

COURTEOUS, intelligent service by technically trained salesmen awaits you at our modern, completely stocked showrooms in New York, Atlanta and Newark. If you live in or near these cities we invite you to visit our establishments, to avail yourself of the services of our technical consultants and to see and hear the thousands of dallars worth of radio and sound equipment that we have set up for your benefit.

You can play with a wide variety of short-wave and all-wave receivers and listen to dozens of different microphones, amplifers, loud speakers, phonograph pickups and other instruments in actual operation.

Cur showrooms are laid out to afford you the maximum in comfort, convenience and speedy service. If you are accustomed to ordinary radio stores you will find our salesrooms a revelation in modern merchandising practices. You are waited on promptly by a man who knows radio and will make honest recommenda-

NE WARK, N. J., Phone Market ${ }^{\text {2-1661 }}$
Phone or mall your ordera and assure quiek delivery.
tions if you are in doubt over anything. Your wants are filled from enormous stocks, at the lowest wholesale prices.
At all our solesrooms you are always welcome to the services of our tube testing counter. Here we have the latest and best equipment for determining the exact condition of tubes of all types and makes. Bring in all those doubtful tubes that you have been accumulating and our engineers will cheerfully check them for you, at no cost and no obligation. We carry all the leading brands of tubes and can fill your requirements without delay.
Whether you are a service man, amateur, experimenter, sound technician or engineer, you will find that our men talk your language and understand your needs. Visit our nearest branch once, and you will go back many times to avail yourself of a new standard of SERVICE.
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If It's not conventont to buy in person send your orders by mall.


For 14 years we have guarded the Truth valiantly. We have stated our policies openly and frankly. W'e have pledged lowest wholesale prices. We have promised 24 hour service. We have insisted upon gt ality merchandise above everything else.

Because we have faithfully performed the promises made to you, we have grown to be the Biggest, the Most Outstanding Exclusive Radio Mail Order House in the entire world! Time Discorers the Trutb; that is why thousands upon thousands of customers have become our most loyal and staunch supporters.

Meanwhile, the Envious, the Jealous, the Inexperienced attempted to counterfeit our formula of success. They copied our slogans: they imitated the style of our catalog: they reproduced our illustrations (on which point we have law suits pending): they even did busincss under names which sounded like ours . . . all in a futile, wain attemper to mislead and deceive you.

But the formula for True Success is not to be found in slogans, names, drawings, illustrations! It is the TRLTH of promises performed prevailing behind these outward manifestations: it is the fundamentals; the realities that count! Naturally we are just as anxious to do businces as anyone, but never will it be said that we gained business only to lose our self-respect. We will always tell the Trwhofor we definitely belicee that Honesty has been the Big reason for our Success.

When Wholesalce Radio Service Co., Inc., says "We are the Largest Organization of our kind in the world", we mean that we do more business, carry the largest stock, maintain lowest Wholesale prices, and employ more people to better serve yot, than any other radio mail order organization In The Entire World.

When we say "W"e will nom be mudersold". We actually give you quality, standard, guaranteed merchandise . . . not substitute, inferior goods from questionable sources. When we sas:

"We have the world's largest stock", we actually have it; when we say, "W'e list more nationally known lines", we ask you to check our catalog against any other to prove that this is so. When we say, "We have a Bureau of Standards", we mean a special Testing Department with costly equipment, the value of which is far more than the eutire strik of many concerns. of uncertain reputation.

When we say, "Consult with us: bring us your problems" - we refer to our enginecering personnel who have years of actual practical experience in both field and laboratory which enables them to give you the right answer to your problem. W'e do not have to give evasive answers or refer you to others. When we say, "We sell only Quality merchandise". we have only to refer to the high esteem in which we are held by the outstanding companies who have appointed us Exclusive or Authorized Distributors.

Yet, despite the fact that we carry the largest stock of radio parts in the world, despite the fact that merchandise of the fincst quality is handled, despite the fact that there is constantly at your disposal the service of a highly trained Technical Consultation Department, it actually costs you less to purchase from Wholesale Radio Service because of our unbelievable and unequalled lowest Wholesale prices.

