Full-Range Tone Control

Finest Quality Dynamic Speaker Sturdy: Built to Last a Lifetime

Beautiful Modernistic Cabinet ceiver is sure to be popular with your trade because of its many points of supremacy over other Sets of this type. It actually doubles the short-wave entertainment by tuning all the way down to 75 meters instead of only to 175 meters, the customary limit for 4-Tube Sets.

Many Exclusive Refinements

The Radolek 4-Tube Dual-Wave has refinements rarely found in Receivers of this type: Illuminated Vernier Drive accurately calibrated in kilocycles, Full-Range Tone Control.

Cabinet is handsomely designed

along modernistic lines and is made of select veneers, durably and beautifully finished. Front panel and center of top and sides are of natural finish bird'seye maple; edgings and top overlay of contrasting darker finish. Overall size, 9½ inches wide, 9 inches deep, 12 inches high.

An Outstanding Value
If you will compare this New Radolek
4-Tube Dual-Wave Receiver, feature for feature, with others selling at the same price you are sure to agree that in Radio Sets (as in other Radio Merchandise) Radolek offers you a little more for a little less money.

14E10962—Radolek 4-Tube Dual-Wave Receiver for 105-120 Volt 50/60 cycle A.C.

Complete with RCA Tubes (1-42, 1-77, 1-78, and 1-80). List Price, \$24.50.

YOUR PRICE

We've found what Features Radio Buyers look for in a Low Priced Receiver and here they all are:

· Full Superheteredyne Circuit · Latest High Efficiency Tubes

Full Automatic Volume Control

Smooth. Stepless Tone Control · Illuminated Vernier Drive Dial

· Accurate Kilocycle Calibration

Noise Blocking AC Line Filter

· Finest Quality Dynamic Speaker Electric Phonograph Connection

· Beautiful Modernistic Cabinet

This five-Tube Midget leads all others in This is a Receiver you will enjoy demonall-round sales appeal. It has all of the strating to your trade because it has so above enumerated, mooren features—those qualities which totaly's Sex Buyers wand are willing to buy; and it also has equalities without the desired program or to turn instanty to the desired program or to formance;

Coast to coast reception is consistently volume Control is very efficient and eliminates basing and reduces fading. An order of the minimum. A Tone Control and Phone-Sensitivity and Selectivity over its entire graph Connection make complete its reliments. Coast to coast reception is consistently possible with this Receiver in all localities of ordinary favorability for DX. Designes to take full advantage of the latest type-High-Gain Tubes. It develops amazing Sensitivity and Selectivity over its entirerange of 75 to 555 Meters.

High-Gain Tubes, it develops amazing the minimum. A Tone Control and Phone-graph Connection make complete its resinements.

Big-Set Volume and Tone

Far better Tone Quality than is ordinarily experienced from small Sees distinculshes the Radolek 5-Tabe Dual-twee Superher from all the rest. A good Dynamic from all the rest. A good Dynamic from all the rest. A good Dynamic from all power of its pentode purput results in reproduction of bell-clear quality.

14E10963—Radolek 5. Tube Dual-Wave Superheterodyne for 105-120 voit 50/80 cycle A.C. Complete with 5 RCA Tubes (1-8A7, 1-42, 1-75, 1-78, 1-80).

List Price, \$33.00 YOUR

PRICE 25 cycle available for \$1.00 extra

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180 - 550 - METER

Compares Favorably with Most Six Tube Receivers

t4E10966—Radolek Compact 5-Tube Receiver for 105/120 Volt, 50/60 cycle A.C., complete with 5 Triad Tubes. List, \$23.50. \$23.50. YOUR PRICE

- TRF Circuit—Latest Type Tubes
- Illuminated Dial—Kilocycle Calibration
- Full-flux Dynamic Speaker-Ample Power
- Tunes 180 to 550 Meters-Police Calls
- Excellent Sensitivity and Selectivity
- Very Compact, Completely Portable

How is competition for the Set business in Is it very keen? If Receiver that should interest you as a Dealer:

This New Radolek 5-Tube A.C. Compact is just the type of Set many people are looking for—It is small . . . light . . . performs well; and is very attractive in appearance. Yet the price is amazingly LOW.

It is very Sensitive and Selective, and while not intended for use as a distance-Receiver, you will be amazed at how easily and clearly it brings in stations which are beyond the reach of other less modern 5-Tube Sets.

Performance comparable with 6 or 7 tube Sets which were considered "modern" only a few months ago has been accomplished by the use of the New multi-purpose Tubes which do double duty and are really two Tubes in one envelope.

More than ample volume is secured by the use of the powerful type 42 Pentode Output Tube feeding a Dynamic Speaker of excep-

tional efficiency.

The Gear-driven Vernier Dial is illuminated and is calibrated in kilocycles for convenience in selecting and identifying stations. The com-bination Volume Control-Power Switch Es-cutcheon matches the Dial in appearance.

The Cabinet of this Receiver is far more impressive in design and finish than you would expect to find on a Receiver at our extremely Low Price. Front panel of select walnut veneer, top and sides of solid gum wood, Neatly carved on all three exposed sides. Rubbed, American Walnut finish. Overall size, 11½" long, 6½" deep, 7¾ inches high. An ideal size for one's "personal" Receiver. Easy to carry about. Just the thing for office. Easy to carry about. Just the thing for office, Sun Porch, Den, Bedroom, Nursery or Kitchen. Many dealers and Servicemen are also using this type for rental.

Tubes used and furnished with Receiver: 2-6D6s, 1-6C6, 1-80 and 1-42 (Triad).

TUBE AC.DC perhet

75 TO 555 METERS

- The Smallest Superheterodyne Maile.
- Uses Latest Type High-gain Tubes.
- Vernier Tuning, Kilocycle Calibration.
- Built-in Antenna for Local Programs.

Fire Tubes are necessary for satisfactory results if the A.C. D.C. Set your Customer selects is expected to reach out beyond the "locals"; and nothing but a Superheterodyne with provide sufficient selectivity to enable him to take full advantage of all available Radio entertainment. This New Radioles 5-Tube A.C. D.C. Superlast fulfills both requirements completely. In addition fits extended turing range of 75 to 555 Meters organs up avenues to many thrilling features which are unattainable with the ordinary broadcast Receiver.

tainable with the ordinals process. Hereeiver.

This Dual-Wave Feature alone will close many sales for you because here, at last, is a small Set that actually provides satisfactory operation on the short-wave channels.

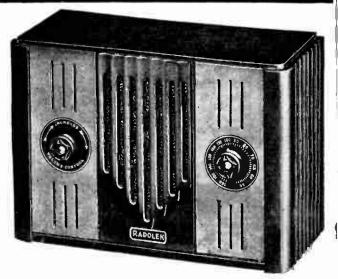
Latest Type Tubes in an improved circuit results in remarkable power.

Its beautiful bronze Dial with Vernier Tuning and Kilocycle Calibration are also big selling features. They add attractiveness and convenience by enabling the user to elect stations by their published transmitting frequency, or identify anknown ones from the dial setting.

A separate Short Wave Switch on the rear side of the chassis is flipped to change from broadcast to the lower wave lengths. Switch is so

flipped to change from broadcast to the lower wave lengths. Switch it so conveniently situated that user may reach behind Receiver and change from our wave band to the other without moving the set.

The Cabinet is a handsome design with two-tone walnut and hird's eye marke veneers. Very substantially finished. Its compact size—only 9% inches wide, 4½ inches deep by 6% inches high.

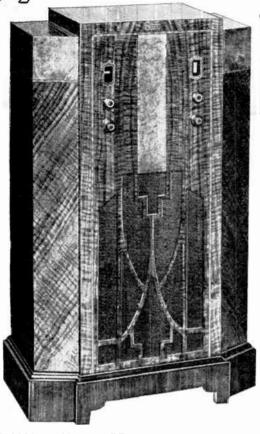


14E10967—Hadolek 5-Tube A.C.-D.C. Superhet for operation on any 25, 40 or 80 cycle 110 volt A.C. or D.C. complete with 5 RCA Tubes (1-25%5, 1-13, 1-44, 1-77 and 1-78). List Price \$28.50.

YOUR PRICE. ONLY

[626

Your Customers want to hear





Tunes 12.5 to 550 Meters and has These Features

- Automatic Volume Control
- Improved Superheterodyne Circuit
- Latest Type High-gain Tubes -Silent Meter Tuning
- Stepless Tone Control
- Three-gang Tuning denser
- -Electro Dynamic Speaker -Gear-driven Vernier Dial
- -Accurate Kilocycle Calibration
- -Finest Performance on broad-
- Con- -European Reception
 - -Phonograph Connections

Thrill your clients with Old Werld programs! In any location where you can receive 1500 mile broadcast programs at night, this powerful receiver will pick up European Short Wave Signals under reasonable atmospheric conditions, in full Daylight. Thousands of foreign born Americans delight in hearing their fatherland, they thrill to the native music they left behind. With this receiver you can gratify them—at a nice profit.

4E 10981—Radolek "TRAVE-OG" Console Model for 195-126 4t 59/60 cycle A. C., comblet this ix RCA Tubes. List, \$79.50.

The CONSOLE MODEL

distinctively modern design of beautiful, carefully elected and matched walnut veneers. The handrubbed nish equals that of the most expensive of furniture. nish equals that of the most expensive of furniture. he wonderful performance of the chassis, both on nort-wave and broadcast bands, combined with this eautiful console Cabinet, make this an ideal Receiver of discriminating Radio buyers. Only the most spensive Sets incorporate all of its features: All-Vave Tuning Range (12.5 to 555 meters), Supereterodyne Circuit, Meter Tuning, Tone Control, hree-gang Tuning Condenser. Dynamic Speaker, nd the Latest Type Tubes. Console Size, 38 inches igh, 12 inches deep, 24 inches wide.

Recent developments in Radio Receivers, combined with improved broadcasting facilities, have made the reception of foreign stations possible. Your customers are intersely interested in tuning in foreign short wave stations, as well as those on the domestic broadcast band. The RADOLEK TRAVELOG has been developed to give the ultimate purchaser the ability to tune in all of these. Everyone enjoys a thrill and this extension of the field of possible Radio entertainment has business bogming for Radio Dealers who are featurbusiness booming for Radio Dealers who are featuring Receivers capable of bringing in foreign stations.

Demonstrations Make Sales Easy

RADOLEK "TRAVELOG" will really itself upon demonstration. Its marvelous performance on all bands will give your customers an even greater thrill than was theirs at hearing their first Radio. In addition, it has every modern refinement your trade can demand—all at a very reasonable price.

Covered By Regular R. M. A. Guarantee

FOUR TUNING BANOS—The Radolek "TRA-VELOG" covers all wave lengths from 12.5 to 555 Meters. The selector switch automatically exposes the proper tuning scale (graduated in kilocycles and megacycles) for each frequency band. Ranges: 535 to 1500 Kilocycles Broad-cast, 1.5 to 4 megacycles for police calls, 4 to 10 megacycles and 10 to 24 megacycles for Europan broadcast.

EFFICIENT ON ALL RANGES—Use of an independent Oscillator circuit in this Receiver climinates the "hirdles" and cross-talk common in most Sels not expressly designed for high frequency reception.

METER TUNING—Illuminated Shadowgraph Tuning Indicator permits tuning in signals that the ear would miss by conventional "ear" tuning. It also provides means for more perfect resonance adjustments and resultant better reception of all stations.

AUTOMATIC VOLUME CONTROL—Counteracts fading and tends to maintain an even
volume level irrespective of signal strength
THREE-GANG TUNING CONOENSER and
six sharply tuned circuits provide knife-edge
Selectivity and render all available Radio
entertainment usable.

ordertainment usable.

7 MICROVOLT SENSITIVITY provides farreaching coverage on all wave lengths.

LATEST TYPE TUBES give 8 Tube performance. The six tubes used are: I-2A5,
1-2A6, 1-2A7, 2-58s, 1-80.

PHONOGRAPH CONNECTIONS provide for the addition of electric pick-up and turn-table for the reproduction of ultra-fine music from photograph records.

TONE CONTROL for the adjustment of bass and treble to sunt the individual taste and for the suppression of static.

Uses the same marvelous Chassis as that of the Console Model. Tunes in foreign sta-tions, police calls, airplane signals, as well as regular broadcast band, with better tone and greater volume than is attainable on most larger, more expensive models. Recommend this model to those customers who want a Table Model Receiver of exceptionwant a Table Model Receiver of exceptionally fine performance. It has every modern improvement necessary for real radio reception and will prove its worth as a really efficient, dependable performer. The cabinet is of beautiful walnut veneers and handrubbed finish. Distinctively modern in design. Will harmonize with the furnishings of any home. Overall size, 15 inches high. 13 inches wide, 7½ inches deep. 14E10980—Radolek Tahle Model "TRAVELOG" for 105-120 volt 50/60 cycle A.C., complete with 6 RCA Tubes. List Price, \$59.50.

YOUR



\$3500

LOM UAL WAVE

15 to 550 METERS Two Up-to-date Sets for Rural Use with as much Quality and Performance as Similar A.C. Sets

8 GREAT FEATURES

- (1) Superheterodyne Circuit-Very Sensitive
- (2) Dual-Wave Tuning—540-4000 Kilocycles
- (3) Automatic Volume Control-Very quiet
- (4) Full-Range Tone Control-Reduces Static
- (5) Illuminated Vernier Dial-KC Calibration
- (6) Fine Quality Dynamic Speaker-Good Tone
- (7) New High-Amplification, Low Drain Tubes
- (8) Beautiful Modernistic Cabinet

Either of these two great new Radolek Superheterodynes (2-volt Battery operated or 32-volt all-electric) is available in this attractive Modernistic Table Model Cabinet. This

is a Cabinet of outstanding beauty and is right up-to-the-minute in design.

32 VOLT ALL ELECTRIC

Operates on Any 32-Volt Farm Light Plant

A new 5-Tube Superheterodyne which plugs directly into the socket of a 32 volt light plant outlet. All electric in operation—derives all B, and C current from an efficient built-in all-wave Vibrator—no batteries needed. "A" current taken directly, from the 32 volt storage batteries. Very economical to operate: draws only 3 Amuse economical to operate; draws only 3 Amps.

Your customers who have Delco or other 32 volt systems will be delighted with the performance of this new Receiver. It offers a greater range and finer Nelectivity. Being a Superheterodyne, it is very sensitive. Brings in distant stations like "locals" and cuts out over-lapping signals.

Automatic Volume Control maintains even volume levels. Blasting while tuning is eliminated and fading is greatly reduced. A Full-range Tone Control provides controlled frequency discrimination to suit the individual taste and effectively reduces statle disturbance.

Dynamic Speaker of finest quality. Produces a deep, rich tone that heretofore was possible only with A-C Sets. The Speaker is operated without excess battery drain.

RANGE 75 TO 555 METERS

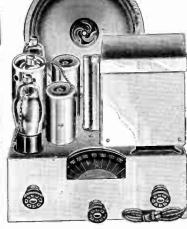
RANGE 75 TO 555 METERS

This Receiver brings in Police Calls, Airplane Contacts and Ships at sea on the short waves; and stations near and far on the regular broadcast band. The Dial is vernier driven and accurately calibrated in kilocycles for quick and easy tuning. Five New Type Low-drain Tubes are used: 1-6AT. 1-78, 1-75 and 1-84. The Beautiful Cabinet used is shown above. Made of the choicest walnut veneers with contrasting overlays. Hand-rubbed American walnut finish.

Overall size 912" wide. American walnut finish. 6½" deep. 14½" high.

14E10968-Radolek 5-Tube Superheterodyne for 32-volt D.C. operation, complete with five for 32-volt RCA Tubes.

List Price, \$45.50. YOUR PRICE



CHASSIS TUBES AND SPEAKER PRICES

These two Chassis offer you a wenderful oppor names two chassis ofter you a wenderful opportunity for modernizing obsolete battery-operated Receivers. You only need to demonstrate the improved performance of either of these Chassis. to interest anyone who is now getting along with one of the "old-timers".

14 E 10995-Radolek 5-Fube Dual-Wave Chassis for 32-volt D.C. operation, $6\frac{1}{2}$ " matched Dynamic Speaker and 5-RCA Tubes. (1-6AT, 1-42, 1-45, 1-78, 1-84) Chassis size: $8\frac{1}{2}$ " wide, 6" deep, $8\frac{1}{2}$ " high. List Price, \$39.50.

14E10996—Radolek 5-Tube Dual-Wave Chassis for 2-volt Battery operation. 5" Best Kinematic Speaker, 5 RCA Tubes. (1-1A6, 1-19, 1-30, 1-32, 1-34) Chassis size: 8½" wide, 6" deep, 8½" h gh. List Price. \$27.00.

2 VOLT BATTERY OPERATED

Battery Lasts Full Year

Battery Lasts Full Year

This New Radolek 5-Tube 2-Volt Superhet uses
the latest type Eveready 2-Volt Air Cell that
requires so attention. Hook it up and forget
it. With an awerage of 2 to 3 hours use daily
the battery will give a full year's efficient service.
You'll marvel at the Selectivity Sensitivity, and
Tone of this battery operated Superhet. It is
truly as modern in performance and appearance,
as the latest A.C. Sets. The same modern features which distinguish the Badolek 5-Tube 32volt Remelver described at the left are to be found
also in this model.

CLASS "R" AMPLIFICATION.

CLASS "B" AMPLIFICATION

Type 19 push-pull power output tabe transformer coupled to a type 30 driver tabe ted through ormer coupled to a type on order transited through a resistance-capacity coupling from a type \$2 screen-grid Detector. This tube also provides Automatic Volume Control current for the type \$3 statemediate frequency tube. A 1A6 acts as the addition while the type in the control current for the type \$3 statemediate for the control current for the type \$3 statemediate for the control current for the type \$3 statemediate for the control current for the type \$3 statement for the current for the current for the type \$3 statement for the current for the type \$3 statement for the current for t

intermediate frequency tube. A lac acts as the mixer-ascillator tube.

Six-tand circuits provide ample Selectivity on both broades: t and short-wave bands.

A New Type Best Kinematic Power Speaker appacity of handlink the entire cutruit of the Set provides smooth, distritionless reproduction at all rolume levels. Itluminated Vernier Dial graduated in kilecycles. New type Low-drain Tubes drawnly ½ Amp. of "A" current and 20 ma. of "B". The Attractive Cabinet suppiled is illustrated above. Modernistic in design. Made of finest wainut vincers with hand-tubel American wainut propers in the supplied is illustrated above. Modernistic in design. Made of finest wainut vincers with hand-tubel American wainut firish. Size 9%" wide, 6½" deep, 14½" high.

14E 10969 Radolek 5-Tube Isual-Wave Super-het (73-550 Meters) for 2-volt Battery operation, complete with RCA Tube; less "A" and "B" batteries.

List. \$33.00. YOUR PRICE

7—Special Set of 3-45 volt heavy-duty "B" cries and 1 Everendy Air Cell.

PRICE \$8.10

50



- Superhet Circuit—New Type High-Efficiency Tubes
- Push-Pull Type 42 Power Tubes-Six Watts Cutput
- Automatic Volume Control for Smoother Operation
- Smooth Full-Range Tone Control and Static Reducer
- Vernier Dial Accurately Calibrated in Kilocycles
- Color of Dial Light Changes with Each Wave Band High Grade Eight-Inch, Full-Flux Dynamic Speaker
- Modernistic Cabinet Finished in American Walnut

Tuning Ranges

Only \$54.50 List (Your Price \$31.95) for a modern 8-Tube Superheterodyne that covers the entire range of frequencies used in practical Radio communication.

Band No. 1: 13-41 Meters; Band No. 2: 25-82 Meters; Band No. 3: 68-201 Meters; Band No. 4: 200-550 Meters and Band No. 5: 790-2540 Meters.

This is the first successful 5-Band Receiver ever offered at a popular price. Everything on the air is within its range: American and Foreign Broadcast, Amateur Calls, Police Calls, Airplane Communications, Weather Forecasts, Time Signals and many other interesting features which are not attainable with the ordinary single or dualshord. Receiver

are not attainable with the ordinary single or dual-band Receiver.
Coverage of the entire spectrum of frequencies now in practical use is accomplished without the use of troublesome plug.in coils. Tuning on any wave length is accomplished by simply selecting the desired band by turning a knob on the front panel of the Set, and then tuning to the desired signal by means of the vernier diven Tuning Dial. For easy identification of each of the five bands covered, the color of the dial light automatically changes as each coil is switched into the circuit.

Stable in Operation
Improvements in coll and circuit design have resulted in amazing efficiency over the full range of the Receiver. The Set is outstandingly stable in operation and provides consistent and dependable performance on any wavelengths. lengths.

Many Refinements

Many Refinements

The Radolek 8-Tube All Wave Superheterodyne incorporates every praetical refinement known to Radio: Its Improved Automatic Volume Control. Its Vernier Driven Dial is accurately call-brated in kilocycles and has a separate circle of readinss for each wave band.

Eight inch Dynamic Speaker, a size rarely found in a Receiver of this type, is used in the Radolek All-Wave Superheterodyne. "The hetter the Speaker, the better the Radol' and our Engineers have selected a Speaker which does justice to the fine performance of the chassis. Full-Range, Stepless Tone Control enables the owner of this Set to adjust to that frequency response which brings in the various types of programs to their best advantage. The Tone Control is also very effective in reducing static noises.

noises.

New Type Tubes; 1-37, 3-78s, 1-85, 1-'80 and 2-42s in push-pull output are used in a circuit designed to realize from these new type tubes their full efficiency.

Phonograph Connections

Instructions are furnished for the installation of an electric pick-up for the reproduction of ultra-fine entertainment from phonograph reords. In our Public Address section you will find suitable electrically driven turn-tables and pick-ups with whilet you can transform this Receiver into a combination instrument of the finest certifier. finest quality.

A Beautiful Cabinet

The Cabinet of the Radolek All-Wave Superhet is certainly one of distinction. Burl walnut veneer center panel 's flanked on each side by panels of select crotch grain light American Walnut reneer. The paneling effect is applied to veneer center panel 's Hanken on each sine by panels of select crotch grain light American Wainut veneer. The paneling effect is applied to the sides as well as the front, a feature not found on any but the most expensive cabinets. The top is also finished as besulffully as the front; A center panel of grooved hardwood in contrasting finish emphasizing the modernistic lines of the Cabinet. Overall size, 13% inches wide, 3½ inches deep, 16½ inches high.

A Very Popular Receiver

A Very Popular Receiver

The Radolek 8-Tube All-Wave Superheterodyne will be one of the most popular Sets you have ever handled if you will place one on demonstration where your customers can see for themselves what a remarkable value it is—How wonderfully it performs on all wave lengths; what wonderfull Tone it has, how keenly sensitive, and how acutely selective it. This Receiver offers the most available in the way of variety and quality of entertainment for the money.

Modernize Old Sets

Modernize Old Sets
Or perhaps you know of several people who have obsolete Receivers in fine Cabinets which could be economically modernized by the installation of a new Chassis. For such jobs, the Radioleh All-Ware Chassis and matched Dynamic Speaker offers an ideal solution. The Chassis measurea 8 inches deep, 13 inches long and 7 inches high, overall. It employs all modern refinements new glove-fitting tube shields, ball bearing Tuming Condensers, Over-capacity Power Transformer, Condensers and Resistors and a very sturdy chassis base. former. Condensers sturdy chassis base.

Price List

14E 10970 Set Complete with 8 RCA Tubes for 105 120 Volt 50/60 Cycle A.C. List Price, \$54.50.

25 cycle available for \$1.50 extra.



Prices Chassis-Tubes-Speaker

14E | 0973 Chassis, 8 RCA Tubes and Matched 8"
Dynamic Speaker. For 105-120 Volt 50/60 Cycle A.C.
List Price, \$48.50. YOUR

14E10974 As Above for 105/120 Volt 25 Cycle A.C. List Price, \$51.00. *30°° PRICE

Copyright 1934 by W. C. Braun

MERSHON



Electrolytic Condensers

Triple 8 8-8-8 Total 24 Mfd. 3E5887-

YOUR \$ 112 PRICE

These are genuine Mershon Condensers, red to you at Real Bargain Prices Quality Guaranteed. Peak voltage 430. Mounting brackets and vent covers not included.

Upright Mounting

Stock	Capacity	List	Your
Number	Mfd.	Price	Price
3E5885	8-18	\$4.50	50.75
3E5887	8-8-8	6.00	
3E5888	9-9-18	6.00	1.45
3E5889	8-8-8-8	7.50	1.95
3E 5890	8-8-18-18	7.50	1.95

Stu	i Mount	ng lyp	e
5891	4	11.25	
5892	6	1.35	
5893	8	1.45	
5894	10	1.70	

Grid Resistances

All wire-grid resistances covered with varnished cambric—can be bent any shape, Small—compact—length 214 to pe, Si. inches. Pig.s Resist. Pigiail leads.

Stock	Resist.	STOCK	Resist
Number	Ohms	Number	Ohms
3E 285	25	3E312	1,600
3E 287	75	3E314	1.700
3E288	100	3E316	1.800
3E290	200	3E317	2,000
3E293	300	3E318	2,250
3E 294	350	3E319	2.500
3E 297	450	3E320	2.600
3E298	500	3E322	2,800
3E300	- 600	3E323	3,000
3E301	650	3E324	3,500
3E 302	700	3 E 325	4,000
3E305	900	3E326	5.000
3E306	1000	3E327	6,000
3E308	1200	3E341	7.000
3E309	1300	3E342	8.000
3E310	1400	3E343	9,000
3E311	1500	3E344	10.000

VOLLE PRICE, EACH

10¢ 10 for 85 c

Indoor Aerial Wire



For A.C., D.C. Sets | Inforced bottom | Stock | Zip | YOUR | PRICE | Stock | Stock | For | Younger | For | Stock | Time | For | Younger | Younge PRICE Extremely flexible. A well insulated stranded stranded stranded with teaching and the stranded s

a brown cotton braid

POLYMET



Electrolytic Condensers Triple 8 Total 24 Mfd. Peak Voltage 430 3E5487 YOUR PRICE 89¢

Size 31/2" high,

Single 4 Mfd. Peak Voltage 430 3E5488-29¢

denser is negative.



Mounting Clamps and Covers

For use with multiple type condensers replacements.

Clamps	1	Covers	Diameter	Your
3E5872 3E5873 3E5874		3E5875 3E5876 3E5877	$\left\{ \begin{array}{ccc} 2 >_2 & \text{in.} \\ 3 & \text{in.} \\ 3 >_4 & \text{in.} \end{array} \right\}$	5c

Midget Carrying Case



Extra heavy suedette material. Strong and durable. Securely attached handles Dar k in. 4 brass studs a re attached to a heavy re-

Zipper Type

Stock Number	For Sets NOT Larger Than	YOUR
4E10765	9" x6" x5"	\$1.42
4E10766	1112"x814"x514"	1.59
4E10767	1212"x814"x538	1.65

WHITE-CROSS Electric Food Mixer

The White-Cross Food Mixer and Julee Extractor will take care of practically all mixing, beating and purposes. For all mixing, beating and whipping purposes. For mixing batter for waffles, paneakes, cookies, for mix-ling ingredients for all kinds of cakes, muffins, pop-overs, sandwich fillings, pop-overs, sandwich fillings, etc., for mashing and whipping potatoes, turnips or squash and for whipping creams and lelngs and mixing drinks it has no equal. Jufices are quickly and thoroughly extracted from oranges, lemons, lines and grapefruit. Mayonnaise may be thoroughly mixed with be thoroughly mixed with ease and comfort. A kit-chen aid that will save tline and effort and do a better job. Always ready hetter job. A for instant use.



YOUR PRICE ...

\$10.78

Complete with one large and one small mixing how, one juice extractor, one juice extractor reamer, individually removable self-cleaning beaters, ball hearing self-revolving howl platform, sturdy and stlent three-speed portable powerful motor.

PHILCO Replacement Power Transformers

Genuine Phileo replacement transformers made by Jofferson. These transformers are built for continuous operation without excessive heat and are approved by the Underwriters Laboratories. All windings are dipped in Insulating varnish and baked. Heavy impregnated insulating material between the windings insures further protection. Extremely rigid construction gives complete freedom from mechanical hum; and the drawn steel housings protect windings and improve appearance. Diagrams giving complete specifications and hook-up included with each transformer.

A STATE OF THE STA

For PHILCO 511

Part Num. 3073 For replace.
Phileo 511 or one seven tube radio sets using 4-26, 1-27, 1-71A and 1-80, Primary 105-125 volts, raries 375 V.

mary 105-125 volts 60 cycles A. C. Secondarles 375 V C.T. @ 37 Ma., 1.5 V. @ 4.3 amps. 2.5 V. @ 1.9 amps., 5 V. C.T. @ 4 amp., 5 V. @ 2 amps.

16 amp. 0 3E4250 -1 brice, \$7.00.

YOUR PRICE.....

\$1.65

For PHILCO 91-121 Part Num. 6554 For replacement in Phileo model 91-121

or other radio sets using 2-44, 1-36, 3-37, 2-41, 1-80 or 37. 2-41, 1-80 or equivalent tubes. Primary 105-125 volts. 60 cycles A.C. Secondarles 670 V. C.T. @ 130 Ma., 6.3 V. C.T. @ 3.5 amps., 5 volts @ 2 amps.

3E4252— List Price, \$5.00, YOUR PRICE..... \$1.95

See Page 16 Radolek has made available to you at an unheard of low price a Genuine Neon "Radio Service" Sign. Radniek has

For PHILCO 21 Part Num. 4813



Part Num. 4813

For replacement in Phileo model 21 or other radio sets using 3-24's or 3.58's, 1-27 or 1-56, 2-45's or 2-47's, 1-80 or equivalent tubes. Primary 105-120 volts 60 cycles A.C. Serdaries 700 V. C.T. @ 110 Ma. 2.5 camps. 5 V. @ 2 amps.

3E4251— List Price, \$6.00. YOUR PRICE....

S1.80

For Philco 70A, 270A, 370A Part Num. 5118

For replacement of 25 cycle power transformers in Philico models 70A, 270A, models 70A, 270A, 370A and other sets using 1 24's or 4-58's, 1-27 or 1-56, 1-47 or 1-15, and 1-80. Primary 105-120 volts.

25 cycles A.C. Secondarles 665 V. C.T. @ 95 Ma. C.T. @ 92 amps. 2.5 V. (1.5 amps, 5 V. @ 2 amps. 3E4253— List Price, S8.00. YOUR PRICE. \$1

\$1.95

RCA"WorldWide"AntennaSystem

Model 9500. This avstem makes available to every owner of a short-wave, all-wave or regular broadcast radio receiver the advantages of a scientifically-correct antenna. Through its installation are overcome the two major faults common to any antenna of the conventional type: (1) Lack of miffent recention over the short-wave broadcast range—(2) Severity of local noise Interference produced at the higher frequencies by electrical appliances, power lines, street cars, etc. This system embodies two separate antennas of the efficient doublet type, a twisted-pair lead-in and a special coupling transformer. Model 9500. This system makes availspecial coupling transformer.

000

The two antennas are tuned respectively to opposite ends of the short-wave range and cross-connected to provide uniform performance at all Intervening frequencies. Signals collected by the antenna are transferred to the receiver with neglicible loss. Signals are not "ricked-up" by the transmission line itself. Noise interference is reduced to a negligible value or entirely eliminated. By means of the wavelength-transfer switch, the antennam may are converted for use in the standard broadcast band (510 to 1500 k.c.) and in the police, aviation and annateur bands at frequencies up to 6000 k.c.

Contents of Kit 451/2' coils Antenna Wire

1-110' coil Transmission Receiver Coupling Trans-former with Wave Length Change Switch

4-Strain Insulators -Cross-over Insluators

!-Nail-Knobs -Pieces Cambric Tubing -Tube Insulator

-Cleat -Ground Clamp Installation Instructions

and Certificate 3E8528— List Price, \$7.00 \$353 YOUR PRICE....

G.E Auto Set

-Nationally Advertised; Nationally Known

All Electric, Single Unit Construction

-Compact Designs: Easy to Install

List Price, \$39.50.



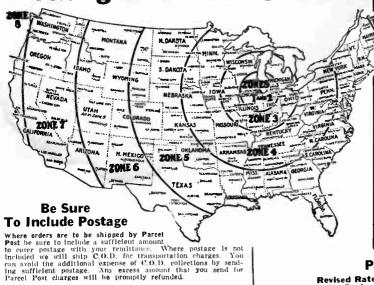


G. E. Model 40-B

14E10152-Complete with Tubes and

YOUR PRICE One of the most widely advertised auto sets on the market, the GE-RCA Model One of the most widely advertised auto sets on the market, the GE-RCA Model 40-B offers you an opportunity to cash in on its tremendous popularity. The single unit case houses chassis and speaker. Full automatic volume control, tone control, key lock with volume control, and filminated remote control are features which help to make this set outstanding in performance. Size only 8½x8½x7" deep.

Supplied complete including 1-78, 1-6A7, 1-6B7 and 1-89 tube. It's Easy to Figure Delivery **Charges on Your Order**



Class ight per Lbs.

.18

80

5 10

.65 .75 .37 .13

60

39

Express per 100 Pounds

\$3.90 \$2

.10 4

3.75 5.60 3.35 3.75 3.35

4.50 2

3.95

9 45 5 10 2 95 1 03 2 65 60 5 50 3 50

Table of Approximate Rates Per 100 lbs. for Express and Freight

From Chicago

to

\$2 40 Nebraska
4 12 Nevada
1 60 N. Hampshire.
4 75 New Jersey
3 65 New Mexico
1 49 New York
1 42 No. Carolina
2 20 No. Dakota
4 50 Oklahoma
75 Oregon

Oregon

Pennsylvania.

Rhode Island. So. Carolina.

South Dakota

Tennessee.

Vermont.

Wisconsin

Wyoming

Washington ... West Virginia

Virginia

1st Class Freight per 100 Lbs.

7.30

10.05

85 70

50

90

.85 .65

2.57 3.80 2.20 4.20

3 45 .00

3 3 2 5 95 09

60 75 62

2.04

2 06

98

49 Texas Utah.

49

80

75

Express to Chicago Port 100 Pounds

Alabama.

Colorado Connecticut.

Delaware

Florida.

Georgia

Idaho.

Illinois

Iowa.

Kansas

Indiana.

Kentucky.

Louisiana. Maine....

Maryland.

Michigan

Minnesota

Mississippi

Missouri

Montana

Massachusetts.

Arizona Arkansas

How to Order

Send your orders on our convenient Purchase Order forms, or in any other minner convenient to you. Be sure to specify Stock Number and Price of each item. Print your Name and Address plainty.

We will ship C.O.D. Most of our customers prefer to send cash with order to avoid extra collection costs. All orders for heavy merchandise to be shipped to distant points should be accompanied by a 25% deposit.

Wholesale Only

We solicit orders only from those actively and commercially engaged in the radio industry. Radio Bealers, Radio Servicemen—Industria and Institutional Laboratorics, Public Utilities, Schools, Colleges, Engineers and those recognized as engaged in developing the Art of Radio. We will also accept orders from the United States Government, Federal Institutions, State, County, Municipal and other governmental bodies and institutions.

Payment Terms

Our terms are cash with order or C.O.D. Catalog prices are Net—F.O.B. Chicago or factory. All Trade and Cash Discounts have been deducted. While we do not impose minimum order restrictions on our old customers, it will profit you to make up at least \$5.00 orders to avoid additional exchange charges. We will be obliged to pass on to you the exchange charge, made by the Banks, on all personal checks for less than \$5.00. C.O.D. orders from new customers should be accompanied by a \$25% deposit.

Parcel Post Rates

Revised Rates Effective since October 1, 1932. Table for Packages Weighing 1/2 pound to 20 pounds

	Zones 1&2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
Weight in Pounds	Up to 150 miles from Chicago	150 to 300 miles from Chicago	300 to 600 miles from Chicago	600 to 1,000 miles from Chicago	1,000 to 1,400 miles from Chicago	1,400 to 1,800 miles from Chicago	Over 1,800 miles from Chicago
1 2 3 4 5	\$0.08 .10 .11 .12 .13	\$0.09 .11 .13 .15	\$0.10 .14 .17 .21 .24	\$0.11 .17 .22 .27 .33	\$0.12 .19 .26 .33 .40	\$0.14 .23 .32 .41 .50	\$0.15 .26 .37 .48 .59
6 7 8 9	.14 .15 .16 .17	.19 .21 .23 .25 .27	.28 .31 .35 .38 .42	.38 .43 .49 .54 .59	.47 .54 .61 .68 .75	.59 .68 .77 .86 .95	.70 .81 .92 1.03 1.14
11 12 13 14 15	.19 .21 .22 .23 .24	.29 .31 .335 .37	.45 .49 .52 .56 .59	.64 .70 .75 .80 .86	.82 .89 .96 1.03 1.10	1.04 1.13 1.22 1.31 1.40	1.25 1.36 1.47 1.58 1.69
16 17 18 19 20	.25 .26 .27 .28 .29	.39 .41 .43 .45	.63 .66 .70 .73	.91 .96 1.02 1.07 1.12	1.17 1.24 1.31 1.38 1.45	1.49 1.58 1.67 1.76 1.85	1.80 1.91 2.02 2.13 2.24

If the weight of your package exceeds 20 pounds, add 1.1c for each additional pound or fraction of a bound if you live in the 1st and 2nd zones, 2c extra if you live in the 3rd zone, 3.5c extra if you live in the 4th zone, 5.3c extra if you live in the 5th zone, 5.3c extra if you live in the 5th zone, 5.4c extra if you live in the 6th zone, 9c extra if you live in the 5th zone, not live in the 8th zone, NOTE:—Packages weighing over 32 lb. (8 ozs.) and not more than 1 lb, take 1 lb, rate.

NOTE:—Packages weighing over 1 lb, and less than 2 lbs, take the 2 lb, rate. Always Packages weighing over 1 lb, and less than 2 lbs, take the 2 lb, rate. Always use the next higher pound rate for pounds and fractional pounds.

FOR EXAMPLE:

11% lbs, requires 2 lb, rate, 2 % lbs, requires 3 lbs, rate.

How to Figure Express Charges

(1) Total weights of items ordered, as shown on Order Blank. (2) Refer to table above for approximate Express Rates per hundred pounds to your state. (3) Then refer to left hand column of table below and find weight which corresponds with weight of goods you are ordering. (4) Follow to the right, line opposite the weight of goods on your order, through the columns to the column headed by the rate per 100 lbs. to your state. The amount in this Column will be the approximate Express charges on your goods.

Table of Express Charges Based Upon Rate per 100 Pounds

if Rate per 100 Pounds is	\$1.25	\$1.45	\$2.15	\$2.65	\$2.95	\$3,45	\$3.75	\$4.00	\$4.25	\$4.50	\$5.00	\$6.90
Package not over 1 Pound 2 Pounds 3 Pounds 4 Pounds 5 Pounds	\$.36 .37 .38 .38 .39	\$.36 .37 .38 .39 .40	\$.37 .39 .40 .42 .44	\$.37 .40 .42 .44 .46	\$.38 .40 .43 .45	\$.38 .41 .43 .47	\$.38 .42 .45 .49	\$.39 .42 .46 .50	\$.39 .43 .47 .51	\$.39 .43 .47 .52 .56	\$.40 .45 .50 .56	\$.42 .48 .55 .61
10 Pounds.	.44	.46	.53	.58	.61	.66	.69	.71	.74	.76	.86	1.00
15 Pounds.	.48	.51	.62	.69	.74	.81	.86	.90	.93	.97	1.12	1.33
20 Pounds.	.53	.57	.71	.81	.87	.97	1.03	1.08	1.13	1.18	1.38	1.66
25 Pounds	.57	.62	.80	.92	1.00	1.12	1.20	1.26	1.32	1.39	1.64	1.99
30 Pounds	.62	.68	.89	1.04	1.13	1.28	1.37	1.44	1.52	1.59	1.89	2.31
35 Pounds	.66	.73	.98	1.15	1.26	1.43	1.54	1.63	1.71	1.80	2.15	2.64
40 Pounds	.71	.79	1.07	1.27	1.39	1.59	1.71	1.81	1.91	2.01	2.41	2.97
45 Pounds	.75	.84	1.16	1.38	1.52	1.74	1.88	1.99	2.10	2.22	2.57	3.30
50 Pounds	.80	.90	1.25	1.50	1.65	1.90	2.05	2.17	2.30	2.42	2.92	3.62

Outlet 1934 by W. C Braun

THE RADOLEK COMPANY

Juaranteed Ka Dealers' Scientific

You Fix Ordinary Trouble We Repair Sets Requiring Special Test Equipment Any Trouble - Any Condition Any Make

Radio Dealers—Radio Servicemen: This is a Wholesale Super Repair Department for you only. We do no retail repairing. This department is olely for the purpose of assisting Radio Enthers, Schools, Laboratories, Dealers, and Servicemen to make repairs, adjustments, or measurements which require special equipment. When you are up against a repair job requiring the use of equipment that you do not own, and that repair job to Radolek. We will do the job for you, quickly and accurately with the finest in truments available. Your cost is far below what you would have to spend to do a similar job. Schedule of

Schedule of

Laboratory Service Fees hour, Minimum Charge, List Price, \$6.00.

YOUR\$3.00 PRICE

of discount if you bring the chassis in and for it within 5 days. Hot per day storage are is made after 5 days.)

first hour, Service per hour, List, \$4.00. \$2.00 PRICE

Our experience has been that rarely more than an hour is required to repair sets in which the original circuit is intact, and only in most unusual cases is as much as two hours required. Parts for repairs supplied at your regular wholesale catalog prices. Parts selected will be equal to or better in quality than the original part.

Estimates Furnished

Preliminary inspection and test will be made for \$1.50 which amount must accompany your order. An estimate of the out of repair will then be turnished before were it arrised. This inspection fe will be designed from your final charge when we receive your sufferighting the pair. If you do not will the set repaired, we will return the instrument as received with a brief notation of what we believe is the cause of trouble. Where our estimate of the cost of repair exceeds present value of the receiver, (usually about 20% of fit list price) we request your permission to make repairs. Upon request we will quete you an estimate subject to a 50% discount to enable you to secure your customer's consent without disclosing your cost. ing your cost.

Special "Tune-Up" Service

For Radio Receivers which are working but not giving complete satisfaction. We test each individual part and align all trimmers correctly. Ordinary production permits 20% tolerance in all values of resistors or condensers in a receiverwee correct this to within 5% plus or minus the correct value for each part. Tone, selectivity, volume, and distance getting ability are vastly improved by this service. Special "Tune-Up" Special

To this price must be added transportation costs and the cost of parts (at catalog price) which may be nece ary. This "Lab" Service is offered extusively to Radio Servicence und Dealers at this remarkably low cost. Tubes, Chassis, and Speaker hould be sent in for this service.

Radolek's Certified Test

Radolek's Certified Test
A Certified Test Tag, giving the results of our complete analysis of the receiver will be returned to you with the set as part of our Special "Tune-Up" Service. You may sive this to your customer as a record of what has been done to his receiver or you may keep it for your records. Included in this report is the power consumption of the receiver in watts, from which the cost of operating it may be calculated according to your customer's cost per kilowatt of electricity. We test the sensitivity in microvoits with a General Radio Signal Generator, before and after making alignment tests. We measure the hum level in miliwatt. The audio quality is checked with a Cathode-Ray Oscillograph and with the power of the cast frequency of the control of the contro

MAKING THE CERTIFIED TEST INVOLVES
THE USE OF OVER \$5,000 WORTH OF LABORATORY EQUIPMENT. Quotations furnished
on request for testing or calibration of special

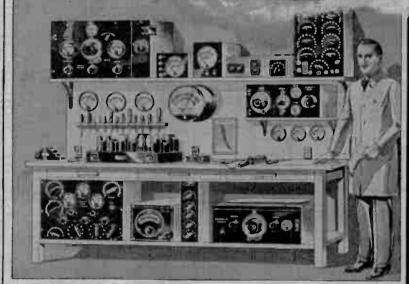
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job, Send the receiver to Redelek's La-boratory!

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Can Guarantee Your Customer Falts Equi or Superior to That Which Might Be Expected from a Factory Service Station.

If your Equipment is inadequate for the job, Send the receiver to R delek's Laboratory!

Any Radio Receiver Can Be Reg. 1 Her. Can Guarantee Your Customer F. alts Equi. or Superior to That Which Might Be Expected from a Factory Service Station.



Exclusively For Dealers And Radio Servicemen

Dealers:

Can You Afford A Full Time First Class Serviceman' Can You Invest Several Hundred Dollars
in Equipment For Hill ther if NOT-Enloy
Radolek's Dealer Repair Service. Your Sales will
depend largely upon the service you can give your
customert. Let this big laboratory insure your
firm's reputation for good service.

Servicemen:

you pass by those unusual jobs on complicated Do you pass by those unusual jobs on complicated sets, just because you lack the expensive equipment that must be used to secure satisfactory results? Do you lack the correct selection of part to make replacements? These are the 'Big Money' jobs in the service business. Ordinary Service Organizations Can't Handle Them. Your customers will appreciate your interest in their set if you tell them that you desire to send it to a Scientific Super Service Laboratory in Chicago where it can be given a complete and thorough examination. examin, tion.

Transportation Charges Must Be PREPAID On All Shipments To Us. All Recoivers Will Be Returned Charges And Express Collect.

Shipping Instructions

Shipping Instructions
FOR FASTEST SERVICE AND CAREFUL
HANDLING, SHIP VIA PREPAID EXPRESS,
Pack the chassis carefully. Include tubes and any
associate apparatus which might be the cause of
trouble, (speakers, revole control
send cabinets occupying more than 12 ubit fost
of space, Inclose with the Expression of the cause of
firm name and address with your instruction and
your customer' complaint. State clearly it you
desire: The most economical repair of the district
part only; A medium class repair nowline are
cequal in quality to the orderin Is and could
include a malet on white the part with better quality
part; or the Radolek Special "Tune-Up" Service.
Always to if you while defective tubes replaced
All defective parts will be returned. Upon request
will communicate with you about the receiver will communicate with you about the receiver via tele run or special delivery, datu the cot or your repair bill. We not vor it render 2 to 5 day service where corren or not receive try. (our all not to ".0.1. in

Complete Equipment

Every possible type of test equipment which could better serve your requirements is included in this Super Service Laboratory. For extreme precision work we have teneral Radio Instruments such the Standard Signal Generator, Low Frequency Oacillator, Thermionic Voltmeter, Beat-Frequency Oacillator, etandards of resistance, inductance and capacity. General Electric, Hickok, Weston, Westinghouse and Jewell precision meters were selected for their accuracy and dependability. A Cathode Ray Oscillograph is employed for locating distortion and checking audio quality. Also all regular parties equipment is available.

Over 8000 different Hems, close to a million individual parts are in the Radolek stock, instantly available to the Laboratory for use in your repair job.

Permanent Registration: Listed in a file under

Permanent Registration: Listed in a file under your name or firm name, is a permanent record of each receiver sent in for repair to assist us in future correspondence with you about the set.

Fast Efficient Service

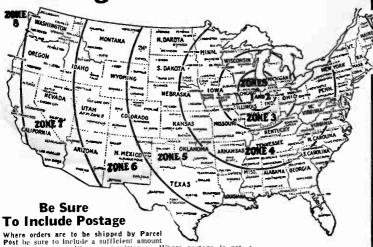


We are prepared to give Dealers and Radio Servicemen immediate attention on all repair Jobs. Our aktiled personel and efficient system of analysis usually permits unally surprise of the day after it is received by University of the Jacks Information in the latest Information in the latest Information in the ratio and that are ordinarily difficult

re ilo and the seel are ble that are ordinarily difficult a marely routine to P. Kennedy, A.M. P. E. in charge of the L. rate fo merly a distribution of the control of the seed of the se

for his many centrical and buting restrictes in Badia Retailing and other trade purilecations. Mr. Kennedy accured his technical trainat one of the country's le din in in order versities. For the past several years had Ing a transfer of the past reverse the Ramer of the Ramer

It's Easy to Figure Delivery **Charges on Your Order**



Where orders are to be shipped by Parcel
Post he sure to include a sufficient amount
to cover postage with your remittance. Where postage is not
included we will ship C.O.D. for transportation charges. You
can avoid the additional expense of C.O.D. collections by sending sufficient postage. Any excess amount that you send for
Parcel Post charges will be promptly refunded.

Table of Approximate Rates

Per 100 lbs. for Express and Freight

From Chicago to	Express per 100 Pounds	1st Class Freight per 100 Lbs.	From Chicago	Express per 100 Pounds	1st Class Freight per 100 Lbs.
Alabama Arizona Arizona Arkansas California. Colorado Connecticut. Delaware Florida Georgia Idaho Illinois Indiana Iowa Kansas Kentucky. Louisiana Maine Maryland. Massachusetts. Michigan Minesota Mississippi Missouri Montana	7 30 3 59 10 05 6 15 3 85 3 70 5 05 3 50 7 90 1 65 2 57 3 80 2 20 4 20 4 50 3 45	1 49 1 42 2 20 2 32 4 50 75 70 98 2 04 1 49 1 25 1 49 1 09 1 49	N. Hampshire. New Jersey New Mexico New York No. Carolina No. Dakota Ohio Oklahoma Oregon Pennsylvania. Rhode Island So. Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin	\$3 90 9 10 4 00 3 75 5 60 3 35 3 75 4 50 2 185 3 75 4 10 4 35 3 75 4 10 4 35 3 90 5 90 9 45 2 95 5 50	1 .43 3 .35 1 .18 2 .50 2 .60 8 .14 5 .10 1 .49 2 .29 2 .65 1 .75 2 .37 4 .13 1 .60

How to Order

Send your orders on our convenient Purchase Order forms, or in any other manner convenient to you. Be sure to specify Stock Number and Price of each item. Print your Name and Address plainly.

We will ship C.O.D. Most of our customers prefer to send cash with order to avoid extra collection costs. All orders for heavy merchandise to be shipped to distant points should be accompanied by a 25% deposit.