Because our success is built on more than a formula, more than a slogan, more than mere words it can never be copied! Here at Wholesale Radio Service Company, the Dignity of Tiwht is upheld because our statements and our promises are supported by Performunute. We hit hard, clean blows at the unscrupulous, the imitators, the borrowers of slogans, the purloincrs of illustrations ... in order that the Radio Industry may be proud of Wholesale Radio Service Company, its House of Radin Reliability . . . that you may be protected against the pitfalls hidden behind the borrowed phrases, the fanciful claims, the promises unperformed, and that you may profit by our genuine policies of Honest Dealing and Truth in Advertising which we have upheld for 14 years!

PAGE 3

FOR ONLY

LESS TUBES RECEIVER



## $\star$ Illuminated Airplane Dial * Two Bands: 75-200 and 200-550 Meters $\star$ Police Calls

$T$ HE Lafayette 5 Tube Troubador is withaut question one of the finest $A C-D C$ receivers ever develaped. It is as unlike the ordinary AC-DC receiver as is the madern streamline train unlike its predecessar af ten years ago. All of the experience that was gained in the design and canstruction of former highly successful Lafoyette AC.DC receivers was called upan in the designing of this latest Lafoyette product. And when you hear it, you too will agree that here, at last, is a receiver that has excellent tone quality.. that is beautiful in appearance . . . yet is compact enough to be your personal receiver, one that you can carry with you from room to room or from one hotel to another on your trovels.

## ILLUMINATED AIRPLANE DIAL

A distinctive feature, and one that is unusual in receivers of this type, is the large illuminated airplane type dial. No longer need yau strain your eyes and your patience when funing in each station. The Troubador dial is large . . . is equipped with a comfortable knob ... and is fully illuminated, making it independent of room light condifions.

## ADVANCED TRF CIRCUIT

The circuit used in this excellent receiver is on advanced funed radio frequency type and makes use of five high gain tubes. These ore: 2-76's, 1-606, 1-43 and 1-1223. An electro-dynamic speaker, perfectily malched to the output tubes, reproduces all received signals with a marked fidelity of tone. The power output is great enough to pravide ample volume for all practical purposes. Due to the high degree of sensitivity, stations from near and far are easily picked up. Selectivity is such that separation of stations is eastly accomplished; there is no " overlapping" to mar reception. The "Troubador" operates equally well on either 110 volts DC or 110 volts, 60 cycles AC. Three control knobs (selector, bond switch and combined volume control and switch) govern all operations.

## BRINGS IN POLICE CALLS

The frequency ronge of the Iroubador is from 75 ta 550 meters in two bands; one from 72 to 200 meters and the other from 200 to 550 meters. Thus it includes within its range many police, amateur and other interesting short wave broadcasts. Model C-12-Lafayetle 5 Tube Iroubador AC-DC Receiver complete with tubes. Far 110 volts $A C$ or DC. Dimensions: $12^{\prime \prime}$ wide, $10^{\prime \prime}$ high, 7 " deep. Shpg. wt. 12 lbs . Code Giron.
List price $\$ 25.9$. Your Cost
${ }^{8} 12.95$
Adepter Cord for adapting recelver to 220 vall aperatlan, $\$ 1.00$.


## make YOUR SET an

ADDS FOUR SHORT WAVE BANDS TO YOUR PRESENT RECEIVER!

N
OW you can bring your present receiver up-to-date and enioy all of the interesting short wave broadcasts that the owners of modern all-wave (receivers enioy. You can thrill to the reception of foreign broadcasts - London, Berlin, Paris, Rome - they are all at your door when you have a Lafayefte Short Wave Converter. It adds four odditional bands to your receivers one from 1.5 to 3.3 MC , o second from 3.0 to 6.8 MC , o third from 6.0 to 12.5 MC , and a fourth fram 11.0 to 23 MC ; thus covering the entire range from 13 to 200 meters.
It is extremely simple to install and operate - only two wires ore used to connect it to your receiver, one to the antenno post, and another to the ground post. It contains its own power supply and is for operation from any 105-125 volt, 50.60 cycle AC line. Either a doublet or single wire ontenno can be used. Circuit employs 4 tubes; 1-606, 1-6C6, 1-76 and 1-80. Both chassis only and cabinet models are available.
XP15914-Lafayette S.W. Converter Chassis less tubes. Shpg. wi., $\$ 19.9$
15 lbs. Yaur Cost.............................................................
 Kit af matched lubes lar above. Your Cost.