Wholesale Only

We solicit orders only from those actively and commercially engaged in the radio industry. Radio Develers, Radio Servicemen—Industrial and Institutional Laboratorics, Public Utilities, Schools, Colleges, Engineers and those recognized as engaged in developing the Art of Radio. We will also accept orders from the United States Government, Federal Institutions, State, County, Municipal and other governmental bodies and Institutions.

Payment Terms

Our terms are eash with order or C.O.D. Catalog prices are Net—F.O.B. Chicago or factory. All Trade and Cash Discounts have been deducted. While we do not impose minimum order restrictions on our old customers, it will profit you to make up at least \$5.00 orders to avoid additional exchange charges. We will be obliged to pass on to you the exchange charge, made by the Banks, on all personal checks for less than \$5.00. C.O.D. orders from new customers should be accompanied by a 25% deposit.

Parcel Post Rates

Revised Rates Effective since October 1, 1932.

Table for Packages Weighing ½ pound to 20 pounds

	Zones 1&2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
Weight in Pounds	Up to 150 miles from Chicago	150 to 300 miles from Chicago	300 to 600 miles from Chicago	600 to 1,000 miles from Chicago	1,000 to 1,400 miles from Chicago	1,400 to 1,800 miles from Chicago	Over 1,800 miles from Chicago
1 2 3 4 5	\$0.08 .10 .11 .12 .13	\$0.09 .11 .13 .15	\$0.10 .14 .17 .21 .24	\$0.11 .17 .22 .27 .33	\$0.12 .19 .26 .33 .40	\$0.14 .23 .32 .41 .50	\$0.15 .26 .37 .48 .59
6 7 8 9	.14 .15 .16 .17	.19 .21 .23 .25	.28 .31 .35 .38 .42	.38 .43 .49 .54 .59	.47 .54 .61 .68 .75	.59 .68 .77 .86 .95	.70 .81 .92 1.03 1.14
11 12 13 14 15	.19 .21 .22 .23 .24	.29 .31 .33 .35 .37	.45 .49 .52 .56	.64 .70 .75 .80	.82 .89 .96 1.03	1.04 1.13 1.22 1.31 1.40	1.25 1.36 1.47 1.58 1.69
16 17 18 19 20	.25 .26 .27 .28	.39 .41 .43 .45	.63 .66 .70 .73	.91 .96 1.02 1.07	1.17 1.24 1.31 1.38 1.45	1.49 1.58 1.67 1.76 1.85	1.80 1.91 2.02 2.13 2.24

If the weight of your package exceeds 20 pounds, add 1.1c for each additional pound or fraction of a pound if you live in the 1st and 2nd zones, 2c extra if you live in the 3rd zone, 3.5e extra if you live in the 4th zone, 5.3e extra if you live in the 5th zone, 7c extra if you live in the 6th zone, 9c extra if you live in the 7th zone, and 11c extra if you live in the 8th zone.

NOTE:—Packages weighing over ½ lb. (8 ozs.) and not more than 1 lb. take 1 lt. rate.

1 th. rate. Always Packages weighing over 1 lb. and less than 2 lbs. take the 2 lb. rate. Always Packages weighing over 1 lb. and less than 2 lbs. take the 2 lb. rate. Always use the next higher pound rate for pounds and fractional pounds. FOR EXAMPLE: —1% lbs. requires 2 lb. rate. 2 % lbs. requires 3 lbs. rate.

How to Figure Express Charges

(1) Total weights of items ordered, as shown on Order Blank. (2) Refer to table above for approximate Express Rates per hundred pounds to your state. (3) Then refer to left hand column of table below and find weight which corresponds with weight of goods you are ordering. (4) Follow to the right, line opposite the weight of goods on your order, through the columns to the column headed by the rate per 100 lbs. to your state. The amount in this Column will be the approximate Express charges on your goods.

Table of Express Charges Based Upon Rate per 100 Pounds

I dip.	· · · -	Ap. 000		800 -		PO						_
if Rate per 100 Pounds is	\$1.25	\$1.45	52.15	52.65	\$2.95	\$3.45	\$3.75	\$4.00	\$4.25	\$4.50	\$5.00	\$6.90
Package not over 1 Pound 2 Pounds 3 Pounds 4 Pounds 5 Pounds	5 .36 .37 .38 .38 .39	\$.36 .37 .38 .39 .40	\$.37 .39 .40 .42 .44	\$.37 .40 .42 .44 .46	\$.38 .40 .43 .45	\$.38 .41 .43 .47 .50	\$.38 .42 .45 .49 .52	\$.39 .42 .46 .50	\$.39 .43 .47 .51 .54	\$.39 .43 .47 .52 .56	\$.40 .45 .50 .56 .61	\$.42 .48 .55 .61 .68
10 Pounds 15 Pounds 20 Pounds	.44 .48 .53	.46 .51 .57	.53 .62 .71	.58 .69 .81	.61 .74 .87	.66 .81 .97	.69 .86 1.03	.71 .90 1.08	.74 .93 1.13	.76 .97 1.18	1.12 1.38	1.00 1.33 1.66
25 Pounds 30 Pounds 35 Pounds	.57 .62 .66	.62 .68 .73	.80 .89 .98	.92 1.04 1.15	1.00 1.13 1.26	1.12 1.28 1.43	1.20 1.37 1.54	1.26 1.44 1.63	1.32 1.52 1.71	1.39 1.59 1.80	1.64 1.89 2.15	1.99 2.31 2.64
40 Pounds	.71 .75 .80	.79 .84 .90	1.07 1.16 1.25	1.27 1.38 1.50	1.39 1.52 1.65	1.59 1.74 1.90	1.71 1.88 2.05	1.81 1.99 2.17	1.91 2.10 2.30	2.01 2.22 2.42	2.41 2.57 2.92	2.97 3.3# 3.62

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LOCATES YOUR WANTS OUICKLY

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Estimates Furnished

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Special "Tune-Up" Service

For Radio Receivers which are working but not giving complete satisfaction. We test each in-thiridual part and align all trimmers correctly. Ordinary production permits 20% tolerance in all values of reastors or condensers in a receiverwee correct this to within 5% plus or minus the correct value for each part. Tone, selectivity, volume, and distance getting ability are vastly improved by this service. Special "Tune-Up"

To this price must be added transportation costs and the cost of parts (at catalog price) which may be nece ary. This "Lab" Service is offered exclusively to Radio Servicemen and Dealers at this remarkably low cost. Tubes. Chassis, and Speaker should be sent in for this service.

Radolek's Certified Test

RAGOICK'S CERTIFIED TEST

A Certified Test Tag, giving the results of our complete analysis of the receiver will be returned to you with the set as part of our Special "Tune-Up" Service. You may give this to your customer as a record of what has been done to his receiver or you may keep it for your records. Included in this report is the power consumption of the receiver in watts, from which the cost of operating it may be calculated according to your customer's cost per kilowatt of electricity. We test the sensitivity in microvits with a General Radio Slonal Conin microvolts with a General Radio Signal Generator, before and after making alignment tests.

We measure the hum level in milliwatts. The we measure the hum level in milliwatts. The audio quality is checked with a Cathode-Ray Oscillograph and where in the i improved. For future reference, the report in ludes the exact frequency at which the LF, takes are pecked. Voltages at all locket are not used on a 1000 ohm per voil precision meter. So with A.V.C. action are tested with a G. R. Thermionic Tube Voltmeter, the most accurate method of determining the extent of A.V.C. known

MAKING THE CERTIFIED TEST INVOLVES
THE USE OF OVER \$5,000 WORTH OF LABORATORY EQUIPMENT. Quotations furm and
on request for testing or calibration of special apparatus

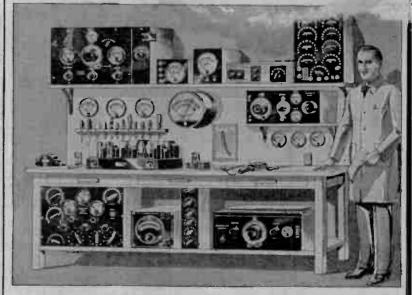
Enhance Your Professional Reputation! Seek the "Hard-to-F'x" Radio Sets

If your Equipment is inadequate for the The Finest Radio shorator-job, Send the receiver to Podelek's La Ar New Avai the

if your Equal the receiver to boratory!

Any Radio Receiver Can Be Real I Hard or Can Guarantee Your Customer Failts Equal or Superior to That Which Might Be Expected from a Factory Service Station.

Ar New Avoi the n Difficult Pro len Competant Engineering Familiar More Difficult Pro my Y II noted the Best of Service one the Most re Cooperation Hers.



Exclusively For Dealers And Radio Servicemen

Dealers:

Can You Afford A Full Time First Class Serviceman f (an You Invest Several Hundred Dollars
in Equipment For III IF NOT-Enloy
Radolek's Dealer Repair Service. You Sales will
depend largely upon the rervice you can give your
customer. Let this big beardory assure your
firm's reputation for good service.

Servicemen:

Servicemen:
Do you pass by those unusual jobs on complicated sets, Just because you lack the expensive equipment that must be used to secure satisfactory results? Do you lack the cerrect selection of parts to make replacements? These are the 'Big Money' jobs in the service lausiness. Ordinary Service Organizations Can't Handle Them. Your customers will appreciate your interest in their set if you tell them that you delire to send it to a Scientific Super Service Laboratory in Chicago where it can be given a complete and thorough examination.

Transportation Charges Must Be PREPAID On All Shipments To Us. All Receivers Will Be Returned Charges And Express Collect.

Shipping Instructions

Shipping Instructions
FOR FASTEST SERVICE AND CAREFUL
HANDLING, SHIP VIA PREPAID EXPRESS,
Pack the chassis carefully. Include tules and any
associate apparatus which might be the cause of
trouble, (speakers remote controls, etc.) Do not
send cabinets occupying more than 1½ cubic foot
of space. Inclose with the Express hippent your
firm name and address with your in truction and
your cutemer and address vib your intruction and
your cutemer and. State clearly if you
desire: The most economical repair of the defective
part only; A medium class repair involving parts
equal in quality to the original; and a carefully
insection of the entire set; A Laboratory repair
including a complete overlaudies and replacement
of weak or detective parts with better quality
parts; or the Radolek Smedal "Tune-Up" Service.
Always tate if you wish defective tubes replaced
All defective parts will be returned. Upon request
we will communiste with you about the receiver
via telegram or special clifty, deline the contory of the part of the control of the conyour repair bill. We make to render 2 to 5
day service where correspondered in not necessary.

Woold-bedie littley.

Complete Equipment

Complete Equipment

Every possible type of test equipment which could better serve your requirements is included in this Super Service Laboratory. For extreme precision work we have General Radio Instruments such a the Standard Signal Generator, Low Frequency O cillator, Thermionic Voltmeter, Beat-Frequency Occillator, standards of resistence, inductance and capacity. General Electric, Hickok, Weston, Westinghouse and Jewell precision meters were selected for their accuracy and dependability. A Cathed Ray Oscillograph is employed for locating distortion and checking audio quality. Also all regular service equipment is available.

Over 8000 different Items, close to a million

Over 8000 different items, close to a million dividual parts are in the Radolek stock, inantly available to the Laboratory for use in your stantly

Pepair 100.

Permanent Registration: Listed in a file under your name or firm name, is a permanent record of each receiver sent in for repair to assist us in future correspondence with you about the set.

Fast Efficient Service



We are prepared to give Dealers and Radio Servicemen Immediate attention on all repair jobs. Our skilled personel and efficient system of analysis usually permits us to ship your repaired set cheday after it is received by u. Only experienced engineers work on your radio. The man are in the touch with the latest information about radio and the sale problem that are ordinarils difficult amercily routine takes.

merely routine tak.

J. P. Kennedy, A.M.! R.E.
in hr of th I rest
formerly a ridit in tractor

for his many technical and but in prenot-articles in Radio Retailing and ther trade publications. Mr. Kennody secured his technical train tl country's leading engineering for the pate year and re he had at one of ing at one of the country leading engineering. Understites. For the pite valver he are day as a consulting engineer for the Radolet Company Every chais ent in for repair mureceive his personal inspection before being



re is a Receiver that Meets Today's Demand. Right in Price-Right in Design and Right in Performance! "Let's Look at the Records"

ere is a growing demand for Sets it will consistently bring in for-n short-wave broadcasting. News-pers are featuring this new Radio ill and are printing much informaill and are printing on on short-wave schedules and on short-wave schedules are grams. This publicity is creating prospects by the thousands for Receivers, but pgrams. This publicity is creating a prospects by the thousands for ter Dual-Wave Receivers, but set Sets capable of spanning the sare too expensive for the averfamily to buy. These facts are portant to YOU because they ke sales casy for you with this proved low-priced Radolek 7-Tube p rh t. w Higher Quality at Lower Cost

w Higher Quality at Lower Cost
Was Achteved
is New Radolek Model combines a regthroadcast and specialized Short-wave
of brilliant performance. At a
w Price. To accomplish this required
tue engineering. Its designers appretued the fact that practically all domesand foreign program-broadcast is coned to just two wave bands—350 to 1300
togycles and 6 to 17 megacycles—and inprorated only these ranges in this Rever. This very sensible specialization
the two major bunds made possible a
tter Receiver at a Lower Cost by ellmsing engineering obstacles as well as
seentrating development and manufacturg expenses on essentials.

Precision Workmanship

expenses on essentials.

Precision Workmanship
you examine this New Raddlek Model
are sure to be impressed by the mustult workmanship evident in every detail
its design and construction. Only the
set materials are used and each comtent matches with laboratory precision
runnirements of its partitude in the strt. You will notice its husky nower
nsformer—oversize to insure coal opermover long periods. You will also
the that Resistors and Condensers are
only the best known makes, but also
carily selected as to their current and
tage carrying capacities.

cally selected as to their current and the carrying capacities.

The Circuit as Superheterodyne, this seceiver is sensitive. Its seven tuned circuits develop excellent selectivity. Equally performance on both bands is accommend through the supert ion of image uncles by uln a three-gang funing denser and by placing a stage of THE first on a head of the first Detector operates on both bands and provides ry high signal to image ratio. The latest type Tubes are used: 2-6Did latest type Tubes are used: 2-6 designed to realize the full adfrieir improved performance
these and provides more than
er with smooth, distortionless.

Jensen Dynamic Speaker
Im fine the entire output of
only odd. The AVC is unusto an admaintain a uniform
of the river of the permits fretransfer are, to only the indion the distorer. el ties fie na

"Let's Look at the Records"

It is easy to write a glowing description of Radio performance but it's quite another matter to build the Radio that measures up to claims made for it. You know this and so do we. Therefore we prefer to simply give you the following record of this Set's reception during a single afternoon here in Chicago, and let the facts speak for themselves:

DJCZeezen, Germany
W3XAUPhiladelphia, Pa.
CP5 La Pas. Bolivia
HJIABBBarranquilla, Columbia
EAQ Madrid, Spain
GSC Daventry, England
YV3BCCaracas, Venezuela
OXYSkanileback, Denmark
12RORome, Italy

All of these stations were received with sufficient volume to be easily identified and the majority came in clearly enough to be considered acceptable entertainment. While we freely admit that time, weather conditions, location and the skill of the operator play a large part in the successful reception of short waves, we do believe that here, at last, is a Receiver which you can legitimately sell and represent to your customers as one from which direct your customers as one from which direct reception from Europe and other foreign countries can be expected.



New Airplane Dial

New Airplane Dial

The 3½ inch Airplane Dial of this Set is
unique in design and construction. The upper
lauf is graduated in meracycles for the shortwave band and the lower half, in kilocycles,
for the standard broadcast band, better the standard broadcast band,
is illuminated and the drive is vernier; when
the standard broadcast band is switched in,
the lower half is illuminated and the drive
becomes normal, or direct.



A CHOICE OF TWO MODELS The Console Model

The Console Model

The "Trans-Occanic" is available in one of the most distinctive of Consoles, It is modern without being bizarre; massive but not ponderous. It is eminently in good taste and will harmonize well with any interior. The upper front panel and center of top are of California Burl walnut in contrasting shades. Sides, base and fluted corners of select straight grain walnut. Beautifully finished throughout. Knobs to match. Overall size 10% inches deep, 204/2 inches wide, 36 inches high.

14 E 10984—Radolek "Trans-Occanic" Console Model for 105-120 volt 50/60 cycle A.C. Complete with 7 RCA Tubes.

List Price, \$74.50.

YOUR PRICE

The Table Model

The Table Mode

The Table Mode

The Those who prefer the "Trans-Oceanic" Chassis and Speaker may be had in the beautiful Table Model Console shown at the right. This console matches the beauty and quality of the one above and is of sufficient proportions to provide adequate baffle area for its husky Jensen Dynamic Speaker. Overall size 13½ inches wide. 95% inches deep. 17½ inches high.

14E10985—Indolek "Trans-Oceanic" Table Model for 165-120 with 30 80 cycle A.C. Complete with 7 IUCA Tables.

List, \$39.50. YOUR PRICE

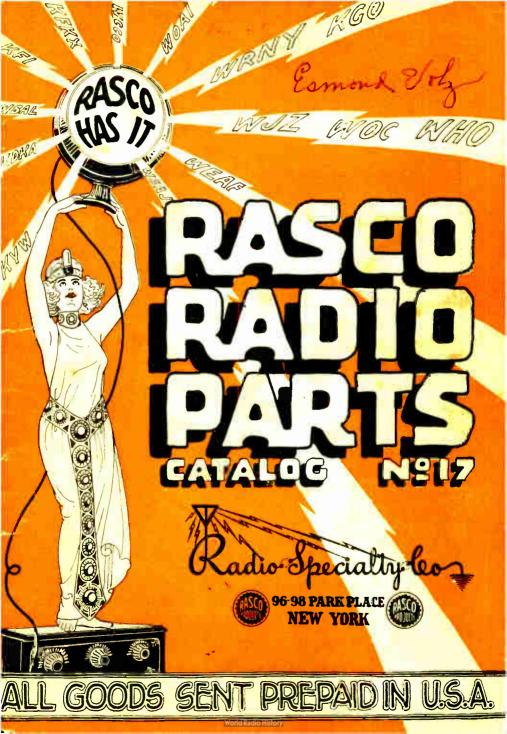
List, \$59.50. YOUR PRICE



THE WALL T. C. Bran.

THE SAUDLER COMPANY





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FOREWORD

THIS Company is unique in the most complete stock of its kind in New Radio Field to-day, inasmuch as it York City, and ship invariably the is the only one in existence specializing same day the order is received. Just try exclusively in small parts, raw materials and everything in fact, that goes into the making of standard modern radio apparatus.

glauce through our catalogue. which is unusual in many respects, will readily confirm this.

It is the only catalogue containing a great assortment of radio vacuum tube hook-ups, which are printed in the back of the book. This feature alone is quite important and will be the cause to keep this catalogue in your pocket at The diagrams are the 75 all times. most important vacuum tube hook-ups in use today. They will prove very handy and instructive at all times.

Note that this company has factories in Brooklyn, N. Y., and Elkridge, Md., and that most of the material shown here, on account of our own manufacture, can be sold cheaper and better than most other houses offer.

If in rare cases our prices are higher, remember that our materials must be better, besides we prepay all postage, or express on the great majority of all goods. You will find that by dealing with us, in the long run, you will not only save money, but annoyance as well, for our material is absolutely the best that money can buy.

When ordering, always be sure to give catalogue number. Goods by mail and parcel post are at your risk. In 99 cases out of 100 the goods will arrive without fail. If you wish to be absolutely sure, enclose a small fee for insured parcel post, 3c for \$10.00 insurance, 5c parcel post, 3c for \$10.00 insurance, 5c and with no delay, as we are situated right in for \$25.00 insurance. We carry the the heart of the World's Greatest Radio Center.

us once.

We pride ourselves justly on our Service. The reputation of this house has been built upon Service. You will be amazed to find how fast we ship. We can only disappoint you once. Remember that most of our orders are small and that consequently the profit for us is very small. Only by continuous reorders and by satisfied customers can we thrive and that means. Service, careful Service, courteous Service, prompt Service.

You will find in dealing with us, that you are never disappointed, you will never have occasion to write complaints to us. You will be surprised at the quick deliveries, unprecedented in mail order annals. Always remember that Rasco is a synonym for Service.

Before ordering, please read carefully

We accept no order for less than \$0.50. C.O.D.'s are only accepted if a 25% deposit accompanies your order. We make no C.O.D. shipments to points outside of the United States.

Our only terms, CASH WITH ORDER. No

accounts can be opened with private individuals. as our low prices do not justify this.

Note particularly, all goods are shipped prepaid, throughout the United States. We pay the charges. We guarantee delivery to you in good condition. Should anything arrive broken, we will

make good immediately upon receipt of advice.

Remittances can be made by New York Draft. Post Office or Express Money Order, or by registered mail. Never send money unregistered. Out of town checks accepted if 10c for exchange is added. United States stamps if in good condition are accepted instead of cash, in any amount.

Shipments to points outside of the United States MUST BE ACCOMPANIED BY TRANSPORTATION CHARGES.

Whereas we carry in stock a representative line of Radio sets and parts, we will cheerfully obtain any items not listed in this catalogue.

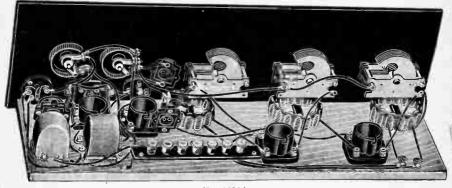
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MARK

96-98 PARK PLACE

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RASCO 5-TUBE TUNED RADIO \$ 1795



No. 9216A

In laying out the wonderful receiver we are offering you, we decided to incorporate within this Radio Kit all of the best features to be found on commercially built Radio sets, selling for as high as even \$200.00. But the following natural obstacles, all purely electrical, had to be first considered:

The lower the wave length to be received, the greater will be the tendency for the radio frequency tubes to fall into oscillations, commonly

termed "whistles" and "squeals."

If this tendency is curbed, then it severely impairs the efficiency of reception on the higher wave lengths, especially when distance reception is desired. And, vice versa, if you allow the higher wave lengths to come in near the point of oscillation, and set your adjustment there, with respect to the suppression of these osciNations, then, as you go lower down the wave length band, these oscillations become more and more severe, finally preventing you from even hearing the broadcasting station behind those oscillations.

Too short an aerial will promote extreme selectivity, that is, enable you to tune in distance stations while "locals" are broadcasting, but at the same time, those self-same oscillations will become violent on the average selfneutralized type of Radio kit or factory assembled sct. To eliminate this condition, you must on those sets lengthen your aerial, but this will impair your selectivity, making your tuning broad," working to a decided disadvantage in big cities where two to fifteen stations are broadcasting at one time.

Where a long aerial and lead-in is employed, through necessity, true, a fixed condenser, say, measuring .00025 to .001 mfd. may be inserted in the antenna lead, but this will produce the same effect as experienced with too short an antenna.

Our engineers, realizing these fundamental obstacles are ever present, decided to design a set that would embrace a universal circuit, in which the Radio set could be immediately suited to the correct conditions for your particular length antenna, and at the same time adjusting

the receiver for maximum efficiency at every wave length. Summing up, distance stations on 500 meters wave length can he tuned in with as much volume and clarity as those stations operating around 225 meters.

And strange to say, the operation of this most And strange to say, the operation of this most unusual Radio set we are offering you is no more difficult than other 5-tube receivers—there are but three tuning dials, which can be logged for future reference, and this one additional dial, which permits of all this wonderful reception. It is simply adjusted to a point at which the station will be received in a flood of volume, yet

never with any sacrifice of clarity. And remember, this is not a small set thrown together with questionable parts-refer to our list of parts, and notice the nationally advertised items used. The average concern would, and does, sell sets of this type (5 tubes) on a 7 by 18-inch panel in a 7-inch deep cabinet. We use a 7 x 24-inch panel. The crowding together of contractions of the parts of the contraction of the contracti instruments always results in unwanted feed backs, uncontrollable howls, etc., which are com-pletely overcome in our engineered product. And there is no other concern in this country who can compete with us offering the self-same value—our tremendous volume of business has made this low price possible, in the same way that tremendous volume of business made the Ford car what it is to-day.

Note that the panel comes to you already drilled and engraved, which means that a ten-year-old child can assemble this receiver. Our blue print and detailed instructions furnished will show you how to first assemble and wire the panel, independent of the baseboard, then to assemble and wire the baseboard independent of the panel finally established the panel finally establishe of the panel, finally attaching the panel to the baseboard, and completing the assembly in a

few minutes.

Build Your Own Receiver—

It's Easy The "No-Sod-er" Way Revolutionary Improvement in Assembling Radio Sots

BIGGEST VALUE IN AMERICA

No solder—No bare wires—No poor connections—No dissatisfaction.

No tools needed except a common screw-driver and common pliers.

December 1981

All connections are made by the use of our flexible, insulated eyeletted connecting wire in place of bus bar or wire, and solder.

And in a fraction of the time usually required when using the old fashioned way. And when the job is done it is neat and your connections are tight.

We Furnish a Special Blueprint Free With Each Kit

Connections Always Perfect
The binding posts are numbered in pairs, two marked No. 1, two marked No. 2, etc. All you have to do to make your connections is to take one of our flexible wires of the proper length, which we furnish, to run from one of the posts numbered 1 to the other post bearing the same number; another between the two posts marked No. 2, and so on. You place the eyelet at the end of our wire over the post, and with your pliers screw the cap down tithered.

over the post, and with your pliers serew the cap down tight, and you have made a perfect connection complete in only a fraction of the time it would take you to cut and bend a bus wire and heat the now useless soldering iron.

No Expense for Soldering Tools

In addition to the saving of time and bother, you save the expense of a soldering outfit. This is only one of the many benefits you gain in dealing with us. No Skill or Knowledge Required

When you consider the fact that it is very difficult for most people to do a neat job of soldering and that no matter who you are you could attach a connecting wire by our method without any previous knowledge or practice whatsoever, and without any skill in radio, you will realize what a tremendous improvement this is over the old way.

Had you seen, as we have seen, hundreds of wired sets looking as though they had just been through a cyclone, you would see that a neat job of assembling by a novice or one not expert is the rare exception.

Cannot Break

Our whie is stranded, and covered first with rubber insulation and then fine woven webbling, and may be bent and twisted without danger of breaking. The eyelets cannot come off, so you have a connection that is firm, safe, durable, permanent, and you know that in merely moving or shaking your sol there is no fear of shaking a connection loose.

No Short-Circuits

As our wires are insulated, you will never have the danger of a short circuit and the burning out of your tubes from these connections through accidentally bringing them together and touching each other or dropping over them a bare wire or a tool as in using the old-style solder and bare wire connection.

OUR Balanced Interflex Set is also equipped with "No-Sod-er" Connectors.

NOTICE — You can change your "No.Sod-er" Connectors from one hook-up to another as often as you please. No danger of damaging or destroying a connector or instrument, such as jacks, switches, etc., as in tearing off tight, soldered bus-bar.

SPECIAL FEATURES:

Maximum efficiency on all wave length. Any length serial can be used with this set. Indoor aerial may be employed.

Radically improved plan of assembly.

Frovision of "C" battery insur-

Ing perfect clarity and doubling life of "B" Batteries.
Provision for power amplification in last stage with accompanying "C" battery changes.
Employs a perfect volume con-



No. 9216

Parts included in this Receiver

Cabluet, mahogany finish, 7" x 24" x 7". Panel, drilled and engraved, Bakelite Dilecto 7" x 24".	3.50	Fixed Condensers Pilot .002	0.32 .62 .35
Baseboard, laminated	.40	2 Carter 4 ohm Resistances.	
3 Freshman Type Colls-Our No. 2629	1.05	Carter 4 ount Resistances	.30
3 Pilot Variable Condensers .00038 S.L.F.	- 1	Necessary hardware, screws, angles, etc	.25
Modified	5.10	Blue Print and Instruction Sheet	1.00
3 1" Pilot Bakelite Dials	.7.5		
2 Transformers, Audio Frequency, Pacent @ \$3.75		Total Price of Set	3.01
		Our Price, Catalogue No. 9216\$2	2.95
I 6 ohm Pilot Rheostat	. 16	9216A Same as above, but without	
t 400 ohm Potentiometer Pilot	.81		
5 Sockets, Pilot Bakelite low loss,	1.25	cabinet\$1	7.95
Jack double circuit improved	.70	9216B Same as 9216A, but with Pacent	
	.85	U.X. Sockets\$1	0 45
Jack single circuit filament control improved			9.43
Switch, Pilot	.36		
Fixed Grid Condenser and Mountings, Pilot	.35	No. 9372 Superaudioformers\$2	4.55

Make Big Money by assembling these Kits into sets and selling them complete to friends and business houses who need a First Class Radio. Many of our customers sell these completed sets from \$30.00 upwards.

World Radio History

<u> Pundendusen internus reporta en erjesta "de rejables de de la pro-</u> THE RASCO (NF.-DA) CONTROLLED

5-TUBE TUNED RADIO FREQUENCY RECEIVER

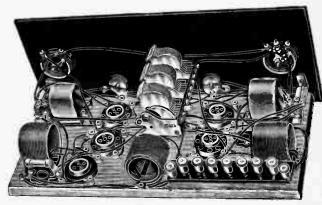
\$23.95 POSTPAID

COUNTRY-WIDE RECEPTION THE SINGLE

A LABORATORY PRODUCT

SELECTIVITY SENSITIVITY CLARITY VOLUME LOW UPKEEP QUICKLY BUILT

NEW MODE OF



No. 8888

For the past few years we have been selling our No. 9216 5-tube tuned radio frequency receiver kit to our customers in every quarter of this world. The unsolicited testimonials all acknowledged the superiority of that receiver to commercially assembled models of other makes selling for many times its modest cost—about 6 out of every 10 such testimonials requested us to post them immediately upon our offering of a one dial receiver incorporating the self-same circuit. And, thus, for the past two years we have been experimenting to perfect this receiver of apparent universal appeal. We are indeed proud to offer it in its now completed an experimenter of the past two years we have been experimenting to perfected form—We have been entirely successful in accomplishing the goal of every serious radio fan and experimenter. ... A perfect one-dial controlled 5-tube receiver. To accomplish this, we long since realized the absolute necessity of standard quality parts—our list appended below will certainly testify to our selection litereof. Then, after earefully weighing the matter from list every angle, we decided to so construct this receiver, that in a moment, without lifting the cabinet overe or re-callbrating the tuning instruments, you could vasil yourself of the unquestionable superiority of the conventional 3 dais for extreme long distance reception. This is very simply accomplished: You will note on either side of the triple gang condenser, a small 7-plate midget condenser, each of which is shunted to the center and front sections of the main condenser, and are conventional 5 years and knobs on the panel with engraved white arrows thereon. The center venter dal is rotated to the desired wave length setting, and then these midget condensers are used to complete the perfect tuning of that wave length, taking but a moment to time. The every back to true one of the solenoid type, air spaced wound and ductances are of the solenoid type, air spaced wound and

2 inches in diameter; the three of them are very carefully matched, as are the 3 sections of the triple condenser, insuring a wave length range of 200 to 550 meters. The sockets will accommodate any standard U X base tube, and for this reason, this receiver can be successfully used with either for cell or storage battery tubes. The oscillations in the R.P. stages are very tubes. The oscillations in the R.P. stages are very castly controlled with a potentiometer, and by virtue of this method, truly remarkable long distance reception with surprising volume is at all times within the range of this receiver—incidentally, this control is also used to subdue the enormous volume, in any degree you may desire. In our latest models, those kits are furnished with one single filament control jack, eliminating the necessity of a separate battery switch (removing the phone or speaker plug from the jack automatically disconnecting the batteries from the receiver) and simplifying the construction and assembly for your every henefit. ing the construction and assembly for your every henefit. In appearance, this receiver will most certainly grace any room in which it is placed—herfect symmetry of design and convenience of the few simple controls are very eight of the control of ing the construction and assembly for your every benefit.

part used has a letter designation, which, when referred to on the blue print, tells you what this instrument is, and what it does. The base board layout is full size, therefore, you could not possibly go wrong at this stage of the assembly—you merely lay the blue print on the baseboard and mark the center holes where every screw will hold down any particular item, removing the blue print, as soon as you are ready for this assembly. As thouse a soon as you are ready for this assembly. As thouse a casaat stage, either. No soldering of wires is at all one acts at stage, either. No soldering of wires is at all one acts at stage, either. No soldering of wires is at all one the same is true tightening the beit thereon—a moment; as the wire free such as the part of the particular items to you can a such a point. How could you go wron? Who you want a 6-inch when from such up you wron? Who you want make that comection have to know why you must make that comection have to know why you must make that comection have to know why you must make that comection have to know why you must make that comection have to know why you must make that comection have to know why you must make that comection have to know why you must make that comection will be a such a point. The work of the panel is attached to the base beard, or your mechanical convenience—and the same is true wired before the panel is attached to the base beard, or you attach the panel to the baseboard and complete the two wattach the panel to the baseboard and complete the panel wired headers of addition of the panel are my read to the panel are my remaining connections between the instruments on the panel, and on the baseboard. Should you wish to use a work of the panel are provided. A trouble my panel will be the panel with the panel are poorly insulation, the direction, one you have a poorly insulation whereof. The panel were furnished are appropriately insulated, you need to be wree furnished are appropriately insulated, you need to be the panel are as short as p 100% pleasing clarity.

1 Fanel 7 by 18 inches drilled and engraved Bakelite	r
Bakelite 1 Baseboard, 7% by 17 inches Laminated (non- warping) 3 Colis, 2-inch diameter Solenoids — air space wound 1 V.S.L. Triple .00035 Variable Condenser.	
1 Baseboard, 7% by 17 inches Laminated (non- warping) 3 Coils, 2-inch diameter Solenoids — air space wound 1 U.S.L. Triple 00035 Variable Condenser.	\$3.50
warping) 3 Coils, 2-inch diameter Solenoids — air space wound 1 U.S.L. Triple .00035 Variable Condenser	43.30
3 Colls, 2 inch diameter Solenoids — air space wound	.60
wound	
1 U.S.L. Triple .00035 Variable Condenser	5.00
	5.75
l l'ilot Kilograd Vernier Dial	1.00
2 7-plate Midget Condensers	1.50
2 Engraved Miniature Knobs	.50
2 Pacent Shielded Audio Transformers	7.50
1 10 Ohm Pilot Rheostat	.46
1 400 Ohm Pilot Potentiometer	.81
3 Carter Fixed Filament Resistances	.75
5 Pilot Fit-all Sockets	1.40
1 Pilot Single Circuit Filament Control Jack	.50
1 Pilot Grid Leak Condenser and 2 Megolim Leak	.85
1 Pilot .002 Fixed Condenser	.35
1 Pilot .005 Fixed Condenser	.50
1 Binding Post Strip, Complete with Posts.	
Angles, etc.	.35
NO-SOD-ER connecting wires-complete set	1.75
Necessary hardware, screws, angles, etc	.25
Blue Print and Detailed Instruction Sheet	1.00

No. 8888 Our Very Special Price PREPAID .

No. 8889 Above Kit, with 7 x 18
Walnut Cabinet, 8 inches deep.
(Cabinet is shipped via Express Collect.



Silver Marshall Single Control No. 620 Silver Cockaday Kit

\$59.25 POSTPAID

b

Next to the 5-tube 3dial tuned Radio frequency circuit, the most widely one used is the Roberts type-



is the Roberts type—
one that employs a
stage of tuned Radio
frequency followed by
a regenerative detector and the usual stages of audio
frequency amplification. Appreciating this fact, the
graph of this circuit, making several valuable improvements
thereto. Nete that this kit is a one dial control job.
By virtue of the plug-in coils, the wave length range is
variable at will from 50 to 2500 meters. The regenerative detector employs a fixed regenerative coil, controlled
by a C.R.L. variable resistance on the panel. U.X.
sockets permit the use of any type of tubes—including a
power tube in the 2nd audio stage. Wiring is extremely
simple—Belden cable harness being furnished—all wires
are cut to exact length. The enormous volume produced
by this exceptional receiver is due to the use of the new
super-Thorderson transformers, and the quality and clarity by this exceptional receiver is due to the use of the new super-Thordarson transformers, and the quality and ciarity are perfect. The panel and sub-panel furnished are beautifully drilled and engraved Bakelite. By reason of the carefully engineered layout, the assembly of this remarkable receiver can be accomplished in surprisingly rapid time, by even the layman who has never assembled a receiver before. The overall dimensions of the kit, when assembled, are 7 inches high, 18 inches long and 6½ inches deep. Licensed under Armstrong U. S. Begeneration Patent No. 1,113,149.

Parts Supplied in the Silver Cockaday

- No. 316 Silver-Marshall .00035 Candensers. No. 515 Silver-Marshall Coil Sockets. No. 110A SM Coil. No. 114A SM Coil. No. 510 SM Tube Sockets. Vernier Dial.

- No. 310 NM 100e Soxets,
 Vernier Dial.
 No. 113P Midget Condenser.
 Pair Mounting Brackets,
 S-C Thordarson Power Transformers No. 200.
 Yaxley 6 Ohm Rheostat.
 No. 1 Yaxley Open Circuit Jack.
 No. 2A Yaxley Two Circuit Jack.
 Yaxley Battery Switch.
 Centralab Resistance, 25,000 Ohm.
 Belden Wiring Harness.
 Polymet .00015 Condenser with Leak Clips.
 Polymet .002 Condenser.
 Polymet .005 Condenser.
 Polymet .05 Condenser.
 Polymet .05 Megohm Leak.
 7x18 Drilled and Processed Front Panel.
 Drilled Sub-panel.

- 1 Drilled Sub-panel.
 1 Wiring Instruction and Color Chart.

No. 9967 Complete Kit, as Listed, \$59.25 Without Cabinet



No. 9967A The same with Cabinet

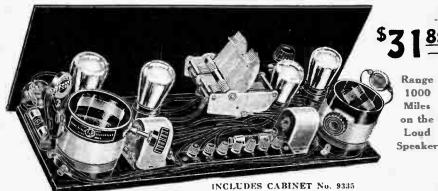
\$75.45

Balanced Interflex Four-A Four Tubes

A Revolutionary Improvement!

The Single-Dial One-Control Receiver the World Has Been Waiting For!

The Discovery and Development of Hugo Gernsback, Editor of RADIO NEWS



An Innovation—Ahead of All Other Sets The Balanced Tuned Interflex Four-A comprises one the balanced Tunet Internet Four-A comprises one stage of time-I radio frequency, crystal detector and three stages of audio frequency amplification, of which the two last stages are transformer coupled.

last stages are transformer coupled.

This is the first read single control tuned radio f equency set. Only one dial or control—no compensation of are kind; tis volume is not only great, but tremendous, it does not howl or squeal, and brings in the stations by turning one lone knob. This feature makes it greatly to be desired by the old folks and others who do not wish to bother with several centreds. Stations can be logged with a single row of figures. The most easily tuned receiver in existence. of figures. The most easily tuned receiver in a And you will be surprised at the high selectivity.

Automatic — No Switches
When through receiving with the Balanced Interfex
Four-A you hall aut the loud speaker (or phone) plug,
which automatically disconnects all the vacuum tubes.

Only ONE DIAL—Only ONE CONTROL
This circuit is the result of a determination which Mr.
Hugo Gensbuck has had for a long time to originate the
ideal receiver. Such a receiver as he had in mind to have
these distinctively good qualities:
1. Single centrol—just one knob and nothing else;
2. Should not oscillate—should not how and shrick at
any point between 200 and 600 meters;
3. Should bring in stations without any disturbing
noises.

noises.

The Balan-ed Interflex Four-A here described does all of these things and quite a good many more besides.

No two sets work allke because there are differences of tubes, differences of condensers, differences in colls and many other differences which are apt to throw the set out of balance. The inventor discovered a method of overcoming all these differences or defects in a way, so far as known, entirely original. By means of this, the Balanced Interflex Four-A may be adapted to whatever the local conditions may be.

Four-A may be adapted to whatever the local conditions may be.

If the lickler colls, of which two are used, are correctly adjusted when you begin using this receiver, this set does a most surprising thing. The tleklers can be adjusted at the lowest available wave, say 200 meters, so that the circuit is on the point of oscillation. If correctly adjusted, impossible as this sounds, the same condition will provail through the entire bradeast range up to 800 meters, and you will never need to adjust them to 600 meters, and you will never need to adjust them again.

In other words, stations of 200 meters up to 545 meters will come in with the same intensity, with the stations in

THEORY OF THIS SET

In all tuned ladio frequency circuits, if the set howis and squeals on regeneration, it is necessary to provide losses. There are several methods of obtaining such losses, but the one most customary now is to place the losses, but the one most customary now is to place the inductances in the magnetic field of the condenser in such a way that there are certain absorption losses. But it is apparent that this is a very crude way of accomplishing these losses. In the first place, moving the colls even 1/61 of an inch closer to or further from the condensers will make a tremendous difference in signal strength. Furthermore, the losses are not always fully realized, and in spite of seme constructors' claims, the majority of the sets thus made squeal and howl nost annowingly. The colls could, of course, be made adjustable so that they could be moved toward or from the condenser. This, however, would necessitate a number of extra controls, which are not vanted.

In the Balanced Interflex Four-A the balancing principle nordless the necessary losses efficiently with the properties of signar volume. Once see Settlement of the condenser is the properties of the properties of the condensers and condition point at all wavelengths within the broadcast rance and it is then tuned by means of only one dial, which per an election with mealmum efficiency.

RESULTS OBTAINABLE

RESULTS OBTAINABLE

In New York, in midsummer, this set, on a 60-foot aerial, brought in KDKA, East Pittsburg, Pa., at a dial setting of 50, and the volume was tremendous—stronger than many of the locals. The locals, of course, came in with great volume, regardless of the wave-length, Distant stations that have come in on a single evening are listed on next page. This should not be considered a record or the best this set can do, because receiving conditions here are paor. The log represents the results on a sultry August night when transmitting conditions were notoriously poor and there was so much static it was impossible to get the ealls of many more stations whose programs were heard and otherwise could have been lorged.

BALANCED INTERFLEX RECORDS
Mr. Elllott Carriger, of Wakarusa, Kans., 12 miles
south of Topeka, reports having received with the Balanced Interflex Four-A Circuit on loud speaker 20 sta-

tions in these cities in one hour, between 8:10 and 9:25 p. m., one hour and fifteen minutes: Cedar Rapids, Council Bluffs and Shenandosh, Iows; Hastings and Lincoln, Nebr.; two in Kansas City, Mo.; Bristow, Okla; Eigin, Nebr.; two in Kansas City, Mo.; Bristow, Okla; Eigin, Nebr.; two in Kansas City, Mo.; Bristow, Okla; Eigin, Nebr.; two in Kansas City, Mo.; Bristow, Okla; Eigin, Nebr.; two in Kansas City, Mo.; Bristow, Okla; Eigin, Nebr.; two in Kansas City, Mich.; Cincinnati, Ohioand New Orleans, La, He used B batteries which had been used six months, 75 volts. He says he is more than

I just want to outline my successful results with the Balanced Interflex, I built according to the description and, Balanced Interflex. I built according to the description and, believe me, it is the best and simplest outfit yet, and for purity of tone unexcelled. Extremely low tones and also extendly high tones perfect and without the least distortion. Selective beyond even my fondest hope, as I can get KDKA easily without any interference from our local WSAI, only fourteen miles distant. My youngest daughter, only 6 years of age, tunes with the skill of a professional, as do all the rest of my older children, and wife. I certainly am very proud and am showing and demonstrating to all my friends and acquaintances this wonderful interflex, and when I say I certainly am an Interlex booster, I am putting it mildly. My log to date is as follows: date is as follows:

date is as follows:

WSHC Cheare. WIDO Chicago, WIRJ Fort Wayne.

WSHC Cheare. WIDO Chicago, WIRJ Fort Wayne.

WSHC Chicago.

WIRJ Fort Wayne.

WIRJ Fort Wayne.

WIRJ Chicago, WIRJ Eigin, KSO

Clarinda, Iowa. WREO Lansing, Mich. WREN Chicago,

KOA Denver, WSOE Milwaukee, KMA Shenandoah, WSM

Nashville, WCCO Minneapolis, WHT Devertied, KPIC

Houston, WSMK Davton, Ohio, KFIZ Fort Worth, WJAX

Jacksonville, Fla. KTNTT Muscatthe, Iowa, WIZ Spring, Marker Miller, Fla. KTNTT Muscatthe, Iowa, WIZ Spring, MCDA, East P

Jacksonville, Fla. KTNTT Muscatthe, Iowa, WIZ Spring, MCDA, East P

Jacksonville, Fla. KTNTT Muscatthe, Iowa, WIZ Spring, MCDA, East P

MCDA, East P

ABACTIFUL

NY, WIJAZ C

NY,

L. H. WESSEL, 611 Clark Street. Middletown, Ohio.

We have constructed two machines with the Baianced Interflex circuit. The per-formance of the circuit is wonderful, GUY SHUTER, 631 Park Avenue, The per-Piqua. O.

I am glad to say that, with the Balanced Interflex made recently. I have been able to log the following stations: WNYC, WEAF, WJZ, New York, WJY New York, WJZ, New York, WACA New York, WAIR Richmond Hill, WHN New York, WAAM and WGCP Newark, WIBR Rossville, N. Y., WGSN New York, WP Philadelphia, WGBB Freeport, N. Y., WLIT Philadelphia, WRNY New York, WORD Chicago, WMBF Miami Beach, WGBU M

WTAM Cleveland, WSAI Mason, Ohio, WOO Philadelphia, WHAP Brookiyn, KDKA East Pittsburgh, KYW Chiesco, WPG Atlantic City, WRC Washington, WEBJ New York, WFBII New York, WCCO Minneapolis, Minn., WGY Schenectady, WLW Cincinnati.

J. SCHULTZ, 98 Parkville Avenue, Brooklyn, N. Y.

The article on the Single-Control Interflex read so well that I decided to build one; and I wish to say the results were most gratifying. After balancing I was able to log 25 stations In one evening, with equal volume to my five-tube set, and with more clearness and stability.

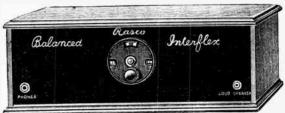
H. C. WATTERS, Jr., 1111 Eighth Street, Huntington, Va.

ALL ON LOUD SPEAKER

This is what the Balanced Interflex Four-A brought in on the loud speaker in one evening for Mr. Rugs Gernshack, Editor of RADIO NEWS. No interference when two stations were within three points of each other.
WIP Philadelphia, WRC Washington, W.IZ New York, WG, Chicago, WBH Chicago, WGN Chicago, WHO New York, WG, Chicago, WHSH Chicago, WGN Chicago, WHO New York, WG, Chicago, WHAN Lason, O., WGR BUY-falo, WGIIS New York, WAHG Richmond Hill, N. Y., KDKA, East Pittsburg, Pa., WTAS Eligin, Ili, WPG Atlantic City, WCAU Philadelphia, WMAK Lockport, N. Y., WJAZ Chicago, WINY, New York, WGCP, Newark, WJK, Newark, WOKO New York, WODA Paterson, N. J., WIBJ Chicago.

The Balanced Interflex Four-A takes in the entire

A BEAUTIFUL LOOKING RECEIVER



EASY FOR GRANDMOTHER

The old folks do not get the same "kick" out of playing with a half dozon or so dials that some of us do. They want simplicity, directness, ease of tuning. This is why they will be thankful for the chance to use this, the only single-dial and real single-control receiver.

PARTS INCLUDED IN KIT

Set Not Assembled	(List)
Cabinet, mahogany finish, 7x21x8	\$1.18
Panel, drilled and engraved, 7x21. Bakelite.	
Dilecto	
Baseboard, non-warping, 6½x20	. 45
Inductance Coils, special type, 2 at \$5.50	7.00
Coupler Knobs, 2 at 18c	
Variable Condenser, Double Straight Line,	
.00035, U. S. Lab. or Capacigrad	5.75
Fixed Condensers, .005, Hilco, 2 at 75c	1.50
Dial, Vernier, specially good, no backlash,	
Mar-Co or Pacent	
Transformers, audio frequency, 31/2 to I. Pacent,	
2 at \$5.00	
Rheostats, automatic, Amperite, 3 at \$1.10	
Rheostat, one Filkostat	
Fixed Crystal Detector and Mounting, Carborun-	
dum	
Sockets, low loss, bakelite, Pilot, 4 at 40c	
Jack, single, filament control, Jones Improved	
Jack, double, filament control, Jones Improved	
Binding Posts, moulded, Aristocrat, 7 at 7c	
Rinding Post Strip engraged	

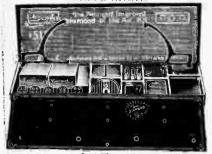
"No-Sod-e	r'' f	lezible, i	nsulated,	eyeletted	con-
necting	wires			111111111	1.25 flt50
Necessary Rive-print	nardy	vare (scre	ws, angles, Sheet	etc.), out	
Diane prant	4114	anour detroi			

ACCESSORIES

Vacuum Tunes, UV-201A Lype, 4 at \$1.25	90.UU
*Storage A Battery, 6-volt, 100 a. h	9.50
B Batterles, 45-volt, large, 2 at \$2.30	4,60
Headphones, 2000-ohm	4.50
Phone Plug	.75
Aerial Equipment	4.50
·	
Accessories, total, regular price\$2	
Our price. postpaid*\$27	.40
Catalog No.	1221
"Execution: We do not pay transportation on	
- Exception; we do not pay transportation on	-07

Bruno 5-Tube Diamond of the Air Kit under Armstrong Regenerative "cut side hands" in its mission of better tuning, for that

Licensed under Armstrong Regenerative Patent No. 1,1,5,149



Radio receivers employing multi stage radio frequency amplification, are only truly effective, if they are laboratory designed and checked when completed by Technicians amplification, are only truly effective, if they are lattorative designed and checked when completed by Technicians well versed in the science. In fact, a poorly designed, 5-tube receiver is often not even as good as an average 3-tube model. For all general purposes, a receiver, consisting of one Radio Frequency stage, with its tendency to oscillate either permanently neutralized, or slightly variable (very effective in the modes of an experienced Radio fan), and one ARMSTRONG REGENERATIVE Detector stage, followed by the usual stages of audio frequency amplification is proven to satisfy the wants, expectations, and receiving conditions of many broadcast listeners. Next to the 5-tube funed R.F. system of reception, this type of receiver is most universally used, being in principle very similar to the Roberts, Brown ing Drake, etc. The R.F. stage employed in this Radio sethas an anonlification power of at least 10—and thus it can be readily seen that not only all the virtues of the time tried and accepted Regenerative receiver are retained in this Diannond of the Air Kit, but also further improved upon, by the virtues of the R.F. stage cust mentioned. You are assured extreme sensitivity on all distance reception, as well as selectivity which will not

The Audio frequency system emproduces distortion. produces distortion. The Audio frequency system employed consists of one Audio transformer, coupled in the usual manner, followed by two Resistance coupled stages. A handsome drilled and tastefully decorated Bakelite panel, in conjunction with Bruno brackets and sub-base panel assures a very simple receiver to build. Detailed wiring instructions and general information included with each kit. Note the extreme high quality component parts we fur-nish with this outfit. Bear in mind this apparatus is int of questionable quality, nor, of any infringement on any patents—no make shift "sehemes" are employed to evade the Arnstrong Patents.

Parts For The Improved Diamond

	Of The Air Kit	
13	runo No. 95 R.F. Coll @ \$3.00\$	3.00
	runo No. 99 Tuning Coil (# \$5.50	5.50
N	o. 101 .0005 S.L.F. Bruno Condensers	• • • •
	(# \$4.00 ,	8.00
R	runo Pilot Light Switch	.75
11	runo Bakelite Vernier Dials @ \$2.00	6.00
	Amp. Amperites (mounted) @ \$1.10	3.30
	Amp, Amperite (mounted) (c \$1.10	1.10
	12-1 Bruno Trutone Model D Transformer	4.00
		1.50
-1	megohm resistors megohm leak megohm leak megohm leak	.50
15	megunii igas	.50
D	retwood Variable Grid Leak	1.50
	ouble Circuit Jacks @ .40	.80
17	ingle Circuit Jack (a .30	.30
		.30
C	entury 7x24 Drilled and Engraved Panel	5.00
n	(ii) \$5.00	
P	acent U. X. Spring Sockets @ .50	2.50
C	entury Drilled Socket Strip @ \$1.25	1.25
173	air Bruno Brackets	1.00
	5 Mrd. Aerovox By-Pass Condensers @ .70	1.40
	Strand De Luxe multi-colored battery cable.	.75
	ush Pull Battery Switch	.50
	0025 Mfd. Aerovox Fixed Condenser	.40
B	runo Binding Posts @ .05	.20
	attery Cable Markers @ .15 set	. 15
	lexible Leads for C Battery @ .10	.20
	ounts @ .20	.80
В	us Bar. Serews, Spaghetti, etc.,	1.00
	TOTAL COST \$	51.90
		0

No. 9050 Complete Kit \$45.85

Bruno Basic Diamond of the Air Kit

Armstrong Regenerative Patent License No. 1,113,149

\$20.45 POSTPAID

You may wish to build this wonderful circuit employing certain parts which you may have on hand, and which will serve the purpose. To you, we offer this basic kit,

consisting of:
I Bruno Jr. Tuning
Coil.

1 Bruno No. 99 Jr. R.F. coil. 2 Bruno 101 Bake-lite Shaft S.F.

Condensers. 3 Bruno Dials,

1 Bruno Light Switch. you may order this essential kit, and wish to make up your own choice of the

rest of the parts re-quired, referring to the various pages of this catalogue. Very neatly boxed and furnished with an explanatory BLUE PRINT. \$20.45

Rauland Lyric Trio



\$18.95 POSTPAID

It has been proven, through much experimentation by It has been proven, through much experimentation by the Rauland Lyric engineers and other competent authorities, that the combination of one stage of audio frequency amplification of the Rauland Lyric high quality type followed by two stages of IMPEDANCE COUPLED RAULAND LYRIC TRANSFORMERS will produce a quality and the local produce a quality of the combination of the produce of of reception well worth the installation cost thereof. It is a happy combination of the merits of the two best amplia happy combination of the merits of the two best amplifying systems, further enhanced by the determination of the Rauland Lyrie organization to produce QUALITY APPARATUS, IRRESPECTIVE OF MANUFACTURING COSTS. The transformers are very attractively enclosed in black crystallized metal cases, with hinding post concetions, properly designated. This kit consists of one R-300, one R-300 and one R-310 Rauland Lyrie transformers, complete with explicit instructions, wiring diagrams, etc. Can be installed in a few minutes.

No. 9004 Consists of 3 Transformers Described and Illustrated, but Without \$18.95

Our Leader Console With Built-in Loud Speaker

\$29.85

With Utah Balanced Armature Unit

The extremely low price that we name for this handsome console cabinet and built-in loud speaker is no reflection on the quality or appearance of same-in fact, it represents more value for your money than such similar combinations offered elsewhere for We be-\$10.00 to \$20.00 additional cost! lieve in a large volume of sales, with small profits-your generous support substantiates our business principles. The batteries and chargers, or "A" and "B" battery eliminators can be housed within the spacious shelf room available for this purpose. The back of the battery compartment is removed for immediate access to the batteries, and proper ventilation thereof. The

តិសេសសាលាមការសាលាមការប្រជាជាក្នុង នេះ នេះបានក្រុមការប្រជាជាការប្រជាជិក្សា នេះ នេះបានប្រជាជិក្សា នេះ នេះបានប្រជ

moved for immediate access to the bat-teries, and proper ventilation thereof. The panel space is 7 inches high by 18 inches long, and has been especially designed to ac-commodate any of our receivers and kits built upon a 7 by 18-inch panel. Included with every console, is a \$9.00 Utah Balanced Armature Type Loud Speaker Unit, attached to the metal throat of a correctly designed wooden horn loud speaker, capable of enormous volume and perfect clarity. Handsome scrolled grill covers the speaker. Console is tastefully designed and finished in two-tone effect mahogany. The wood used is Genuine Mahogany Plywood edge banded Overall size, 31 inches long, 37 inches high and 13½ inches deep. Shipped Express Collect.
No. 9041 Console, with Speaker \$29.85
and Utah Unit—No Receiver..

Notice

For your convenience we herewith list your cost price of the above console and Utah unit, with any of the following receivers, the price of the regular cabinet regularly furnished therewith having been deducted: Your

8940 6-tube TROPADYNE, and \$60.70

No.

TOTAL COST

	No. 3041 Compination	400.0
8941	5-tube Rasco EX-	
	PLORER, and No.	TEQ QA
	PLORER, and No. 9041 Combination	Φ 00.00
8942	5-tube Rasco LEADER,	
	and No. 9041 Com-	OFO OA
	bination	\$52.80
8943	5-tube 1 Dial Control	*
	Kit, and No. 9041	##2 OG
	Combination	\$53.80
8944	5-tube 2-Dial Control	
00	Receiver and No. 9041	PCA 70
	Receiver, and No. 9041 Combination	30U./U
00.45		Ψ0011.0
8945	5-tube MELODEE Re-	

(All of the above shipped Express Collect)

ceiver, and No. 9041 Combination



Note

By including with your order the list of secessories described in detail under No. 9071 (note that receiver classis No. 8940 requires 6 tubes instead of 5) your Radio Reseiver will be complete, and will represent The greater, possible value for every penny you have invested with us for a thoroughly decendable Radio Receiver—your every satisfaction guaranteed.

Crosley One Tube "Pup" Receiver



complete one tube regenerative reverving set, eady for immed ate use for this very low price of \$9.63! It is hard to believe that uch value could be possible. even with American methods of mass production-but, absolute guarantee thereon is every assurance of the

is every assurance of the integrity of the 100% performance possible with this miniature radio. With a well constructed antenna, ONE DRV CELL, one dry cell tube, ONE 22½ small "B" BATTERY, and a pair of head phones, it is gnossible to receive broadcasting stations even as far away as 50½ to 1000 miles. Later on, you can add our 2-stage Rac oamplifier kit No. 9966, for loud speaker openation. Overall dimensions 7 inches by 6 Inches by 5 Inches. Only two very simply dials to operate—can be lustabled in a few minute. Licensed under Armstrong U. S. Patent No. 1,113,149.

No. 9800 Crosley Set, Without Tube 39.63

The New Shielded Hammarlund-Roberts 5-Tube HI-O Receiver Kit



\$57.35

The underlying basic principles that have been most rigidly adhered to by this country's 10 leading Radio engineers are the principal causes for the ultra efficiency of this most marvellous receiver. True, due credit should rigidity adhered to by this country's 10 leading Radio engineers are the principal causes for the ultra efficiency of this most marvellous receiver. True, due credit should be given to the unusually high standard of quality apparatus used throughout this set, but the total stage shielding and automatic variable coupling between the primary and secondaries of the 3 R.F. colis have made this receiver the exclusive choice of those who know sufficient about the art of Radio to logically determine that this Radio kit will perform in a manner that has long since been their fondest hopes. The circuit itself is composed of two stages of tuned radio frequency amplification, fully neutralized (or left slightly within the oscillating condition for extreme efficiency on very long distance, controllable in this state by the R.F. Rheostat on the right of the panel)—one distortionless non-regenerative detector stage and two stages of extremely powerful audio frequency amplification. By using a elever tandem condenser on the 2nd R.F. and detector stages, the operation of this receiver reverts to only 2 vernier dials. The total shielding used to house and completely enclose the 2nd R.F. and detector stages accounts for the remarkable selectivity possible in this sensational receiver, for it prevents outside interferences (nearby local stations, static, radiating receivers, electrical disturbances, etc.) from affecting the requency eignistic inter-stage coupling which throws radio frequency eignists inter-stage coupling which throws radio frequency eignists. tnearby local stations, static, radiating receivers, electrial disturbances, etc.) from affecting the tuning characteristics of these stages, and prevents the ever ruinous
inter-stage coupling which throws radio frequency circuits
into terrific oscillation, sometimes only controlled with
attendant losses. Last, but not least, the almost uncanny
sensitivity of this modern receiver is mainly due to the
automatic coupling, effected by the adjustments of the
condenser shafts, raising and lowering the primary coit
in the field of the secondary coil, in correct unison with
the settings of the condenser, or, in other words, the
coupling is automatically correct for any wave length
being received. Any old-timer will attest to the superiortity of three-tube receivers 6 to x years ago, over most of
the present vintage of five-tube receivers. Why? Recause the variocouplers in those days were used as their
very name implies: The secondaries of those coils werevery inefficient "simplified controls," used to entire
revery inefficient "simplified controls," used to entire
revery inefficient "simplified controls," used to entire
revery inefficient purchasing receivers. In the old
days, a receiver of the Hammarlund-Roberts HIQ typewould necessarily have to resort to 3 additional coupling
dials, each very critical in their setting. But, on this
masterpice of the Hammarlund-Roberts engineers, the
valuable virtues of coupling are yours with not one
additional dial to adjust, nor even a thought to a given
to it. Stations heretofore regarded as extreme distance
pour in with thrilling volume and clarity—stations never

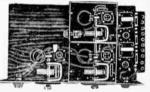
heard before, are yours at your very finger tigs. And, the volume and clarity on all reception is typical of the high standards set for this receiver—it cannot be possibly improved upon. Wired for power amplification in 2nd stage. The instructions that accompany each kit are so explicit, and the mechanical layout so well engineered that this most marvellous receiver can be completely assembled by you in one evening. The following parts are included in the standard kit:

included in the standard kit:	
3-17-plate .00035 Mtd. Hammarland Midline	
Condensers @ \$4.75	\$14.25
1 set of 3 Auto-Couple Coilsat	10.00
1-9-plate 32-mmfd, Hammarlund Jr. Con-	10.00
denserat	1.80
2 H. W. A 3 (3-1 ratio) Samson Audio	1.00
The W. A 5 (5"1 facto) Santson Audio	
Transformers @ \$5.00	10.00
2 Mar-co Vernier Dials, No. 192 @ \$2.50	5.00
2 No. 1 A Amperites @ \$1.10,	2.20
1 No. 112 Amperite	1.10
3 Benjamin Sockets with bases, No. 9040	
@ \$0.75	2.25
2 Benjamin Sockets without bases, No. 9049	
@ \$0.50	1.00
1-2 Meg. Durham Metallized Resistor at	.50
10 Eby Engraved Binding Posts @ \$0.15	1.50
1 .00025 Mfd. Sangamo Fixed Condenser at	.40
1 .001 Mfd. Sangamo Fixed Condenser at	.50
1 pr. Sangamo Grid Leak Clipsat	.10
1 No. 10 M S Carter Combined Midget Rheo-	
stat and Filament Switch, 10 ohmat	1.00
1 No. 1 Carter Short Jackat	.25
1 No. 12 Carter "Imp" Aerial Switch at	.70
1 Hammarlund-Roberts III-Q Foundation Unit, at	10.50
Complete parts (without cabinet)	\$63.05

No. 9815 Your price, with above list of parts (ship model and cone speaker not included)

Shipped Express Colicet.

\$57.35



Looking down on the New Shielded Hammarlund-Roberts 5-tube HI-Q set.

Hammarhund-Roberts HI-O Foundation Unit



Although the contents of this kit are primarily intended for use in our No. 9815 kit, they can be adapted to your own special requirements. Consists of handsomely brilled and Engraved Bakelite Panel, drilled bakelite sub-panel, two complete aluminum shields, extension shaft, equalizers, fixed resistance, wire, screws, etc.

No. 9817,,....

\$8.38



How to Build the Hammarlund 5 -Tube HI-O

Receiver
Complete instructions for assembling, wiring and operating sembling, witing and operating the Hammarlund-Roberts Hi-Q receiver. Prepared under the direction of the Hammarlund-Roberts Board of Engineers.

\$0.25 No. 9814....

Daven Bass Note Circuit 6-Tube Kit



\$52.25

Built around the famous Daven Bass Note coils elsewhere described in this catalogue, and the Daven resistance coupled amplifiers, this 6-tube circuit offers possibilities described in this catalogue, and the Davin Isolation coupled amplifiers, this 6-tube circuit offers possibilities of tonal reproduction and long distance reception that makes the performance of this kit, when assembled, equal to any commercially built Radio usually selling for \$300.00. The very best parts are only included in this kit, and a handsomely engraved drilled Ballelite panel? Inches by 28 inches will facilitate your assembly thereof. Full detailed directions, blue prints, etc., accompany each kit. Your complete suitsfarction is unreservedly guaranteed. The complete kit consists of the Daven Bass note kit of coils—3 very high quality variable condensers, rheostats, jacks, sockets, complete parts for resistance coupled amplifier (3 stages), Bakellite tuning dials, binding post bridge, drilled and engraved Bakellte panel, baseboard, miscellaneous hardware, grid condenser and leak, rubber covered hook-up wire, blue print and wiring instructions.

No. 9854 Complete Unassembled

Kit, Without Cabinet.

Pilot

Radio Frequency Essential Kit







POSTPAID

POSTPAID

Please do not confuse the quality of these parts with that ordinarily offered in such kits—the very fact that we use the very same materials in our No. 9216 5-tube kit is proof of its exceptional merit. Consists of 3 17-plate Pilot condensers, in either the S.L.F. or S.L. modified type 3 special coll mounts made of bakelite, and three Preshman type No. 2628 R.F. colls. Using these parts, and that material which you may have on hand from an old set, you can build a very efficient 5-tube receiver. In addition to above, you need rhoestats, panel sockets audio transformers, etc. If you wish to build a receiver of the non-oscillating type, you simply reverse the plate coll leads to that side on which such oscillations are not present. However, the more efficient receiver will allow for purposely introduced oscillations, controllable by either a notentioneter (100 ohms) across the "A" battery, with the return filament leads of the antenna and 2nd stage R.F. transformers connected to the morable blade or arm thereof, or, controllable by a variable resistance (Clarostat—C. R. L. products, etc.) in the R. F. 'B" battery except R. L. products, etc.) in the R. F. 'B" battery the R. L. products, etc.) in the R. F. 'B" battery the R. L. products and Basebard layout for \$0.50 and wiring instructions (No-Soafer method) for \$0.50. and wiring instructions (No-Soafer method) for \$0.50.

Daven DRF Bass Note R.F. Coils

\$7.15

Although especially designed for use in the famed Daven Bass Note circuit, these coils are so efficient that they can replace any existing type of R. F. coil and

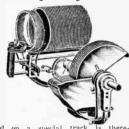


can replace any existing type of H.F. coil, and produce unexcelled results. Scientifically designed to give greatest selectivity with perfect balance. Very small fields, no self-oscillation, no feed back. Degree of coupling between primary and secondary has been perfected. Smallest R.F. coils made: Wound on bake-lite tubes 1½ inches in diameter by 3 inches long. Connections can be twisted under cap nuts, nickel plated. Compilete instructions for building the Daven Bass Note circuit fornished. circuit fornished. \$7.15 No. 9748....

Hammarlund Auto Couple **Tuned Radio Frequency Unit**

\$7.78

Comprises the Ham-marland S.L.F. Mid-line .00035 variable condenser with special rear extension shaft upon which is mounted a cam. When con-denser shaft is rotated, this cam bears



denser shaft is rotated, this cam bears against a movable member of the primary of the coil, the primary of the coil, the primary being mounted on a special track is therefore able to be moved in and out of the secondary coil, thus varying the coupling thereof. Automatically, the coupling is set at the correct distance with respect to the secondary and the wave length being received. This principle has been known for many years by experts and laboratories to be the very essence of a perfect tuned radio frequency circuit—and it took the Hammarlund contineers to apply this accepted theory and actually make it mossible for the layman, mechanically, to enjoy this feature WITHOUT REQUIRING ONE ADDITIONAL CONTROL. This principle is conducive of SENSITIV-TY, SELECTIVITY, VOLUME AND CLARITY AT ALL, WAVE LENGTHS HRESPECTIVE OF ANY LENGTH AERING USED. Condenser plates are non-corrosive brass, soldered to both of their respective frames. Reinforced ribbed standards—one hole mounting, with additional anchoring screw if desired—bronze spring with additional anchoring screw if desired—bronze spring and the state of plates assures frames. Reinforced ribbed standards—one hole mounting, with additional anchoring screw if desired—bronze spring plg tall—friction band brake—design of plates assures no crowding of stations on any wave length.

No. 9816 Complete Unit, Coil and \$7.78

Condenser

Aero Tuned Radio Frequency Kit



Consists of three MATCHED units. Antenna coupler has variable primary, assuring maximum efficiency under all adverse conditions. Packed with 8-page color circuit, layout and instruction sheet for building the famed super-sensitive 5-tube Aero-Dyne. For .00.035 or 17-plate canacity condensers. The unusually high electrical efficiency of these coils permit their use in many varieties of circuits. Air space wound—minimum of insulation in their field.

No. 9603 (Set of 3 Coils)..... \$10.28

The New Bremer Tully Counterphase Power Six Kit

\$78.15

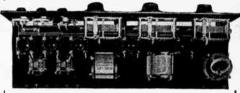


Employing three stages of ultra sensitive tuned radio frequency, in which interstage coupling effects have been reduced to a minimum and in

which the external pick-up is practically nil, this latest which the external pick-up is practically nil, this latest product of the Brener Tuily laboratories is daily making extreme long distance reception records. The shortest possible acrials will produce results on this new receiver kit not even possible on other receivers using long acrials, proving its sensitivity. There are only two major tuning dials, two tandem condensers being employed. Wired for power stage amplification, assuring maximum volume and tonal reproduction second to nother receiver. Is very simple to assemble due to unique color coded wiring harness. Note the very high quality parts furnished in this kit—its performance warrants it: PARTS REQUIRED REGUIRED REGUIRED REGUIRED REGUIRED TA TORSTYLE TRANSFORMER.

1	TA Torostyle Transformer	
3	TC Torostyle Transformers (a \$4.00	. 12.00
2	LD-17 Condensers @ \$9.50	. 19.00
3	B-T Mmf. Condensers @ \$1,00	
3	B-T R.F. chokes @ 90c	. 2.70
ĭ	B-T 500,000 Ohm Resistance	
ã	1500 Ohm Resistances @ 50c	
ĭ	Set color charts and diagrams	
î	Panel, 7x24, drilled and engraved	
î	Wood Baseboard, 9 % x23 ½	
î	B-T Euphonic Audio Transformer; 2.2 to 1	
î	B-T Euphonic Audio Transformer; 4.7 to 1	
2	E-T Tuning Controls @ \$2.50	
ĩ	.001 Mfd. Fixed Condenser	
î	.00025 Mfd. Fixed Condenser	
ž.	.006 Mfd. Fixed Condensers @ 75c	
2	1 Mfd. Fixed Condensers @ 90c	
5	B-T Type UL or UXA Sockets @ \$1.00	
i	2 Meg. Grid Leak	
i	B-T UL 'Silent' or I'X Detector Socket	
i	Double Circuit Jack No. 101	
ļ	Single Circuit Jack No. 101	
1	Filament Switch	
1	3 Ohm Rheostat	
1	Single Pole, Double Throw Jack Switch	
1	Binding Post and Mounting Strip	
1	Jones B.M. Multi-plug Set	
2	C Batteries-41/2 volts @ 60c	
	Lugs, Screws, Hoop-up Wire	. 1.00

The Famous 5-Tube Super-Sensitive Aero Dyne Receiver



\$59.45

This extraordinary receiver, employing the Aero Dyne No. 9403 Tuned Radlo Frequency Kit, represents the very tinest Radlo set that can be made, whether it be custom built or even a factory assembled Radlo receiver costing several times the price of this kit. It is the receiver you have long wished for, as it combines extreme selectivity and its attendant result—distance reception, perfect clarity, ample volume, fool-proof, trouble-proof and very simple to assemble. An 8-page instruction sheet in color wiring, with actual size panel and haseboard lay outs, and comprehensive directions and wiring instructions, is furnished with this kit.

List of parts furnished with this Kit:

Binding Posts ,00025 Grid Condenser and Clips

5 Megohm Grid Leak 1 Mfd. By-Pass Condenser .001 Fixed Condenser Open Circuit Jack

Closed Circuit Jack
Set of No. 9603 Aero Colls (TRP-120)
Verlchromed Aero Dyne Panel, drilled and engraved.
7 inches by 28 inches Drilled Sub Panel

Sub Panel Brackets
20 Ohm Pilot Bleostat
10 Ohm Pilot Rheostat
Pacent U.X. Societs (cushioned)

Pacent U.X. Societs (cushioned)
4-inch Dials
C.R.L. 0 to 200,000 Variable Resistance
Pacent No. 2811 Transformers
½ Ampere Amperite Audio Tube Resistance
Pacent S.L.F. Condensers
Reel of Hook-up Wire No. 4426 or Bus Bar Wire
Dixle Assortment Screws and Lugs.

"National" Tuning Units for Browning Drake Circuit





The Browning

Drake circuit is one of huge possibilities, but for most efficient re-sults the laboratory designed instruments should be used, for logi-cal reasons. The coils must not coils must not only be of a certain inductive value, but the

individual turns must have a certain inductive relation to each other, and the over all distributed capacity must be of a known value. Then again, the proper coupling must be rigidly determined, on the one hand, and be properly variable, on the other. The National Coils are

wound with enameled wire on very thin bakelite forms, and are precision space wound. Lowest dielectric losses, with greatest possible transfer of energy. Both coils are attached to nickel plated brass angle strips, and are set at a predetermined electrically correct distance from the trear plate of the condenser. The coupling coil in the type IB D-2B unit is controlled by a shaft which is supported in a bearing on the front end of the condenser, to insure stability in its rotation. A small tapered bakelite knob is furnished for the adjustments of this rotor on the panel. The National Equicycle condensers furnished are unique in that they rotate in an are of 270° instead of the conventional 180°, the additional sweep further adding to the S.L.F. characteristics. The B D-1B unit employs a .0005 variable condenser, whereas the B D-2B unit employs a .0005 variable condenser. A National type B Vernler dial (described in detail under our No. 9648) is furnished with each condenser. condenser.

No. 9626 Type B D-1B...... \$9.95 No. 8998 Type B D-2B......\$13.27

Karas Equamatic 5-Tube Receiver Kit



The sensational results possible with this new receiver are solely attributed to the very heart of the circuit—the Karas Equamatic coils, fully described under our No. 9009. The quality of reception places this radio set in a class by itself. Due to variable coupling feature, it is even superior to Radios selling for \$400.00—and proves it, too. Automatic oscillation control. Drilled and engraved front and sub panels assure a very simple mode of assembly. Directions and wiring instructions every received that are furnished with this receiver extentional results obtainable with this receiver extentional results obtainable with this receiver extentional results obtainable with this receiver extention with the covery hadio fan is SELECTIVITY SENSITIVITY, CARITY AND VOLUME, with ease of operation. THE KARAS EQUAMATIC RECEIVER WILL DELIVER A 100% SHARE OF ALL THESE QUALITIES. It is truly an investment, not a cost.

List of Parts

3 Karas Equamatic R.F. Transformers.
3 Karas Orthometric .00037 Extended Shaft Condensers.
3 Karas Micrometric Vernier Dials.

Ratas Harmonik Audio Transformers.
Karas Equamatic Retard Coils.
Karas Sub Panci Brackets. Set.
7x28 Bakelite Panel, Drilled and Engraved.
Formica Drilled Sub Panel.

Carter 10-ohn Rheostat with Knob.

Carter 20-ohm Rheostat with Knob. Carter Double Circuit Jack. Carter Imp. Filament Switch. Sangamo .00025 Grid Condenser with Clips.

Sangamo .00025 Grid Condenser with Clips.
Carter Open Circuit Jack.
Amsco 2 neg. Grid Gate.
No. 1-A Amperies.
4½-volt "C" Battery.
Jones Multiplug with Mounting and 8-ft. Cable.
Benjamin UX Cushion Sockets.
Binding Posts, Screws, Bus Wire, Soldering Lugs,

No. 9010—Complete Kit of Parts. \$88.50 No. 9624.....

Pilot 2-Dial 5-Tube Kit

\$6.60 POSTPAID

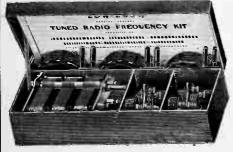
The conventional form of 5 or 6-tube Tuned Radio Frequency receivers is always equipped with three 17-plate variable condensers, and therefore needs 3 tuning dials, variable condensers, and therefore needs 3 tuning diais. Should you offer any objection to the necessity of having so many dials to manipulate, yet wish to build a receiver using this ever popular and most efficient circuit, this problem is very satisfactorily solved by employing this 2-DIAL TUNED RADIO FREQUENCY ESSENTIAL KIT. You will note in the illustration that one of the condensers is composed of two 17-plate sections, with common rotary plates, but with electrically independent stator plates. Thus the 2nd R.F. and the Detector stages are simultaneously tuned WITH ONE DIAIA. The other condenser tunes the antenna R.F. stage. To compensate for any electrical differences that would, and do exist between the two stages tuned by this tandem condenser, a 7-plate Midget condenser is shunted across citter the a 7-plate Midget condenser is shunted across either the



2nd R.F. section of the condenser, or, the Detector sec-2nd H.F. section of the condenser, or, the Detector section thereof—whereas this adjustment can be determined in a few moments, and left at that setting, it would be more preferable to place this midget condenser directly on the panel, using same for vernier adjustments on extreme distance reception. The coils furnished with this kit are the BABY compact basket weave type, and have special fibre mounts attached thereto. Tuning range: 200 to 550 meters. Quality apparatus throughout—the circuit involved demands it. The kit includes one 17-plate S.L.F. condenser, one Tandem 17-plate condenser, one Plott 7-plate Midget condenser, 3 Baby Basket weave colls, 3 special coil mountings.

\$6.60

Single Dial Control 5-Tube Receiver Essential Kit



\$6.85

The ever popular 5 or 6-tube tuned radio frequency receiver is now easily controlled by one vernier dial with the use of this essential kit. The 3 condensers ordinarily employed in a conventional tuned radio frequency reemployed in a conventional tuned radio frequency receiver are combined into one triple condenser, the rotors
of which are electrically and mechanically attached to a
common shaft. To compensate for any differences between
the three radio frequency stages, two 7-plate Midget
condensers are included in this kit—they can either be
mounted within the receiver, being permanently adjusted,
or attached to the panel, for vernier adjustments thereto
when tuning extreme distant stations. There is a wonderful thrill awaiting you, as you slowly rotate the one
control vernier dial, stations from all over the country
snapping in and out with hair line selectivity, from the
lowest to the highest broadcast wave lengths. The 3 coils
furnished are very carefully matched, and will cover the furnished are very carefully matched, and will cover the full broadcast band of 200 to 550 meters in conjunction with the 17-plate .00035 Mfd. condensers included in this kit. Mounting supports for the colls provide for mounting thereof either to a sub-panel or base board,

No. 9625 As Illustrated

\$6.85

The Rasco De Luxe Console

FULL THROATED HORN AND ADJUSTABLE UNIT

and the standard of the state of the control of the standard o

OPEN VIEW

ENORMOUS VOLUME AND PERFECT TONE QUALITY

nana anan gran yan anjangrakasinan paparang sasisissang dalaman anang manganan a

\$54.15

9656 No. Tuned Radie Frequency Re-ceiver and Powerful Loud Speaker Unit.

> ULTRA SENSITIVE AND SELECTIVE

\$36.45

No. 9037 CONSOLE ONLY

LUXURIOUS APPEARANCE

OUR SENSATIONAL BID FOR YOUR PATRONAGE

We cannot properly describe this console to you with all its inherent beauty and extreme usefulness—but the most convincing statement we can make is that this Console exceeds all of our previous efforts to offer our many friends the very best values at the lowest possible price—no other mail order concern, nor in fact your local dealer, could afford to sell the above Ellustrated Cabinet and set at the very low price that we name—for we depend on large sales with very small profits. Therefore, if we admit that this is our greatest bargait in Radio Console and receiver combination, it must be a most unusual opportunity—and just as much an opporreadio Console and receiver combination, it must be a most unusual opportunity—and just as much an opportunity for us, as it is for you, for, any customer purchasing this merchandise, will be the means of securing for us additional business—his further re-orders, and the orders that result directly from pleased recommendations of the configuration of the configura of our customers to their many friends.

The Console Cabinet

The first impression that the De Luxe Console will make on you, is that it is a most beautiful piece of furniture— for it is most tastefully designed, with a hand-rubbed piano finish in two-tone mahogany. The loud speaker

chamber is sercenced with a gold-silk-covered, artistically scrolled TIII's in harmonious contrast to the general decorative effects of the Console. The two front legs are gracefully fornsed, yet of very sturdy construction. The top is edge banded, and the edges of the Console are attractively scored. The drop leaf, which conceals the Radio receiver when same is not in use, is large enough to be used as a writing desk—it also affords a most convenient arra rest while tuning in stations and recording them in your log. The battery compartment is readily accessible on the front of the cabinet, having a hinging door far this purpose, an exclusive feature only found on consoles selling for double our price. It is commotious enought to house all your batteries, chargers or eliminiting devices, measuring 21 inches long, 13½ inches deep tochind the closed doors) and 10½ inches loy 21 inches can be placed in the space available for access to the receiver itself, the loud speaker unit (for any adjustments thereto) and to the batteries. It is therefore platin to perceive that this De Luxe Radio Console will not only enhance the beauty of any living room, rau de more, parlor, etc., but, it is extremely useful, and can be adapted to your particular requirements. chamber is sereened with a gold-silk-covered, artistically

Gentlemen:

Received my Radio set in very good condition—am more than gleas:d with same. Please rush to me another order blank, so that I can send you a reorder in a week.

ELDRED ROLANC, 81: Vattier St., Manhattan, Kans.

The Built-In Loud Speaker we realize that everybody judges the quality of any Radio receiver by what they artually "hear"—that is,







CLOSED VIEW

their judgement is solely dependent on the limitations of the boud smaker. And so, we decided to incorporate in this consolar the very finest, acoustically perfect lead speaker. The unit is attached to a universal ferrule located in the battery compartment section of the cabirat, and then there is a scientifically desired tajering threat that extends practically to the top of the cabirat, where it swells out into a wooden tooe chamber of ample promotions—is it any wonder then that every purchaser of this console is so enthusiastic over the sonorous and teautiful matural tones, only possible because we have possible value for your money?

Loud Speaker Unit

Appreciating the fact that you may have your particular chalce of a loud speaker unit, we do not include one wien simply the console is ordered—however, the unit that we do furnish with the receiver combination is very powerful, and of the adjustable type, for maximum volume and clarity.

The Receiver Furnished In This

Combination

Combination

You will find this receiver described in dessit under our Nn. 9657. When you remove the De Luxe Console from its trate you simply have to slip the chasis into the pamel space cut to the oxact size and perfectly centered, drive in a few screws into holes already started for your and attach the batteries—a few ninutes' work. Detailed instructions included. Shipping weight, about 100 pounds. Shipped express collect.
No. 9656 De Luxe Console, with No. 9657 5-tube Timed Radio Frequincy Receiver, and Adjustable Loud Speaker Unit.
No. 9037 De Luxe Console, without receiver of loud speaker unit.
State what size panel you intend to use.

Kindly state what size panel you intend to use.

Notice

Any of our assembled receivers, one dial control-Balanced Interfex—and No 9216 5-tube kits can be set into this Console. If you intend to purcha this Console for a No. 9216 kit, we ball include spincial instructions for the assembly of that kit on a 7 inches by 21 inches panel, instead of the 7 inches by 24 panel, as furnished or you can build any circuit of your own choice therein, ordering either of the following panels: the following panels:

No. 8927 8 inches by 21 inches by 3/16 inch \$23,45

Rasco Melodee 5-Tube Assembled Receiver

Determined to offer our many friends a 5-tube Assembled Radio Receiver at the lowert possible price, we instructed our Radio Engineers to submit to us 6 receivers in which would be combined, not only the very latest and up-to-date improvements of this turrent season, but also their own new suggestions and ideas of both merchanical and electrical nature. From these receivers we condensed all these features and improvements, incorporating them into the Rasco Melafee 5-Tube Tuned Radio Frequency Assembled Receiver Because of the large volume of sales we enjoy we are able to sell you a high quality receiver, completely assembled, for a price even lower than several unassembled kits. The only difference between this receiver, and The Rasco Sonata is the cabinet—which does not Contain a built-in speaker— Determined to offer our many friends a 5-tube Assembled ference between this receiver, and The Racco Sonata is the cabinet—which does not contain a built-in speaker—and the panel (size 7 inches for 18 in-hes)—which his set on a slight angle to afford you better view of the dial readings. The overall size of the cabinet is 19 inches long by 8½ inches wide by 8½ inches deep. The finish is matogramy on well solected and swammed gum wood. A very pleasant surprise awalts you on your first audition of this receiver—and you will be very much impressed by its appearance and durable mechanical construction. Every receiver is very carefully tested on actual radio reception. A 100% binding guarantee of your complete satisfaction forms the vertuble consideration of your purchase of this high quality Radio Receiver.

No. 9657 5-Tube Receiver with Cabinet. \$23.45 No. 9659 Without Gabinet—Chassis Only. \$20.95

Walbert Penetrola



\$29.48

This instrument will give you sefectivity with a vengeance Any Penetrola demonstration will show you results that certainly car at vest for all that is claimed for it. The wanted station is immensely

wanted station is immensely intensified—the unwanted stations and other interference are overwhelmed. Pistance reception is even possible with a short aerial because of the Fenetrola action. Re-radiation from your receiver is suppressed. Your dial readings will remain substantially the same. The Penetrola represents theory put into practice with 100% success. It takes but a few minutes to attach to any Radio receiver. Furnished in Black, metal crystallite cubingt

\$29.48 No. 9673.....

TROPADYNE-- 6 RECEIVER



ASSEMBLED Ready for Use

ONLY

No. 9487

6-Tube Tuned Radio Frequency Balanced Amplifier

A Work of Art

Both of These Sets Receive

OVER 2000 TO 3000 MILES One of the most distinctive and pleasing external features of the set is the exquisitely-grained bakelite panel, faithfully conveying the impression of the finest walnut. Bakelite manufacturers say it is the handsomest panel they have seen in any radio set. Kurz-Kasch Dials and Knobs used throughout to enhance the beauty. The limitations of production do not permit us even to approximately represent the beauties of the set.

Bakelite panel walnut finish—etch-o-gravure and gold decorations—bakelite sub-base—universal sockets, adapted to either UV or UX types of tubes—Kurz-Kasch bakelite walnut pointers, gold-filled to match—Kurz-Kasch bakelite gold-filled rheosiat knobs—straight line frequency condensers—special coils, double silk enameled, primary and secondary—Shore audio transformers—distinctive Caswell-Runyan walnut-finish cabinet, 7 x 18 ins.—superior design and workmanship.

Easily tuned—no oscillations or squeals—no potentiometer—no resistances—self-equalized—low-loss materials used throughout.

\$32.35

No. 9488

5-TUBE TUNED RADIO FREQUENCY



Both these sets are noted for clearness of tone. Programs of distant stations come in as clear as a bell. The refinement of tone is a revelation to all who hear these well-nigh perfect receivers.

Same specifications as for the Propadyne-6, the chief difference being that this set uses only five tubes and the distance and volume of reception are a little less.

No. 9055 Chassis Only, Set Minus Cabinet ...

\$28.85

Pacent Triple 17-Plate Condenser



\$9.93
POSTPAID
For mechanical ruggedness and cleetrical generate for any electrical ge

Amsco Low-Loss S. L. F. Double Condenser

\$5.95 POSTPAID

Precision made by the famous Amsco laboratories. Grounded rotor, Curve—Porfect straight line fre-Curre—Porfecs straight line frequency curve obtained by scientifically designated 'Intes will separate stations equally at 10 kiloeycles per division. Bearings—Combined ball and cone, which automatically take up the wear, assuring perfect alignment at all times. Insulation—Special grade of radion, exactly proportioned to prevent warping in any direction and to cut down loses to a minimum. France—Heavy rugged aluminum construction, using hexagon supporting posts. Rotor—Extra



hard heavy gaured aluminum plates, with swedged and brace, assuring permanent, perfect alignment. Stator—Extra hard heavy gauged sluminum plates, braced and swedged at three points, assuring rigidity and permanent alignment. Capacity and permanent alignment. Capacity and permanent alignment. Capacity Balanced Interffex Receiver, Size open 3%" long; 4%" wide, 4%" high. Size closed 3%" long, 4% wide, 2" high.

No. 9513 .00#5 mfd.....\$5.95

Pacent True Straight-Line Frequency Condenser



Stations can be equi-spaced according to frequencies. Grounded roter in continuous connection with metal end-plate—neets all requirements of low loss design. Perfect insulation. Isolantite properly placed. Special brass plates. Riveted and soldered. Rigid channel frame construction. Permanent plate alignment. Extra tie bars. Oversize, dust-proof uni-bearing. Positive enclosed stop. Optional one-hole mounting. 17 plates recommenden mounting. 17 plates recommended for neutrodyne and all tuned radio frequency circuits. 00035 Mfd. Max. 23 plates for super-heterodyne circuits. 0005 Mfd. Max. Size open 3%" long; 1%" vide. 4" high. high.

Size closed 3%" long, 1%" wide, 2" high.

No. 8903 7-plate\$2.15 No. 8904 11-plate \$2.65 17-plate \$2.95 No. 4432 No. 4433 23-plate

Pilot Midget Condenser



Small in size and the price is small. Low loss, One hole mounting. Can be used as a vernler condenser. Ruilders of super-heterodyne sets find it most desirable. Well-made. It will surely please you. \$0.50

No. 8802 (13-plate)\$0.97

Chelten Midget Condenser



Has been on the markot several years and is increasingly popular. Used as a remier. In great demand in superheterodyne circuits. Low loss design. One-hole mounting. Brass plates. Variable. plates.

No. 9174 9-plate No. 9174 9-plate\$1.17 No. 9512 13-plate\$1.34

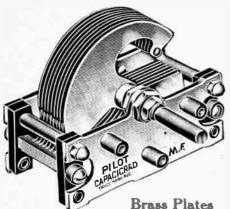
Neutralizing Condenser



For use where capacity balance is desired. The Balcon neutralizing condenser consists of two nickel-plated electrodes enclosed in a ½ inch glass No. 9377.

tube. Around the outside a piece of nickel-finished split brass tubing is fitted so that it may be moved from one end to the other, thus forming a condenser of very low capacity, the glass tube being the dielectric. The base is Radion. Maximum capacity is obtained when center of brass tube coincides with center of space between electrodes.

Pilot Capacigrad Straight Line Modified Condensers



\$1.30 POSTPAID

Necessity is the Mother of Invention, and hence was responsible for the manufacture of the above type of condenser. In the earlier days of Itadio, the convensecessity is the Mother of Invention, and hence was responsible for the manufacture of the above type of condenser. In the earlier days of Itadio, the conventional variable condenser had rotary plates and stationary plates both shaped in the fashion of a half moon. It was noted that this type seemingly 'jammed' all the lower wave lengths over a very small portion of the dial controlling that instrument, whereas the highest wave lengths generally terminated at 2/3 of the arc, rendering the remaining 1/3 of the condenser useless. Thus, between 60 to 70 degrees on the dials, wave lengths from 200 to 550 meters were crowded in an uneven fashion. The first improvement resulted in the lower wave length section of the rotor being slightly shaped off from the circular form, allowing slightly better relief on the lower wave lengths, but not of much consequence. Then came the first radical improvement: Our Pilot SL.F. condensers, as described under Nos. 3580 to 3580. Furthermore, the shaft was so placed that the rotary plates were, their form being altered from that of a half moon to that peculiar shape as illustrated under No. 3580. Furthermore, the shaft was so placed that the rotary plates described an eccentric arc, while being meshed into the stationary plates. The result: The lower wave lengths were spread over a much wider portion of the dial, greatly assisting in the tuning and selectivity thereof, and the highest waves came in very near the complete meshing of the rotary plates into the stationary plates, or, between 95 and 100 on the No.L.F. type occupied considerably more space than previous types, due of course to the eccentric orbit the rotary plates above Hustrated departure from the necessitating the above Hustrated departure from the rotary plates of course to the eccentric orbit the rotary plates above referred to that the higher wave lengths were actually becoming huddled together, as was lengths were actually becoming huddled together, as was lengths were actually becoming huddled together, as was leng the rotary plates above referred to that the higher wave lengths were actually becoming huddled together, as was the case with the lower wave lengths in the original models. It was then sparent that a happy medium must be sought, a condenser that would allocate any over its 180° cycle the lower wave lengths as well as the higher wave lengths. In the modified condenser, the rotary plates are shaped in a half moon fashion on its circumference, but a considerable portion of the body has been removed, as the illustration clearly denotes. In a like manner, the stationary plates have been shaped; thus accounting for the happy medium of wave length distribution long sought for. The shaft is placed in the exact center of the instrument, therefore, the rotary plates describe an are within the outer edges of the condenser, accounting for very small overall length on

your panel of 33% inches compared to 45% inches with the retary plates completely unmeshed of the S.L.F. model. The 17-plate rondenser, the most popular size, measures 1 3/16 inches high and 1½ inches deep from back of the panel. End plates composed of bright sulminum, with solid brass rotary and stationary plates—minimum bakelite insulation—screw terminals. Note that this type condenser should be used in conjunction with a No. 9915 2 Gang S. L. Modified condenser, and the S. L. F. Model No. 3558 i must be used with the No. 3590 2-gang condenser, so as to retain the same dial settings.

Two Gang Capacigrad S. L. Modified Condenser No. 9915 17-plate .00038 Capacigrad S. L. Modi-

Remler 360° Variable Condenser Twin Rotor Type

POSTPAID

This wost unique condenser has two rotors which mesh into each other, both moving at the same time, actuated by a set of bakelite gears to which they are figidly fastened—and these gears are in turn in mesh not only with each other, but also with a very small diameter gear which is attached to the operating shaft and dial. This



with a very small diameter gear which is attached to the operating shaft and dlal. This small ratio gear produces a very realistic vernier effect. The Dial moves in a 360° arc, but the rotors only move in a 90° arc, All electrical connections are foreign to the metal shaft, and operating dlal, insuring no trace of body capacity effects. The plates are "pebbled" brass, for rigidity, and are soldered to their shaft and at their tops with a common strip. A special 4-inch aluminum front 360° etched dial is included, together with a paper disc, which is removable at will, and upon which the station call letters may be written. The dial is locked to the ¼ inch shaft with a split bushing and bolt, and the bakelite knob is threaded so that it may be screwed on and off the dial plate. Stop and marker included.

No. 9667 00035 capacity 17-plate ... \$4.47
No. 9668 0005 capacity 23-plate ... \$4.47

6. 9668 .0003 capacity 23-piate....



Pilot Lug Jack

The special connecting lugs, while designed to abolish soldering (connections being made thereto with a nut and serew) may be used for solder connections. The sturdy frame helps support sub-panel. Easily attached with screws through holes provided for the purpose. The lug-jack illustrated is No. 9897, the filament-control double jack.

The lug-jack illustrates is deduble jack.

No. 9894 Single circuit closed. \$0.32

No. 9895 Single circuit closed. \$0.36

No. 9896 Filament control, Single Jack. \$0.41

No. 9897 Filament control, Double Jack. \$0.45



S. L. F. Condenser

Brass Plates

Here are the condensers with the "velvet fcel." A TRUE straightline frequency condenser with solid brass plates. Built like a watch, it is the pinnacle of precision. Special bushings give that "velvet fcel," free from chatter and noise. These condensers cost no more than ordinary condensers, for the simple reason that they are produced by the world's largest radio parts manufacturer. A minimum of insulation gives rise to a minimum of losses.

are produced by the world's targest ratio parts manufacturer. A minimum of insulation gives rise to a minimum of losses.

It is not necessary to dwell upon the advantages of using straightline frequency condensers today. They will separate the lower wave stations and will give you better results all the way through. These condensers are all equipped with 3 screws; and plates are solid brass. Friction bearings, adjustable end plate bearing to adjust tension, etc., the highest class job in America, not only for those who build their own, but for set manufacturers as well. Where a high class condenser is a necessity.

DUE TO THE EXTRAORIDINARILY CLOSE SPACTING OF THESE PLATES. THIS CONDENSER TAKES ACTUALLY LESS ROOM THAN THE OLD STRAIGHT LINE WAVE TYPE. Dimensions of .00017 type, closed.

4" long, 154" high; open 4" long and 44" high.

The larger types are of the same dimensions except that they are somewhat wider due to the additional plates.

No. 8902 8-plate, .00017 Capacigrad Condenser.

denser 13-plate, .00025 Capacigrad Con-No. 3580 denser No. 3581 17-plate, .00038 Capacigrad Con-

...\$1.70 denser 23-plate, .0005 Capacigrad Con-No. 3582 denser

Two Gang Capacigrad Pilot Condenser

This is the same type condenser as described under our No.'s 3580, 3581 and 3582, and is made especially



for tuned radio frequency, neutrodyne, and super heterodyne receivers. The important thing to remember about gang condensers is that the capacity of the two units absolutely uniform. Both of these condensers the within 2 per cent. accurate in their capacities, so it is a very simple matter to balance the set. Although of large apacity, the size of this condenser is remarkably small, measuring only 4" long and 1%" high when closed, and 1%" high when fully opened. The total width from panel for are bearing its only 3%". Carried only in one size, namely, 17-plate, .00036 mfds. Rugged in design, with pigtalls and sout end plates, you will find this with pigtalls and sout end plates, you will find this No. 3590 Two Gang, 17-plate, .00038 Capacigrad Condenser

U. S. L. 3-Gang 17-Plate .00035 Condenser S. L. Corrected Frequency



Extreme compactness and perfect efficiency is a rare combination in three - gang

in three spans that there is all the price of a larger, and less efficient type. The three sections are served to the price of a larger, and less all the price of the price of the price of a larger, and less are of the price of t No. 8932...

Silver Marshall Interlocking Condenser

This condenser is unique in that it can be used singly, or, due to the special mechanical arrangement pro-

can be used singly, or, due to the special mechanical arrangement provided therewith, a similar condenser can be interlocked by inserting the shaft of a variable coupling primary coil) into the special hole in the rear portion of the condenser preceding it. After being adjusted for final electrical uniformity, they are firmly interlocked, and the tuning is thus confined to one dial. In this manner, any number of condensers can be employed, for multi R.F. stage assembly. Double bearings, fully adjustable, provide for smooth operation. Rigid die cast frame. Plates are lacquered brass, Frovided with single or double hole mounting, and two-hole base mounting. Capacity .0035 17 plates.

Bruno Compact Tuning Inductances

\$2.72

Where space is at a premium, but a 100% EFFICIENT coll is to be used, the Bruno No. 99 will admirably serve this purpose. The diameter of this coll is only 2½ inches. It is 3 inches long. The wire is very attractively wound lut two colors of orange and green, upon a low loss Quartzite form, assuring a coll of utmost efficiency. There are 12 turns in the primary, 54 in the secondary and 45 in the rotating coll. For .0005 watable condensers. Will tune from 200 to 575 meters. Single hole mounting. Ends of moulded bakelite.



\$4.99

3-Circuit Tuner No. 9074

Bruno No. 99 R. F. Coil

Illustrated—same characteristics as above coil, mechanically as well as electrically, but without a rotating coil, or tickier. Same number of turns in the windings of both the primary of each coil, and secondary thereof, assures equal "logging" on the tuning dial.

No. 9631. \$2.72

Quartzite Winding Form

Laboratory tests have conclusively proven that these winding forms will assure the least possible losses. Will lend distinction to the appearance of any set. Can be supplied in either a 3-inch diameter with a 2½-inch winding space, or, in a 2½-inch diameter with a 2-inch winding space. Supporting rods made of transparent Quartzite, moulded bakelite ends. Laboratory tests have conclusively



\$1.81

No. 9634 Either size.....

Karas Extended Shaft "Equamatic" Condensers

\$6.55

Especially designed for use in Especially designed for use in the Equamatic receiver because of its extended shaft from the rear plate of the condenser. This product is symbolic of the Karas efforts to offer the Radio public the very finest instruments that



very finest instruments that skilled engineers can design, and patient craftsmen can design, and patient craftsmen can be seen that a same perfect skilled engineers can design, and patient craftsmen can build. Mathematically designed plates assure perfect S.L.F. results in tuning. Frame is very hearly nickel plated, and substantially formed. Plates are heavy lacquered brass. The shaft revolves with a velvet-like feeling. Extended shaft model only supplied in .00037 Mfd. capacity—17 plates.