fayetfe LONG tube SHORT



YOU can do it with the Lafayette "Glabe Girdler"। You can sit in your easy chair and listen to Landan, Paris, Rome, Madrid, Porto Rica, Brazil, etc. They are all al your fingertips with this efficient five-fube superheterodyne receiver.
Three bands are available at the furn of a switch - one, from 200 to 550 meters, takes in all of the regular American broadcasting station: - the second, covering wavelengths from 75 to 200 meters, takes in police stations, amateurs, aircraft and airport stations and the third, from 18 to 50 meters, includes all of the European and American short wove stations, amateurs, otc. All of the interesting programs broadcast by these stations are yours with the "Globe Girdler".

EXCELLENT TONE QUALITY
A large $8^{\prime \prime}$ electrodynamic speaker together with a continuously variable tone control contribute to the excellent tone quality of the Globe Girdler. When you listen to lis lifelike clear reproduction you forget you are listening to a radio and imagine the performer is right there with youl the inclusion of the tone control permits modification of the fane to suit individual preferences.

LARGE FULL SIZE CHASSIS
The Globe Girdler is not a small receiver - the chassis is large and provides ample rom for full size components. There is nothing "midget" about it - either in physical size or performance.

AUTOMATIC VOLUME CONTROL
A highly efficient autamatic volume control that is effective on all bands, both short and standard broadcast, is included. This prevents blasting and consequent overloading of the amplifier tubes and tends to minimize fading.


USES LATEST TYPE TUBES
THE latest most improved type pubes are used throughout ineluding the new type 6AJ converter tube that serves as both oscillator and mixer, thus taking the place of two tubes and in addition providing a higher conversion gain than two separate lubes wald have. A total af five tubes are employed.
A type 78 is used as a high gain intermediate frequency amplifier, a type 75 as second detector, automatic volume control, first audio amplifier, and a type 42 as power output tube. An 80 rectifier is used in the power supply.

BEAUTIFUL MANTEL CABINET
The receiver is housed in a handsome cabinet built of beautifully grained veneers polished to a fine finish. It will prove an aftraclive addition to any decorative scheme. Dimensions are $161 / 2^{\prime \prime} x$ 8 " $\times 131 / 2^{\prime \prime}$.
Model A.81-Lafayette 5 Tube Globe Girdler Receiver complete with tubes. For 110 volt, 60 cycle AC operation. Shag. wi., 24 lbs. Code Ethos. List price $\$ 39.90$.
Your Cost
Available for $\mathbf{2 2 0}$ volt $A C$ operation at $\$ 1.50$ additional.


A special model of the "Globe Girdler" has been designed for use in European countries. This model has a band covering wavelengths between 850 and 2000 meters substituted for the 75 to 200 meter band used in the standard Globe Girdler. This band ( 850 to 2000 meters) includes within its scope all of the long wave broadcasting stallions operating in Europe and together with the other two bands 118 ta 50 and 200 to 550 meters) provides a receiver that is particularly suited for European use. It includes af course all af the features of the standard madel such as automatic volume control, airplane dial, etc., and is housed in the same fine cabinet.
Model A-81L-European Model Lafayette S Tube Globe Girdler with three bands; 18-50, 200-550 and $850-2000$ meters. For operation an 110 volts, 50.60 cycles AC. Cade Fetus. List price $\$ 47.00$. \$....................................................................
Your Cost ........ Available for 120 volt AC operation at $\$ 1.50$ additional.