No. 9011. \$6.55

Other Karas Condensers

No. 8912	5 plate	.0001,55.98
No. 8913	7	.00014\$5.98
No. 9459	11 "	.00025\$5.98
No. 9458	17 "	.00037\$6.29
No. 9457	23 "	.0005\$6.55

Bruno Unitune

\$15.28



This combination represents the very latest improvements This combination represents the very latest improvements in Radio receiver construction. Consists of the Bruno Unitune No. 9635. with two No. 9072 Bruno R. F. Colls rigidly attached thereto. Can be used for two R. F. stages or in any variety of circuits. Tuning range—200 to 550 meters. Its appearance will enhance the appearance of any Radio receiver. Refer to No. 9635 and 9072 for detailed descriptions of condenser and colls.

No. 9637. \$15.28

No. 9637....

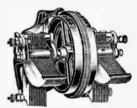


No. 9636 .- Same as No. 9637, only the right-hand condenser holds a standard three-circuit tuner. For Roberts type receivers, or \$18.09

Bruno Unitune Condensers

\$9.93 POSTPAID

The Bruno contribution to localized controls of multi stage tuning variable con-densers has met with deserving praise. As suggest, this unit consists of two condensers, both electrically matched yet electrically independ-



cleertically independent of each other in their rotors. Both dials can be turned TOGETHER with a one dial effect, and then either can be further adjusted independent of the other. Mounts to the panel by means of only two screws which also handsome bronze indicating plates. .0005 Mfd. straight line frequency. The plates are of brass and shaped for tuning. The frame is of aluminum and is very durable. The drums are of moulded hakelite, and on the circumference thereof, the dial numbers are clearly engraved. The edges of the drums are knurled for tuning purposes. Purposes. **\$9.93**

Notice

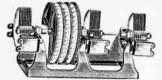
You can adapt your present condensers for localized tuning control, by attaching to them the Bruno Drums (2), panel plate and frame. Takes but a few minutes.

No. 8947 As Described

I am getting good results with the same condensers of ordered from you several years ago—thus am sending you another order.

WILLIE L. BULLOCK. 674 Vance St., Henderson, N. C.

Na-Ald Localized Control Tuning Units



The Na-Aid Localized Condensers are the latest contributions to the art of Radio set building. The tendency among all standard receivers of this season is to localize all the tuning controls, and at a very modest expenditure you, too, can avail yourself of this luxury. All dials can be turned at once, or singly, independent of each other, all within range of your FINGER TIPS. The dial numbers are to be found on the drums, and are handsomely set off in a frame of embossed polished bronze furnished with each condenser. Very compactly made, the dial numbers are to be found on the drums, and are furnished with each condenser. Very compactly made furnished with each condenser. Very compactly made there only formed "spokes." The circumference of these drums not only furnishes the means wherehy the condensers are rotated, but also there is attached thereon, the strip containing the dial readings. As these figures are milled below the surface, they are not accessible to your finger tips, therefore, will not rul off. The drums are milled to allow the tinger tips to grip them. The condenser plates are aluminum, and are of the corrected frequency type. The mounting bridge is nickel plated brass. To offset any undue tension at any point on the condenser, several mounting holes are provided, according to the type of condenser.

No. 9711 Double 17-plate, 000375. \$6.65
No. 9712 Double 10005 23-plate with tickler drum control, for Roberts type circuits, etc.. \$8.95 The Na-Ald Localized Condensers are the latest contribu-

Na-Ald Connectorald



\$1.39 POSTPAID

POSTPAID

This new UX112 and UX112 storage battery power tunes may he used in your present 2nd stage audio amplifier socket without having to resort to any internal changes of wiring, either to the "C" or "B" battery connections. Any additional voltages applied feed to the power tube only. As this adapter does not raise the tube, it may be safely used in receivers with limited bead room. Substantially moulded of bakelite. Connecting wires are furnished with engraved tags with proper designations.

..... \$1.39 No. 9716

Isolantite Adapter



With the advent of the small UX type base tubes, the UX199 and the new power tube—the UX120—and similar types, there are occasions when it is destrable to use these small base tubes in STANDARD SOCKETS. This adapter takes the small base UX tube, and adapts the tube to the standard socket. As it is moulded a pure low loss instrument.

No. 9774.....\$0.32 a pure low loss instrument.

Bremer Tully Shock Absorber Socket

Microphonic conditions in a detector tube (and possible in all of the tubes) will cause a steady, monotone hum or roar in the loud speaker. This is caused by the vibrations of the loud speaker, or even passing wehcles, and footsteps in the room. setting the elements within the tube vibrating. To overcome this condition, the side arms of this socket not only absorb these vibrations, but also prevent them from starting. The base is of genuine bakelite. There is a shock absorbing material between the hase and U X socket holder. Contacts are positive, yet cause no undue strain on socket studs, thus necessitating no undue jerks to remove the tube.

ing no undue jerks to remove the tube, \$0.88



Howl Arrester

POSTPAID

The McDor,alt Hoal Arrester is used to eliminate any microphonic tube hum or roar by simply sliding it over and on the offending tube. In principle, the weight of this device and the gripping effect of the stretched rubber tends to stare off any external vibrations which cause the elements of the tube to wibrate in turn, with a resulting hum. This is very noticeable in console cabinets, or wherever the loud speaker is immediately adjacent to the receiver. Particularly effective on detector tubes. Only the hest grade of rubber is used in its construction.





Na-Ald Connectorald



This Na-ald product serves the same purpose as our No. 9716 Connectorald, only it is solely intended for using the UX120 (the UV199) power amplifier tube) in a UV199 socket. The tube is raised a minimum amount, as the illustration will suggest. Additional voltages can be directly applied to this tube without disturbing the other tubes in the circuit, or changing their battery requirements. For true reproduction of radio reception, a power tube must be employed, with additional voltages. Durably moulded of bakelite. No. 9714...

UX120 Na-Ald Connectorald



POSTPAID

This adapter will allow you to use a UX120 or UV199 power tube in any UV201A type of socket. The additional voltage required on the power tube can be applied direct to this tube, without disturbing the battery requirements of the remaining tubes. This socket does not raise the tube. Battery leads are provided with ongraved markers for safety.

\$1.08 No. 9036......

New York Midget By-Pass

Condensers

For by-pass work we offer a condenser of sterling qualities that for by-pass work is unequalled by the best mica condensers, yet is available at greatly reduced cost made possible by the employment of 6s-pecially manufactured



pecially manufactured condenser paper, vacuum impregnated in a synthetic compound (no wax used) which gives the condenser a very high capacity factor and makes it unaffected by dampness in any climate. Equal in this particular to those moulded directly into bakelite. The special strap clamps emplayed maintain a constant pressure and afford a most vonvenient electrical connection. For resistance coupled amplifiers and by-pass work it is unequalled. The price is the same for all capacities ranging from .005 to .1 MFD.

80.41

Aerovox By-Pass Condenser

any service where low im-For any service where low impedance path for audio- or radio-frequency current is desired. The bypass condenser prevents the loss of power in A or B batteries by keeping the fluctuation in the current out of the batteries. Es ential in construction of B battery eliminators. Sturdy mechanical construction features this item. The lugs provide for either horizontal or vertical mounting. Finished at-



ractively in black.	Finished at-	6
Cat. No.	Capacity	Price
9429	.1 mfd.	\$0.43
9430	.25 **	0.49
9431	.5 "	0.55
9432	1. "	0.67
9433	2. "	0.99
9434	3. "	1.59
9435	4. "	2.19

X-L Vario Densers



MAKE POOR SETS GOOD — GOOD SETS BETTER Endorsed and Used by the Foremost Radio Engineers, ALMOST TOO GOOD TO BE TRUE.

MODEL N.—Capacity range 1.8 to 20 micro-microfarads, for balance in Roberts two tube. Browning-Drake, McMurdo Silver's Knockout, Neutrodyne and tuned radio frequency circuits.

MODEL G—Two capacity ranges, .00016 to .00055 and .0003 to .001 Microfarads, for the Cockaday circuit, filter and intermediate frequency tuning in superheterodyne and positive grid bias in all sets.

No. 9380

Hammarlund Equalizing Condenser

\$0.49



Possessing the distinction of being the smallest variable condenser, this compactness does not rob it of any efficiency; in fact, it has a wider range than condensers many times its size, the above view being about full size—the bakelite base measuring 1 3/16 inches long by the bakelite base measuring 1 and the compensate for differences between condensers in gang assembly, or, for neutralizing between condensers is 50 micro microfarads and minimum occurrent concensers in gaing assenting, or, for neutralizing oscillations by balancing the R.F. tube capacities. Maximum capacity is 50 micro microfarads and minimum 2 micro microfarads. Hase is genuine Bakelite, uses a mica dielectric and a beavy phosphor bronze spring plate, Adjusting the center screw, raises or lowers the top spring plate, causing the variation in capacity. Mounts directly to eacher to warehold the property of the control of the co directly to socket or variable condenser terminals, he suspended on any connection wire.

No. 9052....

Aerovox Fixed Condenser





are made of the best grade mica insulation. Gen ulne bakelite layers. Sealed under pressure. Very, popular with leading set manufacturers. Each condenser tested and guaranteed. These are Style 601.

No. 5080	.0001	.\$0.30
No. 5079	.00025	. 0.30
No. 5078	.0005	0.30
No. 5077	.001	. 0.33
No. 5076	.00%	0.33
No. 5075	.0025	
No. 5074	.003	. 0.41
No. 5073	.004	0.41
No. 5072	.005	0.50
No. 5081		0.61

Pilot Bakelite Fixed Condenser



This is without a doubt the best conden er made. It cannot short. Un-like mest condensers which are built in Enyers, permitting solder or flux to

flow in to the condenser to short the mica plates, these condensers are moulded in one piece under 20 tons of pressure. They are made of beautiful brown bakelite. Are 98 per cent perfect in capacity. Each condenser individually tested and guaranteed.

No. 5026	.0001\$0.32
No. 5027	
	.0002 0.32
No. 5028	.00025 0,32
No. 5029	.0005 0.32
No. 5030	.001 0.36
No. 5031	.002 0.36
No. 5032	.003 0.45
No. 5033	.004 0.45
No. 5034	.005 0.54
No. 5035	.006 0.63
No. 5036	.01 By-pass 0.81

Gertlemon:
I have received my order sooner than I expected, and I was not sure that
Ir was my order until I opened the package. The time was two days before
a latter that I sent the same day I sent the order. I received them in good
c-ndition with the RASCO Catalog. In my vacation, just after the examinaters, I will order other parts, and I hope to receive them with the quiek
actention and prompt delivery accorded my first order.

LUIS OUGFIN.

275 Juan Luna Street.
Binonco. Manila, P. I.

Cushioned Pacent U X Socket

\$0.51



This is the last word in socket construction-it is shock absorbing, therefore reduces microphonic sounds and hum-

"Rasco" Vacuum Tube Shell

Only very heavy brass is used.

Especially useful to the man who builds his own on account of its four perforated ears. To mount is simple. Drill a hole into your sub-panel the same size of the metal shell opening; the size of this hole being 1%". The socket is then mounted over the hole, while the four contact fingers which come with the shell, are mounted below the panel with screws and nuts. This gives a workmanlike job. It saves you money and your set will look like the factory-made article. Complete with 4 Contact Fingers.



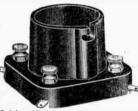
No. 4747 Complete with 4 Contact \$0.16 Fingers

Vacuum Tube Socket Contacts

These contacts are used in connection with our No. 4747 vacuum tube shell. Made of phosphor bronze and nickel plated. The turned-up lug fits into a small hole which you drill into the panel. After the contact finger has been screwed down by nut and screw it is impossible for the finger to shift sidewise.

Rasco Vacuum Tube Socket

One of the best sockets made. Value unequated anywhere. Made entirely of heavy composition and of course its use avoids the metallie ring and howling caused by metal sockets. Four springs givmaximum



Ing maximum pressure against Nickel-plated binding posts, rontact pins. Best finish. Nickel-plated binding posts, If not the best socket you have ever had, return it and your money will be refunded. There may be lower-priced sockets, particularly the porcealin kind, but these are usually worse than useless from breakage and other cambles. troubles

No. 6500....

Carter Adapter

\$0.48 POSTPAID

With this adapter you can use any modern UX type base tube in a WD11 type socket, such as UX199. WX12, UX120 and UX201A. No. 9715....... \$0.48



Pilot Universal Socket

\$0.28

POSTPAID

Here is a new bakelite socket 'or UV-201A tubes, with old style bases, as well as for the new UX tubes, both storage battery and tiry reli types. Equip your set with these modern sockets and use whatever tubes you please. Equipped with four binding peats for quick and easy connections. Positive wibing contacts, a wonderful socket which you must see to appreciate. Genuine bakelite.

No. 6535 Pilot Universal Speket... \$0.28

Pacent Adapter

\$0.30

This Adapter is made to place a UV-199 or C-299 tub- in the ordinary 201A or 301A sockot. The Adapter is made of bakelite throughout and has phospher bronze contact springs in the battom of the Adapter, which are earlied through the base in slots that serve as a ow loss part. Short-circuiting Las been climinated entirely. The best adapter on the market.

No. 6521, Pacent Adapter\$0,30

Air Gep Sockets





No. 9798

No. 9799

No. 9798

No. 9798

No. 9799

Inherent capacity existing between the grid and plate causes losses serious enough, without further adding to these losses, by using the conventional type of socket, for dust and other foreign conducting agencies can form an electrical path between the grid and plate terminals, incpairing the general efficiency of the stage to which that tube is coupled—but, with the Air Gap sockets, this is impossible, for the base is so eleverly mounted that there is NO MATERIAL BETWEEN THE GRID AND PLATE TERMINALS—THEREFOILE, THERE CANNOT BE ANY LOSSES. Base is of genuine movided bakelite, with nickel plated phosphor bronze contacts. The Standard model is furnished with a nickel plated metal shell in which the pin of the Radio tube locks, whereas the U.X. type base will accommodate any radio tube, the prongs of the tube being pushed into the foles provided for them.

No. 9798

Standard Type Base.

\$0.64

Set of Hammarlund-Roberts Coils



1 / 1 2 2 1 1



No. 9749 Set of 2 Coils....

\$6.88

Hammarlund Neutrodyne Coils

In appearance similar to the coil illustrated on the right, but wound on a 2-inch diameter film of cellulated. Consists of Primary and secondary, the most compact coil made, yet boasts of the Hammarlund high engineering attributes. Correctly tapped for neutralization. Can be used in any tuned R.F. circuit. Can be mounted closer together, with less interstage coupling. Small diameter means less pickup. therefore helps eliminate interference and broad tuning. For 17-plate .00035 condensers only.

No. 9750 Set of 3 Coils...... \$6.88

180° Low Loss Three Circuit Tuner



\$1.69

This coil represents the very best three-circuit tuner that is on the market to-day. It is not only very ruggedly made, but is also very pleasing in appearance, the windings being in two colors and metal parts handsomely nickel plated. Replace your present three-circuit tuner with this model, and marvel at the difference. Can be used in the Ambassador type circuit, or in conjunction with our No. 9608 R.F. coil in the Roberts, Browning Drake, etc., type circuits. Wound on 3½-inch diameter tubing, 2½ inches long.

No. 9609....

Three-Circuit Tuner

\$1.45

This three-circuit tuner has fine selectivity. It represents the latest in inductance de-sign, having an untuned primary and a loosely cou-bled secondary. Its compactness and adaptability per-



anapuantity permit its use in the Amb., ssador circuit or any three-circuit receiver. A fraction of a turn will tune out locals and bring in distance stations, clear and sweet.

Balanced Interflex 3-Circuit Tuner



This special 3-circuit tuner was designed for the Balanced Inter-Balanced Inter-flex, as originally designed and de-scribed by Mr. Hugo Gernsback, Editor of "Ra-dio News," and used in the Balanced Interflex kit described clsewhere in this catalogue. It can also be used as a standard three-

circuit tuner where a .00035 or 17-plate condenser is to be used. If your present three-circuit tuner does not cover the full wave length band of 200 to 550 meters, replace it with this one. Very ruggedly designed and constructed, ...surring you every satisfaction. There are 12 turns on the primary, 65 on the secondary and 40 turns on the rotor Diameter is 3% inches, 3½ inches, 3½ inches, 3½ inches long.

Antenna Coupler or Radio Frequency Coil

\$1.18 POSTPAID

This coil is constructed according to the latest principles of low loss winding, and is highly approved. Primary and



No. 9608....

Bruno Compact 3-Circuit Tuner



\$3.15

Although extreme compact-ness has been successfully accomplished in the design

accomplished in the design of this three-circuit tuner, the Bruno efficiency has not been sacrificed. Measuring only 2% inches long by 2½ inches in diameter, this coil can truly be called a baby coil. There are 60 turns in the secondary, 12 turns in the primary and 34 turns in the rotating coil. Designed for .0005 23 plate variable condensers. Wound on genuine Bakelite tulling—all metal parts are nickel plated brass.

No. 9632 One hole mounting..... \$3.15

Rasco Leader Baby Low Wave Compact Air Wound R.F. Coils Coil 3-Circuit Tuner



Your first descent into those

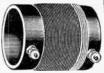
Your first descent into those seemingly mysterious wave lengths below 200 meters will thrill you and well repay you for your labor spent in constructing a SHORT WAVE 2 or 3-tube receiver. The BABY short wave 3-circuit a wave length band of 37 to 150 meters, when used with a 23-plate .0005 variable condenser. Its very compactness of size, measuring only 2 15/16 inches long by 2% inches in diameter does not detract from its electrical efficiency. The primary and secondary windings are bare wire wound, precision spaced. Wound on the least possible amount of insulation, and between machined slots. Fibre tubing used. There are 4 turns of wire in the primary 14 turns in the secondary and 14 in the rotary coil. Pig tailed connections on rotary coil. Binding post connections. One hole mounting. Nickel plated brass hardware.

brass hardware. No. 8830

Bruno Baby R.F. Coil

\$1.88 POSTPAID

This small, but very efticient, tuning inductance is a sister coil to the No. 9632 3-circuit tuner; in fact, it is the same size and of the same dimensions,



and of the same dimensions, only it has no rotating coil combodied within. It may also be used in any tuned radio frequency circuits, where the arailable space is at a premium. Measures 2% inches long and is 2% inches in diameter. There are 12 turns in the primary and 60 turns in the secondary. For .0005 variable condensus. Blinding post connections. Wound on genuine bakelite.

No. 9633

The superiority of the solenoid coil over any other type is conceded. And, being air



The superiority of the solenoid coll over any other type is conceded. And, being air space wound with no insulation in its field, it is truly a low loss product. Another outstanding feature of this efficient coll is its extreme compactness, measuring only 2½ inches in diameter and 2 inches long. This small size lessens the interstage coupling effects, and greatly reduces external pick up. The primary is enclosed within the filament end of the secondary. The ends of the wire are coiled, and are long enough to be run direct to their proper terminals. Precision wound, thus each coll is electrically matched with every other one. Ideal for use in shielded stages or wherever space is at a premium. Green silk covered wire. Can be used as an antenna inductance, or intermediate R.F. stage transformer. Can be screwed to base board through the heavy celluloid strip permanently attached to the coil. There are 12 turns in the primary, and 79 turns in the secondary—for 17-plate .00035 variable condensers—with which it will cover 200 to 550 meters.

No. 9836 Each Coil \$0.73

180° Vario Coupler



This is one of the best couplers on the market. ('an be used for panel and table mounting. The bracket is an aluminum casting, as is the inolder which secures the secondary to the coupler. Tubes are natural colored bakelite. Diameter of primary, 4"; height, 2". Diameter of secondary, 3\\[\frac{1}{2}\], '' bight, 1\\[\frac{1}{2}\]. A'' shaft used. Two spring binding posts are provided for the secondary winding connections. By means of this, the instrument can be connected as a varioreter. Primary has 13 taps. Wave length range, 180 to 550 meters. to 550 meters. \$2.00

Bremer-Tully Tuner



The Bremer-Tully Tuner is justly celebrated because of its great merit ——its popularity is Increasing. Variable secondary and fixed absorption coil. Variation is permitted by adjustable, untuned primary. Wound on skeleton forms. Equipped with pigtalis. Can be used in any 3-circuit tuner. Full instructions. No. 9507 \$4.39

Low-Loss Ouartzite Tuner

\$4.64

The well-known Bruno low loss quartzito tuner. Range 175 to 550 meters. Tickler rotor makes possible tuning without howls. Primary and secondary wound on quartite glass and

insures low losses. Substantially built. Silk wire wound, Pig-tailed.

No. 2693\$4.64

I was very much pleased with the Vario-coupler you sent me, and also highly appreciate your prompt service in dealing with customers.

LEWIS M. SANDFORD. 91 Wright St.. Newark, N. J.

Pacent Duo-Lateral Honeycomb Inductance Coils

\$1.12 POSTPAIO



These very popular low-priced machine-wound Inductance Colls satisfy the needs of the amateur experimenter for corteentrated inductances, at a very low cost and high efficiency. Compact and easily manipulated. They cover the entire wave length without the dead-end losses which exist when a tapped coil is used. Have low high frequency resistance and low distributed capacity losses. Unequalled. Successive turns of conductor are wound at an angle to preceding turns and spaced therefrom, which gives the coil the cellular structure from which it derives its name. These air cells and the angular disposition of the turns reduce the losses in the coil to a marked degree. With the proper condensers these coils will cover the entire range of wave-lengths used in radio. Two leads are brough, out from each coil. As in meters when varied with a .001 Variable Condenser. In considering prices, please remember these are the high grade Pacent brand.

			Un.		1
			Mounted		Mounted
Turns	Range	No	Price	No.	Price
25	120 - 250	5000	\$0.28	5016	80.75
35	175 - 450	5001	\$0.30	5017	\$0,90
50	240- 720	5002	\$0,32	5018	\$0.96
75	390 910	5003	\$0.37	5019	\$1.00
100	500-1450	5004	\$0.42	5020	\$1.05
150	600-2000	5005	\$0.45	5021	\$1.10
200	900-2500	5006	\$0.50	5022	\$1.12
250	1200-3500	5007	\$0,53	5023	\$1.20
300	1500 \$1500	5008	\$0,59	5024	\$1.20
400	2000-5000	5009	\$0,60	5039	\$1.25
500	2800-6100	5010	\$0.70	5040	\$1.35
600	4000-10000	5011	\$0.89	5041	\$1.50
750	5000-12000	5012	\$0.92	5042	\$1,60
1000	7900-15000	5013	\$1.05	5043	\$1.78
1250	9750-19500	5014	\$1.70	5044	\$2,30
1500	14500-26500	5015	\$1,90	5045	\$2.15

Cockaday Circuit Coils

For all Cockaday circuits or similar circuits using same combination. Three windings, two of the circuits being wound side by side and a tapped winding wound on a separate tube mounted at right angles to the large tube. Wound with great care and is properly calculated to give superior results. Tube especially treated cardboard, highly impregnated to do away with all losses. Not affected by temperature or weather conditions. Wound with No. 18 double cotton covered magnet wire, Tapped coll has seven taps. Two brass brackets for panel or base mounting.



No. 2750 \$1.89

Triple Honey Comb Coil Mount



Universally used by many ship Radio receivers - because of its never failing accuracy and stability. Center mount (secondary) remains rigid, and the two end mounts are rotated over a wide arc by Flexible leads are brought out to the b. Moulded of Genuine Bakelite.

two knurled knobs. for connections. Ideal for any wave length reception, up to 25,000 meters

..... \$4.85

Baby Radio Frequency Inductance Coils







Most essential in tuned Radio frequency circuits, where the available space for the inductances is very limited Basket weave construction assures maximum efficiency.

Low-Loss Coil

\$1.05 POSTPAIO
A new low-loss
c o i i especially
made for tuned
radio frequency The same work. kind as used in the Freshman Masterpiece and





many other popu-

Set of 3\$1,05

Gentlemen

Gentlemen:
Thanks for your very nice settlement. I must say
that the Radio Specialty Co. is absolutely the
squarest firm that I ever did business with, and if
I can ever do your house a favor in any way I will
certainly be glad to do so.
O, STEVENS, Drake, N, Dak.

Silver Marshall Plug-In Coils

\$2.43 OSTPAID

No matter what clreuit you may wish to build, or one that you may wish to redesign, the Silver Marshall Plug-in Colls can be used, with superior results. Their qualities of low losses, reduced to a minimum, electrical uniformity, mechanical perfection, extreme compactness, less pick up possibility, least interstage coupling, accessible connections on base, matter No cessible connections on base,



least Interstage coupling, accessible connections on base, have made these instruments famous all over the World. Thehr small diameter makes them ideally suitable for use in shielded stages, considering that at least 1½ to 2 inches of space must intervene between the walls of the shield and the outside of the coil. To change from one coil to another, for different band of wave lengths, or, to another circuit, the coils are simply removed, and another substituted. A key section moulded in the coil form must fit into the special slot provided on the base, preventing shorts, wrong connections, etc. Small adjustable rotors, supported on brass springs, and easily adjusted for various conditions, circuits, etc., form a nart of every coil. The form and hase is genuine bakelite. Due to the tibbed effect on the winding form, the wire merely touches the form at these ribs. Connections to base may be twisted under cap nuts. Can be supplied in any of these 4 ranges: ranges:

ranges:
A Banze 190 to 550 meters C Bange 30 to 75 meters B Bange 70 to 200 meters D Bange 500 to 1550 meters with a 17-plate .00035 condenser.

No. 9972 Type 110, Stator consists of two equal windings, with an adjustable rotor, A, B or C range, Kindly state which range you wish. \$2.43 D Bange, Type 110. Stator consists of a single winding, with concentrated primary in slot, and adjustable rotor. A, B or C range. \$2.43 D Bange. Type 111. \$3.19

The Rasco Leader All-Circuit **Tuning Inductances**

POSTPAID



Where space is at a premium and the component parts must of necessity he very small, it is all Important that nour selection thereof be for instruments of proven merit, correctly designed and mechanically durable. The BABY your selection thereof be for instruments of proven merit, correctly designed and mechanically durable. The BABY R.F. coll can be used in a variety of circuits, EUTHER R.F. coll can be used in a variety of circuits, EUTHER in conjunction with the BABY 3 circuit tuner, or, with a number of their own type, for neutrodyne, tuned radio frequency circuits, etc. It can also be used as an antenna inductance for super heterodynes, etc. There are 10 turns of wire in the primary and 58 turns in the secondary of both cuits, for 23-plate, 0005 variable condensers, with which it will cover the broadcast wave lengths from 200 to 550 meters. The rotary coll in the three-circuit tuner has 14 turns thereon, wound on a 1%-inch diameter tube. The primaries and secondaries of both cuits are wound between slots, in the latest low loss fashion, with the least possible insulation beneath the windings. Pla tail connections. One hole mounting on 3-circuit tuner. Binding Post connections. One hole mounting on 3-circuit tuner—all metal parts nickel plated brass. The dimensions of the fibre tubes are 2 3/18 inches in dimensions of the fibre tubes are 2 3/18 inches in dimensions of the fibre tubes are 3.6.833 BABY 3-CIRCUIT TUNER. \$1.79

R.F. Stage Shields

\$2.00

Although primarily designed for use for use with Silver -hall apparatus (as their new Shielded Six) these



Shielded Six) these to tal a shielding prevents interstage coupling, and also completely eliminates "outside pickup," greatly assisting in the final selectivity of your receiver. Made of aluminum. Note that the cover and side walls are removable. Measures 7½ inches long, 5 inches high

removable. Measures 7 ½ inches long, and 3 ¼ inches wide.

No. 9969 (Shield Only) \$2.00 Collapsible Total Shielding Boxes

The sides and ends of this cleverly designed shield are tongened and grooved, thus can be slipped in and out of their positions, for immediate acress to any part of the R.F. stage, for renairs or minor adjustments thereto without the walls of the shield in your way. All the liquid and output wires are led through the base section, which has sub-pressed holes provided for this purpose—you merely have to push these holes wherever they are most convenient to your requirements. By bolting a plece of copper his bar wire to the bottom section, a hole also being provided for this purpose, all negative filament and ground leads can be soldered thereto. Multi stages of radio frequency amplification are only possible with these shields—ideal also for oscillaturs in super heterodynes, evave traps, etc. Made of aluminum—measures 8% inches long, 5½ inches wide and 6½ inches high. Will thus contain a complete R.F. stage consisting of coil, variable condenser, socket, neutralizing or by-pass concenser, etc. Dial and even rhoostat can be mounted on front section, climinating a bakelite panel, and cabinet, if so desired. Total stage shielding is now used in all commercial receivers—keep abreast of the times, and campiletely shield your receiver.

No. 9970 One Complete Stage Shield

22.88

Steinite Interference Eliminator

\$0.85

Where the selectivity in your liadio receiver is not all it should be, either through adverse conditions, such as

too close proximity to local broadcasting stations, long acrials, etc., or, due to a broad tuning receiver, the insertion of this wave trap between the aerial binding post and the aerial lead-in wire will greatly improve the selectivity, by adjusting the small knob in the center thereof. No alterations in the withing of your receive are necessary, nor does this institument require an additional rube, batteries, etc.

No. 9927...

.... \$0.85

Sterling Microdenser



\$0.89variations in tandem condensors can be compen-sated for with these very

sated for with these very efficient midget condensers. In fact, they are to be used wherever a balancing condenser is suggested. Ideal for neutralizing. They are so compact, measuring 1 inch up 114 inches, that they can be wired directly to the desired connections. Mica insulation used. Adjusts by serwe in center. Can only be varied by a serew driver—adjustment remains constant. Maximum capacity approximately 5 niero-mierofarads. Nature of construction assures lowest possible minimum capacity. \$0.89 No. 9724....

Karas Equamatic Coils

Set of Three \$10.88

Long the dream and hope every serious Radio



Long the dream and hone of every serious Radio engineer, at last it is possible TO MAINTAIN A CONSTANT EQUAL TRANSFER OF ENERGY between the primary and secondary inductances NO MAITTER WHATWAVE LENGTIES WHATWAVE LENGTIES WHATWAVE LENGTIES The conventional radio frequency coil has a fixed coupler, limiting its effective transfer of energy, through the rigid coupling employed, to a narrow band of wave lengths—and all wave lengths above or below this band proportionately receive less of this desired transfer of energy. The primary coil is wound on a special form with a metal sleeve variably attached thereto, which is slipped over the extended shaft of the Karas variable condenser No. 9011, and therefore describes an arc in accordance with any adjustments made to the condenser shaft. The secondary coil is mounted to the sub-panel, and is also variable, in angular position, with respect to this arc described by the primary making possible further coupling effects. This equal transfer of energy assures a strong, clear and wonderfully pure signal, on any station being received, and also tends to eliminate overlapping of electrostatic and electromagnetic fields. The primary is wound on a 2-linch bakelite tube, with 14 turns of wire. The secondary consists of 60 turns of wire on a 2½-inch bakelite tope. Complete with mounting screws, flexible leads, etc., and directions for No. 9009 Set of Three Coils, ... \$10.88

No. 9009 Set of Three Coils.... \$10.88

Karas Retard Coils

Essential in the grid circuit of R.F. stages in a Karas receiver, these shielded, compact coils permit the tubes to operate higher on their characteristic curve, without producing oscillations.

\$1.88 No. 8910 Set of 2 Retard Coils

Karas Equamatic Sub Panel Brackets Essential in Karas Equamatic receiver, to insure inechanical accuracy of mounting of parts, greatly affecting electrical efficiency. No. 8911 Set of 3 Brackets.... \$0.68

Benjamin "Lekeless" Trans-



formers

This is the most ideal coil

This is the most ideal coit to use in any Radio frequency circuit, for its digute 8' shape hashies a very close field, preventing the ever ruinous feedbacks and power leakage. Neutralization is very easily affected because of this, and no special angles or minimum distances between centers of colls need be employed. Precision space-wound by special machinery assuring an electrical uniformity. Minimum of insulation is used in the field of these coils. Covers entire broadcast wave length band with a 0,0035 condenser. Makes a very attractive appearance for the wire used is double silk green covered. Much more efficient than the toroidal principle, for a solenoid is conceded to be the ideal inductance. Equipped with special taps if used as an antenna inductance for best results on various length antennas.

83.15

Bremer Tully Torostyle

Transformer

This is the coil that has made the Bremer Tully Counterphase Power-Six the success that it is.



Fower-Six the success that it is, it is a laboratory product—the result of many years of experimentation. The outstanding features are the almost entire elimination of inter-stage coupling effects and signal pick up, due to its closed field. The 7 binding posts on this instrument are cleverly arranged for simplified wiring. Frame is of moulded bakelite. Can be supplied in Type TA for matternar coupler, TC for intermediate R.F. stages and Type IA for 4-tube sets. Kindly state which type you are ordering. are ordering.

No. 9934 Each Coil

\$3.59

Benjamin Tuned Radio Frequency Transformers

\$5.15

Benjamin products synonymous with high auality apparatus. These high



syndify apparatus. These colls are unquestionably of the most efficient type, being air spaced hasket weave wound on air—no dope, or any tu bing is employed therein. The primary is inserted within the secondary, at the filament end thereof. Can be used as an antenna coupler, being tapped for long and short antenna, or as a Radio frequency transformer in any tuned R.F. circuit. If neutralizing is required in the circuit, a special tap will take care of this. Bakelite insulation. Soldering lugs. Low loss design. 3-inch dlameter. Wound with heavy green slik covered wire—looks as good as it is efficient. Will cover 200 to 550 meters with a 17-plate .00035 mfd. condenser.

No. 9851 Set of 3 coils.....\$5.15 No. 9850 Individual coil

Benjamin Compact Radio Frequency Transformer

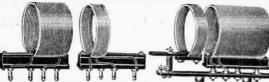
\$1.85 POSTPAID

This coil differs from the 3inch diameter model Benjamin inch diameter model Henjamin Badio frequency transformers in its extreme compactness, idue to its very small diameter of only 2½ inches, and, in this type transformer, the primary and secondary coils are on the same plane, the capacity coupling being thus reduced to a minimum. Very essential where space is at a premium. For .000.35 mfd. condensers — 17-plate, with which it will cover from 200 which it will cover from 200 to 550 meters.



No. 9846 Individual coil\$1.85 No. 9847 Set of 3 colls.....\$4.99

Pilot Short Wave Plug-in Coils



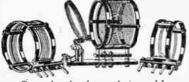
R E L-R.F. Choke Coil

\$1.04



As soon as you reach ZERO on your present variable condenser dials, you reverse them, for "there is nothing beyond that." But were you to really know the worlds" that are yours to explore and delve in below the 200 meter wave length band allocated to anothers and numerous high powered broadcasting stations all over the world, you would immediately redesign your receiver, to incorporate within it the above plug-in cells. And being instantly changeable, you can work your way from as low as 19 meters light back into the regular broadcast band of 200 to 600 meters. It is no uncommon occurrence to pick up European stations—and it is most thrilling to listen to two amateurs conversing across the cast band of 200 to 600 meters. It is no uncommon occurrence to pick up European stations—and it is most thrilling to listen to two amateurs conversing across the continent—they are all good fellows, too, for they want you to "listen in" and write them, with your report as to their reception in your town. Mechanically and electically these plug-in colls have no superior. The mounts are solid bakelite, with the plugs and receptactes (tip jacks) moulded within. The rolls are air space wound, 3 inches in diameter, and practically self-supporting. The primary coll is adustable for correct coupling advantages. The secondary and tickler are on the same interchangeable piece. Overall length of base 7% Inches. The same primary coll is used no matter what wave length band you may be tuning—the secondary (with tickler attached) is the one that is removed, and the next higher or lower wave length range coil substituted. Must be tuned with an 8-plate variable condenser, as four states, our Pilot Nos. 8902 or 9911, or Pacent 7-plate 8903. Either of these condensers will not only cover the lower waves, but will cover the 200-600 meter bands, with, of course, the proper coll. The fixed tickler coll must be tuned with a 11-plate condenser, to control regeneration, with the capacity feed back principle. Note that we can supply space wound coils 3 inches in diameter by 11 inches long wound with number 18 S.C.C. wire 32 tuns to the inch, and another coil wound with number 18 S.C.C. wire, 13 turns per inch. Set builders find them extremely useful in making their own plugs-in coils, of in fact, any form of solenoid coil for any purpose. 1 Coil Range 19 to 58 meters, including plug.

Aero Short Wave Tuner Kit



Completely Interchangeable

Constructed with strict accordance with low losses. Inductances are space wound on special forms and bases with provision for immediate removal to change over to another wave length band. This kit covers 15 to 130

meters. No. 9604 (Set of 3 Coils)

The correctly designed choke coil, single layer wound will No. 30 D.C.C. parafined wire on a neatly finished black bakelite tube. Connections to seriew or soldering lugs. Mounts in any convenient position by means of screw. Will safety carry 1000 milliamperes, Inductance 9 Mil Henrys. D. C. Resistance 3.1 Ohms. Measures 4 inches long, 34 Inch diameter. 81.04

Bremer Tully Short Wave Outfit

Short wave reception depends entirely on the qual-ity of apparatus used—the Bremer Tully engineers, mindful of this fact, have produced this kit, which is

without question one of the most efficient short wave outfits. Consists of a variable rotor wound on a bakelite outfits. Consists of a variable rotor wound on a bakelite tube, and four interchangeable coils, wand on special bakelite forms, with the least possible amount of insulation within the flelds thereof—the turns are precision space wound. The coils cover the following ranges of wave lengths: 12 to 25 meters, 25 to 50 meters, 50 to 100 meters and 100 to 200 meters. Designed for a 7-plate oboq15 mfd. condenser.

No 9853 As Described and Illus-

Silver Marshall Short Wave Kit



\$19.97

POSTPAID

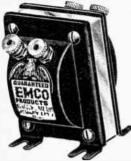
POSTPAID

Consists of 1 coils which will enable you to tune in all stations broadcasting on wave lengths from 18 to 150 meters, the plug-in feature of these coils making this choire of various wave length bands a moment's work. Kit also comprises two .00011 Mfd., Silver Marshall Type 317 variable condensers and one antenna coupling condenser .000025 Mfd., Silver Marshall No. 310, and one Special 6 terminal base, with a slot allowing the plugs in colls to be inserted in only the correct manner. A harmonious assortment of well designed and engineered products, made to work with 100% efficiency in conjunction with each other. Condensers are most ruggedly made and are mounted upon a frame for base board or panel mounting. Plates are lacquered brass. Adjustable for tension on both front and tear bearings. Coll forms are solid balkelite. Complete directions accompany each kit. Lleensed under Armstrong Regenerative patents No. 9629 Complete Kit as Illus-No. 9629 Complete Kit as Illus- \$19.97

World Radio History

Emcotran Transformer

\$2.49 POSTPAIO



Windings are No. 40 wire-carefully layer wound highly insulated, reducing tendency to open circuit, short circuits and changes in characteristic due to moisture. Laminations in the core of very thin rolled silicon steel so designed and assembled to insure even distribution of flux through entire magnetic circuit. and low core losses. Connections plainly marked upon each transformer opposite the terminals.

Each transformer Individually test-ed before the Emeo guarantee tag can be attached. Colls have a sur-plus current carrying capacity—ample tor any receiving tube. Insulation has been carried out to the last de-gree—not only between coils, but also between coils and all metal barts. parts.

Uniform voltage throughout the entire range of musi-cal frequencies. The flatness of the Emcotran amplification curves throughout this range guarantees distortionless performance. Very com-pact. Provided with convenient holes in the base for mounting in any position.

No. 9503 Ratio 3 to 1....\$2,49 No. 9568 Ratio 5 to 1...\$2.59

Rasco Transformer

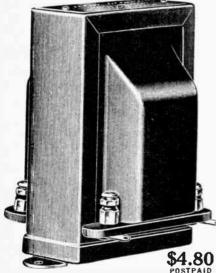
\$1.50 POSTPAID



This is made for us by the makers of the Emectran described above and is of the same general character of construction. Very efficient and very low in price. Guaranteed by the manufacturer and us to be satisfac-

No. 9502 Ratio 3 to 1....\$1.50 No. 9567 Ratio 5 to 1 ... \$1.60

Pacent Super-Audioformer



4-inch Miniature Power Plant

No. 9372 No. 9361

Pacent Audioformer



The improved Audioformer, of striken and unlaue ap-The Improved Audioformer, of striking and inique appearance, gives an exceptionally high degree of amplification over entire band of sound frequencies. Ratio of 3½ to 1 permits use in either first or second stage of audio frequency amplification without distortion and reaction. Case grounded to base. Binding posts located at bottom thus keeping wiring close to base below level of sockets. Size 2½" high, 2½"wide

No. 2811, Mounted

Pacent Output Transformer

For true and faithful reproduction of reception, an output transformer is used with voltages of 135 and over on the last audio stage. In fact, its use is imperative, for voltages of 135 and over, to keep the harmful D.C. currents out of the loud sneaker windings. Can be attached outside of cabinet in a few minutes. Stands 4 inches high, and has the same physical characteristics as our No. 9372 Input Superaudioformer.

No. 9372 Input Superaudioformer.
No. 9600
No. 9773 Unshielded Type. (Same dimensions as No. 9361....

World Radio History

Modern Push Pull **Transformers**



power amplification is employed, distortion im-When power amplification is employed, distortion immediately enters into the reproduction, even if bower tubes are used. However, with a pair of push pull transformers, this condition is impossible, due to the important part they play in the audio circuits. The two transformers represent one stage of amplification talways replacing the last audio stage) and are used with 2 bulbs, preferably of the power type, as for instance, our Mogul Musselman tube. Each transformer measures 2 inches wide, 234 inches long and 235 inches high.

No. 9146 Per Pair (2 transformers) \$7.28

F M C.Double Impedance Audio Amplifier Units

\$4.89 POSTPAID

Herein have been combined all the good features of audio frequency amplification transformers, and of impedance coupled transformers, by a very ingenious system, requirements without the coupled without the coupled transformers, by a very ingenious system, requirements and without the coupled transformers. very Ingenious system, requiring no different wiring than
a straight audio frequency
transformer. It quadruples
the power output of audio
tubes, because grid currents
are permissible, with no
magnetic counting. The volume is practically unlimited,
and there is no tube thocking,
due to the condenser discharge

through the inductance. The high value of inductances causes all frequencies to be faithfully reproduced. The quality is perfect—a straight amplification curve being possible. Any number of stages may be used without howling. Enclosed in black, crystallized metal cases, all terminals clearly designated on bakelite insulation strips.

No. 9981 One Complete Stage \$4.89

Polymet 3-Stage Resistor Kit

\$3.49



of Potymet manuscust,
Represents splendid value.
No. 9674 3-Stage Resistance-Coupled Amplifier.
\$3.49

Complete
No. 9675 4-Stage Resistance-Coupled Amplifier.
Complete

Na-Ald Truphonic Amplifier



\$17.97

POSTPAID

This radically different and better amplier employs a personal that better apply a personal that better apply a personal that better apply a personal that better the session of coupling electric that the production is produced, and experience of the personal that the produced, and even the produced, and even the produced with any to produced with any to personal the produced with any to be contracted with the produced with the quency in the audible range is given full value in the periodiction, thereof. It is not to be confused with any other system or form of amplification. Can be attached to your present receiver in a few minutes by means of a special cable furnished for the "A" and "B" battery connections, plus one simple additional connection to your receiver. Only three tubes are employed after the direction tube. The addition of this amplifier to your set controvelver. Only three tubes are employed after the detector tube. The addition of this amplifier to your set transforms it into one that would sell for over one hundered follows, for the tonal qualities will be the finest possible. It is attractive enough in appearance to be set of side of the cabinet, yet compact enough to even be sailed within. The casing is of lacquered steel. The facilia tubes tit into a genuine highly pollshed bakelite sacket strip, on which is also mounted a rheostat and phone tip jacks for the output. Size 12½ inches long, 2½ inches wide and 2¼ inches high.

No. 9709 Amplifier, including \$17.97 cable, but no tubes.

Remler Infradyne

\$21.29

Remler Infradyne Receiver. An entirely new principle Radio



new principle Radio frequency amplifier.

Unlike Super Heterodynes, it profits by all the advantages to be obtained by amplification of multi-tube short wave stages. Complete within itself—consists of Render sockets, Hemler colls, special vernier condensers and fixed mica condensers, assembled in a highly polished lacquered copper, sbiclieded casing. Can be wired into the cabinet of a set you will build, or can be set outside.

\$21.29 No. 9669.....

De Jur Resistance Coupled Amplifier—Assembled





Bottom View

A three-stage non-inductive resistance coupled amplifier, reproducing tonal qualities second only to your actual presence at the broadcast studio. Entirely moulded of Genuine Bakelite. U.X. sockets are adaptable to old IJ V type and new U X type. Connections (see Illustration) are not soldered—no screws—nor no bolts; all connections are metal RIVETED STRIPS, assuring noise-less operation. Fool-proof. Productive of good volume with no distortion. All connections lead to patent binding posts, plainly Overall size is 3½ inches by 8½ inches. \$55.95



"Rasca" Radio Frequency Transformer

R.F. Amplifying Transformers are coming into use more and more every day, as with the use of them distances can be covered not possible to do without their use. When compared to audio frequency amplification, for the simple reason that the purpose of a radio frequency amplifier is not to boest up the sound, but its increase the sensitivity of the suffit tremendeusly, thereby enabling the owner of the receiver to pick up distant stations that could never be heard with audio frequency amplifiers alone. Remember this motto: "Radio for Range—Audio for Audiblity."

Our Radio Frequency Amplifying Transformer, which has been developed and designed for usy Mr. Robert E. Lacault, former Associate Editor of RADIO NEWS, is the latest word in this style of Transformer. Air core type.

Will give good results with any vacuum tubes now on the market, but it is recommended that "hard" tubes be used. It should be remembered the efficiency is greater than that of any Iron core type on the broadcast band of wave-lengths.

The secondaries and primaries lie side by side in

re used. It should be remembered the efficiency is greater than that of any iron core type on the broadcast band of wave-lengths, and primaries lie side by side in the grooves, reducing the capacity between windings. The secondaries and primaries lie side by side in the grooves, reducing the capacity between windings. The chargest of the side of the si

No. 2800 250-600 meters size, 17%"x21/2"...\$1.10

Acme Reflex **Transformers**



There has been a growing tendency There has meen a growing conventy recently to employ two or more tuned R.F. stages with an untuned detector stage instead of the conventional tuned detector stage. Thus, one condenser is eliminated, as well as one control. As the name implies, this transformer can also be used in a Reflex circula.

No. 9368.....

Resistance Coupled Transformer



No. 1127 \$0.85 POSTPAID

The latest in resistance coupled amplification. Complete information furnished. Sold complete with condensers and resistances or mounting alone.

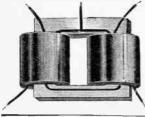
No. 1125-Double resistance coupled mounting only No. 1126-Single mounting only for condenser and resistance\$0.38 No. 1127-Complete resistance coupled amplidouble mounting. fier. Dubilier condenser, with resistances required ...\$2.57

Daven Amplifier Kit

For 3 stages of amplification. Supplied (without sockets) for those who prefer self-assembly. All resistors and grid leaks included. Contains three Daven No. 42 Resisto-Couplers fitted with coupling condensers of proper capacity.

No. 9350 \$7.60

Push-Pull Transformers



This is a new pushpull transformer for many new circuits. See any radio mag-azine or text book for circuits. Tremendous increase in the volume without distortion can Most obtained. audio - frequency transformers dis-tort the sounds. By means of these transformers not only is all distordone tlon away

with but a tremendous increase in sound volume 1s gained. We furnish a complete set of directions. For best results two of these transformers should be used. This push-pull transformer is made in all respects as our No. 1100 transformer except that two coils are used. Full directions for assembling are furnished. We guarantee results. The ratio is 6½" to 1". Dimensions, 2½" antee results.

No. 1159

Gentlemen:

Gentismen:
Sometime ago I ordered a set of your verniers. Wish
to state that we were more than pleased with them, hut
the part that pleased us most was the prempt shipment
You no doubt have received quite a few orders from
Gatun that can be traced back to that first order. Some
of your radie and audie transformers are incorporated in nets here. Will you please sond a copy of your catalog. G. D. POOLE, Gatun, Camai Zone.

just a few lines to let you know ! received the Rice Phones O. K. and find they are very powerful, as they give slear tone. Thanking you for the favor-wishing you success JAS, A. SHERMAN, Wappingers Falls, N. Y., P.O Bex 75

Coupling Resistor



\$0.33

The Carborundum grid leaks and resistors do not depend on any metallic tilm, but instead are made in the electric furnace, wherein furnace, wherein a rock like substance is ob-tained, and used as the actual re-

will never disintegrate, and thus will never change their values or produce any noises. Note the unique mounting clips. You may fasten one of them directly to the grid terminal on the socket, and the other to the filament terminal representing the desired polarity as called for in the circuit used. The clips can be bent at any angle to accommodate all possible mechanical conditions—in fact, they can be hent so as to even allow this leak to fit into the conventional mounting clips of grid leak condensers. The slots in the clips are much more satisfactory than holes for they permit more accessible mounting. The following values in grid leaks can be supplied, and your order should state just which ones you wish: ½,½,½,1,2,3 and 5 megolims. sistance

No. 90	77 .			٠.														. :	₽0.	33	Ì
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No. 90	78	100.	0.00	1	(.	1	H	eg	. 1	-0	hi	ns							\$0.	33	3
No. 90	79	0.0	0.0	(.	0	5	m	eg	.)	0	Hii:	กร			,			. :	\$0.	.33	3
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The 50,000 Ohms Resistor is generally recommended for the plate circuit of 201A Type tubes, whereas the 100,000 Ohms Resistor is favored if you are using Hi Mu Tubes in your Amplifiers.