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2


UNIVERSAL . . . that is the term that best describes the new Lafayette "Air Rover". It is universal in aperation . . . because it aperates on either AC ar DC. It is universal ... because it has a wavelength range from 13 ta 2000 meters and therefare is suitable for use in ony country on the face of the earthl

FIVE DISTINCT BANDS
It has five separate funing ranges ... 13 to 30 meters . . . 30 to 75 meters . . 75 to 200 meters . . . 200 to 550 meters. .. 850 ta 2000 meters. It includes within its luning range every short - standard and long wave entertainment broadcasting station in the warld And it also includes within its range numeraus aircraf, amateur, commercial, ship-ta-share, and ather very interesting transmitting stations. There is never a dull moment with the "Air Raver"l

CLEAR LIFELIKE TONE
All af the programs that yau hear with the "Air Raver" are clear and distinct . . . there is na fuzziness . . . na dullness ta the reproduction. All af the high nates are brilliant and sharp . . . and the low notes are deep and sanarous . . . just the way they shauld be . . the way they ariginated at the broadcasting studia. Part of this excellent reproductlan is due ta the full electro-dynamic speaker... and some of the credit belangs to the carefully designed audia amplifier.

MODERN SUPERHETERODYNE CIRCUIT
The circuit used in the "Air Raver" is the new madern superheteradyne, and makes use of the latest type high gain tubes. The tube camplement includes: 1-6AN, 1-75, 2-78's, 1-43 and 1-2575. A preselectar slage is tuned by ane section of the three-gang candenser. Among the other mare natable features are: an airplane tuning dial with reduction drive ratia that makes shon wave funing simple; a cantinuously variable tane cantral that allaws immediate selection of either high ar law tanes, an efficient AVC circuit that eliminates fading and prevents inter-station "blasting"; a phonagraph jack, mounted an the rear of the chassis, allows the use of the entire audia system for the reproduction of phanagraph recardings; a band switch, aperated by a single knab on the frant panel, which allows instant selection of any of the five tuning ranges.


Theterodyne include 1-6A才, 1-6D6, 1-75, 1-43 1-76. 1-25Z5 and a new volfoge regulator type 3.40 lube that main. lains a constont valloge on the fubes. It also includes o full range tone contral and a positive octing outamatic valume contral.

## THREE TUNING RANGES

Three bands ore covered by the "Air Navigotor" as follows: $17 \frac{1}{2}$ to 53 meters, 75 to 200 meters ond 200 to 560 meters. Eoch of these bands ore instontly ovailable of the fip of a switch. Eoch band has its own individual scole occurotely calibroted on the large fully illuminated airplane dial. The complete receiver is encosed in a handsome mantel cabinet measuring $73 / 4^{\prime \prime}$ deep, $13^{\prime \prime}$ wide and 101/4" high.
Model C.78-Lafoyette 7.Tube "Air Novigatar" camplete with tubes.


## (1) precial EUROPEAN Model

AFAYETTE engineers have designed o special madel of the "Air Navigalor" for European use. This model has three funing ranges: ane, from $171 / 2$ to 53 meters, includes oll of the short wave entertainment braadcasting stotions; the second, from 200 to 560 meters, includes oll of the Americon broodcosting stations; and the third, from 750 to 2000 meters, includes within its range the many European braadcosting stations that moke use of this fre. quency bond. In other respects it is exoctly the some as the stondard model.

## SPECIAL VOLTAGE REGULATOR TUBE

An extremely voluoble feoture, especlally for European use, is the voltage regulator tube that mointains o canstont steady voltoge across the fubes irrespective of line valtage fluctuations. It pro. tects your tubes and prolongs their life no matter how the line voltoge vories.
Model C.78L-Lofoyette Eurapeon Model 7.Tub "Air Novigotor" complele with tubes. For 110 volts AC or DC. Code Dekor.



### 16.5 TO 550 METERS

A POWERFUL 5 -fube superhet receiver that warks equolly well on either DC or 110 volts, 60 cycles $A C$. The design of the "Continentol" is such thot sensitivity and selectivity ore brought to a high degree of perfection, resulling in cleor, enjoyoble reproduction.

## HIGH GAIN CIRCUIT

Five tubes ore used in on especially efficient high gain superheteradyne circuit. These ir clude: 1-6A7, 1-6D6, 1-75, 1-43 and 1-2525. More thon ample volume is pravided for all procticol purposes, and irrespactive of where the valume cantrol is set, reception is always clear and life-like. A powerful A.V.C. action prevents fading and inter-stotion "blasting"

## EXTENSIVE TUNING RANGE

The "Continentol" cavers the range from 16.5 to 550 meters in two separate steps; from 16.5 to 60 meters (includes all papular European broadcost sto. tions and counfless amoleurs), and fram 175 ta 550 meters (includes Police calls and American broodcast stotions). Desired range selected by meons of a switch con-rolled by a knob on the front panel.