Bretwood Variable Grid Leak



We can heartily recommend this variable grid leak, as its we can nearily recommend this variable grid leak, as its merits warrant it. It has a smooth, noiseless variation of from 0 to 10 negotims. A cartridge type leak is never a cure all, but the Bretwood admirably solves the problem. The proper adjustment of your grid leak will bring in the most elusive distance stations with surprising volume and clarity. One hole panel mounting,

\$1.35

Daven Leakandenser



Where space is at a premium, this combined Daven grid leak and grid condenser is essential. It can be either soldered to the proper terminals with the soldering lugs furnished, or, snapped into any standard resistance mount, and connections made to the latter. End caps are highly polished nickel plated brass and are threaded for a 6-32 nut. The cartridge is enclosed in a glass tube. Condenser value .00025—usual leak resistance furnished is 2 megohms—although we can also supply it with a 3 or 5 megohm leak. Where space is at a premium, this combined Daven grid No. 9006....

Ayanbee Battery Tester



The walls of the float Measuring only 7 1/2 inches long. The walls of the float are covered with study which thus prevents the float from sticking against the sides of the hydrometer.

Carborundum Stabilizing Unit

POSTPAID
The stabilizing unit is an electrically controlled Carborundum Detector, and is adaptable to all circuits, as the detector impedance, being adjustable by a very high resistance potentiometer and flashlight battery shunted across



flashlight battery shunted across same, exactly matches the particular circuit requirements. Regulation is possible within 1/100th of a volt. There are provided clips for snapping in place the flashlight battery, a built-in inica condenser, a carboroundum detector. Control may be effected from the panel, or unit can be mounted on a baseboard, Bakelite knob is supplied with white engraved arrow. Bakelite frame. Nickel plated brass. Only two connections required—same as any crystal detector. Overall dimensions: 2½ inches wide, 3¼ inches long, extends 2¼ inches from rear of panel. No. 9639 (Without Flashlight Battery). \$3.39. No. 8979 Flashlight Cell for Above. \$0.35

Poly Claro Plug



POSTPAID

This plug gives your loud speaker reception new life. It eliminates all raspy noises and some distortion without changing a wire in the receiver itself. No. 9676....

C. R. L. Modulator Plug



OSTPAID

Give your Give your loud speaker half a chance to prove its merits—perhaps it needs but the above plug shunted across its terminals to

clarify the repro-present plug-the knob, when duction. Replaces your present plug-the knob, when adjusted, will match the impedance of your loud speaker to the output impedance of your Radio receiver, and also acts as a very effective volume control. Composed of genuine bakelite base, with bakelite knob and engraved white arrow thereon, and highest quality bakelite sleeves in the plug itself. Will fit any standard jack.

No. 9677....

Bell Wire



A very universally used form of wire. A plentiful supply of this should always be kept on hand. It is more a temporary lead-in wire—as an aerial for portable sets—for battery connections—for wiring a receiver—for winding certain forms of inductance coils, etc.

A very universally used form of wire. A plentiful should always be kept on hand. It is competed insulation, heavily impregnated with a coating of paraffine. Can be used for a temporary lead-in wire—as an aerial for portable sets—for battery connections—for wiring a receiver—for winding certain forms of inductance coils, etc.

No 9746 5-06-foot Holl.

No. 9746 50-foot Roll. No. 9035

Amperite



\$0.95

POSTPAID

The self-adjusting rheostat, does away with the common, adjustable rheostat, and in addition, prevents burning out of tubes. Regular price \$1.10.

price \$1.10.

No. 9288 Type 1-A, for UV-201A or C301A or 201A on 6 volts.....\$0.95

No. 9185 Type 6-V for UV-199 or 299 dry cell tubes on 6 volts....\$0.95

No. 9510 Type 3-V for UV-199 or 299 on 4 or 4% volts 41/2 volts\$0.95 All other types same price.

Adjustable Grid Leak



Employs a unique principle, which eliminates all sliding or pressing contacts. Free from microphonic noises. 15,7 in length and ½7 in diameter. The glass cylinder, which is hermetically sealed, contains a smooth, heavy resistance liquid. As the grid leak is turned, the electrodes engage the liquid and it responds instantly, giving an accurate range from ½ to 5 megohns, adjustable to the exact value for tube circuit and signal. It is easy to operate—mounts in any standard grid leak clips, this our regular grid leak mountings, No. 1509. These brackets are included in the price, and therefore constitute a complete unit. Nothing else to buy. We are the only company selling this turnable grid leak at the regular price, including the mountlag. unique principle, which

No. 5747 Adjustable Grid Leak with Mounting,

Pilot Bakelite Grid Condenser



\$0.35 POSTPA10

Best condenser on market. Fully moulded. No shorting. Moulded brown bakelite covers the entire re-sistance. Prices on condensers with-out grid leaks.

No.	5182	.0001	Mfd	 .\$0.35
	5183	.00025	Mfd	 .\$0.35
No.	5184	.0005	Mfd	 .\$0.35

Lvnch Metallized Fixed Resistors



Metal long has been recognized as the best electrical conductor—in a grid leak a certain unwanted cleerical charge must be led from the grid of the tube to which it is connected and the Lynch resistor has no equal for this purpose, as it employs a CONDUCTIVE, non-arcing metallized resistance on a glass core, sealed within the outer glass tube. It is warranted absolutely noiseless, permanently accurate and forever dependable. Specify resistance wanted resistance wanted

No. 9687	\$0.43	
No. 9688	5-3-2-1-,5-,25 megolinis	
No. 9689	.1 or .05 megohus \$0.85	

De Jur Grid Leaks



\$0.19

We offer you a very dependable grid leak in the De Jur, for it will never change its electrical value. Absolutely moisture proof, air tight, and noise essoudered caps assure permanency of mechanical construction. Laboratory tested to within 5% calibrated values. Supplied in the resistance values: ¼, ½, 1, 2, 3, and 5 megohms.

No. 9645.....each \$0.19

Carter 4 Ohm Resistance

\$0.13 POSTPAID



POSTPAID

The most compact automatic rheostat on the market, and the most inexpensive. Just as effective as more costly and bulkier type. Wherever the filament setting is not critical, as in audio stages, the bulbs can be controlled by this simple resistance of 4 ohms. Eyelets at either end provide for accessible mounting direct to terminal on socket, or a nut and bolt may be slipped on. Can be bent to any mechanically convenient angle. Measures only 1 15/16 inches long. \$0.13 No. 9663....

700 Ohm Pilot Adjustograd



Various circuits call for resistances being connected in various circuits call for irristances being connected in series with the grid circuits, to climinate any self-oscillation. The Pilot Adjustograd is ideally suitable for this purpose, having an adjustable silder and contact arm, allowing for various capacities to produce the proper setting thereof, ellminating all squeals and howls. Serew cap terminals or soldering lugs. Fibre base. Measure only 2\frac{9}{4} inches long. Two holes for mounting directly to base board, condenser, sockets, etc. \$0,45 No. 9910.....

De Jur Resistor Unit



POSTPAID

Do not judge the quality of this complete resistance am-plifying unit by its low price. The quality of re-production possible in resis-

tance coupled amptiners is obtained in till degree with this unit. Mechanically and electrically well designed. Moulded bakelite base. Patented phosphor bronze clips, heavily nickel plated, gripping the resistors at all points of contacts. The condenser is moulded in the base, and is therefore not subject to atmospheric conditions. Complete with De Jur Soldered Cap resistors. Kindly state which type you are realering.—For 1st Stage, 2nd Stage or 3rd Stage.

No. 9641 1 Stage, Complete

Single Resistor Mounting



phosphor bronze clips so designed that they grip the cartridge all around, insuring ever perfect contact. Can be used as an independent grid leak mounting, or for any other purpose involving a tubular device. Soldering lugs facilitate connections.

No. 9642 Without resistor.....

Pilot Rheostat

\$0.46

Consists of an oversize resistance winding on genuine moulded bakelite support. Slider is integral with special rotating bushing and rheostat knob shaft adjustable in and out for different panels. Lock-ing means provided so positive that knob cannot loosen when once set. Threaded inserts 1000



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n.	1309	6	oh	ms																				\$0.4	6
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No.	1309	6	ohms																						. 4	80.4	6
No.	4315	10	ohms										٠		٠			٠					٠			0.1	U
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			ohms																۰	٠	٠	۰	۰	٠.		0.4	0
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Pilot Bakelite Potentiometer

\$0.81 POSTPAID

Consists of a rugged high restatuce winding on a moulded bakelite form. The slider of heavy spring phosphor bronze is integral with its own bushing so that the correct adjustment is not lost when the knob is removed. A novel clamping means is provided which permanently locks the knob to the slider when in position. Threaded inserts the body for the panel mounting screws.



are moulded into

٧o.	4313	200	\mathbf{ohms}	
۲o,	4314	400	\mathbf{ohms}	

Pacent Rheostats and



Potentiometers POSTPAID

The smooth-running Pacent Rheostat is popular because it is different and better. Its efficiency and
unusual beauty appeal to every radio
user and to set manufacturers too,
for you will find it on many wellknown makes of receivers. Recause
of the two-unit construction thocontactor and winding assemblage
need never be disturbed. Thus the
adjustment of the sliding contactor
is carefully and permanently made
at the factory. Will pass 1½
amperes continuously without danger.
The core and base will not crack or
warp. 3/16" shaft.

Moulded composition base: black The smooth-running Pacent Rheo-

Moulded composition hase; black

Kildi witti attici dian.	
No. 9416 Rheostat, 6 ohm	\$0.59
No. 9417 Rheostat, 10 ohm	\$0.59
No. 9418 Rheostat, 20 ohm	\$0,59
No. 9419 Rheostat, 30 ohm	\$0,59
No. 9420 Potentiometer 200 ohm	\$0.59
No. 9421 Potentiometer 400 ohm	\$0. 59

Carter "Imp" Rheostat

N



\$0.89 POSTPAID

Everyone knows that Carter-made goods are high class, and this rheostat is no exception. The smallest made. Diameter is 1%" and it projects % of an inch back from panel. Metal parts nickel plated. Wide contact arm maintains constant pressure. 1-hole mounting. Includes knob.

No. 9371 6 ohms\$0.89 No. 9511 25 ohms 0.89

Filkostat



One of the best devices for control-ling the filament current. Has shown its ability to give an absolutely ac-curate control of any tube on the market. This makes it possible to set the detector current at exactly the correct point for best results. With C-501A and 201A detector this is a C-301A and 201A detector this is a great advantage, as it helps to bring in the distant stations with great clearness. Made with special resistance clement that I constant in resistance and almost indestructible. Due to its fine current regulation, adopted exclusively by us in our "Balanced Interflex" set. No. 9921

Carter Imp Potentiometer

potentiometer This potentiometer, a sister to the Carter Imp. Rheostat family, is unique in that it is the most compact instrument made of its type, yet it retains the same 100 % efficiency to be found on much larger ones. Same size as the Carter Imp.

Carter HI-Ohms Volume

Controls

non-inductive, variable wire wound resistance, same dimen-sions as Carter Imp rheostats. Invaluable wherever a volume wherever a volume control is essential. Furnashed in 500,-000, 300,000, 200,-000, 100,000, 50,-000, 10,000 ohns. Diameter 1% inches. Projects % of an inch from rear of panel. No. 9665....\$1.79

Amsco Double Rheostats

This most unique rheostat serves This most unique rueostal serves a double purpose—it enables you to install two rheostats, of like or different resistance, in the space ordinarily occupled by one—and, accordingly localizes the adjustment controls thereof. Various combinations in resist-



ances can be adopted to your specific requirements; for instance, you may control the R.F. tubes with one knob, and the detector tube with the other. Occupies no more space than the conventional form of rheoistat. A quality product—durably moulded of bakelite. The knobs are knurled for convenient gripping thereof, and embossed arrows guide the direction of adjustment. Screw terminal conventions.

No. 9869	Combination	6	and	20	ohm \$1.13
No. 9870	Combination	6	and	30	ohm\$1.13
No. 9871	Combination	20	and	20	ohm\$1.13
No. 9872	Combination	20	and	30	ohm\$1.43
No. 9873	Combination	30	and	30	oinm \$ 1.13

Pacent Microvern



\$1.50

A super tuning device. A vernier dial for extremely sharp tuning. No gears. No back-lash. Permits permanent logging ing of stations by name, wavelength or frequency. 5 to 1 vernier ratio. 414-in. diameter and provides an electro - static shield. Bakelite knob. Easily attached.

No. 3066—Silver finish \$1.50 No. 3067—Gold finish. . 1.50

Bakelite Knob



\$0.13

Cornell Dial



\$1.47

This beautiful dial must be seen to be fully appreciated. It is finished in an unusu-It is finished in an unusually attractive, antique gold finish, and is etched embossed. Its vernier action, of 9 to 1, is so positive, there is no trace of back lash, even if it is turning a heavy double or triple condenser, nor, will it slip. The Cornell Vernier Dial will modernize any Radio set.

..... \$1.47

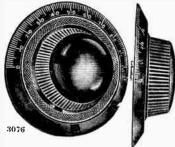
Pilot All Bakelite Vernier Dial

Closely resembling the above Cornell dial, preference may be shown to the Pilot Art Dial due to its being almost completely moulded of genuine black, highly polished Bakelite. A very attractive design is beautifully embossed thereon. The shank which receives the shaft of the condenser is highly nickel plated—a strel set screw therein locks the shaft. A full 369-degree scale is provided—upon a white background are printed in shaft background are printed in white background are printed the dial settings reading from 0 to 100—and on a black background are printed in white letters, the dial settings from 100 to 0; therefore, the dial is adaptable to clockwise, and counter clockwise rotation. The vernier action is accomplished by a friction drive—always positive—never any back lash or microphonic noises always incidental to gears. Diameter of hole in shank is ¼ inch. Diameter of tuning knob is 1 inch. The outer surface of the dial protudes % of an inch from the panel—the total depth from the knob to the panel is 1½ inches. Overall dimensions are 3¼ inches at the widest portion and 4 inches long. and 4 inches long.

\$0.95 No. 8850....

"Rasco" Molded Dials

\$0.20 POSTPAID



These one-piece composition molded dials are the latest word in design, high grade throughout. The lettering and figures are iniald in brilliant white enamel. The metal bushings are very heavy and will always tremain firm, and the entire dial will sit positively tremain firm, and the entire dial will sit positively tremain firm, and the distribution of the dials, which makes the distribution of from the panel about 1/1d" so that the rim will not grind against the panel leveled edges. ½" bushings used. Set screw included. By using our No. 8866 adapter dials will fit a 3-16" shaft.

 Shatt.
 \$0.20

 No. 3074, 2" Dial
 \$0.20

 No. 3075 3" Dial
 \$0.25

 No. 3076 4" Dial
 \$0.30

Illuminated Vernier Dial



\$1.71

POSTPAID

This latest improvement over pre-existing forms of vernier dials, is not only extremely useful, but also transforms the appearance of any home-built receiver to that of the very latest models, and gives to it a certain professional-like appearance. greatly enhancing professional-like appearance, greatly enhancing its resale value—if you build Radios on the side." It consists of a well printed scale on translucent eelluloid, the numbers of which are % of an inch in height, showing from behind an attractive panel window.

of an inch in height, showing from behind an attractive panel window, upon which is etched a very fine marker, for dial settings. Placed directly behind this "transparent" scale is a 6-volt, very small consumption (1/10th of an ampere hour) bulb, which is wired, through its socket, directly to the reveiver. When this bulb is lit, a most pleasing appears from behind the dial readings, making possible tuning entirely without any strain on the eyes, as would be the case were the general lighting effects in the room objectionable. To cut out this bulb, the switch on the top of the dial is used. The vernier action provides for "razor sharpness"—there is no back lash, or play, for a smooth friction drive is employed. Diameter of scale is 5% these Bakelite knob used. All metal parts are brass, and the switch is nickel plated. Black figures against a white background.

Mo. 95072 Without Bulb

for Above

of a inch in height, showing from behind an attractive panel window, upon which is cited to a traction. The content of the content o

for Above\$0.20

National Velvet Vernier Dial

\$2.47 POSTPAID

This dial truly represents the last word in vernier type construction, for it has several very valuable and unique features embodied therein. The vernier action is positively noiseless, and will not produce any micro-phonic disturbances due to



phonic disturbances due to appoint disturbances due to appoint gears, back sale etc.
The generic ratio is also variable by simple lever adjustment, becated immediately above he operating knob, room 5 to 1 to 1. The latter ratio is certainly of great value when in the quest of long knob, room 6 to 1 to 1. The latter ratio is certainly of great value when in the quest of long distance reception. Furthermore, there is provided a dual range, from 0 to 100 and from 100 to 0 to accommodate any timing instrument, in its manner of rotation. The value of the provided and the provided an

Kurz-Kasch Vernier Aristocrat Dial

\$1.79





action employed—with a spring ever ready to compensate for wear—vernier ratio 14 to 1, iteadings are visible through a port hole in upper section of the dial. The outside of the dial is handsomely chased in a very decorative effect. Four-inch diameter. \$1.79

0 to 200..... 100 to 0 to 100.

Mar-co Inductance Switch

POSTPAID





Nn. 1	972	0.			٠									. 7	point									 		٠	Э,	٠.	10	,
No. S	972	2.		٠	٠	٠	٠	٠	٠	٠	٠	٠	_	. ?9	point	_	•	•	-	-	-	-	_		•	•	9 1	•	_	
0	the me																													

My order arrived safely and in good time. Thanks. B. W. ELLIS, Jr., 124 6th Ave., McKeesport, Pa.

Jewell Panel Mount Meters

\$8.10

The trade mark "Jewell" on any current measuring device is an immediate assurance of its superiority over any other such instrument. In the double reading types, the voltage con-dition of both your Storage and "B" batteries can be in-



and "B" batteries can be instantly determined on the
punel. The milliammeters are used to determine how
much "B" battery is being consumed, as well as a
check on distortion. The serious Radio fan cannot afford
to be without these gauges. Black Japanned Cases.
No. 9650 Double Reading—0 to 7.5 votts and 0
to 150 volts. Two-inch case diameter. With

wide flange front panel mounting. Self-contained switch with an automatic off position.....\$8.10

\$6.55

No. 9651 Same type as No. 9650 but with nar-row cup-shaped flange, with back panel mounting, The 7½-voit scale is al-ways in the circuit, a built-in push button on meter being used to read higher voltages . . . \$7.80



No. 9652	8-volt meter, same n	nount as No. 9651,\$6.55
No. 9653 No. 9654	0 to 25 Milliammete	er\$6.55 er\$6.55

Sterling Panel Meters

\$2.97

POSTPAIO

To obtain good Radio reception and long life for the radio tubes, the adjustment rate of current flow from both the A and B battery voltages must be measured —not guessed at. An inexpensive and dependable



No. 9691 No. 9692 0 to 8 volts 0 to 150 volts . \$2.97 0 to 15 Milliammeter \$2.97 0 to 50 Milliammeter \$2.97 No. 9693 No. 9694 No. 9695 No. 9695 0 to 3 Ammeter \$2.97 Numbers 9693 and 9694 with push button built in can be furnished for \$0.50 additional.

Bentlemen:
I would like to say you have the some catalogue, so am enclosing my order.
FRANK HANKINSON.
6/0 A. C. L. Rwy. Co.,
Savannah, Ga. would like to say you have the lowest prices of any

Rasco Special Phones



Here is a pair of phones that you could not duplicate in most stores for less than \$5.00. Yet our price is only a fraction of as much. We are in the heart of the best radio market in the United States and buying opportunities come to us which never come to the dealers less fortunately located. This is why we can offer you such a bargain as this and the many others you will find in this catalog. Take these phones at our low price and if they do not excel other phones at higher prices, or you are not fully satisfied, return them and we will refund your money. This applies as well to everything we offer.

not fully satisfied, return them and we will refund your money. This applies as well to everything we offer.

These phones not only act the same as those more costly, but their appearance and construction are first class. The caps are of moulded composition, nicely finished. The headband is easily adjustable and comfortable. The cord is five feet long. In many homes several of these inexpensive phones could be used enjoyably attached to the one radio receiver. the one radio receiver.

No. 2237, 2,200 ohms. \$1.99 No. 2238, 3,000 ohms. \$2.23

Brandes Matched Tone Phones

\$3.70

No brand phones is better or more favorably known than Brandes. This is because Brandes phones are always uniform in qual-ity and we are able to offer them

able to offer them at very reasonable prices. Easyhead-bands. The windings are evenly matched which produces even tones. The cord is extra long, being six feet. You are always safe in choosing a Brandes.

No. 2031, Superior model, 2,000 ohms...\$3.70

No. 3037 Navy Type 3000 Ohms... \$4.94

Frost Phones

\$2.40 POSTPAID

This brand needs no introduction.

Frost is one of the oldest telephone manufacturers and his product is good. The shells in these phones are of mould-ed bakelite. The headbands are light and comfortable. The tone quality is very satisfactory to all users.

No. 9366 2,000 ohms, aluminum shells\$2.40

No. 9365 3,000 ohms, aluminum shells ...\$3.10 No. 9361 3,200 ohms, bakelite shells\$4.93

Double Phonograph Adapter

\$0.65

Rascophones



Remarkable for distance and clearness, especially when you consider the small price. 2200 chms, 550 to each coil. Five foot cord. Extra light headband. Feels good on the head.

No. 9493 \$3.49 Gentlemen:

N & K Phones





The body of this double phonograph adapter is moulded of polished hard rubber, and will adapt itself to any pair of head phones placed under the netal straps. The reception flows through the two channels, and issues forth at the nozzle, which will fit any standard phonograph, with or without a rubber bushing.

No. 1320

I received the "B" Battery in very good condition. It is the best battery that can be bought for the price. It is a lot better than I expected it to be. In the future you may expect more orders from me.

MR. CLEMENT PACK, 131 Broad St., Menasha,

Cone Speaker Units

\$2.95

A cone speaker consists of conically-shaped diaphragm, commonly termed a



How To Build An Efficient Cone Type Speaker

Prepared by an expert on this subject, its contents imparts to you, in simple language, complete detailed information for building a cone speaker you will be truly proud of. This knowledge will not only save you money on your own cone speaker, but you will then be able to make them for your friends, putting dollars into your pockets.\$0.50

Ultraphonic Phonograph Reproducers

Although this instrument Although this instrument has no connection with radio apparatus, we are listing it. for the improvement that this type of reproducer makes possible in the tone reproduction of ANY phonograph, is correlative to the trend of universal adaptation of cone speakers, for Radio reception—they both reproduce the lowest, the medium and highest registe



reproduce the lowest, the medium and highest registers of the full musical scale with startling fidelity. The special diaphragm used in this reproducer IS ONLY AS THICK AS A HUMAN HAIR—It is a scientifically proportioned aluminum alloy, blended from Manganese, Silicon, Iron, Copper, Zinc, Magnesium, Nickel and Aluminum. A most pleasant surprise awaits you on your first audition thereof—takes but a moment to install.

No. 9094.

Utah Loud Speaker Unit

Admirably suitable for ment to either a loud speaker, or phonograph tone arm. It is capable phonograph tone arm. It is capable of tremendous volume, yet clarity dominates the reception. Will respond to the lower and higher frequencies better than any other loud speaker unit. Employs a corrugated metal diaphragm, larger than others. Balanced armature type. Extremely powerful electro magnet insures extreme sensitivity on distance Black crystallized case—phone cord furnished.



3 Inches. No. 9793 With stand, as illustrated \$9.03 No. 9792

Baldwin Type "H2" Unit

\$7.03

loud speaker units and other reproducing devices was as founded on merit alone. The type "H2" above illustrated represents the culmination of many years' experience. The approved balanced armature is employed, actuating the approved balanced armature is employed, actuating the propagative laminated aluminum diaphragm, which with the propagative laminated aluminum diaphragm, which will be propagative laminated aluminum diaphragm, which will be propagative laminated aluminum diaphragm. loud speaker units and other



specially laminated animature is compared, accutating a specially laminated aluminum disphragin, which will counteract any tendency to blasting, and render this unit sensitive to weak impulses. High quality workmanship—and high quality materials. Polished aluminum case. Durable phone cord included. Best salue.

\$7.03 No. 9781.....

Dulce-Tone Radio Phonograph Attachment





The objection to attaching phonograph loud speaker units to the tone arm is the fact that the vibrating box holding the needle must be removed for Radio reception, and view versa, should you wish to use the phonograph. But now it is possible to have immediate access to either form of entertainment, for, in using the Dulce-Tone phonograph attachment, the needle of your vibrator box is simply rested in the special recess provided on this instrument, in the munner shown. The vibrating reed in the unit is set in motion by the electro magnetic response of same to the audio output of your Radio receiver, and these vibrations, imparted to the phonograph mica diaphragm, produce the most reliew and sonorous reception possible, due to the acoustically perfect tone chamber employed within. Adjustable type of unit. Phonograph may be in any room of the house, apart from the Radio, connected therewith by an extension cord of appropriate length. Crystallized metal case-phone cord included. No. 9893....

N & K New Loud Speaker



The Acoustic principle is directional." Sends the sound out equally strong on every side.

TONE is exceptionally clear, natural, sound out

TONE is exceptionally clear, natural, pleasing, with excellent volume. MATERIAL used is a scientific material that counteracts false sound vibrations, keeping the ton-pure, clear and natural. Finish is black "crackle" effect with simple, beautiful floral decordien. ADJUSTABLE UNIT an entirely novel design of N & K daustable bi-polar unit. Large permanent magnets, with coils and pole pleces mounted on platform carried by plunger with over-size bearing, insure perfect alignment in every

primper with over-size bearing, in-sure perfect alignment in every position, 2%-inch diaphragms SHAPE is original, suggesting a square-connect jar with four feet, resting on a square, bestded base, SIZE is he helpitt, 9 inches; base, 6½ inches equare. Very compact, Model 8 \$8.25

"Rasco" Senior Special Loud Speaker Unit



Loud speaker unit combines mellowness of tone with ample volume, been scientifically constructed to has been scientifically constructed to produce true tone without rathing tenditure to distortion. Tone may be varied by adjusting seriew. Comes with hushing for connection to phonograph with rubber connector. It is specially built of east aluminum and brass. Many \$15.00 units cannot compare with it for volume or clarity. No. 9384\$2.27

Other Popular Loud Speaker Units

No. 9408 Amplion A-R fle 3.95

"Rasco" Junior Special Loud Speaker

Cannot be equalled Cannot be equalled in tone quality or volume by many other high grade speakers even at twice our price. It is the same as the "Rasco" Senior Special execut not quite so high in size. Attractively finished in black stipple. Bell dlam. stipple. Belt dlam.

9 in. Horn height,
19 in. Noted for great volume. Conplete with 5-foot cord. No. 9351 .

\$5.95



Cone Loud Speaker

\$12.50 This loud speaker

is made of parch-ment or wood fibre on the same prinon the same principle as the West-ern Electric loud speaker. Is adjustable, Capable of great volume. This same quality usually sells up to \$30.00

No. 9376

Baldwin Phonograph Unit

POSTPAID



This is the type
H-1 unit charge
terized by its f
shaped holes and
circular magnet with the armature
balanced in the center. Its beauty
and volume of tone and its response
to all frequencies of high notes and
low notes make it a unit to be greatly appreciated and desired. The price
is much lower than formerly. The
unit comes complete with cord. No. 9382\$4.99

"Rasco" Nonpareil Loud Speaker Unit

\$4.99 POSTPAID

We give it to

We give it to you as a positive fact that this unit is equal in many loud speakers retailing up to \$25.00 or more. The tone quality is rich and mellow and will please you. You are always safe in choosing any of our offers as every article is good value. No. 9323

Melotone Loud Speaker

\$13.80 POSTPAID

Every receiver of two or more tubes, and some 1-tube sets, should be equipped with a loud speaker, so all the tolks may hear and enjoy the

hear and enjoy the program. We have selected the Melotone as representing more value per dollar of price than any other speaker we know of, it is called "The Peak of Perfection" in tone, clarity and volume. It will give you perfect service in our "Interflex" set of used in connection with any set made. The height is 24 inches, and the diameter of hell is 12 incites. Has a beautiful pebble finish. Pully guaranteed by manufacturer and us. guaranteed by manufacturer and us. ..\$13.80







ourselves. No. 9233 Reg. Mod. \$8.93

Other Popular Loud Speakers

No. 9402 Amplion A-R .\$39.50 No. 9403 Amption A-R 25.95 14

No. 9404 Amplion A-R 22.25 III No. 9405 Kodel Microphone Tower Scienti-

No. 9401 fle

Baldwin Type "C" Loud Speaker Unit



Every one knowing anything of radio knows of the high quality of every Baldwin product, especially the most popular of loud speaker units. The diaphram is unique, being corrugated, producing superlor effects in tone and volume. Sure to satisfy you. No. 9381 \$4.85

Spartan Con Loud Speaker

\$11.77

Exceptionally pleasing in tone, and covering the cn-tire musical scale with excellent volume, this popular priced cone speaker is heartily recommended for replacement of your present type of horn speaker, or, as one of the accessories of any of our kits and assembled receivers. The bass notes, lacking in a horn speaker, are reproduced herein with



are reproduced herein with surprising fidelity—and at all times, perfect clarity dominates the reproduction, It is unusually pleasing in appearance—the artistically formed frame (acting as a sounding board), the marnayany and gold PITH WOOD CONE PARCHMENT and inabogany rubbed base give this speaker its distinctive appearance. Note that the actual vibrating surface of the cone is WOOD, only found on speakers selling for \$35.00. And the semi-balanced armature disc unit is a triumph of present day improvements in reproducing units. Dimensions: Height 15½ inches, diameter 13¾ inches.

Cabinet Loud Speaker

Free from all metallic blasting and possessed of a natural reproducsonorous tion, this speaker is proving a boon to all its satisfied users. There is no metal used in its construction (except the unit) — the throat, chamber and cabinet



throat, chamber and cabinet being made of specially selected Douglas Fir wood, and supplied in the natural finish—you can stain and varnish it in any color—full directions furnished. The square horn opening is covered with colored slik. Overall dimensions are 12½ inches hong, 6¾ inches ide and 13½ inches high. Very good quality loud speaker unit included, ready attached. Shipped direct from factory in Illinois via express collect.

No. 9813..... \$8.57 Utah Book Type Cone Speaker

\$17.40

This most unique speaker has rapidly come to the fore, and is now being sold in the same quantities as the conventional "cone" type of speaker-for it combines not only a most atappearance. tractive but also, delivers a quality of reception second to no other speaker.



quality of reception second to no other speaker. Resembles a book, lying on a table, with its pages spread open, slightly arched—and upon these "pages" there are most attractive colored etchings depleting wood-land seenes. Tho actuating unit is concealed beneath these "pages"—there is new risble evidence of its being anything else BUT A BOOK! Can be set on a table, or stool up on a mantelpiece, etc. Measures 17 ½ inches wife by 13 ½ inches high—about two inches thick at the widest point. No. 9987..... \$17.40

Laminated Wood Loud Speaker

\$11.95

Without a doubt, this inwithout a doubt, this instrument represents the very finest loud speaker that can be purchased, irrespective of extravagant claims made for other horn types selling for even double the price of ours. After much extenours. After much exten-sive research, conducted by acoustical engineers and famous directors of music it was found that the Laminated Wood used in the bell of these speakers was conducive speakers was conductive to the quest of every manufacturer of Loud Speakers, namely: TONE PLUS VOLUME. But.



Not yet satisfied, they culled the entire industry to select the loud speaker unit culled the entire industry to select the loud speaker unit fields to the ideals and high culled the entire industry to select the loud speaker unit that would best adapt itself to the ideals and high measure of standards set for this speaker. There was only one choice: THE BALDWIN CONCERT TYPE I'NIT! Is it any wonder then that this speaker enjoys the reputation it has earned, solely on its merits? The size of the bell is 12 inches, the height of the bell and throat is 15 inches, and the total overall height is 21 inches. The base is made of cast metal appropriately patterned and finished. The throat is cast aluminum—the recognized material for this purpose. Shipped direct from fectors is Wisconst in the purpose. from factory in Wisconsin, express collect. Shipping weight 10 pounds.

No. 9995.....

Saal Eccentric Cone Speaker



\$22.78

The eccentric construction of the cone diaphragm creates a natural reproduction of all tones, due to the higher notes vibrating to their best advantage on the short radii of the parchment (note that the apex is not set in tho exact center of the cone, as is the usual procedure)
and conversely, the lower
base notes receive full justice on the longer sides of the parchment. The logic of this system of cone construction can be more read-ily understood by remind-ing you of the length of harp or piano strings, with their shortest ones reserved amplifier—90 volts is even the high Diameter of core the high as notes. Does not produce any objectionable drum or barrel effect, Efficient even the or barrel effect, Efficient even the or barrel effect, each of core to the core of the or sufficient. Stands 22 inches

amplifier—50 voits is even summer, Stands 24 inches high. Diameter of cone is 20 inches. Beautifully decorated scrollwork medallion, and outside border in gold.

No. 9993.....

Gentlemen: am ordering again from you because I am pleased with your safe and rapid deliveries.

LE ROY WILLIAMS P. O. Box 525, Mountain View, Calif.



\$13.45



As Wall Type

As a Pedestal Type

It has been conclusively proven that a cone parchment of generous proportions and of correct pitch, vibrated by an efficiently designed cone speaker unit, will produce both high and low frequencies with a fidelity of performance that would command its immediate purchase by its listeners. The Windsor Cones not only approach the perfection of design and tonal qualities just referred to, but, also, offer you an instrument of such pleasing and statefully decorated appearance, that you will always feel proud to invite your friends to "listen in." Note that it can be either set on the floor, or even on a table, or mantel piece, by means of the hinging pedestal, or it can be hung on the wall by the handle provided, the pedestal swinging in against the back of the speaker. The parchment is 22 inches in diameter, and its edge is very neatly bound in braid. The unit is readily adjusted in a convenient manner, to allow you to use this speaker with 90 volts, or even all the way up to 500 volts, as delivered by Power Pack amplifiers. The wooden back has the effect of a sounding board, further enhancing the beautiful tonal qualities of this Cone Speaker. \$35.00 VALUE. Shipped direct from factory in Chicago, express collect.

No. 9989. \$13.45

Spartan Cabinet Cone Speaker



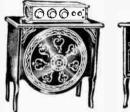
\$22.22
POSTPAID
The best features of the

most expensive cone speakers are incorporated in this in-

exceptionally sensitive and powerful semi-balanced armanters of the sure those of the sure the sure the sure that of the sure

No. 9003..... \$22.22

Windsor Cone Loud Speaker Windsor Console and Built-in Cone Speaker





FRONT VIEW

\$28.85

BACK VIEW

This ensemble of cone type loud speaker built into a console to house the "A" and "B" batteries, etc., and upon which your present or any table type Radio receiver rests, as the illustration suggests, is so logical a combination, both from the electrical and mechanical angle, that it is a wonder it was not thought of long before this time. You will note that the cone speaker itself does not occupy any space within the console, allowing the entire area within for all your batteries and other accessories. The speaker itself is the identical one described under our No. 9989, and is 22 inches in diameter. The board upon which it is attached, forms not only a substantial support thereof, but also acts as an effective sounding board, which can be removed, allowing immediate and comfortable access to the batteries. This console is of generous proportions, to accommodate any length receiver. The back is removed, so as to provide the proper ventilation of the batteries. Overall dimensions are 30 inches long by 17 inches wide, and stands 29 inches high from the floor. The battery shelf measures 26 inches long by 11 inches wide, and stands 29 inches long by 11 inches wide, Shipped from Chicago, express collect. State whether you wish us to ship you the Mahogany or Walnut finished console.

No. 9991 (Receiver not included) \$28.85

Windsor Table Cone Speaker

\$18.85

A very original and extremely useful piece of furniture—combining the choice of many uses. Here we offer you the celebrated Windsor cone speaker



No. 9044....

Windsor Combination Cone Speaker—Loud Speaker Console

\$42,45

Cone speakers are particu-larly well adapted for reproducing the low bass notes because of the large vibrat-ing surface the cone parch-ment provides—the analogy of this can be best expressed



ment provides—the analogy of this can be best expressed by calling your attention to the length of the strings in a harp or plano—the longer they are, the lower the note is produced. But, on the other hand, a loud speaker of the conventional horn, or wooden chamber type (as in a Victrola) can reproduce the higher frequencies best. If you use either type of loud speaker to the exclusion of the other, you will lose either side of the tone register. It logically follows that if you use BOTH OF THEM AT THE SAME TIME, full justice will be given to the full musical scale—the cone speaker will reproduce the hasn notes in its inimitable characteristic manner, whereas the loud speaker will do justice to the higher frequencies, with a rendition that places it on a parallel of reproduction to an old violin, in the hands of an accomplished virtuso. The conclusive test that will thrill you is the first time you listen in to a 100-pice. Symphonic orricestra, with both of these speakers connected to your receiver. With a simple arrangement of single pole double throw switch, you can connect either type of speaker to your output, and with the switch arm disengaged from either contact, both speakers play at the same time, their leads being in series with each other. The cone parchment provided in this console is 18 inches in diameter, but otherwise the same speaker as described under No. 9989, and the loud speaker console No. 999. 109. The receipt in make access to same a very simple matter. The top is 30 laches long, 17 inches wide and stands 29 inches 18 30 laches being 1 inches. provide for ventilation to batteries, eliminators, etc.—and on make access to same a very simple matter. The top is 30 inches long, 17 inches wide and stands 29 inches high. The battery shelf is 26 inches by 11 inches. Finished in either Mabogany or Walnut. Shipped Direct from factory in Chicago, express collect. \$42.45

Sonochorde Cone Speaker

\$22.85

The secret of Sonochorde su-periority lies in its sound reproducing mechanism—— a unit that is scientifically and basically correct. There are sixteen technical features of design exclusively Sonochorde, such as the use of four superpowered magnets capable of lifting more than ten pounds. These special magnets ac-count for the exceptional vol-



une. They are both scientifically balanced and angularly spaced, with a minimum air gap, thus producing a rich, geep, sonoraus tone, wholly new and entirely free from

distortion.

Add to the mechanical superiority of this Cone masterplece, its unique and truly heautiful design! Octagonal in outline, the Cone itself is covered with deep wine-colored silk, its folds extending radially from the silk button in the center. The supporting frame is practically unbreakable. It is handsomely finished in rich semi-gloss mahogany, with base to match. The base rests upon a heavy felt pad, making it impossible to mar the finest surfaces. Thoroughgoing workmanship is to be noted in every detail. Height 18 inches. Width 16 nncnes. \$22.85

Windsor Enclosed Loud Speaker Console

\$35.85

ceiver is one that you are very proud of, hecause of its per-formance, then the right place for it is in the parlor of your home; but, this you cannot do for its presence therein would



cannot do for its presence therein would clash with the general decorative effects because of the detached batteries, which would lie on the floor, and the loud speaker—which would have to the floor, and the loud speaker. The console above stelsewhere. And battery connection wires would give your parlor a "work shop" effect. The console above illustrated not only enables you to store within its capacious quarters all your Batteries, charger and even "A" and "B" eliminators, but it also has built in an acoustically perfect loud speaker. In addition to these features, bear in mind that it is a most beautiful piece of furniture—tt will grace the decorative effect of any room. The specially shaped space under the loud speaker enables your knees to fit within, allowing you to tune in on your Radio for hours at a time, in absolute comfort. The Console measures 28 inches long, 18 inches wide and stands 29 inches high, thus it will accommodate any receiver; should your Radio set measure much less than the total length provided, a very pleasing effect can be produced by setting a lamp, or a vase, or a photograph on either end of it. The reproduction produced in the specially moulded loud speaker, and unit provided, will thrill you with its marvellous fideläy, clarity and volume. The speaker is so designed that it does not occupy any undue space within the console, thus affording you an abundance of room for your batteries. Can be furnished in either Mahogany or Wainut finish. Shipped direct from factory in Chicago or Los Angeles, charges collect. harges collect.

No. 9992 Including Loud Speaker \$35.85

Graydeon Electrical Phonograph Reproducer

\$17.50 POSTPAID

With the advent of the latest type phono-graphs which repro-duce ail notes with an "uncanny" reality.



dure all notes with an "uncanny" reality, either through newly designed tone chambers and ribrating boxes, or through electrical pick-up and tube amplification with reproduction by means of a cone speaker, thousands of people throughout the world are foolishly discarding their present phonographs for the new improved type. We again repeat—foolishly—for by simply replacing the present tone box (the mica disc which holds the needle—simply silps off goose neck arrangement) with the one illustrated on the left, and connecting the socket on the right DIRECTLY TO YDUR PIERSENT RADIO RECEIVER, USING THE SAME TIBES AND BATTERIES, the record is reproduced with that same "uncanny" reality in your loud speaker, which we presume is of the cone type. The instrument in the center of the illustration is a special modulator, controlling the volume, as well as the clarity of the reproduced music. Complete installation takes but a few minutes—and takes only a moment to allow you the use of your Radio, or phonograph at will! Detailed instructions accompany each Graydeon—a David Grimes, Inc., product. Imagine! For only \$17.50 you may enjoy all the luxurles of quality reproduction only possible on electric phonographs, the cheapest price for one on the open market being about \$250.00.

No. 9054 Complete as Illustrated

Pacent Cone Speaker

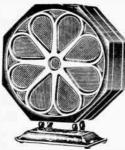


unexcelled faithful reproduction of reception, a Cone Speaker is necessary to do justice to the low. medium and high notes. The Pacent Cones will perform this task in so perfect a manner, they are conceded to be THE MOST SUPERIOR

CONE SPEAKERS. They will transform a low priced

No. 9034 36-inch Model \$71.65

Octacone Cone Loud Speaker



\$18.98 POSTPAID

Mechanically, a cone speaker is always sub-ject to damage due to its nature of con-struction. In the Octacone, however, every benefit of the best Cone Speakers is incorporated within, together with a most unique metal shell housing the complete speaker. You can deliberately drop this cone speaker on the floor, with no resulting damage. The metal diaphragin case measures 13 1/4

high, 4% inches deep and 11 inches wide, and is beautifully finished in golden bronze, blending artistically with any color scheme in your home. 11 hoine. \$18.98

Zeco Cone Loud Speaker



\$16.27 POSTPAID

Although this is a free edge cone, and full floating, a very ingenious metal "drum" pro-tects it from damage, a valu-able feature. The full musical register is produced on this

register is produced on this come speaker with remarkable fidelity—and volume. The actuating unit is sensitive to voltages as low as 90 applied to the audio stages, or, will withstand the tremendous volume delivered by power tube amplification. The rear of the metal drum is meshed, allowing the sound vibrations to finished in dark tan. The cone parchiment is tastefully decorated. The base is covered with felt, and can thus be set on the finest furniture. The overall dimensions are 15 inches high, 7 inches long and 3½ inches wide. The diameter of the drum is 11 inches. Splendid value. 5-foot length of phone cord included. 5-foot length of phone cord included.

No. 9099....

\$16.27

Acme Cone Speakers



K-1

Acme acoustical engineers can well be proud of their two latest contributions to the Radio art—their cone speakers above illustrated. Thoy possess a power of volume second to none, yet, with no sacrifice in quality of reproduction. The K-1 is a double FREE EDGE cone speaker sach to see the second is 14 inches in diameter. Having an adjustable unit, this speaker can be immediately adopted for utmost satisfaction if your 'B' battery supply is only 90 volts or even 500 volts, as delivered by 'power pack' systems. The metal drum casing is finished in tan, and will harmonize with the decorative effects of any room. The K-3 employs a single free edge cone of 11 inches in diameter, and is very similar to the K-1 in general design and principle. Can be adapted to hang on the wall with a tassel, by removing the base. The metal case and base are finished in green bronze, making this product unusually attractive. Capable of enormous volume—and retains the same 100% perfect clarity as the K-1.

No. 9985 (K-3) \$16.95

(K-3) (K-1) No. 9986

Crosley Super-Musicone Speaker







The Crosley organization have made themselves world famous through their efforts to give to the Radio fan THE GREATEST POSSIBLE VALUE FOR HIS MONEY, And, in fact, your perusal of this catalogue will also suggest to you that this is OUR SLOGAN, TOO. The Crosley Musicone exemplifies their values, for it is truly equal in performance to any cone speaker selling for much more money. A beautifully decorated fon both sides) 16-inch diameter parchment is used, full floating. The unit actuating this cone is symbolic of the high standards set by the Crosley engineers—AND ACHIEVED BY THEM. Overall dimensions are 18 inches by 16 inches by 5% inches. The outer edge of this speaker is protected by a tastefully finished metal ring. ('an be detached from the cast base, and hung upon the wall as illustrated above.

No. 9899. Crosley Cone Speaker \$14.75

Single Phonodapter

Your phonograph now a loud speaker. The Phonostapter is made to it any phone unit. The pure soft rubber stretches over the phone. Brass tube furnished, which is inserted as shown. Fits all Columbla phonographs; remove the brass tube and if fits Victor and Sonota machines. In an emergency you can slip a horn made from bristol or other stiff paper into the brass



a good loud speaker temporarily. \$0.38

Benjamin Adjustable Metal Brackets

An improvement upon our No. 9501 self-sup-porting brackets inas-



\$1.12

Fonekushions SPONGE RUBBER

No matter how good your head set it will press too hard on your ears and tempies, after wearing them for a few hours. By our sponge rubber cushions, make it a positive pleasure. The exclude all outside noises, which is important when listening for long distance. ing for long distance stations. Made of the best and most expensive sponge rub-ber of great clasticity. They are on any pair of phones. Highly be washed with soap and water.





They are light and car be slipped Highly sanitary because they can \$0.35 No. 5050 Pair

5-Tube Sub-Panel

POSTPAID



For standard For standard 1 v - Div type of tables. For e-t frequency set 17x7x3/16 inch black hard rubber. 5 nickel



Supports the front panel, to which it is screwed and bolted, at the four corners thereof, preventing sagging corners thereof, preventing sagging of panels in time, due to the weight of the condensers, etc., on them. They rie die-cast of aluminum. Designed to be used with 7-Inch high panels and 7-Inch deep cahinets.

\$0.97 Pair)

Self-Supporting Brackets



For use in mounting sub-panels. For use in mounting sub-banets, The sbare provided underneath gives plenty of room for small parts and wires, reducing short-circuit risks. Drilled for attaching to front panel. Drilled fange takes grid leak panel. Metal. in dull nickel finish, Screws

neiuded, No. 9501, Pair ...\$0.69

Non-Metallic Sub-Base Brackets



Made of moulded Bakelite. They prevent dielectric losses and electrical disturbances. Will not vary the inductive capacity value of coll or condenser. Mechanically true right angles. They leave plenty of room underneath for small parts and wires. and wires. No. 9531 Each... \$0.46

Pilot Snap Terminal Connecting Strip



This item fills a bug felt want where quick and positive connections are necessary. Will take all standard phone tips, or the special terminal, illustrated under No. 2900 Separable Cord Tip, the wire being slipped within same and quickly tightened. Insulation is hard rubber. Metal parts handsomely nickel plated, with the characters engraved in white enamel.

\$0.46 No. 9898....

Rasco Binding Post Strip



This is an excellent binding post strip, engipped with our well-known Aristocrat posts. These are mounted on a hard rubber strip, and the denominations are engraved in gold. The entire strip is supported by two brackets, 1" high, to tlear wiring and other obstacles. The best strip on the market, barring none. There are 7 hard rubber binding posts. The markings are "Antenna"; "Ground!", "A—"; "N—": Det N—"; and "Ann, R+".

No. 870, Binding Post Strip\$0.35

Gentlomen:
I received the order you sent me in good condition. I certainly do appreciate your promptness in sending out orders. I have dealt with other large firms, but none of them give as much satisfaction as you do.

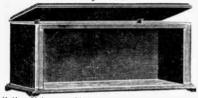
LEONARD MAYERS.

2809 Hollyheach Ave., Wildwood, N. J.

Radio Cabinets

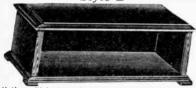
We offer a variety of sizes, patterns, finishes and qualities to suit every customer. You will be well pleased with any Cabinet you get from us. Shipped direct from factory in Wisconsin express collect.

Style A



Imitation Mahogany—Made substantially and of neat design of good hard wood with the hand rubbed finish in limitation of mahogany. Each one is fitted with hinged top. The front is fully rabbetted to fit the panel.

Style B



imitation Walnut and Genuine Black Walnut—Fine looking, sturdily built and elegantly finished, and will greatly improve the appearance of the receiving set. It is a 'dandy' is the way many users express tremselves. The black walnut Master cabinets have continuous plano hinges and lid holders. The imitation walnut have regular hinges, three to each cabinet supplied with lid holders.

Style C



Genuine Black Walnut—For distinstive appearance this style is not easily excelled. It is most beautiful and therefore well adapted for homes of refinement. Has continuous piano hinges and lid holders. Space back of bakelite panel is 8' or 10''. Top and ends of selected figured walnut special built five-ply stock. Canoot warp. Base built upon heavy molding. Pillars on front are made of solid black walnut accurately fitted.

Style D



This style has ample space in end compartments for B and C batterles. The space under top is 4½" wide, 10" deep and 8½" high. They also can be used with sets having 7" mounting, the three remaining inches

used for dry cell space if a portable set is wanted. Has continuous piano binnes and lid holders. Space back of panel is 10". Top and ends are of figured walnut special built five-ply stock. Cannot warp, Base built upon massive modding. Pillars on front made of solid black walnut accurately fitted.

	Style		Sty	te B		Sty	le C	Style D
Panel Size	1mi- tation Mah, 7" Deep	8"	tation alnut 10" Deep	BI Wa	uine ack Inut 10" eep	Bl Wa 8"	uine ack Inut 10" eep	Genuine Black Walnut 10" Deep
7"x10" 7"x12" 7"x14" 7"x18" 7"x21" 7"x24" 7"x26" 7"x28" 7"x28" 7"x30" 8"x36" 8"x40"	ĺ	5.04	6.40 6.80 7.20 7.84 8.64 8.96 9.92	6.56 7.28 8.05 8.48 8.90 9.44	8.80 9.40	9.36 10.08 10.80	11.60 12.16 12.80 13.48 14.20 15.04 16.24 17.44	18.88 18.88 20.08 20.08 21.28

Radio Dilectryte Panels

\$0.65

POSTPAID



These panels are meeting with approval because they are good and cheap, and which, moreover, fit our wood cabinets listed clsewhere. These panels are accurately cut and are the best on the market at anywhere near our price. The linish is a high polish on both sides. Can be drilled and tapped where necessary, by tools which are ordinarily used by radio set builders and amateurs, bliectryle Radio Fanels are highly recommended because they have the following properties: (1) high dielectric strength; (2) high surface resistivity; (3) high volume resistivity; (4) grained surface; (6) ample tensile strength; (6) silential tooling properties; (7) low cost. 3/16" thick.

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	7100	7"x10"																										80.6	: 12
No.	7120	7"x12"	,								٠	•	•	•	٠	*	•	٠	٠	٠	٠	٠	٠	٠	•	۰	٠	00.0	
No	7140	7"x14'	, '	•	•	٠	٠	٠	٠	۰	۰	٠	٠	٠	٠	*	٠	٠	۰	٠	٠	٠	٠	٠	٠	,		\$0.7	9
							٠	٠				٠	٠					٠		٠	٠							\$0.8	9
	7180	7"x18'	٠,					÷										į.										\$1.1	5
No.	7210	7"x21'	٠.																	ì	ì	ì	ì	•	•	•	•	61 2	
No.	7240	7"x24"	'			•	•	í		•	•	٠	٠	٠	•	٠	٠	٠	٠	٠	۳	٠	٠	۰	*	٠		91.0	1
	9786				•	۰	٠	٠	*	٠	٠	٠	٠	7	٠	۰	۰	٠	٠	٠		٠	٠	٠				\$1.4	6
		7"x26'					٠					÷																\$1.6	9
No.	9787	7"x30"	٠.																									\$1.9	P

Bakelite Panels

IN GLOSSY BLACK FINISH 1/4-INCH THICK 7"x6". 7"x10" 7"x12" No. 9516 No. 9517 No. 9518 .\$1.22 7"x14" No. 9519 No. 9520 ...\$1,39 3/16-FNC11 THICK No. 9521 .\$1.27 No. 9522 No. 9523 No. 9524

 NO. 9524
 7"x18"
 \$2.42

 NO. 9525
 7"x21"
 \$2.89

 NO. 9526
 7"x24"
 \$3.24

 NO. 9527
 7"x26"
 \$3.44

 NO. 9528
 7"x30"
 \$4.44

 NO. 9529
 8"x36"
 \$5.93

Standard **Drilled-Engraved Panels**



\$3.57

The problem that always confronts the Radio set builder, whether he is assembling his first receiver, or the professional custom set constructor, is the drilling of the front panel. And, at its best, it is always a drab, colorless looking affair, inviting no praises. But now, you can build a receiver utilizing any Standard circuit which will have all the appearances of a commercially designed set, for we can supply you with these panels, as deserbed by the originators of the various circuits, drilled to their specifications. AND HANDSOMEL A partial list of the standard panels we can supply is as follows: The problem that always confronts the Radio set builder,

No.		ıbes	Size	Each
No. 9622	Bremer Tully Nameless	5	7x26x3/16	\$4.97
No. 9080	Bremer Tully Counter-			
	phase	6	7x24 **	\$4.57
No. 908 I	Hammarlund Roberts	5	7x18 "	\$3.57
No. 9082	Browning Drake	4	7x21 ***	\$4.65
No. 9083	Browning Drake	5	7x24 **	\$4.65
No. 9084	Freshman Tuned R.F.		7x18 **	\$3.69
No. 9085	Madison Moore Superhet.		7x28 **	\$6.17
		8	7x24 **	\$4.97
No. 9086	Victoreen Superbet.			\$4.79
No. 9087	Silver Marshall 6	6	7x24 **	34.79
	NI - A -			

Note

Note an supply Standard drilled and engraved panel for any circuit not listed above, such as: Karas Equamatic, Daven Bass Note, Samson, Aerodyne, Hammariund Roberts Hi-Q, Henry Lyford, Acine, Ultradynes, Ambassador, 3 Circuit 3-tube receivers, Controlladyne, Isofarad, Nine in line Super Het, Fenway Super Het, LeC Cockaday, Camifeld Duodyne, Basco 9216 5-tube Rasco 5-tube Ome Dial control, Rasco 2-stage amplifier, Rasco Transdyne, etc. Further information and prices cheerfully furnished.

Knock Down Cabinets



\$2.03

The knock down form of cabinet not only offers you an appreciable saving in cost, but also enables you to finish it

in any manner you may please, to better harmonize with your requirements. The wood is beautifully sanded—all the metal hardware is nickel plated brass. All sections in any manner you may prease to occur and program requirements. The wood is beautifully sanded—all the metal hardware is nickel plated brass. All sections are machine cut to size and planed, therefore insuring a perfect assembly. Corners of cabinet rest on rubber tack bumpers. Can be assembled in a few minutes.

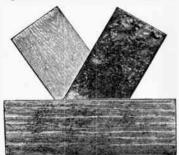
Shir	oped e	xpress	c	olle	et direct	from	fa	etory i	nol ai	a	
No.	9803	For	7	by	14-inch	panel,	7	inches	deep.	. \$2.	03
No.	9805	For	7	by	18-inch	penel,	7	inches	deep.	. \$2.	24
No.	9806	For	7	by	21-inch	panel.	7	inches	deep.	. \$2.	73
	9807	For	7	by	21-inch	panel.	7	inches	deep.	. \$3.	17

Carter Short Jack

\$0.21



Grained Bakelite Panels



\$0.99 POSTPAID

Custom built Radio sets can be made to harmonize with any home surroundings by using one of our beautifully decorated Bakelite panels, finished in a natural wood grain effect of Mahogany, American Walnut and Cireassian Walnut, Or, you can select a panel to match your console or eabinet. Only the very best grade of Bakelite insulation is used in these panels. Kindly specify which grain finish you are ordering.

REAL	a unusn	you are ord	ering.				
	1/8 Inch	Thick			3/16	Inch	Thick .
No.	9752	\$0.99	7x10	No.	9762.		\$1.48
No.	9753	1.29	7x12	No.	9763.		1.84
No.	9754	1.47	7 x 1 4	No.	9764.		2.07
No.	9755	1.87	7x18	No.	9765.		2.66
No.	9756	2.09	7 x 2 1	No.	9766.		3.11
No.	9757	2.46	7x21	No.	9767.		3.54
No.	9758	2.61	7x26	No.	9768,		3.84
		2.71	7x28	No.	9769.		. 4.14
		2.94	7x30	No.	9770.		4.43
No.	9761	3.54	7x36	No.	9771.		5.31
			B.F *				

Notice

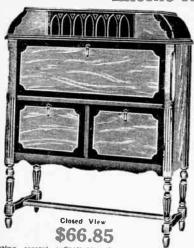
We can also supply the above grained Bakelite Panels in special sizes cut to your measurements—accuracy guaranteed. Kindly state which grain effect you are

Baseboards



Made olo	non-warping	iterial. 78 inch i	mick.
No. 9549	6½x6		\$0.23
No. 9550	6½x9		
No. 9551	6½x11	.	
No. 9552	6½x13		
No. 9553	6½x17		
No. 9554	6½x20.		
No. 9555	6½x23		
No. 9556	6½x25		
No. 9557	6½x27		
No. 9558	6½x29		
No. 9559	9x17		
No. 9561	9x20		
No. 9562			
No. 9563			
No. 9564	9 x 29		0,93

Excello Radio Consoles



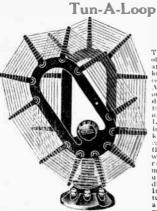
offering several remements of dwsign and devorative effect, besides several valuable mechanical advantages over our No. 9043 Excello Console, this medel will appeal not only to the Ratio fan of more fastidious tastes, but is especially recommended for Radio panels that are wider or longer than 8 inches by 39 inches that are wider or longer than 8 inches by 39 inches provided in our No. 9043. In this console, it is possible to adapt the space to any size panel not exceeding 10 ½ inches long, an adjustable panel being supplied to provide for any smaller size. A very unique and valuable feature is the clever sliding leaf upon which the storage battery (or eliminator) is rested, enabling you to slide it forward, for refilling, testing, e.c. The dimensions of this masterpiece Radio Console are 37 inches wide, 16 inches deep and 45 inches high. Made of selected American Walnut, with five-ply walnut veneer top and panel doors of matched butt walnut, fluished over all in a two-tone Walnut PlANO FINISH. Supped from our factory in Illinois, express collect, shipping weight 150 lbs.





Constructed by Master Cabinet Makers, of 5-ply Walnut veneer tor, and Walnut end panels with matched but Walnut doors. It is truly in keeping with the best appointed homes. The panel size is adjustable up to 9 linches by 30 linches—any of our Radio resolvers, kits or chasses will fit within. The self-enclosed loud speaker consists of a tone chamber and metal throat truly capable of unexcelled perfection of clarity, and volume. The top hinges to provide more convenient access to the receiver. The hattery compartments opening from the front with two doors, will hold any possible form of "A" and "B" devices—with chargers. Overall dimensions are 35 inches wide, 16 inches deep and 45 inches high. Two-bone Walnut PlANO FINISH of unusual heauty. Shipping weight, 150 lbs. Shipped express cellect from our factory in Illinois.





POSTPAID

The advantages of Loop reception are very well known and con-ceded. The Tun-A-Loop, on the other hand, has decided advantages over any other type of Loop. By adjusting the over-size knob, this loop can be tuned to the peak of the wave length range, assuring maximum pickup ability on distant stations. Incidentally this tuning effect en-ables you to

a bles you to match your tuning dials, regardless of the capacity of condensers being used. The Tun-A-Loop can be used in conjunction with any superheterodyne, neutrodyne, straight radio frequency, or Reflex receiver. No portable loop receiver is truly portable or efficient without this instrument. It is made of genuine Bakelite, and the wires are spider web wound—only genuine phosphor bronze silk covered wire employed. It is as attractive as it is efficient. No. 9655......\$13.38

Carter Imp Loop



The radically different loop. Only 16 inches in diameter—weighs but one pound, due to compound progressive form of winding. As efficient as larger loops, \(^1_{34}\) and center taps provided.

No. 9089 . \$6.59

Aero Loop \$10.49 POSTPAID

The advantages derived with an outside aerial over any loop are extreme long distance reception, and, increased volume on all stations. The advantages of a distance reception, and, increased volume on all stations. The advantages of a loop and those of an antenna system are combined in the ARIO LOOP, when it is used in conjunction with an antenna, acting as a very effective "booster" with added inductance, and thus, increased selectivity. The inside loop can be rotated, too, resulting in a marked decrease in static reception, thus further revealty alding selectivity. Its many crease in static reception, thus further greatly alding selectivity. Its many uses are listed in a special pamphlet furnished with every loop. The strands are wound on Bakelite strips, and the binding posts are also brought out to a Bakelite strip. The wood work is beautifully mahogany finished, and in keeping with the furniture of any finely appointed room.

No. 9649....



\$10.49

Aalco Loop

\$10.23

The virtues of a large size loop are some times disregarded due to their cumbersome appearance when not appearance when not in use. Logically, a larger loop will collect more of the feeble radio waves than a smaller one. The Aalco loop stands 30 inches high when opened, and only 21 Inches when closed, In the right-hand corner of the accom-



Signal Encased Loop



There are two objections to a joop on which the turns of wire are exposed. These are first, they may lossen due to frequent contact with your hands, furniture, etc., and, second, they never ADD to the appearance of any room. In this loop, all of the turns are encased in a walnut frame, very attractively antique tinished. As the frame plugs into a jack in the base, there are no wires visible even at that point, or wires to become twisted from conno wres visible even at that point, or wires to become twisted from contact swinzing of the loop. Three connections are brought out to a bakelite strips—no losses—very efficient in every manner, lieight 21 inches.

\$8.15 No. 9742....

Steinite "Aerieliminator"





\$0.85

No. 9928.....

Folding Loop Aerial



POSTPAID

This is the best

collapsible loop of its kind. It is 36" high and 28" wide. It is elec-trically and me-

chanically correct. It has a heavy cast base, nicely finished in black, upon which the loop turns easily. The wire winding consists of special wire winding consists of special stranded, flexible, multiple standard super-antenna wire. The loop easily folds to fit into a 4-inch tube. It is beautifully finished throughout. Hard rubber insulation only is used. The wires are held in place by pol-ished hard rubber strips. Two hard rubber binding posts are attached.

No. 2610, Collapsible Loop Aerial\$3.50

Knocked Down Loop Aerial

This aerial is 35" high, 24" on each side, Made entirely of well-seasoned wood. Comes to you knocked down. Can be put together in less than five minutes. Enough No. 22 enameled wire is furnished to make ten rounds.

No. 2600 Knocked Down Loop Aerial\$0.85

Aerial Insulators

\$0.15 POSTPAID

The larger ball insulator is the popular style, 3½"x2½". The smaller is used for light work, size 3"x 1½". High grade insulation compound, on affected by the weather. Mechanically right; will stand several thousand pounds puil. No. 7914 Small\$0,15 No. 2012 Ball 0.30

Rasco Ground Clamp

\$0.15



Has long been a favorite among has long been a moorte among amateurs. Is inexpensive, never comes loose, and fits any pipe from ½" to 3". Strap is adjustable and galvanized and will not rust. Has binding post to clamp wire,

No. 2236\$0.15

Rasco Antenna Leadin Connector

Here is the solderless Connector that you can trust. Eighty per cent of all radio troubles are caused by a faulty connection between the aerial

and the lead-in.

The plunger
and screw holds
both aerial and lead-in with a vice-like grip that is never re-

Our illustration of the connector is full size. Once tried you ull size. tried you will never discard it. Nothing to wear out. Brass, nicely nickelnicely nickel-plated with a g o o d plating. Diameter of con-nector is %8", helght ½", (Patents pending.)

No. 4244 \$0.20



Copper Antenna Wire



\$0.48

All the wire we offer is of the de-pendable kind, the best grade. The stranded wire is hard drawn copper cable and is preferred generally by those desiring the best results.

No. 9227 Solid Copper, single, No. 14, 100 ft. \$0.48 No. 9228 Stranded, No.

22, 100 ft.....\$0.49

Enameled Aerial Wire

Will insure superior reception as the usual increased resistance caus-ced by corrosion of plain wire is pre-vented by the enamel coating. Made of fine copper strands, each coated with enamel insulation

No. 6401, 100-foot \$0.52 coil

Universal Lightning Arrester



\$0.87

Very fine outdoor, Made of brown glaze porcelain, Easily attached to window sill or against wall. Generous binding posts with lugs for connections, Passed by Fire Underwiters, Well made, and when used insures your house against lightning and your instruments against daments. and your instruments against damage. Guaranteed in all respects. Size over all, 3½"x1½".

No. 2300\$0,87

Antenna Connector



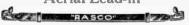
POSTPAID

Made entirely

Made entirely of a luminum. Light and will make wires go to the upper holes; the lower bulc takes the lead-in. A good mutal to metal connector is better than nearly all solder connectors. Dimensions 2" high, 1%," wide, %" thick.

No. 999\$0.35

Aerial Lead-in



It is a flat strip_of metal, entirely insulated with weath-It is a flat strip of metal, entirely insulated with wearing-reproof material. Fits under any window. Can be bent into any shape. Neat and durable. It can be mounted on the window sill or clamped in at the upper part of the window. The insulation is perfect. Length, 18½"; width, ¾".

Another Popular Aerial. No. 9451 Talking Tape, ribbon. per 100 feet. \$0,89

No. 8628

SAVE OVER 10%

Do not forget that the Prices on all goods in this Catalog-although exceedingly low-are really subject to a discount of over 10 per cent.

YOU SAVE OVER 10% WITH US—AS WE SHIP NEARLY ALL GOODS PREPAID IN U. S. A.

Hard Rubber Case Storage Patteries



specialized a sporage batteries a number of this batters, although called a radio bat-We have specialized a soringe batteries a number of years and this batters, although called a radio hatery, is really a strong the property of the strong that the battery is shaken up all day long and the strong that the battery is shaken up all day long and the strong that the strong

two years.

Certain low priced batteries are made of plates taken from old batteries and made over. Such batteries cannot last.

Our new plates are extra heavy and guaranteed to last.

Another important point i that our battery will withstand sulphation, i. e., conting of the plates even if the battery has been run down quite low. Solid hard rubber case. We furnish only acid-proof terminals that will outlast the battery, full autonatic vents are provided. Positive (+) and negative (—) terminals are marked in a distinctive manner. Impossible to make a mistake. Aeld-proof, noo. In addition to all this our battery is sold at the must attractive price. "" wide, 10" long, 93" high.

Tungar Charger

\$15.30

The world famous Tungar bulb type lattery chargers are too well nown for further de-tail d information here. They are noticess in operation and practically fool-proof for they do not require any cheminals or vibrators, which must be ren wid. For 110-bit A.C. lines only. Tungar bulb in-



cueed. No. 9718 60-Cycle, 2 Ampere Rate. \$15.30 No. 9824 25-Cycle, 2 Ampere Rate. \$18.70 No. 9925 60-Cycle, 5 Ampere Rate. \$23.80 Stattery chargers are shipped Express Collect.	2				
	No. 9824 21	-Cycle, 2 -Cycle, 5 chargers	Ampere Ampere are shippe	Rate Rate d Express	, \$23.80

Shipping weight, 15 pounds.

New Genume Tungar Bulbs No. 9026 No. 9/327

Tungar Trickle Charger



This latest product of the General Electric Co. will charge any 4 or 6-volt storcharge any 4 or 6-volt storage battery up to a ½ gapere rate. Its construction and principle is similar to the higher rate Tungar battery chargers. Bulb included.
No. 9028... \$9.95

Shipped Express Collect.

Tapped "B" Batteries



Our 'B' batteries are made of the fin-est and best materi-al obtainable, by one of the largest battery manufacturers in the country. We positively guarantee these itively guarantee tnese batteries to be noise-less and the longest lived. We earry only fresh stock at all times. The output of these batteries ts very uniform. With these batteries is very uniform. With fair use they will last

2250

graph fair use they will last a year or more. We only list the tapped styles, as we have perferental work, and the difference in price is so negligible that our customers will welcome this departure.

No 2250, Smal' size. 15 cell, 221/2 volt type, tapped, No. 2251, Medium Navy size battery, 221/2 volt, tapped from 161/2 to 221/2 volt, in 11/2 volt steps, each....\$1.20

No. 4500, Combination tapped 45 volt, 30 cell battery tapped to give 45, 22½, 21, 19½, 18, 16½ volts. This battery is de igned especially for detector and amplify. ing tubes, each

No. 4503 Taiped 4 %-volt "C" Battery, for negative grid bias on R.F. and A.S. tubes. Eliminates distortion, permits high "B" battery voltages, and lengthens like of "B" batteries. Also used as an "A" hattery in portable sets using 199 type tubes.

Shipped Express Collect.

Balkite Trickle Battery Charger

Charges 4 and 6 volt "A" barteries. Slow charger. Can be operated while set as number of tures. Size 5½ x3 x5 inches h 1 g h. Charging late ½ ampere. Shipped dry. For 110 volt A.C. 80 cycle current. current.

No. 9358



\$9.25 Shipped Express Collect.

Balkite Model J Two Rate



Charger

Combining a trickle charging rate of .5 of an ampere per hour and the maximum rate of 2.5 amperes per hour, this new Balkite charger is making itself invaluable to its many users. There are times and conditions when either of these two rates are necessary—and in this one instrument both are combined.

one instrument both are combined. Takes but a moment to swing over from one rate to another. It is the charger can be functioning, while locals are being received. The electrolyte level is at all times visible—only at infraction intervals is it necessary to add distilled water theret. This is the only upkeep attached to this charger. Furthermore, while in operation it only costs about 9. cent per hour. It will also charge a 1-volt battery at a fight rate of . 8 of an ampere per hour, and 2.5 of an ampere of the cost about 9. cert hour at the low rate. Operates from 110-volt A.C. current with a 1.5 ampere high rate.

No. 9941 Combination Model J Balkite Charger, with Cord, Plug. Battery Leads Q-10 OF

with Cord, Plug, Battery Leads \$18.85

Full Wave Battery Charger \$16.85

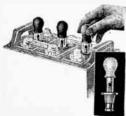
radical improvements incorporated this charger permit the complete charging of a run down battery OVER

NIGHT for, in using the FULL WAVE of the A.C. eycle, IN.
STEAD OF ONE-HALF OF IT, a charging rate of 6 to 8 AMPERES PER HOUR is delivered. Entirely fool-proof—will last a life time. A back crystallized finished petal case encloses the entire mechanism and festion durable rubber feet. Note the folding handle, Generous length of cord and detachable plug is included, The ellips that snap on the battery terminals are lead covered, to resist acid corrosion effects. For 110-volt. 60-cycle A.C. current. Shipped express collect.

No. 9936

... \$16.85

Scranton Battery Cap Tester



POSTPAID

A recent innovation which will prove its value to you many times its modest cost. You simply replace

to the similar replace your present battery caps with three of these combined battery caps with three of these combined battery caps and built-tin hydrometers. It is always ready for immediate use—there is no chance of spilling any acid with its ever ruinous effects. To the bulbs, and without removing the condition of charge IN EACH OF THE CELLS. Simply squeeze glance at the floats as they rise, denoting the condition of charge IN EACH OF THE CELLS. The solution will then slowly drain back. Should no solution arise, then it is proof positive that the particular cell needs then it is proof positive that the particular cell needs that particular cell of the positive that particular cell needs that particular cell needs that particular cell of the positive that particular cell of the positive that particular cell needs that particular cell of the positive that the particular cell of

\$1.83 No. 9865 Set of Three....

Holmes Tungar Bulb Type Battery Charger

\$9.45

This 2 ampere Tungar bulb type storage battery charger is not to be confused with any other low priced charger, whether it be of the bulb or vibrator types. be of the bulb or vibrator types, In fact, our customers have bold us that this instrument is as efficient as even those selling for double its low price. In operation, there is no noise to disturb you—there are no acids or limites to consult with nonor liquids to contend with, nor burning out of vibrator contacts. Simply snap connections from charger to battery terminals.

Simply snap connections from charger to battery terminals, plug into your lighting circuit—the Holmes charger will do the rest, at a 2 anipere charging rate. Can be permanently mounted in your Radio console, due to small size, and special mounting holes provided for the purpose, or, pieked up and moved atomid at will. Charges both "A" and "B" batteries, of the wet cell type—also any automobile battery. The transformer is heavily shielded with a black japanned iron case, and is of generous proportions. The Tungar socket and fuse block is made of high quality insulating norrelain. The connection to the Tungar element is a specially treated cell spring. Size overall: Height 7½ inches, width 4 inches, length 1 inches. For 60 cycle. 10 volts A. C. current.
Me. 9076 With 2 Ampere Tungar Bulb, Cord and Plug.

59.45
No. 9090 With 5 Ampere Tungar Bulb, Card and Plug.

FOR 25-CYCLE 110-VOLT A.C. CURRENT
No. 9091 With 2 Ampere Bulb, Cord and Plug. \$15.85 Note

All battery chargers are shipped Express Collect from factory in Chicago.



Chaslyn Sink or Swim Hydrometer

This hydrometer does not depend on a float therein for determining the condition of charge of the battery, but instead, three differently colored balls. If all three float, the battery is fully charged. If all three Hoat, the battery is fully charged, if one ball sinks, the charge is almost full, if two balls sink, the charge is low, and if the three balls sink, then the battery is totally discharged, and should be immediately attentied. attended to.

No. 9788. \$0.69

Storage Battery Clip



These large size clips are non-corrosive and are warranted These large size crips are indirectioned and are walland to make a positive, ever gripping connection. Lead wire is attached to the clip by twisting it under a screw and then tightening same. Lead covered.

No. 9719.

**O. 14*

Apco "B" Battery Charger



\$3.95

Supplied without bulb. Charges at any desired rate. Use ordinary light bulb for charging. Full instructions acompany it. The neatest charger using your ordinary 50, 75 or 100 watt electric light bulb. Charges at 1-10 to ¼ amperes. According to wattage of bulb.

No. 9375 "B" Battery Charger, without lamp.....\$3.95

For Alternating Current Only.

Apco "A" and "B" Battery Chargers



Fully guaranteed by the manufac-turer and us. The finest quality, small in size, nationally known. A big bargain at our cut price. Sure to please you. Complete instructions for operation. For 110-volt 00-

No. 9357 "A" Battery Charger, 2 amp. rate. no tubes required\$11.47

Battery Chargers Are Shipped Express Collect.

Valley Battery Charger

Charges any 6-volt storage battery at 6 ampere rate, or any 12-volt battery at a 3 ampere rate. The most efficient high a 3 supere rate. The most efficient light rate battery tharger made. Equipped with full length cord to attach to your lighting circuit, elips and leads to attach to your battery, and a very accurate ammeter, registering rate of charge. Transparent moulded cover. Rests on rubber feet. For 110-volt A.C. current. Size 6 x 6 % x 7 ½ inches.

No. 9671
No. 9073
For 25-30-40
Cycle
110-volt A.C. current.
Side.25
Due to excessive weight, Valley chargets are shipped Express Collect. Shipping weight 21 pounds.

weight 21 pounds,

"B" Storage Battery Hydrometer



Test your B storage battery with this hy-drometer. It will save you money by warning you in time It will help you get the best rosults from your set. Priced very lear.

Test vour B storage

No. 9225. \$0.29

Voltmeters

No. 9515
An accurate indicator of the strength of your Is batteries. Specialty useful in testing 22½ and 45-volt batteries, but registers from 0 to 50 to 15. (ase is cast metal, niekel finish, glass crystal, tiexible contact cord.
No. 9316 For "B" Batteries.
0-50 volt.

0-50 volts\$0.87 No. 9515 Combination meter 0.50 volts, 0 to 50 amperes, tests "B" Batteries and Dry Cells also\$1.39

Battery Tester

A very line quality instrument for testing your A and B Storage bat-teries. The proper construction of the float and barrel assures accuracy of readings.

..\$0.47 No. 9001

Battery Tray



We hardly need suggest the wis-We hardly need suggest the wise dom of placing your wet batteries in this tray so no acid can get to the rus. It may save its cost many times over and the women folks will ap-preclate your thoughtfulness. Buil size for your hattery. Heavy black \$0.57 rubber.

No. 4512

Sterling 6-Volt "A" Battery Charge Indicator

POSTPAID

To the Radio fan who objects to the use of a Hydrometer, because of its attendant pos-sibilities of dripping acid and sibilities of dripping acid and its ruinous effects, for testing the condition of his storage battery, this charge indicaton is indeed invaluable. By applying the two contacts included with this device to both terminals of the storage battery the arrow will advise you whether 10 start charging the nearly full charged—and when you should stop charging it. Handsomely nickel plated.

\$1.63 No. 9741 \$1.63



Brach Non-Drip Hydrometer **\$0.95**

POSTPAID

Your first thought upon examining this unique hydro-nueter is to wonder why this non-drip feature was never thought of before. The moulded cup that catche any drips from the nozzle i

any drips from the nozzle is attached to two very pllabbrubber standards which are swung out of the way will-the nozzle is inserted into the vents of the battery, and, when the nozzle is removed, this cup swings back into its original position ready to catch any drips of acid. Another very valuable feature is the use of the famous Chasjan system of three colored balls of various weights which sink according to condition of charge in the battery.

No. 9696 \$0.95

Tobe By-Pass and Filter Condensers



\$0.56

In every manufacturing industry there is always one outstanding concern whose products are the recognized leaders, and by which competitive products are compared. The Tobe Deutschmann By-Pass and Filter condensers are conceded to be the most efficient made. Their handare conceded to be the most efficient made. Their hand-some silvered metal cases will lend grace to any receiver. Although the By-pass type can be used in "B" battery eliminators at low voltages, the Filter type is solely recommended. The By-pass type are used in any Railio receiver, in the Radio Frequency or Audio Frequency circuits. Connections may be made by soldering to the tinned lugs provided, or screwed and bolted thereon.

BY-PASS TYPE	
Cat. No. Capacity	Price
No. 9729 1 mfd.	\$0.56
No. 9730	0.60
No. 9731	0.72
No. 9732	0.86
No. 9733 2. "	
No. 0724	1.58
No. 9734	2.85
FILTER TYPE	
Cat. No. Capacity	Price
No. 97351 mfd.	\$0.60
No. 9736	0.65
No. 9737	0.80
No. 9738 1. "	1.11
No. 9739 2	
No. 9740 4	1.58
TORE 111 VOLTAGE DOWER	2.85
TOBE HI-VOLTAGE POWER PACK	CONDENSERS
D.C. Working Voltage 1000) Volts
Cat. No. Capacity	Price
No. 9030	\$1.48
No. 9031	2.18
No. 9032	3 48

Thordarson Filter Choke Coil



POSTPAID
The name of Thordarson on The name of Thordarson on any transformer is an immediate assurance of a quality product. Every "R" eliminator is only as good as its Filter system, and the choke coll therein plays the main role. The Thordarson choke role. The Thordarson chance oil will serve these requirements with 100% efficiency. Inductance 30 Henries—curling capacity of 70

inductance 30 Henrics—current carrying capacity of 70 of 280 ohms. Can also be used as a filter choke for keeping high voltages off your loud speaker. Measures 2½ inches by 2½ inches by 3 inches high. \$4.48

hoke POSTPAID





No. 4002 Choke

Tobe "B" Eliminator Blocks

\$7.65

eliminator only as good as the Filter system employed, The Tobe Deutschmann Filter Blocks offer you the assurance that





For all

your completed climinator will be an absolute Attractively sealed within a silvered case. Raytheon and other plate supply circuits where the working D.C. voltage does not exceed 300 volts.

For use in small "B" eliminators in which there will be no intermediate voltages used—or where separately eneased filter condensers would by pass these intermediate voltages, if they were to be used. Contains one 8 Mfd, and Two 2 Mfd. condensers—heavy binding posts are on the top of this model. No. 9725 \$7.65

Especially designed for use with the Raytheon Tube Type B and contains one 8 Mfd., two 2 Mfd., and two 1.0 Mfd. Tobe Filter Condensers. Height is only 5-% inches, width 4 inches and depth 24 inches. Binding posts are brought out on the bottom of the case for eafery eals. safety sake.

No. 9726.... Very similar in appearance and size to our No. 9726 Black, but contains Three 4 Mfd., and two 1.0 Mfd. Tobe Filter Condensers—especially designed for use with an R. C. A. or Cunningham 213, or two 216 or 316 Thermionic Rectifying Tubes.

\$8.65 No. 9727.... Same as our No. 9726—designed especially for the new BH Raytheon Tube. Comains two 4 Mfd., one 6 Mfd., and two 1 Mfd. Tobe Filter Condensers. \$10.15

Tobe Raytheon Buffer Condenser Unit The Raytheon circuit requires two .1 Mfd. condensers on the A.C. side of the tube.

High Capacity Condensers



\$0.60

OSTPAID These are standard condensers and are of the best vacuum impregnated parafin type. The insulation is spe-cially-prepared paper, and the units are compressed hydraulically before they are sealed in their metal casings.

All of our condensers are tested for 500 volts breakdown; each condenser comes in an enameled black tin casing.

ing.

There are two metal terminals to which wires or bus bur can be read-fly soldered. We have developed these condensers especially for "B" eliminator work, and we believe our prices are the lowest in the country. Try connecting a number of these condensers together. You can make any capacity "Fliter Block" for any style "B" or "A" eliminator.

No. 4007 4-Mf. Condenser, each	1 20
No. 4010 1-Mf. Condenser, each No. 4011 ½-Mf. Condenser, each No. 4012 ¼-Mf. Condenser, each	0.60

Recently I ordered a trickle charger, and am very much pleased with same.

S. W. DEARTH. Deer Creek, III.'

Rectifier Cells

\$0.60

POSTPAID

These rectifier cells, of which four must be used for the complete full-wave rectification, are standard with us, having been specially designed for "B" eliminator work. These 4-co. jars, with acid- and heat-proof rubber screw covers, are furnished with two electrodes, namely, pure aluminum and lead. A vent cap is also provided. The special connectors listed below should be used for connecting the cells together. Size No. 4003 Rectifier Cell (but no connectors nor salts)

no connectors nor salts) complete with cover and electrodes each \$0.60



Connectors

\$0.25

POSTPAID

These special connec-tors are used in order to connect four of the rectifier cells together. Set of 4 special con-nectors sold as one



nectors soid as one unit. These connectors snap over the rounditive binding contact at all times, electrodes, giving a poise connection possible. Hiustration shows how connector clamps over 1/2 rod. Center tole is used for screw and nut binding post.

No. 4004 Set of 4 Electrode Connectors....\$0.25

Resistances

\$0.50



rnese resistances are standard for, eliminators and will carry about half a Watt on continuous load. Glass enclosed, cartridge type. Two of these must be tred in standard eliminators. The resistance is 10,000 Ohas per unit. Resistances come complete with two spring elip mountings.

No. 4005 "B" Eliminator Resistance 10,000

Ohms.....each \$0.50

Rectifier Salts

\$0.20 POSTPAID

Only long experience can produce the correct "B" eliminator rectifier salts. Borax and similar salts "creep" over the electrodes and usually short circuit them. Our patent salt combination is guaranteed to keep electrodes clean and will not "creep." Sold only in units for our No. 4003 rectifier cells. One filling charges one cell.

plete charge)each \$0.20

Electrodes

For those who wish to make their own rectifiers we supply electrodes. The success or failure of a rectifier lies in the purity of the aluminum used. We use only 99.5 per cent pure Aluminum in connection with our rectifiers. The small electrodes neasure 3½ "long by ½" diameter. The large electrodes are 4¾" long by ½" diameter, and are equipped with Fahnestock clips rigidly serewed into one end thereof. The large electrodes are intended for pint jars.

No. 4015 Small Aluminum Electrode those who wish to make their own rectifiers we

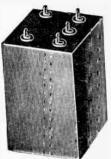
No. 4015	Small Alui	ninum Electrod	e	 60.10
No. 4016	Small Lead	Electrode		 0.08
No. 4017	Lower Alu	minum Electrod	le .	 0.35
	Parke Win	a Tilantada		 0.20
No. 4018		d Electrode		 0.00
1101 1010		S POSTPAID		

Konite Filter Block

\$3.65

This is the high capacity 500-volt tested condenser system used in the NO-HUM "B" Battery Ellminator. Contains 4 condensers, all in one housing, as follows: One each 4-mfd. 2-mfd and two ½-mfd. Complete as Illustrated, with 5 terminals; in thi shell, size 2½" wide, 1½" deep, 1½" hlgh.

No. 4001 S3.65



Large Size Rectifier

POSTPAID

Commonly termed a "pint" size rectifier jar, it can be used in either a Trickle charger rectifier, or in a "B" battery eliminator. In the former instance, only one jar is required, in the latter, four jars are required. Consists of a heavy jar, with a threaded "neck" upon which is screwed the moulded cover, and through which are inserted the ½ inch diameter lead and aluminum electrodes (No. 4017-4018) separated by 1½ inches. A removable vent cap compiletes the unit. Note the Fahnestock clips which are screwed into the electrodes for convenient and positive connections—also note the notches on the moulded cap, for gripping same, when unscrewing it from the jar. Besides thi. unit, you need a lamp cord and plug, and our No. 88.04 resistance to assemble your own trickle charger. Overall dimensions are 5% inches high, 3¼ inches diameter.

No. 8803 As Illustrated..... \$1.17

Trickle Charger Resistance

\$0.99

Constructed to our specifications for use in a trickle battery charger, you are assured every satisfaction when used in conjunction with our No. 880: used in conjunction with our No. 880::
Rectifier. The resistance Itself consists of a long "spring," wound around the porcelain standard, in which are moulded the grooves to receive this resistance. The ends of same are connected to a plug which serews into the porcelain standard base plug furnished. Two mounting holes and two connection terminals are conveniently provided on the base. The capacity is rated at 75 waits. Overall length of resistance is 4½ inches, and including the socket, 5 inches.

No. 8804....

well pleased with the "B" diminator parts I was well pleased with the "B" diminator parce received from you, and the results ebrainable therswith. W. A. SANDERS 2005 12th St., Charlester, IN.

Ford Raytheon "B" Battery Aerovox "B" Eliminator Filter Eliminator Tran-Choke Unit

\$8.88



Using this instrument, and a few others listed below, any Radio fan can assemble in a tew minutes a "B" Using this instrument, and a few others listed below, any Radio fan can assemble in a tew minutes a "B" battery eliminator to work direct from your 110-volt A.C. line, delivering results as good as only obtainable on climinators ready built and selling for rs high as \$50.00. Mass production, with accompanying heavy sales, enables this combination of transformer and two chokes to be sold at this extremely low price, considering the 100% efficient results obtainable therewith, and unusually attractive manner in which it is finished. In addition to this unit, you need a filter condenser; block, containing one 8- two 2- and two 1 Mdd, filter condensers, a "buffer" condenser of two 1. Mdd, filter condensers, a "buffer" condenser of two 1. Mdd, filter condensers, a line switch, a tube socket, a Raytheon bubb, two variable resistance for intermediate voltages and a fixed resistance of 10,000 obms. (Also, such incidentals as binding posts, base board, screws, etc.) Note that the connections to this unit are all on the bottom, for safety sake, as well as ease in assembly. You have a choice of either a "High" or "Low" output of "B" battery voltages, the actual difference in voltages being about 1/3 as per the following table, showing voltages obtainable according to amount shout 30 milliamperes.)

draws about 30 milliamperes.)
"B" Eliminator Output at Power Terminal
Valuage Output Voltage Output

Milli-amperes	Low	High
20	135	212
30	116	194
40	96	173
50		153
60		132

Above table was derived with Raytheon "B" tube. Measures 9 inches long by 3 ½ inches wide by 3 ½ high. Beautifully finished in a shielded black crystallized metal case. Binding post connections mounted on a genuine Bakelite strip, and are engraved for reference thereto. Spiendid value. Petalled and explanatory hook-up and instructions are included with each Tran-thoke Unit. Guaranteed to produce NO HUM, even white standing close to the speaker. \$8.88 No. 9789. Do. OO Shipping weight, about 10 lbs. Sent Express Collect.

\$1.93 Clarostat

POSTPAID POSTPAID
In 5 complete turns of the knob, the resistance of this instrument can be varied from practically zero to 5,000,000 ohms—thus it can be adopted for practically any purpose where a variable resistor is called for. Although the resistance is variable at well it is posi-



Although the resistance is variable at will, it is positive once set. The Clarostat is extremely useful in "B' eliminators, where it is used to reduce the voltages for the Detector and R.F. tubes. Connected across the secondary of the 2nd stage audio transformer, it will eliminate all raspy noises, and eliminate distortion. Connected in the R.F. plus "B" battery lead, it will very admirably countred the oscillations in the R.F. stages. Connected across a fuxed tickler coil, it will control the regeneration therein. Can be used in resistance coupled amplifiers, with pronunced success, as the resistance required therein can be varied for best results. Encased in a compact insulated shell, and is equipped with a bakelite knob with engraved white arrow thereon.

No. 9983....

Blocks

POSTPAID

Acrovox offers a very high quality filter block at a modest price ity filter block at a modest price due to the large sides enjoyed therefrom. The Russes guarantee therefrom a further assurance of the 100% efficient performance at all times possible with these blocks. Each one of them is tested at 100 volts D.C. Encased in an attractively finished metal case. The terminals are plainly marked, and are flexible for direct connections to pro-per instruments. Most compact



blocks made, No. 9880 Consists of 2-2-8 Mfd. Filter Con-\$5.95 densers No. 9881 Consists of 2-2-8-1 Mfd. Filter Condensers . \$6.70 No. 9882 Consists of 2-2-8-1-1 Mfd. Filter Condensers £7 A7

No. 9883 Consists of .1 and .1 Mfd, in Series (Buffer Condenser)

Aerovox "B" Eliminator Filter Condensers

Where it is desirable to mount the various capaci-ties of filter condensers in mechanically convenient assembly, rather than have them all self-contained, the following condensers are ideally suitable. Each one tested to 400-volt D.C. breakdown. Flexible connection leads. Metal cased.

9884		Mfd.																					\$0.49
9885		Mfd.																					\$0.58
9886		Mfd.																					\$0.73
9888		Mfd.																					\$1.09
9889	3.0	7 4 4 4																					\$1.54
9890		Mfd.	٠	٠	٠	*	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	۰	٠	٠	٠	٠	٠	\$2.59

Notice

By connecting any two like condensers in parallel, the micro-farad capacity is doubled, thus two 4 Mfd. so connected will be the equal of an 8 Mfd. condenser.

For Power pack filter condensers, the voltage test must withstand 750 volts D.C. For such condensers, add 50% to above listed prices, specifying all details in your order

Crescent Lavite Resistances



These resistances are truly laboratory products and in fact, almost every broadcasting station employs them for the speech amplifier gain control. They are non-inductive and promote distortionless amplification in Resistance Coupled Amplifiers. Guaranteed to remain constant and

	HOTSCH-88"																				
	No. 9610	12000	ohms																s	40	
П	No. 9611	44000	li							•	٠.	٠.	•	٠		٠	٠		,,,,	70	
		48000	omms	٠	٠		٠	٠	٠	٠						٠		. :	51.4	48	
	No. 9612	50000	ohnis																ėι,	AR	
н	No. 9613	100000	ulam.							•			•	•	٠	*	٠		2:0	70	
į.		100000	ommis	٠		٠												. :	\$ I.4	48	

Aerovox Lavite Resistances

Dependable and accurate. Will carry 10 watts, and reproductive and accurate. Will carry 10 watts, and will fit any standard grid leak or resistor mount. Can be supplied in the following sizes, laboratory tested: 2.000, 5.000, 10.000, 15.000, 20.000, 25.000, 30.000, 50.000, 50.000, 100.000, 20.000, 25.000, 500.000 ohms. Kindly state which type you are ordering.

No. 8939 Each, Any Resistance. \$0.88

Thordarson Power Compacts

\$10.88

tremely useful possibilities of power pack amplification devices, with built in "B" battery eliminators, similar to the PACENT POWER-FORMER and the POWER IZER described elsewhere in this catalogue, ha-



in this catalogue, it a doubtless convinced you that it should be used in conjunction with your Radio receiver—but perhaps you would rather assemble you would rather assemble you would rather assemble you would rather assemble you hattery eliminator the fentally, there are only 11 wires to connect!) deriving therefrom a valuable fund of knowledge, and the praises of whonever may listen to its performance. The Tradatson Power Compacts are symbolic of their high starklards of electrical efficiency, mechanical perfection, and pleasing

No. 9038 Power Compact R-171 \$13.95
Contains a power supply transformer for full equality operation of Raytheon BH rectifier, 2 filter choices of 80 milliamperes canacter. operation of Boxtheon Bill rectiner, 2 filter choices of 80 milliamperes capacity, a flee-voit center tapped diament supply for one UX 171 power tube, and 2 buffer condensers—all in one compound filled steel case. Equipped with 6-foot cord and separable plug for attachment to the 110-voit, 60-cycle light circuit. Shipped express collect. Dimensions 3½ by 5½ by 6 lines high overall.

Maximum Voltage Output

The voltage table below represents the maximum voltage output of the H-supply, using the power tube U.X. 171 on the last stage. The average current dain of a normal with the power tube is approximately 40 milliamperes. The C bias for the power tube is automatic, varying proportionately and directly with changes in the plate

Total	Total	2000 Ohm	171 Tube
Output	Output	C Bias	Plate
M. A.	Volts	Volts	Voltage
60	225	45	170
50	255	55	190
40	275	60	205
30	300	65	225
00	.,,,,,		040 4F

No. 8924 Power Compact R-210 518.45 No. 8924 Power Compact R-216 910-F32 Comains a power supply transformer for full capacity operation of the UN 216-B rectiter furnishing 100 volts to the plate of the power tube UN 210, 25 filter choices a 7½-volt center tapped filament supply for one UN 210 power tube and all intermediate voltage—all homographic plug for attachment to the 110 volt, 60-cycle light circuit. Diumsions 3½ by 5¾ by 6½ inches high overall. Shipped express collect.

No. 8926 R-198 Power Amplifier \$10.88
Supply Transformer
Purnishes power for both plate and filament of pawer
tubes UX 210 or CX 310. Supplying 7% voits for the
filament and 400 voits for the plate. In addition the
amplifier supplies: "B" voltages for the complete receiver.
Core clammed and sealed to prevent hum.
4 by 5 by 3% inches high. Weight 9½ pounds.
Shipped express collect.

De Jur Power Rheostat

POSTPAID





Tubes for Power Pack "B" Eliminators and Power Amplification Stages

Amplification Stages

1 N.—Made by Radio Corp. of America.

2 N.—Made by General Electric Co. for Cumulingham.

No. 8915 U X 171 or C X 371 Power Amplifier. \$5.85

5-volt., 5 amperes—for up to 180 volts.

No. 8917 U X 210 or C X 310 Power Amplifier. \$8.65

Can be used up to 450 volts. For Power Packs.

No. 8916 U X 21618 or C X 316B Single Wave Rectifier

7.5-volt; 1.25 amperes. For single wave rectifiers in "B" battery eliminator circuits—heavy duty type.

duty type, No. 89(8 U X 213 or C X 313 Full Wave

Rectifier amperes. Will deliver full wave rectification up to 65 milliamperes, the rectified voltages not to exceed 220 volts A. C.

Raytheon Tube \$6.00



No. 8921 Raytheon \$6.00

"B H" Tube... \$6.00

Delivers about 1/3 more output voltage than No. 9790 Raytheon tube,

No. 9790 Raytheon \$6.00 No. 8922 Independent Double

Rectifier Type \$4.95

Thordarson "B" Eliminator Transformer

\$6.35 OSTPAID

HEON HEG.

For those Radio fans who will build their own "B" elimi-nators we heartly recommend



build their own beartily recommend the Thordarson Raytheon tube type transformer, solely because of its recognized effectives. The 110-voit primary is supplied with a 6-foot cord and separable plug for attaching to the lighting circuit. The secondary is tapped at the exact electrical center. There are provided two secondary voltages, to suit the particular requirements of any receiver as to its current consumption. These voltages are 235 "Low" and 285 "High." The transformer liself is mounted in a compound filled steel case, and will not heat up in continuous service. Conservatively rated. Dimensions are 4 V, inches by 3 inches high.

UX213 Transformer

This transformer supplies necessary voltages for operating B-eliminators employing the U. X. 213 or C. X. 313 full wave rectifying tube. Eliminators built with this transformer will satisfactority furnish B voltage up to 180 volts with sufficient capacity to operate any receiver. Dimensions: 4½ by 3½ by 3½ high. Weight 6 lbs. No. 8925 R-197 B-Eliminator

Thordarson Transformer..... Shipped Express Collect.

Heavy Duty Centralab Radiohm

POSTPAID

These variable resistors are recent additions in the family of Centralab pro-ducts, and have been espe-cially produced and offered cially produced and offered to the public to answer a demand for a heavier carry-ing capacity resistor for "B" battery eliminator work. The Raytheon La-boratories have placed their



boratories have placed their stamp of approval on them, and for good reason, too, Although they are variable, the voltage is constant at any setting, and thus, the panel to which they are affixed can be calibrated for various voltage readings. Insulation is tested to withstand 1.500 volts.

No. 9678 0 to 50.000 ohms. Principally used as the detector voltage control.

No. 9679 0 to 10.000 ohms. Used as the intermediate voltage control.

No. 9699 2.000 ohm potentiometer, for providing the from any eliminator.

\$1.89

Centralab Radiohm



The Centralab Radiohms are The Centraiab Radionnas are constructed in the same manner as our No. 9029 Modulator, but has only two connections. This instrument has lately sprung into popular favor due to its efficiency when used as an existence eartral in any oscillation control in any

oscillation control in any tuned radio frequency eircuit. Connected in the 'B' battery circuit feeding the and noiselessly diminishes the voltage to a point or setting just before the tubes begin oscillating. Our No. 9683 is recommended for this purpose. It can also be used to control the regeneration in a fixed tickler circuit. Single hole mounting. Dial has an attractive white arrow engraved thereon.

No.	9680	2,00	0 ohms	maximum					. \$1	.75	Ð
No.	9681			maximum.							
No.	9682			maximum.							
No.	9683	200,00	0 ohms	maximum.					. \$ 1.	.79	Э

Centralab Modulator

\$1.79 POSTPAID

For a volume control in ror a volume control in any audio frequency am-plifier, there is no equal to the 500,000 ohm Cen-tralab Modulator, for it is a non-inductive NOISE-LESS variable resistance,



LESS variable resistance, smoothly variable from zero, affording the only satisfactory means of regulating the output of the amplifler, with improved quality of reproduction, from a whisper to maximum loudness. The outer shell is Bakelite, encasing the element in a novel dust-proof transparent case. Single hole mounting. Same size as a potentiometer or rheostat. No. 9686

Centralab Potentiometer
This potentiometer is of the same construction and prin-
ciple as our No. 9686 Modulator. No. 9684 400 Ohins\$1.59
No. 9685 2,000 Ohms\$1.79

Bradlevohm Type E

This heavy duty variable resistance is ideal for vary-ing the output of any "B"



resistance is ideal for varying the output of any "Bi" battery eliminator, so as to obtain a lower reading voltage for the detector tube, or any intermediate voltage, using one Bradley-ohm for each tap desired. It will successfully dissipate up to 4 watts, but must not be used where the full voltage exceeds 250. Fluted knob provided. Top and bottom is heavily nickel plated brass, with white porrelain walls. Terminal serew connections. Dimensions: 2 Inches long, I inch wide and extends about 1½ inches from rear of panel. One hole mounting on panel or baseboard mounting.

No. Type Range
9922 E 1 10 100 Ohms \$2.21
9923 1E 10.00 to 50.00 \$2.21
9924 5E 1.000 to 50.000 \$2.21
9925 10E 10.000 to 50.000 \$2.21
9925 10E 10.000 to 50.000 \$2.21
9925 25.25.000 to 1.500.000 \$2.24 10,000 to 500,000 25,000 to 1,500,000 9926 25E

Ward Leonard Vitrohm Resistor Kit



FOSTPAID

For use in all 'B' battery climinators, Power packs, transmitting sets, etc., where the highest grade of resistor is essential. The resistors are wound with wire only half as thick as a human hair, and then covered with vitreous enamel. Will never change in from 2 to -8 watts continuously, thus can be successfully used with voltages as high as 500 volts surging through them, down to 90 and 180 volts. The 5000 ohm resistor measures only 2 inches long. Soldering lugs provided, betailed instruction sheet with diagrams show use to supply intermediate voltages in eliminators, etc.

The 8 Vitrolum Resistors in the Kit have the following values:

1500 Ohm Ohm 3500 5000 Ohm They are hard to break but easy to use.

No. 9935 Complete, with 8 Resistors

Audiohm

\$1.38

Raspy or nasal reproduction in your loud speaker can frequently be traced to the secondary of your 2nd stage a u d i o transformer. By shunting the Grid and Filament terminals thereof with



ment terminats thereof with this variable resistance, you can adjust the output in your speaker to your own satisfaction. A cleverly ar-ranged mounting bracket and flexible coil spring permits the immediate installation of this device on the secondary of any transformer, without any drilling, special tools or soldering.

No. 9899....

Gentlemen:

I have already received a supply of Rasco parts from you which I found to be very satisfactory.

F. A. LEITH.

92 Avenue A. Bayonne, N. J.

Gould Unipower "A" Battery from Your House Current

\$33.85

By simply plugging in to your house current and connecting the positive and negative "A" battery leads negative "A" battery leads on your Radio to this in-strument, you have a per-petual source of "A" bat-tery current. This is accomplished by the use of a Gould Storage Battery (and there is no finer storage battery made), a genuine Balkite Trickle Charger



Brach Controllit



If you employ a trickle or regular rate charger and wish to automatically switch it back to its charging position, the Brach Controllit will solve the problem. Your battery switch, or rheostat, when turned on, automatically causes this relay to SWITCHI OFF, and vice versa. Gan also be used with B eliminators. No alterations to your set required—a few minutes to connect. This switch has made possible an "A" battery current supply direct from your house current, in conjunction with a trickle charger and storage battery.

Automatic Control Switch



Connect this switch to your receiver, Trickle charger and "B" eliminator. Turning on the

charger and a control to the bulbs in your receiver will automatically cause this switch to disconnect the trickle charger, and vice versawill also control them independently, Or, "B" climinators can be controlled in same fashion—in fact, it is very essential with every "B" climinator. Instructions cover varied uses. All parts scaled in durable black porcelain base—very attractive. 3 inches in diameter.

No. 9005...... \$1.79

Abox Filter for "A" Battery Eliminator





Balkite Charger

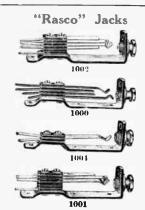
\$18.83

The Abox filter is not a storage battery—it is not a trickle charger and it is not an "A" bettery eliminator in itself. It is used in conjunction with a 2½ ampere rate Balkite charger, with which it will deliver steady 6-volt current with no trace of an audible hum. even while listening close to the loud speaker. It will not deteriorate while being used—or while not in use—and is always at your service, no matter how long it may have stood idle. The moment your current is turned off from your Radio tubes, the Abox filter stops drawing current from the louse line. Only about half the size and weight of a 100 ampere hour storage battery. In theory, the house current flows to the 2½ ampere Balkite charger, within which it is reduced in voltage to about 6 volts, and converted into direct current through the electrolytic action within. But, at this point, this current has every trace of the A. C. hum present, and it is the SOLE PURPOSE OF THE ABOX FILTER TO THOROUGHLY ELIMINATE THE A.C. HUM, WHICH IT DOES MOST EFFECTIVELY, passing on to your radio receiver a pure supply of 6-volt current, for up to 6 201A ½ ampere tubes. Only requires DISTILLED WATER—NO CHEMICALS—NO SALTS—NO UPKEEP COST. It can also be used with a 2 ampere Tungar bulb type charger, following special instructions furnished, but is not recommended with any vibrator type charger. Story ruggedly constructed. Black metal case. Binding post connections.

Majestic "B" Battery **Eliminators**



\$30.95



We offer to the radio fraternity the Baseo line of pluss and jacks. After having studied all the other pluss on the market, we have eliminated all the disadrantages of the poor ones and have incorporated in ours all of the good points of the best plugs, and have added several improvements of our own. By having our own metal factory, which has for twelve years made plugs and jacks for the Postal Telegraph Company, we are in a position to sell Jocks for the Postal Telegraph Company, we are in a position to sell these plugs and jacks at a lower price than those of high quality of rered by other reputable concerns. Hasso Jacks are made of the best material that money can buy, and the construction is correct, behind it bring the soundest engineering practice of the best price and the transfer of the springs are very heavy and the transfer of the prings are very heavy and the transfer of the price of the property large. Insuring absolute chetrical contact. The construction of the bracket is brash, heavily nickel-plated and buffed.

No. 1000 4 springs, the price 0.35

No. 1001 3 Springs, Price 0.35

No. 1001 3 Springs, Price 0.35

No. 1002 Automatic, 5

No. 1002 Automatic, 5

Jack Nameplates

Set of 13. May be inounted behind the hex nut of a the hex nut of a jack to indicate the purpose of of the jack. Silver or gold, finished brass with black lettering, black lettering, most attractive and useful.



and useful.

Thirteen titles: Detector Jack, 1st
Stage Jack, 2nd Stage Jack, 3nd
Stage Jack, External Jack, Input
Jack, Output, Jack, Loud Speaker,
Phones, Loop Aerial, AntennaGround, Voltmeter, and "On and

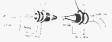
No. 9362 Silver finish ea. \$0.05 No. 9399 Gold finish ea. 0.05

"Rasco" Cord Tip Jack



\$0.15

This specialty has been developed by us as we have realized for a long time that experimenters require some-thing better than binding posts for time that experimenters require somethings better than binding posts for attaching telephone cord this to instruments. It takes up less room than a binding post, and when attached to a panel does not extend more than 1-16". It is particularly useful in connection with instruments where neat appearance is desired, and not much room can be shared. Right mechanically as well as electrically. The novel feature of this jack is that the connecting wire is attached to the eccentric hexagon nut by means of a small screw, which fastens on the nut. No soldering is necessary, and there are no complications. Simply drift shole in your panel, insert the jack, then by means of pilers screw up the invagon nut on the threaded small. The connecting wire is then statched to the acrew in the hexagon nut. This finishes the job.



The four slots of the jack give enough spring tension to grip the cord tip tightly, but at the same time do not give too much riction so the cord will be pulled out from the cord tip, as is the case with many other smaller devices. The construction is such that almost the entire the cord tip such that almost the entire time to the form that the cord tip extends on the cord tip extends on the cord of the strength of the flucters pull on the cord, Once to the cord on the cord, Once to the cord of the flucters pull on the cord, once to the cord of the cor

Yaxley Battery Switch and Pilot Light

\$1.09 POSTPAID



With the use of this combination awitch and pilot light there is no danger of your leaving the current on when you cease using the receiver. It does not take long to save its cost in current saved. The light from the lamp shines dirough the red jewel set in a hole in the panel. Switch is snap-off type, Complete with switch, 6-volt lemp and jewel. 6-Volt lamp and jewel.

No. 7921 Complete\$1.09 No. 7922 Pilot light only. including Jewel and lamp \$0,67

Pacent Battery Switch

\$0.36 POSTPAID



Pilot Switch



Compact, well designed, well con-structed. Only Bakelite and metal used. One hole mounting. Makes or breaks contact with a quarter turn. Binding post connections means no seidering. Dial plate fur-nichad nished.

No. 9464\$0.40



Carter Lock Switch



\$0.63 POSTPAID

Lengthens life of tubes and Lengthens life of tubes and batteries by reducing chance of accidentally leaving the tubes lit or lampering. A quarter turn of the key lights the tubes, When key is not in, the set cannot be operated. Neat, small and durable.

No. 9378

Throw Switch



\$0.25 POSTPAID

Mounted on composition black, Solid composition handle. Spring binding posts which give quick and better contact than the ordinary kind and they stay tight.

No. 4100, Single pole, single throw switch\$0.25 No. 4101, Single pole, double throw switch 0.35

"Rasco" Lubricated **Panel Switch**



After fusing around with switches that came loose, and otherwise did not stay but, had hose contacts, etc., we designed the "Rasco" switch, which we claim to be superior to anything offered herctofore.

Our patent spring fork holds the switch handle always under a uniform tension, at the same time it insures the best contact possible.

The double-less springs are nickel

the double-leaf springs are nickel plated and polished and in addition we are now using the new wiping contact, which covers every point of

we are now using the new wiping contact, which covers every point of the switch point. The rifted ribbed bushing, forced into the wood or lakelite, stays there forever—cannot come loose. Vastly better construction all the

way through.
The lock fork assumes three differ-

ent positions to accommodate the switch in various thicknesses of panels. No screw threads used in bearing, Our bearing is a true mechanical threads to bear and wear. Then comes the best improvement, the groove for useline or heavy lubricating oil. This makes it the only lubricated switch on the market. You will be surprised at the silent two will be surprised at the silent two price is so low it must appeal to anyone. Itade radius 1½". No. 1921 \$0,29

Panel Switch Lever



with lock style switch level Pes M. fork, Impossible not to make pos-itive contact at all times. The blade radius is 14". Blade is nickel plated and polished. Fork is phosphor bronze. The lock fork is phosphor bronze. The lock holds the screw (in which it tates), securely. tates), securely. No. 200 Complete . \$0.23

Weston Plug \$0.59 POSTPAIO



This is the justly celebrated Weston plug. On the market for years and always giving perfect satisfaction. Cord tips held firm. Cannot pull out unless released by pressure on spring which released the grip.

Bakelite Piug



Mouided plug, chicient speration, good appearance, perfect electrical contact. Cord tips easily inserted in this connector. Value high, price low. No. 9437

Wood Base Switch

SO. 10 POSTPAID

Low price set well made and equipped with spring binding posts in the back for quick connections. Will do anything any other wood base switch will do. \$0.10



Battery Switch POSTPAID

Same as No. 707 except equipped with double point. It is a well made switch and well worth the money.

No. 888 Double Point\$0.15

Nickel Pointer

Made of brass and is nickel plated and highly brass polished. Hole clears 8/32".
No. 726

\$0.05

Switch Lever



No. 728

nickel plated and polished. It is used on our

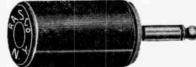
awitch. The new thing about it is that it has a central elongated slot which makes it possible to use it on a radius from 1¼" to ¾", therefore adjustable. Entirely nickel plated and polished. ..\$0.06 Pacent Auto Plug

\$0.51 POSTPAID

Entirely shock-proof.
Entire length of conditions as incased by plus and and an entar semosed. Cord with a size and property of the size are quickly connected and held with a bitting grip. Cannot pull out unless buttons are pressed. Folarity indicated by red and blue push-buttons. Shell is genuine backlite. No serows. Nothing to work loose or cause trouble. Entirely shock-proof

Nickel-plated metal parts.....\$0.51 No. 9363 No. 9400 Gold-plated metal parts..... 1.00

"Rasco" Phone Plug



A solid composition shell plug which usually sells from 75 cents to \$1.00. Nicely finished. Mechanically and electrically right. Patented cord tip holder which holds tips tight. Size over all 3"x1".

No. 1030

Switch Blade



Made of brass, nickel placed and highly polished. Radius 1%" \$0.06 No. 727



For the Famous Oscillating Crystal Circuits

The invention of the oscillating crystal by Mr. O. V. Lossev has created a sensation in radio circles. The following is an abstract from Radio News. Mr. Hugo Gernsbuck. Editor, This this to say about it:

"We are happy to present to our readers this month an epoch-making radio invention that will be of the very greatest immortance within the next few years. It is the invention of a young Russian inventor, Mr. O. V. Lossev. It is now possible to do anything and every-the crystal that can be done with a vacuum tube. The crystal that can be done with a vacuum tube. The crystal that can be done with a vacuum tube. The crystal displace the vacuum tube, of the crystal displace the vacuum tube, of the crystal displace the vacuum tube, of the crystal displace the vacuum tube. The crystal displace the vacuum tube, of the properties of the pure of the crystal displace the vacuum tube, of the crystal displace the crystal cup with perfect contact arrangement and which cup not only slides but rotates with an eccentric motion. By means of the small krystal the cup slides easily so that any point of the contact many other crystal cup with perfect contacts which are creative motion. By means of the small krystal the cup is slides castly so that any point of the contact many other the contact and be modely to unscrewing the small knob. The contact many contact and be called the crystal cup with perfect contact and point to the finest possible degree. The cambination of steel-zincite is the only one the worker is made of primiting against the steel spring. This raises and invers the

with Mounted Zincite Crystal \$0. No. 6901 Natural Zincite Mounted Crystal especially tested for Crystodyne work,

"Rasco" Baby Detector

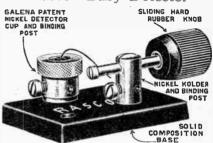


Illustration is full size. Base is solid, black composition, Mounted on same is a nickel holder and bluding post which holds a fluted hard rubber knob with its sliding rod mem-

holds a fluted hard rubber knob with its sliding rod member.

This rod turns in slotted holder, and can be pushed from ne side to the other to move the eat-whisker wire. Cat-whisker is attached by a screw so it can be taken off when desired and replaced. The outstanding part of the Detector is the patented nickel detector cup and binding nost. The knucled cap unserews and you place the galena crystal in the cup, then replace the knucled cap and the galena crystal is held secure. The crystal can be renewed in two evenues. Wire connections can be made quickly. Metal highly nickel plated and polished, Countete in all details. Furnished complete with eat-whisker and one galena crystal. Sizes overall: 1\%"x\1\%".

No. 1898 Detector No. 1899 With Galena and Radiocite Crystals.

Crystal Detector Stand

The one which we offer is perhaps the hest cat-whisker that money can buy. Entirely nickel plated, all brass parts. It takes the swivel adjustment, of the ball-socket type. It is possible to move the arm in every direction. type. It is possible to move the arm in every direction. No. 1350 Unassembled, complete, \$0.35

any standard cup.

Pacent Detector Stand



Dust-proof and easily adjusted. The crystal, is always readily accessible. Top and base are high-grade moulded insulation. Metal parts are highly nickeled. Ideal for refiex circuits, for when once adjusted it does not easily iar lose \$0.40

Permanent Carborundum Detector



Heavy five-pound contact pressure Heavy five-pound contact pressure makes this detector permanently sensitive. Carborundum manufactured by the Carborundum Co., in the great electric furnaces at Niagara Falls, is the only rectifying substance that can be used with a heavy pressure contact; consequently, it is the only material suited for permanent detectors. Built solidly and holds its adventue of the contact of ors, Bullt solidly and holds its adjustment indefinitely. Guaranteed not to "burn out". When used with the controlling unit, Carborundum Detectors excel all other crystals in permanency, efficiency, selectivity, sensitivity, volume and perfect adaptability to any set. No. 9340

This erystal cup is well made and has a knurled set serew. Nickel plated and polished; complete with serew and nut. Fits all standard mounted crystals.

No. 318

Radiocite Crystal

We recommend Radiocite as the best all around radio crystal in existence. The size of this mounted crystal is ½" ½". It contains a piece of the best tested radiocite. The crystal will fit any standard our

PREPAID

\$0.25 No. 317

> Crystal Cups

> > POSTPAID

....\$0.25

Minerals and Crystals

Crystals

We are headquarters in the United States for all kinds of minerals and crystals. We carry a very large stock of all the minerals which we list below. Our long experience in this line is a guarantee that you will get the correct crystal, that is sensitive. All our minerals and crystals come direct from the mines, and we only accept such material that we know has passed rigorous tests for certain characteristics which we know has passed rigorous tests for certain characteristics which we know has passed rigorous tests for certain characteristics which we know has passed rigorous cests for certain characteristics which we know has passed rigorous did find that our crystals, even if sold at a very low price, are superior to many of diose so-called tested ones on the market today, which as a rule are not tested but are simply crystals taken as they come.



Galena (Argentiferous)

This mineral is thought by many to be one of the most sensitive discovered. Used to best advantage by having a fine phosphor bronze or brass wire spring, size about No. 26 B. & S. Press very lightly on the Galena. We curry only a specially argentiferous crystal grade. No. 2001 Per oz.\$0.25

Bornite

Very popular abroad. Can be used with a phosphor bronze contact wire, or with zincite. Marvelously sen sitive.

No. 2000 Per oz.\$0.45

Copper Pyrites

Very sensitive and very stable. Even sensitiveness along whole surface. Not easily jarred out. Uso phosphor bronze contact wire, Guaranteed 100 Per Cent, Pure., No. 2002 Per oz.\$0.45

Zincite

The aristocrat of all wireless minerals. Too well known and too far famed to need to praise it here. Undoubtedly the most sensitive of all crystals. Guaranteed 100 Per Cent Pure.

No. 2003 per oz. \$1.75

No. 2001 ¼ oz. 0.45

Silicon

There are two kinds: Silicon crystals and fused Silicon. The former, manufactured in this country, is absolutely unfit to use; the latter imported by us, is the only kind that should be used. It comes in chunks No. 2006 1/4 oz. 0.20

Iron Pyrites (Ferron)

Our iron pyrites are all imported Spanish stock that may be used for years without deterioration. sensitive No. 2007 Per oz.\$0,40

Mineral Sets

No. 2010 Zincite and Cop-per Pyrites (Perikon), per set\$0.95

Mineral Assortment

Galena Mounted Crystal

RASCO Galena Mounted Crystals are all tested. Each spot is sensi-tive. We use only striated (argenti-ferous) "steel" galena. No. 327

"Rasco" Cat Whisker

\$0.05 POSTPAID

Made accurately of phosphor bronze spring wire, and specialbronze spring wire, and specially recommended for use with our mounted crystals. So cheap that you will not wish to make your own after you have seen them. Can be either soldered to the adjusting screw or the conical wire can be slipped over the screw itself without soldering. No. 4420

Selenium



Gentlemen:

I have sent you several orders in the last few months and have been pleased with the quality of the goods.

FRED COUSINS.

Moravia, lowa,

Tested Radiocite



\$0.30

The most famous crystal in existence. Used by U. S. Navy and all up-to-date and all up-to-date Badio companies. The endly crystal that does not wear out or burn out as do others; as sensitive as galena and more stable. Sold only by the piece: packed in the foll in a wooden box.

No. 900 Per piece\$0.30

HERE IS AN INTERESTING FACT

At the head of our business are men of wide experience and good reputation for knowledge and skill in the radio field. The present management issued the first radio mail order entalog in the United States in 1904. Every man and woman in the organization, from the head engineer to the office boy, is hand-picked. The result is reflected in the superb quality of our products—which are so good that they can be sold on an unconditional guarantee of satisfaction or money back. The large volume of business per year reduces our overhead expenses so that it amounts to very little on each item we sell. This helps explain the wonderful values we give and why you save money in doing business with us.

Magnet Wire



Singl	e Green	Enameled				
_		Per	B.&8			Per
No.	Spool	Spool	Gaug	re No.	Spoot	Spool
2507	4-0z.	\$Ò.50	20	2514	8-oz.	80.45
2508	4-oz.	\$0.55	22	2515	8-oz.	\$0.55
2509	4-oz.	\$0.60	24	2516	8-oz.	80.60
2510	4-0Z.	\$0.65	26	2517	8-oz.	\$0.65
2511	4-oz.	\$1.05	30	2518	8-oz.	\$0.70
2512	4-0z.	\$1.30	32	2519	8-02.	\$0.80
2513	4-0Z.	\$1.85	36	2520	8-02.	\$1.00
			38	2521	1-oz.	\$0.85
			40	2522	4-oz.	\$1.15

Rheostat Wire



\$0.01 POSTPAID

Designed especially for rheostata. A special grade that will not crystallize in use and will always keep clean and bright. The only wife for Rheostats, Resistance is I ohm. per foot. Not less timn 25 feet sold.

No. 1650, per foot....\$0.01

Tinsel Cord



Two tinsel conductors, each of 3 strands of tinsel, insulated by two cotton wrappings. The two conductors surrounded by cotton wrapping. One of the black wrappings has a tracer in color, for polarity. This cord is useful for extension purposes, to connect the loud speaker with instruments, etc., etc.

No. 6450, per foot ...\$0.10

Litz Wire



\$0.02

Litzendraht High Frequency Cable is used more and more for winding coils, and for radio instruments. Made of many thin enameled wires twisted into a thin cable. The difference in results between solid conductor and results between solid conductor and titz cable is tremendous, and can not be appreciated till a trial has been made. No. 893 is used particularly for C. W. transmission. No. 322 and 890 are used in connection with vario-coupler rotors, variocouplers, bank windings, etc. The B & S size given is the size of the cable.

No. 323, 20 No. 38 wires stranded. Double white silk insulation. Equivalent to No.

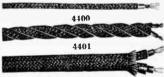
25 B&N, per foot \$0.02 Per 100 feet 1.15 No. 890, Litz Wire; 10 No. 38 wires stranded. Double white silk insulation. Equivalent to No. 28 B&S, per foot \$0.01 Per 100 feet

No. 891, Litz Wire; 48 No. 38 wires braided. Double white silk insulation, Equivalent to No. 21 B&S, per foot.....\$0.03

sulation. Equivalent to No. 20 B&S, per .80.01 Per 100 feet

6 strands of 4 wires twisted and separately silk insulated. Double silk insulated outside. Equivalent to No. 14 B&S, per \$0.12 foot Per 100 feet

Flexible Silk-Covered Rubber Insulated Wire



\$0.02 POSTPAID

1400

We list three styles, two of which are rubber insulated. They are not to be used for telephone receiver work. They are used to make temporary connections on instruments, and can also be used for carrying small amounts of current such as for lighting battery lamps, to connect the leads to the filament of Vacuum Tubes, etc. The Tinsel Cord can only be used for telephone work.

No. 4400, 1 conductor rubber insulated; 14 No. 34 copper wires, green silk cover. 1 conductor rubber insulated; per foot\$0.02

No. 4401, 2 conductors rubber insulated; 14 No. 34 copper wires, silk braid cover in green, per foot

No. 4402, 2 conductors Tinsel Cord. Each conductor insulated with cotton braid, the whole outside covered with green Silk Braid. Used on telephones, per foot

Extension Cord



To enable you to place your loud speaker or phones at a distance from the receiver. Fine quality. Connecting plugs included.

No. 9491	20	feet\$0.89
No. 8818	30	feet \$0.99
No. 8819	40	feet\$1.09
No. 8820	50	feet\$1.19

5-6-7-8-9 Wire Cable



\$0.09

ldeal for connecting receiver to battery placed at a distance as in basement, insulation of each wire marked so you can distinguish instantly. Comes in any length up to 100 feet.

100	reer.		
No.	9494	Per ft.	(5 wires).\$0.09
No.	8806	Per ft.	(6 wires) .\$0.12
No.	8807	Per ft.	(7 wires).\$0.15
No.	8808	Per ft.	(8 wires).\$0.18
No.	8809	Per ft.	(9 wires),\$0.19

No. 8814	(6	wires)	\$0.85
No. 8015	(7	wires)	\$0.91
No. 8016	(8	wires)	\$0.97
No. 8017	(9	wires)	\$1.03

Bus Bar Wire

This copper, tin-plated and polished bus bar wire is square and measures 1/16" x 1/16". Very easy to solder, because the wire is tined already. Comes only in 24" length. No. 6400 10 lengths...\$0.20 No. 6402 Round, 10 lengths\$0.20

Rubber Covered Hook-up Wire

Extensively used for wiring sets Consists of a stranded copper wire size 18, covered with layer of gray black rubber. Smooth, neat appearance. Flexible and easily handled.

No. 4426, 25 ft..... \$0.44

When Comparing
Prices — Remember
we prepay transportation on practically all
items—a saving of
more than 10%

Battery Cable



Consists of five wires of different colors of insulation for convenience and accuracy in connecting your set to the batteries. Rubber insulation covered with woven thread. Highest grade. 2 large storage battery clips furnished.

No. 9003 \$0.79

Battery Wire Assembly



\$0.47

Make your A and B battery connections quickly and casily. Made of different colored rubher and cotton correct insulated whree woven together. Eliminates unsafe and unsightly wiring as when using the old style wires with their ragged appearance. Five feet long. Reaches from table to floor. Can be used with any type of cabinet. Lurs on one end.

No. 9224	(5	wires)							٠				٠				٠	٠	. \$0.	47	
No. 8010	(6	wires)	٠	٠					٠				٠					٠	. \$0.	53	
No. 8011	(7	wires)		٠	٠							٠	٠			٠	٠	٠	. \$0.	23	
No. 8012	(8	wires)								٠	٠	٠	٠	٠	٠	٠	٠	٠	. \$0.	69	
No. 8013	(9	wires)			٠			٠	٠			٠	٠	•	٠	٠	٠	٠	. 30	71	

10-Foot Length Cable

Very indispensable if you intend to install your batteries in a closet, or in the cellar, another room, etc. Length 10 feet.

In teer.																													_			ı
No. 882	21																								٠		٠	3	U.	9	14	
MIA GGS	99																											Φ	э.	, u	,,	J
No. 882	3							٠		٠	٠	٠	٠	٠	٠		٠							•	٠	٠	•	4	1	9		3
No. 88	24	٠	٠.	٠		 	٠	٠	٠	٠	٠	٠	٠	٠	٠		•	٠	٠	•	٠				•			ě	î	4	ì	9
No. 88	25				٠	 		٠	٠	٠	٠	٠	٠	٠	٠	٠	:	٠	•	Ξ		_	_		_	٠	_	-	-	-	-	•

Phone Cords \$0.31 POSTPAID

We carry two styles of telephone cords, as illustrated, one 5 ft. long, the other 3 ft. Made of best tinsel throughout. We do not carry the cheaper and worthless kind of cord, where stranded wire is used, for the reason that constant bending of 'phone cords destroys and breaks these wires in short order, giving rise to terrific amount of 'phone noises. Black only, mercerized cotton. The three-foot cord comes with 2 loops and 2 tips. The loops can be used on 'phones that are made for the tip cord. All that it is necessary to do is to flatten the metal loops by means of a pair of piters, which make a tip out of the

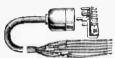
5-in-1 Connector





With this ingenious and inexpensive device attached to the positive and negative phone binding posts you can use from one to five pairs of phones on any radio receiver. The spring sockels grip any phone tip. Loose contact is impossible. Works while loud speaker is in operation. Licensed under Gernsback Patent No. 1,557,248.

Yaxley Cable Connector Plug



Θ

There are 7 vari-colored strands of color which it makes contact. The connecting plate is mounted, as a rule, on the rear of the base board, subpanel, etc. The plug can be inserted or removed at will. As plug can only be inserted or removed at will. As plug can only be inserted or removed at will. As plug can only be inserted or removed at will. As plug can only be inserted or removed at will. As plug can only be inserted or removed at mounted, so plug can be inserted or removed at plug proper is made of genuine bakelite, richly polished. Contacts therein are phosphor bronze, and the contact prongs are brass. Length of cable 5 feet, Your first thought on adapting this device to your Radio is how you could have ever done without it.

83.27

Yaxley Multiplug

\$2.19 POSTPAID

This device fits into the space occupied by any standard house current outlet box—or it may be separately attached to the base-board, near the floor, or, even in the floor itself. The hatteries to which this receptacle are attached, were because the space of the sp

No. 9088 Complete, with Plug ...



Battery Lead Tags



POSTPAID

These little tags are indispensable to any Radio settine and again their use has prevented short circuiting of batteries and blowing out of costly tubes. Illustration is bright allustration.

Screw Eve Insulator



A very handy type of insulator for keeping the lead-in A very manny type of institution for screpting the requiring away from walls or any foreign object. Galvanized from screw. Porcelain insulator. Length of screw 2½ inches.

\$0.09

Lead-in Wire



aerial installation truly complete and efficient

No. 9743 No. 9744 No. 9745

Flexibus Hook-up Wire

\$0.72

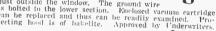
In the early days of Radio receiver construction, square wire connections of bus bar were universally used-and



Brach Arrester

\$1.98 POSTPAID

The price of this very efficient lightning arrester is more than compensated for in the absolute faith you can place in it as a 100% CERTAIN arrester. You enjoy that feeling of complete safety no matter how severe an electrical storm may be raging. It is intended for out-door use, and attaches directly to the lead-in wire just outside the window. The ground wire just outside the hower section. Emblosed vacuum cartridge can be replaced and thus can be readily examined. Protecting hood is of bakelite. Approved by Underwriters.



No. 8999.....

De Jur Lightning Arrester



Moulded of a high heat di-

Moulded of a high heat di-electric material. The ac-cepted commercially used air gap is incorporated in this and is intended for both outdoor and indoor use under any climatic weather condition. Transparent casing covers the air gap. Connections are made to large Fahnestock clips. Approved by Underwriters Laboratories.

"Rasco" Clip Leads



This is a fiexible silk-covered conductor to the ends of which are soldered powerful brass spring ellps. Instead of using wires to make your connections—screwing and unserewing binding posts—a clip lead books in a jiffy onto any wire, and binding post or other conductor to

make a safe experimental connection. Two colors, green arms red, tα distinguish connections. Length of elip lead,

No. 7887 "Rasco" Clip Leads, each\$0.12

"Rasco" Binding Posts



All Cuts Binding **Posts**

Full Size

Well made of composition. Will give good service.
No. 650 has 8/32 machine screw and No. 651 has a wood
screw; both have a hexagonal brass nut in center. No.
202 is nickel plated at bottom and has a machine screw. No. 650 No. 651 ..

Dozen, either style, \$0.50 No. 202..... Each \$0.04 doz.\$0.41





Lock Binding Posts



\$0.25 POSTPAID

screws down and clamps the fluest wire. A clamping ac-tion and not shearing action. Figure 325 shows post closed. Figure 326 shows post closed.



Binding Posts

Our binding posts all accurately de. of brass made, of brass only; illustrations are full size. We have specialized for years in binding posts and will find right you them respect. every

"Rasco"

Slant

Binding

Posts

Each post comes with screw and washer, not shown in illustration. We furnish all style posts, either with nickel plated or brass lac State which style you desire. lacquered.





\$0.05 POST

The slant shaped bottom part gives these posts a very classy appearance, something not seen elsewhere. Top of composition, the bottom brass nickel plated pol-No. 201 8/32 thread

each \$0.05 doz, \$0.50

No. 600 8/32 thread each ...,.. \$0.08 doz. \$0.80



Initial Binding Posts

of 8..

These binding posts are somewhat sin-ilar to to our No 202, only larger and better. Tops are inlaid with white enamel in various denomina-tions. Tops are of full composition full composition bottom brass part,

bottom brass part, nickel polish.
Nos. 122, Antenna: 123, "B". Battery—: 124, "A" Battery—: 125, "B".
Battery-:: 125, "B".
Battery-: 127, Ground: 128 Telephone: each style, \$0.01.

Aristocrat Binding

Post \$0.06 POST The latest style and has been enthusiastically received. Illustration full size. ally received. Hus-tration full size. Hard rubber composi-tion, Fada type knob, nickel plated bottom piece. Brass screw furnished. Will great-

ly improve the ap-pearance of your set. No. 2022 Each . .



201

Spring Binding Posts

A favorite with all experimenters. Absolute contact at all times—simply press down prong, insert wire and the connection is made. Too well known to require much description. All finished in phospher bronze nickeled.

No. 1910 Takes No. 14 B & 8. wire. Wildth 5/16"; screw hole clears 6/32 screw. Each, \$0.05; 100zen Co. Co.

1)ozen \$0.50

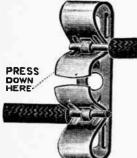
No. 33 Takes No. 12 B. & S. wire. Length over all. %"; width, %"; clears 6/32 screw. Same as No. 44, except without serew. Each. \$0.06; per dozen.....\$0.60



\$0.03

No. 44 Takes No. 10 wire. Length over all, 1": width %"; serewhole threaded for 8/32 serew. Each \$0.03: per dozen, \$0.25

Double Connector



\$0.04 POSTPAID

No. 99 Takes No. 10 B. & S. wire. Length over all 134"; width %". screw hole passes 8/32 screw.

Each .. \$0.04 Dozen .. \$0.38

Panel Post \$0.04 POSTPAID



Can be mounted on panels. Stands upright. One of the handiest connectors made. Has tapped hole which takes an 8-32" screw. Furnished with

post. No. 45 Each ...\$0.04 Dozen ..\$0.40

Engraved Character Binding Posts

If you want the best binding post, here it is. Not only are these Bakelite tops non-removable, but they are beautifully engraved in white enamel, with any of the following

white ensure, the property of the property of the polymers of the property of the polymers of

No. 8914 (State which posts you wish). Each

Indicator Knobs





A most modern knob, used entirely by some of the largest set manufacturers. Has an arrow engraved as shown. Made of black hard rubber composition, of generous size, Total diameter is 1½°. Height over all, 1½°. There is also modded into it a brass insert to take standard quarter.

Twirler Knobs

Favorites with all experimenters. The size of both is: dla. 1\(\frac{1}{6}\)'', height \(\frac{4}{6}\)''.

No. 4451 comes with 8-32 and 10-32 hushing. The No. 199 is furnished with our No. 1200 screw to fit No. 1250 fork, length of screw %".



No. 1451 (at left) No. 199 (at right)

Bushing

POSTPAID No. 791 Bushing for use with our No. 650 poets is ½" dia. x %" high; clears 8/32 screw. No. 791



\$0.06

... \$0.03

Shank Knob

\$0.15

This beautiful knob is a special favorite with all amateurs. It has a nickel shank %" long with a central tole of \(\frac{1}{2} \), side hole is tappes 8-32 for serew. Dia is 1\(\frac{1}{2} \), thickness 9-15". special favorite No. 2401 \$0.15



Switch Handles

\$0.10

handles These handles are used for switches and other similar purposes, No. 95 measures 13/16" high; 5,7 dia; furnished with 8/22 bushing only, No. 59 handles measures 13/16" over 3/32 serew imbedded. These Over



1/16" dia.; has

No. 05 (left)\$0.10 No. 59 (right) 0.04

Fluted Knobs



No. 2054

\$0.15

Our latest fluted knobs with in-serts. The insert is provided with 8-32" bushing. Black composition.

o. 2054. Without shoulder, ¾" high, 1¼" dia., ea. \$0.15 No. 2055, With shoulder, 1" high, 134" dia., each, \$0.15



No. 2055

376 304 305 306 307 377 361 302 303

"Rasco" Switch Points

> \$0.15 POSTPAID

Our switch points are made of brass, nickel plated and polished. The following nine sizes have been found the most popular. Illustrations are all full size. Size may be ascertained by measuring cuts.

Doz.

plete with nut. \$0.15
No. 376, New style Switch Point, to be pressed into bakelite panels with forced it. Wire is soldered to pin end. Head 3/4" diameter; 1-16" thick ... \$0.15
No. 377, same as above, but head is 3/4" diameter by 3-16" thick ... \$0.15

"Rasco" "Jiffy" Jacks and "Jiffy" Plugs



\$0.15POSTPAID

JIFFY JACKS are the simplest, and most efficient Cord Tip Jacks ever designed. Stamped from a single piece of metal they grip any style cord tip from any make phone or loud speaker. The JIFFY JACKS take minimum room. Drill two small holes in your panel and room the JIFFY JACK with screw and nut furnished. No soldering neces-

sary us the wire goes right on the screw, X-ray view shows how two of the jacks are used in conjunction with our lifty cord plug. The jacks go on in back of panel, only screws show in front. Made of best spring brass that will not wear out. Hundreds of other uses mr our JIFFY JACKS, We will pay \$1.00 for every new use for JIFFY JACKS that is accepted by us.

JIFFY PILTGS are made of semi-hard rubber into which the tips of your phones or loud speaker are pushed. Thesapest and simplest plug ever designed. Its small size and neatness made it famous overnight. Size I' long, ½ wide and ½ thick. No tools required. Jus wet the metal cord tips and push through openings. Ping can be used with any standard cord tip jack, but best with RASCO JIFFY JACK.

No. 4875 Two Jiffy Jacks with nuts and

No. 4875 Two Jiffy Jacks with nuts and screws and one Jiffy Cord Plug......\$0.15
No. 4870 One Jiffy Jack complete with

No. 4871 Jiffy screws, two for 0.05
No. 4860 Rasco Jiffy Pings (semi-hard rubber part only) 0.10

Gertlemen:
RASC) Service is sure all it is cracked up to be. I have received three different orders from RASCO and takes an order from another company, which was sent in before the first RASCO order as still waiting for an order from another company, which was sent in before the first RASCO order as still waiting for an order from another company, which was sent in before the first RASCO and takes as a still waiting for an order from another company, which was sent in before the first RASCO and takes as a sent in before th

"Rasco" Name Plates

Our name plates are of brass with a black background. Letters are polished nickel, standing out strongly against black background. Each name plate has two screw holes. They are well made and will outlast your outfit. Order by name and number. Name plates measure 1"x2\%".

No. 839 "Increase Current" No. 840 "Increase Current" (Right) (Left) No. 806 "Phones-Horn Off"

Each Style \$0.08



PHONES - HORN-OFF

PLOAD'G COILE

EACH STYLE, \$0.021/2

Price of all our name plates, in dozen lots 25c., with he exception of the two "Increase Current" Plates, and 'Phones, Horn, Off." the price of these is \$0.75 per doz.

"Rasco" Binding Post Name Plates



Here is a name plate that goes under your binding post, that fits any binding post, and looks good no matter what type of post you use. The RANCO Binding Post Name Plates can be mounted on all instruments, and on account of their small size greatly enhance the appearance of your set. Each denomination is repeated twice on each Name Plate. It is thus possible to read the designation on a panel above and below the binding post. Illustration is full size. No. 6000, "Phones,"

No. 6001, "Ground,"	No. 6011, " +, "
No. 6002	No. 6012, "Input."
No. 6003. "Output "	No. 6013. "'A' Battery +
No. 6004, "A' Battery-	No. 0013, A Dattery +
No coor will have	No. 6014, "B' Battery + "
No. 6005. "B' Battery-	No. 6015, "Loop"
No. 6006. "Loud Speaker"	No. 6016. "Tickler"
No. 6007. "Grid."	No. 6017. "Plate"
No. 6008. "Load"	
No 6000 ******	No. 6018, "'C' Battery + "
No. 6009, ""C" Battery-"	No. 6019. "Filament"
No. 6020 New "A" Battery+	, "B" Battery
All Styles	\$0 02
The state of the s	· · · · · · · · · · · · · · · · · · ·

"Rasco" Vacuum Tube

Dozen Lots

Sockettes

Substitute for Vacuum Tube Sockets



...\$0.20

A distinct novelty, originated by us. Four make a complete Vacuum Tube Socket for panel mounting. The Sockettes are used on panels and abases where there is a scareity of room, as when many tubes are to be mounted in a small space. Positively the best means for making contact, and holding tubes. The reason is clear. In all other sockets contact is made only by the lower tips of the Vacuum Tube touching the flat until the foliar tubes of the panels of the Vacuum Tube touching the flat cat and this contact surrounds the entire curface of the pin. If you have ever been exasperated by the holes of the touch parts, which gives enough springiness to allow sufficient variation for the varying thickness of the tube contact pins. To mount, take your tube and press it down had on a piece of paper. This gives the exact location of the four pins. Secure the exact center of each pin, by meant Them

plece of paper. This gives the exact location of the f pins. Secure the exact center of each pin, by means a pin prick punching right through the paper. T transfer the piece of paper, on the panel, and duplicate the location of the holes by another pin or sharp instrument. Then drill your holes, insert the Sockettes, and the job is done.

Two brass nuts are furnished with each Sockette, and when connections are made to these brass screws underneath the panel, no better contact is possible. Once you have used the Scokettes you will never do without them. They hold the tube with a vise grip. One set of 4 Sockettes is sufficient to hold one Vacuum Tube. No. 1550 made to take the Stand-Tube. No. 1550 made to take the Standard U.X. base, long prong (or I'.V. base), tube.

No. 1550, Brass Sockettes, nickel-plated, per set of 4

World Radio History

Panel Light



A great convenience for certy Ratio set. The set can be placed in any part of the room, independent of the lighting within, as this Panel Light illuminates the pials with a pleasing effect. Consists of a handsome reflector and metal sorket, One hole manning socket. One hole mounting,

	-	4:[A1[3 N114:(L.	1.
No. No.	9707 9776	Less bulb	

Bruno Light Switch

This instrument combines both a battery switch and a ruby pilot light which glows in an attractive manner when the switch is turned on. This is a truly one hole mount device, for the glow is visible through for the glow is visible through the center of the switch but-ton. Its cost is insignificant in the saying of batteries it effects, warning you that your switch is ON, and should be turned off. Red ruby jewel supplied. Uses our No. 9776 6-volt bulb.



\$0.73 No. 9777 Without Bulb . . .

Pilot Light



The Pilot Light is practically in-dispensable on any set. Tells a glaure when tubes are lift from the front bullet has preventing from the properties of the pro-yet Radio is not in operation. Single hole mounting. Attractive as well as useful. No. 9775 Without bulb. \$0.35 No. 9776 Gentle bulb. \$0.35 The Pilot Light is practically in-

No. 9776 6-volt bulb for\$0.30

Omnigraph



Model 4

order to own transmitter either for phone or key (code), you must be able to transmit and receive code messages. And there is a new World awaiting you, as soon as you start trans-mitting—for you soon

every corner of the Union, especially on the ever increasing popular short wave band. The New Omnigraphonoisists of a dependable clock motor, which revolves a consists of a dependable clock motor, which revolves a turn table upon which are nested removable plates, on the edge of which raised characters cause the machine or "transmit" to you its message which you decipher. The speed of this turntable is governable from 5 words to 50 words a minute at will. The spring runs motor for 45 minutes. Complete with 5 Dials, Size 8 inches by 6 inches by 5½ inches. In a short time, you can apply for a license (no charge), this machine having outsity taught you the code. No. 9638. \$22.85

Miniature Bakelite Base Knife **Switches**

POSTPAID



These knife switches can be adapted for many purposes. They are the most compact switches made, yet their insulating qualities are as dependable as switches twice their size. Mechanically and electrically perfect. Base is genuine Bakelite—all metal nickel plated. Binding post connections provided. A comparative suggestion of their compactness can be given by mentioning the size of the No. 9604 switch, 2½ inches long by 1% inches wide.

		_			_	
No. 9070	Five Pole, Double Throw					. 1.90
No. 9069	Fire Lois, Smile Lutan			٠	•	1.0
	Five Pole, Single Throw					1.71
No. 9068	Four Pole, Double Throw					. 1.31
No. 9067	Four Pole, Single Throw				٠	11.7
	Tiple I me, Dodote Tittowitt					1.4
No. 9066	Triple Pole, Double Throw					. 1.13
Na. 9065	Triple Pole, Single Throw					. 0.99
No. 9064	Double Pole, Double Throw		٠			. 0.01
	to the factor family Theory					0.83
No. 9063	Double Pole, Single Throw					. 0.6
No. 9062	Single Pole, Double Throw					. 0.3
No. 9061	Single Pole, Single Throw		٠	۰	٠	. 40.7
	by 1% inches wide.					\$0.4

Porcelain Base Throw Switches







No. 9859 No. 9858

No experimenter can afford to be without a full supply of these most necessary switches—for many purposes. Genuine high insulating quality porrelain bases. Copper contacts. Wood knobs. Fibre insulation cross bar. Terminal screw connections. No 9858 measures 2% leader with the 4 many leaves.

 contacts.
 Wood knobs.
 Fibre Insulation cross bat.

 Terminal screw connections.
 No 9858 measures 2%

 Inches wide by 4 inches long.
 No. 9855 Single Pole—Single Throw.
 \$0.23

 No. 9855 Double Pole—Single Throw.
 \$0.33

 No. 9857 Single Pole—Double Throw.
 \$0.33

 No. 9858 Double Pole—Double Throw.
 \$0.30

 No. 9859 Triple Pole—Double Throw.
 \$0.49

 No. 9859 Triple Pole—Double Throw.
 \$0.97

Time-Lite Radio Clock Switch



POSTPAID

Herein is contained not only a very efficient and highly ornamental clock, but an automatic, controllable means of predetermining the exact

trollable means of predetermining the exact
off. Prevents the oversight of allowing your tubes to burn
all night. Does not require any current to actuate its
own mechanism. Takes one moment to install—adaptable
to any and all receivers. Keeps perfect time. An attractive ornament for any mantelplece—the case is hand
rubbed, and hand polished mahogany finish.

\$7.48



Pandora Crystal Receiving Set

This is not a toy, but a scientifically correct crystal detector receiver. Simplest detector receiver. Simplest operation—no batteries ever required. Complete. Pair of head phones and aerial only required. Can only be used where local broadcasting stations are no further than 25 miles. Handsomely finished in rich Russet Bronze. Binding posts and trimmings, are bright lu-tre nickel plated. Overall size 3 inches in diameter by 5½ inches high.

No. 9982.... \$1.73

Radio Tools

No. 8792 SIDE CUTTING PLIERS. \$1.19



Indispensable for cutting wires in cramped quarters — for stripping insulation, etc. Forged and tempered.

No. 8793 SQUARE JAW PLIERS \$1.49



The handy all around tool, should be in every experimenters tool kit. For ged from crucible steel. Knurled gun barrel handles,

HEXAGONAL NUT No. 8794 WRENCH

\$0.29

For tightening bexagonal nutthe projecting serew fits into hol-low of handle. For 4/32, 6/32, nuts. State which size you are ordering. 8/32 and 10/32 nuts.

No. 8795 RATCHET SCREW DRIVER \$0.99



The advantages of an automatic ratchet serew driver are well known. Ratchet mechanism is per-

Ground Clamp



\$0.23 OSTPAID

No more laborious scraping on the paint or rust on your ground pipe, for proper con-tact thereto! The hardened steel points on the screw and frame bite into the metal, as-suring a perfect contact. In No more laborious scraping off suring a perfect contact. In a few moments, the job is over. Will fit any pipe, 14 inch to 114 inch in dra-meter. Terminal screw connection on frame.

\$0.23 No. 9929.....

"No-Sod-er" Wires

(O)

The use of the up-to-date "No-Sod-er" wire connectors makes easy what until now has been difficult and annoying in many cases. Besides it gives you a better connection than nearly all cases where solder is used. Made of highly insulated flexible stranded copper wire, with brass eyelets. Order the quantity of each length you desire.

Length, 2, 3 or 4 inches, cach.. \$0.04 Length, 5, 6 or 7 inches, each.. \$0.05 Length, 8, 9 or 10 inches, each.. \$0.06 Length, 11, 12 or 13 in., each.. \$0.07 Length, 14, 15 or 16 in., each.. \$0.08 Length, 17, 18, 19 or 20 in., ea.. \$0.10 No. 9571 No. 9572 No. 9573 No. 9574 No. 9575 No. 9576



Nail-It Knobs \$0.09

This insulator is made of good quality porcelain, and has a nail through its center for driving into wood, stone, etc. The wire is set into the recess shown and the upper section of the insulator is then closed tightly upon it. Very useful. \$0.09

Brach Totem Pole Antenna

No. 9795.....



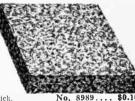
\$5.68 Where conditions will not permit the erection of an aerial, the Brach Totem pole can be installed in a few minutes, with superior results. Stands about 44 inches high, and very robstantially built. It consists of a non-industric wound coil of enameled wire, sclenifically and theoretically designed to serve as the most suitable substitute for an antenna. Can be mounted at any angle, or erected like a flag pole. An adjustable iron base, clamp, screw eyes and 25 feet of guy wire are functuded with this instrument. Shipped express collect, due to excessive weight involved. collect, due to excessive weight involved.

\$5.68

Sponge Rubber

\$0.10 POSTPAID

Some tubes are notorious for the ringing sounds they give out due to jarring. The use of our sponge rubber cushion will elimin. ate the noises. Use one piece for each tuhe. Size 2 14 "x 3" x 34 " thick.



Antenna Spring Tightener

PER PAIR.

Consists of two poteclain high insulating quality insulators, rigidly attached to both ends of a coil spring, which takes up all slack, or yields, if either end of your antenna is attached to a swaying tree limb or clothes pole. Over all length about 9 inches.

No. 9796. Per Pair \$0.45

"Rasco" Radio Cement



\$0.36 POSTPAID

For all radio work. It is high ly insulating, water-resisting, and quick-drying. Used particularly ly insulating, water-resisting, and quick-dryine. Used particularly for cementing covered wires together. A cutton or silk wound coil is wound upon any form, while the form is tirst covered with a piece of thin paper. Then the wire is wound on top of this. Apply the Cement by means of a brush that comes with the hottle. The General water form can be removed in twenty form can be removed in twenty minutes. The paper is then removed from the inside of the collad mother coat of Cement is applied to the inside. You now have wire form that holds together without any visible support. Variocouplers, loose couplers, etc. can thus be made without using the usual tube or mandrel. The furnish enough t'ement for many

bettle will windings No. 1750

Spring Clips



\$0.12

rne amateurs' favorite. Three sizes. No. 2222 is provided with new handy lug to slip under bind-ing post. The others are plain.

"UX" Tube Bases

POSTPAID

For the serious experimenter who wishes to assemble his own plog-in colls, these bakelite "pluga" are indispensable. After the coll is mounted within the hollow of the base, the "plug" can be inserted into a tube socket, or into our No. 1550 Sockettes. Contact pins are 9/16" long. The plug measures 1%" in diameter by 1%" high.



\$0.15

Sliders \$0.18 POSTPAID

of this patented sliter probably more have been sold than of all others combined. It is furnished with ball and spring. Holder lite %" square rod, the size over all 18 %" x %" x %". Comes in red and black rubber composition only.

No. 875 Rhee's No. 875 Black\$0.18 No. 876 Red\$0.18



"Rasco" 16-in-1 Radio Tool



Here it is! Here is a tool that does 16 different things and does them well. A tool that does practically everything required in building your radio set. The tool is built of hardened steel, exactly as per illustration, highly tinished. Here are some of the use: 1. Screwdriver. 2. Center punch. 3. Countersink. 4. Bus har and wire hender. 5. Hus har and wire hender for 8-32 screw, 6. Bus har and wire hender for 8-32 screw, 6. Bus har and wire hender for 8-32 screw. 15. Socket wrench for 6-32 nuts. 10. Socket wrench for 6-32 nuts. 10. Socket wrench for 6-32 nuts. 10. Socket wrench for 6-32 nuts. 12. Screw gauge for 6-32 screw. 13. Screw gauge for 6-32 screw. 14. Screw gauge for 10-32 screw. 15. Kersew gauge for 10-32 screw. 16. Knife for wire skinning.

These are only the important uses of the tool, but many other uses will readily suggest themselves to every radio experimenter. You will wonder how you have gotten along before without the 16 in 1 radio tool. Size 4% x 1½, in. No. 4800 Rasco 16 in 1 Badio Tool \$0.27 each Here is a tool that does 16 different Here it is!

each

Radio Dial Button



Fur you and every radio enthusiast the new radio dial button has been created. It identifies you immediately and will help you to become acquainted. %" in diameter. An exact replica of a standard modern radio dial. Raised knob, dial graduations are like the best radio dial. "RADIO" is set in gold. The dial is best black enamel. Lettering, figures and graduation marks are liald gold on enamel. The knob part is also in gold. Best gold plate is used. Equipped with a serew back

Set of Drills

These Carbon steel drills are for use in our or any standard hand drill, being the most widely used sixes. This set of four drills consists of one each: 4/36, 6/32, 8/32 and 14/20 serew, for clearance thereof.

No. 9046 Set of four drills

\$0.59

"Rasco" Universal Bearing \$0.25 POSTPAID



Bearings designed by us to fill a distinct need. We have often felt that it was necessary to have a bearing and bushing combined when we mounted certain apparatus directly on the panel. Useful with rotors, theostats, in connection with noneycould coils, for various other coupling purposes, and dozens of other uses. A few of brass, and comes in five parts, inner shank, bushing that holds whole device in panel, large washer, which screws against inside of panel, and two hexagon nuts to secure the work to the center of shaft. The illustration of the Bearing is full size. The outside of the shaft is ½"; the length of the thread is 1"; the total length of bearing is 2½"; the length of the thread deseve is ½" over all. Made heavily of brass throughout. So strong it will hold up a heavy rotor without sagging.

..... \$0.25

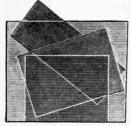
"Rasco" Cardboard Tubing \$0.20 POSTPAID

I sed to wind inductances, to make tuning coils, loose couplers, vario-couplers, etc. This is the only kind that will stand up. It is not the ordinary spiral-wound tubing subject which is worse than useless. No straw-pulp, well seasoned and so the only seamless tubing made in the United States. Wire wound upon our tubing will never come loose. Tubing dors not shrink; new ordinary tubing will never come loose. Tubing will never come loose. Tubing the same strength to the tube and it is almost impossible to crush it. Used to wind inductances, to make

possible to crush It.	
Inside dia. Outside dia. Length	
No. 6600 3 31/4 7	en oo
	\$D.20
	0.25
No. 6609 917	
	D.18
No. 6603 334 4 5	
31 - 440.4	0.20
	0.35
3 234 3 234	0.15
No.6600 fits into No. 6601 for loose co	
No. 6602 fits into No. 6603 for loose c	upierg.
nto No. 6603 for loase c	anuler
No. 6605 is used as a variocoupler rot	in the R ?
con be word suith his against upler rot	

can be used with No. 6604,

Mica \$0.01 POSTPAID



We carry the best grade of elec-trical mica only. Sheets can be trical mica only. Sheets can split readily into any thickness.

									J	ľ€	r sheet
No. 860											\$0.01
No. 861		"									\$0.01
No. 862											\$0.02
No. 863	21/4"x3	"					٠				\$0.04
No. 864		٠				,					\$0.07
No. 865	4"x5"		٠	٠	٠			٠			\$0.10

Zinc Spark Gap End

These are used on spark gaps. The plugs measure %" x %". tapped 8/32 thread. They are machined accurately and well worth attention.

No. 324 Each \$0.04 \$0.40

Dial Marker \$0.05 POSTPAID



l'sing our patent dial marker you do not need to spoil your panel by scratching a mark. Hustration full size. Made of a single piece of brass with shank to take a nut. Just drill a single hole, mount the marker point. tighten up nut on back of panel and that is all. Heavy milicul-in line takes place of the old scratch line. Point is nickel plated. It improves appearance of set. Thickness 1/16". Mount with tip nearly touching dial.

No. 7788 \$0.05 3 for 10c

Metal Panel Scale



Heavy brass stamping, large black figures, readily distinguishable. Total diam, 3%", width ½". 3 holes for attacking attaching.

No. 725 .

Micanite Tubing

\$0.86

Needed wherever a very high grade material is re-quired. This Tubing is especially suitable for C. W. work, on account of its exceedingly high in-sulation quality. Nothing

better on the market at any price.
The color is natural, a very dark
brown. It is scannless and smooth
inside and outside. It can be
readily machined, drilled, etc. The
thickness is 3/32".

No. 250, 4" dia, by 6" long,

Each No. 251, 6" dia. by 6" long.

We recommend for C. W. trans-pulsation either of these two and our No. 893 Litz Wire.

Metal Panel Scale



A very neat 90° metal scale made entirely in brass. Silver background. black letters. Size 232".

\$0.10 No. 715

Gentlemen:

To my satisfaction and happiness I forgot to write you that I received the merchandise in excellent packing. I wish to thank you for your service in handling my order for radio parts. They are still better than I expected and also the big, clear blueprint you sent. I am recommending your service to my friends. Have also given away your entalog. Wish you would send me another one of your Radio Set catalogs, and some order blanks.

DELFIN PIOPONGCO.. Pasig Risal, P. I.

"Rasco" Set Builder's

Assortments

This Lug Assortment includes tifty of the most important higs for the man who "Builds His Own" as follows: 10 higs for 8-52; 10 for 6-03; D0 prong lugs (solderless) 6-32 and 10 8-32; 10 flat 6-32. All lugs are tinned.

.....\$0.48 No. 4996 Here is an assortment that veryone building a radio set teeds, Includes the following: 12 Assorted "Perfect" Lugs, 6 Grid Leak Mountings; 4 Dial Markers; 6-1475; 6-1476; 3-1490; 2-1505 Brack-ets, Price of all separately, \$1.32.

No. 4997\$0.68















Adapter Bushing

Designed so that a dial or other attachment normally equipped with a 4%" bushing can be fitted to a 3-16" rod. Slotted so that it will take up slight unerenness of rods. Perfect fit assured. Comes only ½"

\$0.04

No. 8866

Phone Tips

No. 315, Standard Telephone Cord Tip, nickel plated and pol-



Per Dozen

Separable Cord Tips



Replaces the usual cord tip, or when it is necessary to make con-nections with flexible

ronductors. Requires no solder. The floxible wires are bared and inserted in one end of the ferrule, then the shank is screwed in. Wires can't pull out. \$0.06

"Rasco" Radio Brackets

Can be used to hold tuning cold taning cold tuning cold tuning cold tuning cold to the spider webs, etc.; to hold up panels; to attach various instruments to base-boards and in many different ways. different ways. metal, nickel-plated and carefully fin-ished. Illustrations arc half size. Thickness varies. Where special strength is requir-

ed we recommend Nos. 1505, 1506, 1507 and 1508. All

1507 and 1508. All of these are heavy brackets made for the best outfits to hold heavy panels or heavy sub panels. Thickness of all of these is a full 1-16". Brackets Nos. 1475, 1176 and 1490 are lighter and are not for such heavy duty work. Bracket No. 1509 is really not a bracket but is used in connection with all our grid leaks. Two of these are mounted opposite each other and go directly on the panel or sub panel instead of using separate insulating pieces. It is the cheapest and most practical grid leak mounting. Made of spring phospher bronze. No. 1475 is used to attach all cardboard or bakelite tubes (inductances) to panels. No. 1476 is used for the same purpose. Bracket No. 1508 is used for special work and can be bent by the builder into any form. Note particularly that all brackets are nicely nickel plated. Note particularly that all brackets are nicely nickel plated.

.\$0.03

No. 1507 wide. Each No. 1508 No. 1509

wide. Each ... Dozen lots, each style 20% discount.

Brass Nickel Plated Screws



\$0.02 POSTPAID



1200 1300

1400 8-32

No. 1300, Screw, 8/32 top, wood screw bottom, ronductors. Requires no solder. The fischibe wires are bared and inserted in one end of the ferrule, then the shank is screwed in. Wires can't pull out. \$0.06 | lock fork No. 1250, each ... \$0.02 No. 1400, washer head iron machine screw \$0.02en ... \$0.35 | %" long, each ... \$0.01

Threaded Brass Rod

\$0.06

We carry two styler, 6-32 and 8-32 thread, Only 6" [Ingth told, No. 8032 8/32 thread, per 6" length ...\$0.06 No. 6032 6/32 thread, per 6" length ...\$0.06

Brass Strip

This strip is particularly handy for the experimenter, and is a size for which we have had much demand. Width \(\frac{1}{2}\pi^2 \), 1-40" thick; comes in 6" lengths only. No other sizes are furnished.

No. 1430

... \$0.10

Brass Tubing

To satisfy an insistent demand we are listing this buse of tabling, favored by all radii experimenters and used particularly in connection with variocouplers, etc. Outside diameter, 2:16". Inside diameter, 3:16". Course only in 6" lengths. No other lengths eter, 3-16 furnished. No. 1431 \$0.15

Round Brass Rod



We carry only two sizes of plain round brass ted; 3-16" and by diameter. Both are popular with radio construc-tors, as each can be used with variocouplers, variometers, as shafts, bearings, etc. Furnished only in 8-inch lengths, No other sizes furnished. Ends carefully milled and

squared. No. 1425 1/4" ... No. 3616 3/16"

"T" Wire Connector



This hig little article will selve year problem when making "T" wire cennections. Mickel platrd brass, Tanke without solder but you can solder ever the connector if you wish. Illustrations show how connector is attached to but-bar wire. It is made to take wire 1-16" square or round wire 1/16" diameter. A pair of pliers is all you need, This "T" wire connector will give your set a workmantike appearance. Now used when arily all the largest set manufacturers.

No. 2915. dozen

Switch Handle



This switch handle is of a well known design and has hard rubber knob. Almost nutral parts are nickel plated, center from knob to center of serew is 1\(\frac{1}{2}\epsilon^2\). Used on panels in connection with switch points.

Hexagon Nuts







We specialize in Hexagon Nuts. We furnish the best kind only, in six sizes, 4-36, 6-32, 8-32, 10-32, 10-24 and

Nos.		and	6-32.	per	dozen			 \$0.	05
Nos.	8-32	and	10-32	, pe	r doze	n.,		 0.	96
Non.	10-2	4 and	1 12-2	4, p	er doz	ten.	• • •	 0.	15

"Rasco" Brass Washers

\$0.05 POSTPAID



These washers are standard and are accurately stamped and as flat as it is possible to make them. The experimenter recognizes that for many pur-

poses warped washers poses warped washers are worse than useless, particularly when they are used for spacing purposes, etc.

Cat.	Clears Size of Machine Screw	Out- side Diam- eter	Inside Diameter	Thick- ness	Price Doz.
19	No. 4	9-32	.125	.025	\$0.05
63	No. 6	3-8	.150	.032	0.05
83	No. 8	3-8	.170	.032	0.10
107	No.10	7-16	. 195	.036	0.12
121	No.12	1-2	.228	. C40	0.15
149	No. 14	9-16	.260	.040	0.18
165	No.16	5-8	.285	.040	0.20
181	Ne. 18	11-16	5-16	.051	0.22
203	No.20	3-4	11-32	.064	0.25
Not le	No.24 ss than 1	7-8 dcz. rold.	.385	.064 dis. in	0.30 100 · lots.

"Rasco" Lock Washers







Made of physician hymze. Split as shown, but the two that surfaces are not on the same plane; there is a difference of about 1-18". When the binding post or serew is driven in tight against the lock washer, the latter is always under tension which is not possible with other devices. The washers are about 1-32" thick when commercial

No. 3001, for 4/32" serew, doz \$ No. 3006, for 6/32 serew, doz	0.05
--	------

Lock Nuts

\$0.04 POSTPAID

Something new, Screwed down, will never loosen. Numerous uses readily found for this useful article, Brass, nickel plated. For 8-32 only.





No. 312, Lock Nut, each .. 80.04 0.40 Dozen No. 313, Wing Nut, each . 0.04 0.40 Dozen

Lock Fork



I'sed on switch No. 200 and

RASCO STANDARD LUGS

"Perfect" Lugs



\$0.02 POSTPAID

Made of biass tubing and flattened the ends. To attach lead wire hold Made of biass tithing and flattened at the ends. To attach lead wire hold the lug by the flat end with a pair of pilers and heat over an alcohol, gas or match flame and when sufficiently hot, insert a little solder in the tube part with a little flux. Then insert the bare wire. When cool you have the most perfect connection. Shown full size and will take up to 10-32 serew. Fully nickel plated and will improve the looks of your set very greatly. Very popular.

No. 3110. Open \$0.02

No. 3110, Open\$0.02 No. 3080, Closed\$0.02 Dozen\$0.20

\$0.06



Brass, nickel plated, used for making connections. Only for 6-32 screw. No. 308, dozen\$0.06

No. 309, Copper Lug, made in 3 styles for No. 4, 6 and 8 screwsdoz, \$0.10 No. 310, Brass Lug, made only for No. 3 screw

\$0.10 dozen No. 311, Copper Lug comes for No. 6 and No. 8 Machine Screw

"Rasco" Nosolder Lugs





This small lug, shown full size, grips either round or square bus har with a vise-like grip. Hus bar can now be connected or disconnected in a jiffy direct from the lug. It saves at least 25 per cent of time and when it comes to dismantle your set you do not have to throw away your bus bar wire for it can be used all overagain. Soldering is positively done away with. Perfect contact. The tension always powerful, yet it is easy to slip the bus bar wire into the frieting grip. Use No. 15 square or No. 11 round bus bar for best results. Finally, if you insist on soldering, you'll be pleased to see that the lug is fully tinned.

No. 3727, Ten only \$0.05

Cap Nuts



\$0.03 POSTPAID

No. 314, Nickel plated brass cap nut, 8-32 or 6-32, each,\$0.63

Thick Brass Washers \$0.04 POSTPAID

All washers are brass, nickel plated and polished

No. 340, 7/16" dia.; 1/6" thick; 3/16" hole, each......\$0.04 No. 341, 7/16 " dia.; 1/16" thick; hole for No. 10 screw .\$0.02

Screw and Lug **Assortment**

50.39 POSTPAID
Contains I 0 0
pieces, all handy, in useful
standard sizes.
Includes a goord
assortment of all
standard screws, copper lugs, m s
chine screws, wood
strews. All screws All screws tilated Cheapest

buy you could think of. Saves time, trouble and money. No. 9413\$0.39

Copper Foil



fiscful for many experiments, such for instance, condenser work, fiscful for many experiments, such as, for instance, condenser work, where it is often necessary to have a material that is better than tinfoli, which latter has not a high conductivity, whereas copper, being the second best conductor, is much superior. Very flexible, and the best made. Annualed, and can be flattened out perfectly. Any length, but only 4 in, wide, Thickness, 001 inch. No. 5025

Per running foot \$0.10 10-ft, length 0.80

Copper Ribbon



This ribbon is used for connecting and other purposes and is .005" hinck. Not less than 10 feet sold. No. 700 %" wide, per ft, \$0.01 No. 701 ½" wide, per ft, .01 No. 702 3/16" wide, per ft .01

Silicon Steel

\$0.08

POSTPAID

This is an article for which we have had much demand. Silicon steel is specially used for transformer purposes, and is now used in all er purposes, and is now used in all audio frequency transformers. It is a much better material than soft iron sheeting, as it will not giverise to eddy currents as much as iron. Exceedingly soft. Can be cut with pair of old selssors. One size which is standard—2%" wide and 007" thick, the foot only.

No. 4900 Per sunning foot.

No. 4900 Per running foot



\$0.08

Tin Foil



Standard for all electric purposes. We earry two grades. The thin type running 1,500 sq. ins. to the bit is suitable for all radio receiving condengers, and heavy type, 700 sq. ins., for transmitting condensers. Per pound:

No. 851, Heavy

VACUUM TUBE HOOK-UPS

In the following pages will be found 75 of the most important V. T. Hook-ups. Only the best and most popular hook-ups have been tilustrated and described. Special hook-ups furnished at \$0.50 each.

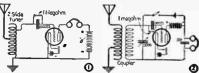


Fig. 1 This is the simplest VT hook-up. K is the grid condenser and I the grid leak. For a Radiotron I V 200, the capacity and leak 1002 me and the simple simple simple simple specification Fig. 2 shows how a VT detector is connected that the simple simp

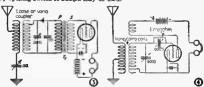


Fig. 3 is a simple circuit for a crystal detector and a one-step ampli-fier. T2 is an amplifying transformer. The secondary is connected to grid and negative side of the filament. Fig. 4 is the typical regenerative circuit; a coil having about 2-3 or % the value of the secondary is connected in the plate circuit. The coupling is critical and gaves a high amplification. With tight coupling, undampt waves may be received.

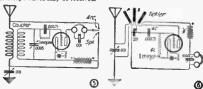


Fig. 5 is a circuit in which the primary of a loose coupler is used as plate inductance; by means of a switch it can be connected between the 'B' battery and the plate, allowing the reception of undampt waves. Fig. 6 shows the typical hook-up for three honeycomb coils and a VT detector. The functioning of this circuit is explained in Fig. 6.

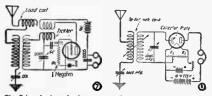


Fig. 7 is a hook-up for long waves using a short-wave coupler. In this case, the primary is loaded with a coil and the secondary wavelength also increased with an additional inductance coupled to a plate coil for the reception of undampt waves, as explained in Fig. 4. Fig. 8 is a receiver using a soilon tube detector. Our No. 3155 Vario-Robert permitting were lossed coupling in necessary, and the secondary should have little resistance. R2 is 100 ohms and R3 200 ohms.

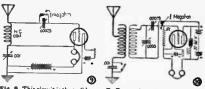


Fig. 9 This circuit is the well known De Porest ultraudion. A single in-ductance is used with a .0015 or .002 n.ld. variable condenser in series. This circuit is particularly unitable for portable sets where little space is had and where simplicity is required. It is not a surface of the circuit of the coupler. This circuit occiliates on surfaced or circuit to wondampt waves to be received with a loose coupler without any external inductance.

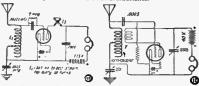


Fig. 11 is a single circuit regenerative review in which our No. 5350 varonteet is employed to obtain regeneration. This circuit is very simple to assemble and may be built in a compact form for circuit is very Fig. 12 is another simple hookup for a loose coupler to receive undampt waves and spark signals. The coupling between the coil T and the primary should be variable.

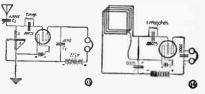


Fig. 13 is another simple regenerative receiver in which our No. 5350 variometer acts as the tuning and the feed back coil. A connection is taken at the contacts between the fived and the movable coils. Fig. 14 is the hook-up for a loop arrial with a VT detector especially adapted for long waves. By connecting the positive side of the filament to the center of the loop, the set is made to oscillate for the reception of undamnt waves.

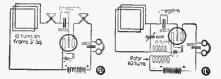


Fig. 15 When a loop is used for the reception of short waves, it should consist of two or three turns only and the tuning made by variometers or variable inductances in order to have a regenerative effect. Fig. 16 is the Armstrong circuit used in conjunction with a loop aerial. By tring inductances of suitable size, this circuit is equally efficient on short or long waves.

Gentlemen:
Enclosed find the sam of seventy cents (\$.70) for which please send me one 30-chm Rhoestat No. 4311 at
44e, as advertised in Radio News. Also, one 6-299 type Bakelite socket, No. 6511, far 26c as advertised in your
No. 12 catalog. We did like to say that the No. 3100 vario-coupler, which received a short time ago, is see
of the most wonderful instruments I have ever had. I was almost afraid to buy it, it was so cheap, but now
can see that it is equal in value to a \$4.00 coupler. My lact order arrived in good stape and was quickly filled.
WALKER TOMPKINGS.

Turlock, Calif.

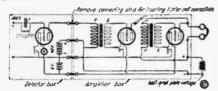


Fig. 17 shows the connections of a two-step amplifier and how it is connected to a detector tube. A two-point switch is used to connect the frost to the first or second step of amplification.

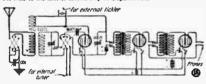


Fig. 18 is a practical, complete receiving circuit with detector and two-stage amplifier. The detector and amplifier may be used with another set, such as a regenerative one, by means of a series para-switch. This circuit is designed especially for use of honeycomb coils.

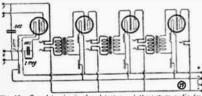
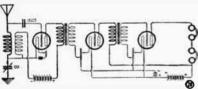


Fig. 19. Complete circuit of a detector and three-stage audio frequency amplifier. The proper negative grid potential is obtained by inserting a one-ohm resistance between the filament and secondary of the transformers. By means of jacks and plugs, the fone may be connected to any number of step of amplification.



18. 20 is an unusual hook-up for short waves, using only one variolg. 20

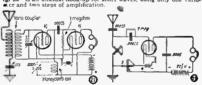


Fig. 21 shows a one-step Radio frequency amplifier and detector. The value of the coil L3 depends upon the wave to be tuned in; it should have about the same value as the accondary of the coupler. If a hone-yomb coil is used, tune with variable condenser (Dotted Lines). Fig. 22 In this circuit two of our No. 3530 variometers are used to tune and to cause regeneration. As may be seen, the lower variometer has a center tap between the fixed and the movable coils so that the rotor is the feed back coil. If a short antenna is used, the .00025, gal. fixed condenses from necessary.

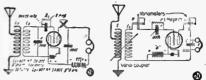


Fig. 23 is the same circuit as that shown in Fig. 11, but with loose coupling between the antenna and the secondary circuit. This circuit provides greater selectivity and is recommended for a long antenna. Fig. 24. This circuit is well known among amateurs as the short-wave regenerative one. It uses two varioneters and a variocoupler. A variable condenier should shout the fones and as other one could be used to advantage in series with the primary of the couples.

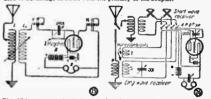
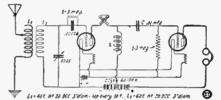


Fig. 25 is the same circuit, but with the fone connected outside the os-culating circuit, thui suppressing the use of a condenser to shunt them and which is used as a pressing the connected to a short-wave regenerative Fig. 26. By the use of a 4 PDT telefone, or anti-capacity switch, the same VT detector may be connected to a short-wave regenerative circuit or a long-wave tuner using honeycomb or other inductances.



If shows a standard regenerative receiver similar to the one shown is, 23, but with one stage of choke coil coupled audio frequency infication. The choke coil X, should have an iron core and be of varge size. This type of audio frequency amplification gives very amplification. fairly large size, good quality,

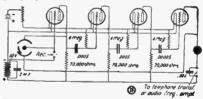


Fig. 28 is a four-stage Radio frequency amplifier using resistance coupling. The four tubes act as amplified detector at the same time. A small condenser having two fixed and detector at the same used as a coupling capacity between the plate of the last tube and the grid of the first one to make the tubes oscillate and produce beats for the reception of undampt waves. For waves over 500 queters.

Gentlemen:

be congratulated on your quick You are to be congratulated on your quick service for small orders such as was sent me some time ago, so I am enclosing another small orders are a construction of the control of the cont on the reverse side of this sheet which I feel sure will receive the same quick accurate attention, JAMES WAY, Lowell, Ohio.

Gentlemen:

In reference to your advertisement in the March Radio News I am writing for your new Rasco catalog No. I have used several Rasco parts and found them of very good quality indeed. Hoping to hear from you 1 commin

J. WARD. Christchurch, New Zealand

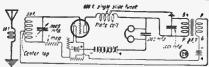
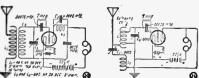


Fig. 29 shows a one-tube refex receiver using a crystal for detection. By making connections to the detector and from the secondary of the audio frequency transformer to the center of the coils, a great amount of stability is obtained and the circuit does not howlor whistle. This transfer it is obe recommended when only one tube is to be used. The country of the control of the circuit country of the control of the circuit; our No. 1150 audio transformer will be found excellent here.



Pla. 30 Another regenerative circuit using the tuned plate circuit system. This circuit is exactly the same as that of Fig. 23 except that plate circuit. A reason of the condense are used in the plate circuit.

Fig. 31 is the well-known Reinarts circuit. The tuning unit consists of a spacial splider web coil. Nos. 2550 or 2560, with taps and two variable condensers. If audio frequency amplification is to be added the primary of the first transformer is connected in place of the telephones.

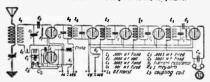


Fig. 32 shows the hook-up of an inductively coupled amplifier. Instead of transformers or resistances, tuned circuits are used. For undampt waves, a local oscillator is used to produce the "beats."

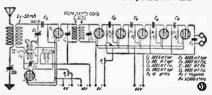


Fig. 33 This circuit is the Armstrong Superautodyne system for the reception of short waves with resistance amplifiers which are espe-cially efficient for long waves.

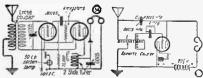


Fig. 34 shows a Radio frequency amplifier for long waves using a crystal detector. If DC is available, it is a simple matter to use it directly on the plate and throuch a 50-w. carbon lemp to the filarent. Fig. 35 is a modified Reinartz circuit. The tuner is our standard variocoupler, No. 3150, the secondary of which is connected in series with the primary. The lower parts of the primary is tapped every two turns for 20 turns.

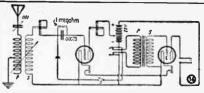


Fig. 36. Here is a combination circuit of a vacuum tube detector and one-stage amplifier. A crystal detector is also connected to the receiver so that it may be used for nearby stations by simply cutting off the current of the vacuum tube detector and by closing the switch, SI.

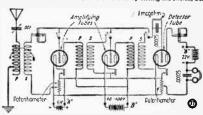


Fig. 37 This is the hook-up for a two-stage radio frequency amplifier and detector with feed-back coupling to obtain regeneration. By means of the switches connected to the grids of the tubes, any number of stages may be used.

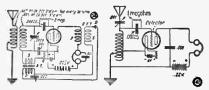


Fig. 38 This is a standard one-tube reflex arrangement using a crystal detector as a rectifer. The potentiometer R, controls the grid potent tial to prevent oscillations.

Fig. 41 The owner of a two-slide tuning coil need not incur extra expense to make a regenerative receiver. The above diagram shows how to connect it to a vacuum tube to obtain a feed-back effect.

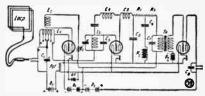


Fig. 39 This is the famous Armstrong super-regenerative circuit. The constants are as follows: L1, L2—Short-wave Variocoupler. Secondary 80 Turns; C1—0003 MF; L3—D. L. 1280; C2—001 MF; C3—002 MF; C4—001 MF; L4—D.L. 250; L5—D.L. 1500; C5—005 MF; R1, R2—12.000 Ohms each; C6—005 MF; K1—1 Henry Iron-Core Choke; C7—002 MF; Tr—A.F. Transformer; C8—002 MF.

On page 89 there is listed the most advanced Radio Retriver Blue Prints, which have been compiled by the Laboratory Engineers of the "Radio News." Any receiver built from these compiled by the Laboratory "Radio News." Any receive will represent the most up-to-date Blue Prints and efficient Radio set.

Gentlemen:

I have received my order sooner than I expected, and I was not sure that it was my order until I epened the package. The time was two days before a letter that I sent the same day I sent the order. I received thom in good condition with the RASCO Catalog. In my vacation, just after the examinations, I will order other parts, and I hope to receive them with the quick attention and prompt delivery accorded my first LUIS OUGPIN.

275 Juan Luna Street, Binonco, Manila, P. 1.

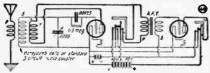


Fig. 40. This diagram shows a standard regenerative circuit with one stage of audio frequency amplification in which automatic filament control jacks are used so the tubes light automatical. When the telephone plug is inserted in one or another of the jacks.

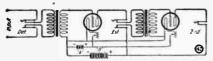
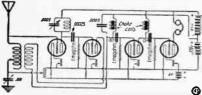


Fig. 42 Here is a circuit of a two-stage audio frequency amplifier it may be used with any form of detector, either a vacuum tube or a crystal. In the latter case, the input is connected in place of the telephone in the receiver.



#16. 43 This circuit is very sensitive and may be used with Myer subset and choke coils. It consists of one stage of radio frequency, detector and two stages of audio frequency with a feed-back coupling the first tube.

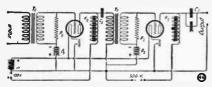


Fig. 44. When it is desired to operate a loud-speaker and obtain great wounse of sound, a power amplier is necessary. A two-stage amplier of this type is also made in the desired and the street is the stage of the street in the desired in the desired is the constants. The 30-Henry choke coils. K1 and K2, may consist of the primary of a Wayage bell-ringing transformer, the secondary of which is left open. R1, R2 and leaks, C1 C2.05 M. P. Condensers.

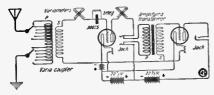


Fig. 45 This hook-up of a regenerative receiver and one-stage amplifier is very efficient for all-around use, as well as for DX work. The variometers and varioupler should be chosen, wound with large size wire, not smaller than No. 22.

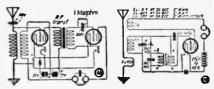


Fig. 46 This diagram shows how to connect a one-stage radio frequency amplifier between any tuner and the detector unit. The radio frequency transformer, if of the air core type, should be preferably shunted by a small variable condenser. Use this hook-up with our R. P. transformer.

Fig. 47. This diaman shows how the tuner and amplifier units may be mount d in separate cabonits. In the tuner, either a variable condenser or a varionister may be used for tuning in the secondary circuit.

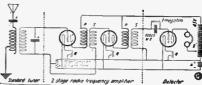


Fig. 48 This circuit is another one-tube reflex, in which the detecto and audio frequency amplifier are connected in parallel with the secon-dary circuit. In this diagram coil L3 is for the purpose of causing regen-eration to take place.

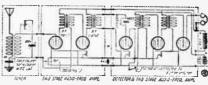


Fig. 49 Hook-up for a two-stage radio frequency amplifier and detector. The dotted lines show where the connections from the tuner to the detector should be cut to in sert the amplifier. The correct hook-up for our No. 2800 R. F. transformers.

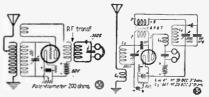


Fig. 50 When only one tube is available, it is sometimes preferable to use it as a radio frequency amplifier, as shown here, a crystal detector being used for rectification. The transformer may be our standard radio frequency transformer No. 2800 or a variocoupler tuned to the incoming waves.

Fig. 52. In this reflex circuit a tuned radio frequency transformer is employed in the plate circuit of the tube. This provides sharper tuning and should be used when interference from other stations is experienced.

Gentlemen:

Congratulations on your quick service. Everything arrived e.k. Am sending you another order which I hope you will fill just as quickly. I rein, a booster for Rasco ROBERT W. ACKER. main. Millsboro, N. Dak

teentlemen:

I have found your JIFFY JACK one of the most useful parts of my radio sets. I experiment with hookups, and so like to change connections easily. I fastened a JIFFY JACK to each binding post on my variable condenser and I used round bus bar wire to connect the condensor to the other instruments. I did the
same on my tube sockets. I also soldered two clips on my aerial and ground and I use JIFFY JACKS for the
binding posts.

EDWARD KELLY, 1959 East 73rd Street, Cleveland, Ohio

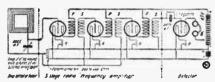
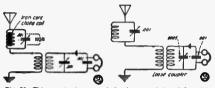


Fig. 51 This three-stage radio frequency amplifier and detector is very sensitive and permits reception on a small loop aerual or with an indoor antenna. The dotted lines mark the separation between the tuner and the detector. Correct hook-up for our R. F. transformes.



P18. 53 This trap circuit composed of an iron core choke coil, is useful to eliminate low irrequency induction from nearby power lines. The size of the choke coil depends upon the frequency of the interfering burs, but fixed condensers may be added to the variable one in parallel as shown by the dotted lines, to obtain the proper capacity; it is possible to eliminate a station causing interference by tuning this trap to the particular wave-length of the interference by tuning this trap to the particular wave-length of the interference struing this trap to the particular wave-length of the interfering agnals. This may be used with any type of receiver.

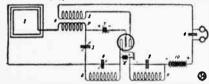


Fig. 8. This is a diagram of the one tube super-regenerative receiver. The constants are as follows: I variocoupler with secondary rewound lamp cord Mr apart; 3—0005 M. P.; 4—005 M. P.; 0—001 M. P.; 6—003 M. P.; 5—3 to 6 volts; 6—11250 honeycomb coil; 9—L1500 honeycomb coil; 10—00 to 10 volt 12 hatery.

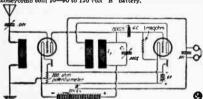


Fig. 56. Here is a very sensitive receiver using two tubes and honeycomb coils for the reception of any wave-length. The coil connected in the aerial circuit should be at right angles or away from the two others.

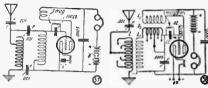
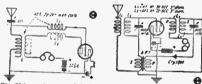


Fig. 57 This is a circuit of a capacity-coupled tuner. This circuit is very selective and gives sharp tuning. The coils may be honey-comb paneake or spider web and should be at right angle.

Fig. 58. This diagram shows how to build a short-wave regenerative receiver with two variocouplers. L and L1 constitute the aerial and secondary circuit, while L2 is the primary of the second coupler action as a load in the secondary; L3, rotating inside of L2 acts as tickler coil.



Pig. 59 is another type of single-circuit regenerative receiver in which reconcration can be very firstly controlled by means of two spider-web couples. Fig. 69 is a refe victivit which is stabilized by grounding the secondary circuit. That form of reflex circuit gives good results.

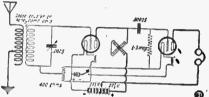


Fig. 41 This circuit shows a one-stage radio frequency amplifier and detector in which the plate circuit of the first tube is tuned by means of a variometer. This circuit is very sensitive and is recommended what the reception of distant stations is desired.

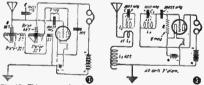


Fig. 42 This regenerative circuit is tuned by means of two No. 8850 variometers and uses two small coils of 5 turns each to couple the tuner to the feed back variometer. All the coils shown horizontally are wound on the same tuling.

to the fred back varionities. All the tons seems sometimes, from on the same tuling.
Fig. 83 is the Cockaday four-tircuit tuner which is another form of recencrative circuit. In this tuner only one turn of wire couples the anti-nna circuit to the secondary and provides great selectivity.

Notice

The regenerative or feed-back circuit is covered by Armstrong Patent 1,113,149, and the superheterodyne circuit by Fessenden Patents, 1,050,441 and 1,050,728 and Armstrong Patent 1,342,885. The parts listed in this catalogue were not designed or intended to be used in these circuits.

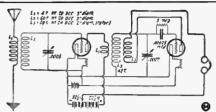


Fig. 44 This circuit has one-stage radio frequency amplification and detector. The latter is made regenerative by a special coupler. This is recommended as it prevents radiation of energy in the antenna circuit even when the detector tube oscillates.

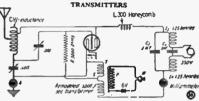
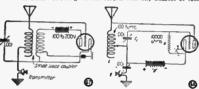
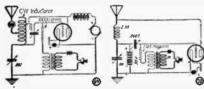


Fig. 66 is a Radiophone using the plate and grid system of modula-tion. A special modulation transformer having a split accordary should be used. Circuit gives fair results with any number of tubes.



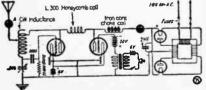
Pig. 67 shows a simple experimental Radiophone that the experimenter may build, using an ordinary short wave coupler and a V. T. A range of a few miles may be obtained with this set using a hard tube,

Fig. 48 a type of oscillating circuit which is suitable for C. W. or phone
If the circuit does not oscillate readily insert a .001 variable condenser
is the ground lead and ground the negative of the filament battery.



Plg. 69 A very efficient one-tube Radiophone is shown in this sketch. The modulation transformer may be a lord spark coil, and the II. T. supply a generator or three or more "B" batteries.

Plg. 70 Another simple Radiophone using a honeycomb coil for inductance. This hook-up is also very efficient and simple to operate.



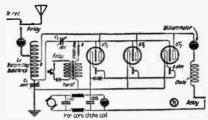


Fig. 71 This Radiophone uses the Colpit oscillator circuit. Three or more tubes may be used in parallel and a long range is obtained when using transmitting tubes with a 350 V. motor generator.

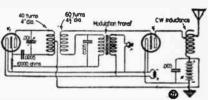


Fig. 72 In this circuit one tube is used as an oscillator and the other as an amplifier. The goodulated current is applied upon the grid of the amplifier tube. This gives very good modulation and greater output than the conventional circuit.

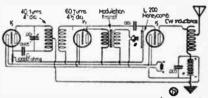


Fig. 73 is well adapted for greater power. One tube is used as oscillator, one as modulator and one or more as amplifier. Bacellent results and a very long range may be obtained with this circuit. The same number of tubes should be used as amplifier and modulator

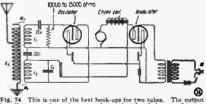


Fig. 74 This is one of the best hook-ups for two tubes. The output is uniform over the entire range of wave-lengths of the set. L1 may consist of 10 turns of heavy wire on a tube of \$4\cdot in diameter; L2 and L3 may consist 1 4 turns on a tube of the same diameter. The coupling concluses returns the two coils may be of, 20075 M. F. and C1 of .0016 M. F. The coil on the right of this condenser is a honey-comb L200.

Fig. 75 This circuit uses one tube as modulator and one as oscillator and is supplied with A. C. The H. T.-D. C. is obtained through two rectifier tubes connected to the H. T. winding of the transformer, A low voltage winding with a grounded center tap may also be provided to rupply the faisment current to the two V. Ts.

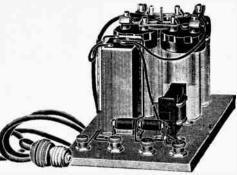
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Seatlemen:
Emblored you will find an order tor a number of your small parts, seeme of which I have found to be
eatirely satisfactory. If the order is given the same prempt attention as my first, it will afford me the utment satisfaction.

V. E. ZINGG. 112 Abbett Ave., Ocean Grove, N. J.

RASCO "B" ELIMINATOR KIT

USES LESS THAN \$1.00 PER YEAR OF YOUR **HOUSE** CURRENT



\$10.25

COMPLETE NO TUBES NO ACIDS TO BUY

Perfect reception in your loud speaker is always limited by the condition of our "B" batteries in series therwith. A 45 volt "B" battery is only considered "good" if it registers ABOVE 38 volts—when they register less than that, they cause "fring" and every conceivable form of noisy background in your speaker. The solution to this problem is the installation of this "B" eliminator, drawing its current from your light socket—assuring you an ever constant "B" battery supply of between 90 to 100 volts, with twa intermediate voltages of 22½ to 45 for any voltage if a variable resistance is inserted in the positive output lead. Should your receiver require 135 volts in the last stage for a power tube, the addition of a 45 volt "B" battery in series with this eliminator (the positive will be the only tube to draw current from this added "B" battery, it should your receiver near the power tube will be the only tube to draw current from this added "B" battery, it should you from 6 to 9 months. The electrolytic principle of rectification has long since been accepted AS THE MOST SATISFACTORY SYSTEM.

The electrolyte lasts about one year, and perhaps only twice a year need distilled water be added thereto. Can easeenbled in less than one half hour—mothing further to buy. The kincon ists of: 4 Rectifier Jars, complete with Electrodes—Connectors—Filter Condenser Block—Choke Chi—2 Resistances with mounts—full charge of Sales—special base board furnished with 4 hollows cut therein to receive the jars—binding posts—lamp cord with detachable plug—fibre disc and threaded rod—hook-up wire—miscellaneous hardware—Blue Print and Instructions.

able plug—fibre disc a Shipped Express Collect,

No. 4000-Unassembled "Rasco" "B" Eliminator as described.....

"RASCO" 2-STAGE AMPLIF

"NO-SOD-ER" CONNECTORS



ONLY

POSTPAID

Most sets require a two-stage amplifier. This two-stage amplifier is needed particularly when you have a 1-tube set, or our reflex set, illustrated elsewhere in this catalog. Where the usual 1-tube set, as a rule, brings in stations on the headphones only, the addition of a 2-stage amplifier will make it possible to use the loud speaker on the set.

This set uses all of our standard apparatus and is offered at a real bargain price, as an inducement to buy our parts. Full directions. with blueprints, are furnished and we guar-antee results from this amplifier to equal any other two-stage amplifier on the market,

IMPORTANT: Note that in this set, too, we use our famous "No-Sod-er" connectors, making it possible for any one to put the amplifier together within less than an hour's time. Only tools required are a pair of pliers, a screw driver, and your hands.

PARTS INCLUDED IN RASCO #-STAGE AMPLIFIERS

	2.60
No. 7100-1 Dilectrite Panel	0.65
No. 9502—2 Rasce Transformers, 3 to 1, ea. \$1.50 No. 6335—I Jones 2-Circuit Jack	3.00
No. 6335-1 Jones 2-Circuit Jack	0.75
No. 6515-2 Bakelite Sockets, each 25c.	
No. 4305-1 Bakelite 5-ohm Rheostat, Pacent.	0.40
No. 6068-18 Binding Post Nameplates, each 2c	0.40
No. 201-14 Raseo Binding Posts, each 4c No-Bod-er Wire Connectors, full blueprints and di-	0.40
rections	0.75
rections	0.30

Total \$9.51

No. 9966 OUR PRICE

THE RASCO SONATA RECEIVER

No. 9658 Complete, Receiver, Adjustable unit. Built-in Loud-Speaker and **Cabinet**

\$35.95



No. 8923 CABINET ONLY

\$17.45

Only RANCO could offer such value as this receiver for so reasonable a price. We guarantee you 100% satisfaction with this receiver! And by satisfaction we mean it will be capable of very selective tuning, maximum sensitivity to the most distant stations, volume and clarity as you would desire it. In fact, it is very comparable to our Rasco LEADER No. 9056, to which you may refer for a general description. The panel is genuine bakelite, with very pleasing decorations. The dial numbers are eithed directly upon the panel. An oversized knob. attached to the condenser tuning shafts, is used for hers are etened directly upon the pawel. An oversized knob, attached to the condenser tuning shafts, is used for the tuning. Two jacks on the panel allow an optional use of an external loud speaker or bead phones. Two rheostats and a battery switch complete the panel layout. You will note the very exclusive feature on this Radio receiver—when It is not in operation, the hinging front receiver—when it is not in operation, the hinging front cover completely conceals the panel; this makes a very striking and pleasing appearance—for, once you have tuned in a station, and wish to "stand by" to enjoy its program, you can close the cover, incidentally preventing anyhody from disturbing the dial settings. When this cover is down, it makes a very convenient arm rest, while tuning the receiver. The top cover also hinges, to provide for immediate access to the 'ubes for adjusting the loud speaker unit, or, for inspection of the actual the loud speaker unit, or, for inspection of the actual to provide for immediate access to the 'unes for adjusting the loud speaker unit, or, for inspection of the actual interior of the Radio receiver. The loud speaker furnished is composed of an unusually well designed metal throat and wood tone chamber covered by a very attractive scrolled grill. The unit is very powerful, for, to meet the requirements of this receiver, it MUST BE; once adjusted, it need never again be touched. The tubes fit adjusted. It need never again be touched. The tubes fit into the latest type of U.X. sockets, which are hullt into into the latest type of U.A. sorgers, which are multi more the sub-base panel—and which provide for the use of either UX 199 dry cell tubes (3 volts), or the 201A storage battery type. The variable condensers are the latest straight line corrected frequency models; the audio transformers are equal in performance to the same type used in several model many extensive provinces. transformers are equal in performance to the same type used in very much more expensive receivers—In fact, we have made NO SACRIFICE in the ELECTRICAL QUALITY or MECHANICAL DURABILITY of any of the component parts used in this receiver. We fully realize that you as a pleased customer will be our very best advertisement, for you will recommend all our products to your many friends—extensive newspaper and magazine advertising would make this self-same receiver sell for 5 times its modest cost. To make you ever hoastful to show this receiver to your friends and to warrant its entry into your living room, we have enclosed it in a very attractive two-toned MAHOGANY CABINET. if in a very attractive two-toned MATIGGAN CABINELL, with a finish thereon usually found only on high priced furniture. The overall dimensions of this receiver are 28 inches long by 11 inches deep by 8 inches high.

No. 9658 Rasco Sonata Radio Receiver, Com-

o. 9658 Rasco Sonata Barrello Peter with Built-in Loud Speaker \$35.95

Due to weight, sent by Express Collect.
No. 8923 Cabinet Only. Without Receiver. Builtin Loud Speaker and Adjustable Unit In-cluded. Panel size: 7 inches high by 18 inches long. Overall dimensions: 28 inches inches long. Overan unicons long, 11 inches deep. 8 inches \$17.45

Due to weight, sent by Express Collect,

Radio Receiver Accessories



\$26.55 COMPLETE AS SHOWN

Any Radio receiver is only as good as the batteries that supply it with the necessary power, the radio bulbs that are really the heart of every receiver, and the aerial equipment. And for that reason, we exercise extreme care in selecting only those accessories which will be the very best that we know of for the purpose in mind—these are the accessories we recommend for all our kits and sets.

The storage battery is of the latest type, our Number 9100: its purpose is to light the bulks. The two B' batteries are our Number 4500; their purpose is to place a positive polarity on the plates in all the tubes as well as to furnish the current to the electro mag-nets in the loud speaker, causing the diaphragm within to vibrate in accordance with the variations controlled by the tubes. The 4½-volt "C" battery, recommended in some of our kits and sets, is guaranteed to render service for one year. The bulbs are our superior Musselman tubes described elsewhere in this catalogue - Laboratory tests have conclusively proven them to be superior to any other make of tube. The aerial equipment is of the very best manufacture, and

comprises whatever materials are necessary for the construction of an average autenna.

The Rasco 5-Tube Radio Receiving Set OUR LEADER



No. 9056

De Luxe Appearance

In this current model we have dispensed with the conventional Bakelite panel, and substituted a much more costly point of Warfunt 5-ply wood, beautifully grained and flurshed. The instruments affached thereto do not require one electrical in abstin, theretone, the bakelite can be successfully eliminated. The dial plates are very attacked by antique gold finished, with the deal numbers landsmedy eshed thereon. The large keep are a perfect math to the limished surface of the panel. The thoostal and saitch plates and knotse are identical in isomesal appearance. The cabinet is highly polished dura further walnut, and will grace the appearance and general decorative cheeps of any room. The panel is slightly set at an angle, for caller manipulsation of the dials, and better vision thereof. The setews holding the panel are also sole plated.

Simple Operation

The three large knoles are rotated together, and, as a rule, they will each be set to the same corresponding number on each of the dial plates. For instance, WRNY may come in at 60 ON EACH OF THE BIAMS, Once you have recorded a seriou, with it of directings and station call letters, to listen in again to that self-same station, you mittly have to set you there here dids to these purviously accorded as the . One of the two matter knots control the videous which can be resulted from the attest whispers to the graphest of vectors of a native piece selection, in an elected volume and off—one imple little quarter turn. Any child can succeed units periets this periets.

Ultra Selective

If you like in a large sity on congratively near one, is all into that Your choice of a received by for one (that will be able to tune out any unwanted station completely. In a thin which the New York, Chivas, etc., there is a many as 20 showed and under some terriver is constructed by the model and a condital, two statics with the heard at once. Laboratory and practical tests with this receiver mables us to assure you that it will positively tune in only one station at a time.

Ultra Sensitive

The theilt of distance reception is bound to impression and make of your a Radio fan—millions of whom "explore" the other every night throughout the scaled. Making a one "sits any" for a write and with a distributed shang of the shoulder, turns off the set, with the helicit that there are no other desarrow to the helicit that there are no other desarrow of these Radios, he would find himself still "listening in" to stations located in every nook and corner of the United States till the very small hours of the morning. The very last that this receiver is so uttra venistive also assures you that if your home town is located a few hundred miles from the nearest broadcasting station, you will enjoy their programs with surprising volume and clarity, whereas other excellents of infection sensitivity might receive it was the mort distance as in

\$25.55

as illustrated

\$23.45

without cabinet

Volume With Perfect Clarity

There are many receivers which can be forced to modure volume at the rostly expense of clarity—and after all your sense of enjoyment of the Radio Programs is solely dependent on the clarity with which you may receive these programs. Our entoils to produce clarity with volume have met with moves, but it required many months of deliberate and laborious experimentin. The first passages of music that you will hear over this Radio will thrill you with its 100% fidelity of rendition.

The Circuit Employed

Nine out of every ten receives in use tuday use two states of uned radio frequency amplification, one tuned detector states and two states of audio frequency amplification. So do we, but, been il lies the difference: The quality of parts used, and the method employed to fliminate self-oscillations. If this is to be the first Radio receiver you will have owned, let us assure you that we have striven to give you the very best possible apparatus, but, if you are acquainted with Radio circuits, he do following description convince you: The variable index of the latest straight line corrected frequency (particular) and the latest straight line corrected frequency (particular) and the latest straight line corrected frequency (particular) and will excert all wive lengths between 200 and than, and will excert all wive lengths between 200 and than, and will excert all wive lengths between 200 and than, and will excert all wive lengths between 200 and than, and will excert all wive lengths between 200 and than and that the control of the second and amplifying tubes are confidently fraction of the best at in the panel, as a volume of lately fraction and the best and in the panel, as a volume of lately fraction and particular factors from the panel, as a volume of an extration where and in the panel, as a volume of an extration and particular factors. Principles of the panel of the pan

No. 9057 Same receiver as above, but without a cabinet. Can be installed in any of our consoles or in your own cabinet. \$223.45