Model C-27-Lofoyette "Continental" 5-Tube Superhet, complete with tubes. Far 110 volts AC or DC. Shpg, wt., 13 lbs. Code Dedos. List price $\$ 37.50$.
Your Cosi
\& 18.75
Madel for 220 volts, $\$ 1.00$ odditional.

$\star$ Three Bands:
18-50, $75-200$,
$200-550$ moters

* Illuminated Alr. plane Dial
* 8-Inch ElectroDynamic Speakel

O you want a really fine seven-tube Superheteradyne receiver . . . one that will receive foreign as well as local broadcasts... one that will receive Police Calls . . one that will receive Amateur and Aircraft stations . . . a set that has outstandingly fine tone quality . . . yet sells at a price so low that it hardly dents your pocketbook? Then here is the re. ceiver for you . . . the new Lafayette "Air Cruiser"
This new Lafayette receiver is bound to be a sensationl it is a powerful seven-fube superheterodyne that has three wavelength ranges . . . 18 to 50 . . 75 to 200 and 200 to 550 meters. Each of these ranges has ifs own carefully calibrated scale on the large illuminated airolane dial.

## USES THE LATEST TYPE TUBES

Seven of the latest type tubes are used in a highly solective and extremely sensitive superhelerodyne circuit including: 1-76, $2-78$ 's, 1-77, 1-75, 1-42 and 1 type 80. The power output afforded is more than sufficient for all home purposes. Sensifivity and selectivity characteristics are such that stations from near and far are brought in with ease, and without any "overlapping".

## CLEAR LIFELIKE TONAL REPRODUCTION

Thraugh the use of a large 8 -inch electro-dynamic speaker and a carefully designed audio amplifier the reproduction is exceptionally clear ond lifelike. In addition o continuously variable tone control permits moditying the high frequency response of the receiver to suil individual preferences.

## BOTH CONSOLE AND MANTEL MODELS

The "Air Cruiser" is available in both a console and a mantel cabinet. The Mantel model is especially designed for the small apartment where space is a factor. It is compact in size - yet handsome in design and will prove an attractive addition to any decorative scheme.
The Console model is truly a masterpiece of the cabinetmaker's art. It is fashioned of beautifully grained hardwoads matched into an aftractive patfern and highly polished by hand to a handsome finish.
The "Air Cruiser" is also available in chassis form only for those who wish to replace their present out-moded set but wish to retain a favorite cabinet.
Model A-87-Lafayette Mantel Model "Air Cruiser" complete with fubes. Far 110 volts, 60 cycle $A C$ operation. Dimensions: $177 / \mathrm{B}^{\prime \prime} \times 141 / 4^{\prime \prime} x 71 / 2^{\prime \prime}$. Shpg. wh., 35 lbs .5 . 6.55 Code Asira. List price $\$ 53.90$. Your Cost.
Model A-s8-Lafayette Console Model 7 Tube "Air Cruiser" complete with tubes. For 110 volts, 60 eycle AC. Dimensions: 37 " $\times 201 / 2^{\prime \prime} \times 12 \frac{1}{4}$ " deep. Shpg. wt., $\$ 35.35$ 60 Ibs. Code Aural. Your Cost.
Model A-89-Lafayelle 7 Tube "Air Cruiser" Chassis and Speaker complete with tubes. For 110 volts, 60 cycle $A C$ operation. Dimensions $1312^{\prime \prime} x 9^{\prime \prime} \times 7^{\prime \prime} . \$ 2,4.95$ Shpg. wh., 30 lbs. Code Aulic. Your Cost.
All above avallabla at 120 volts at a cost of $\$ 1.75$ extra.
 alabe? Have you ever heard American broadcast statians with such tidelity that yau thought yau were in the studio? Yau can truly answer yes to these questians when yau own this new Lafayette "Cammander" lo-fube superneterodyne. Caunlless distant stations are figurativaly "around the corner" when you furn its dial. And as for power, sensitivily and PRICE we throw aur hats into the ring and say "beat this if yau can"

## CIRCUIT DESCRIPTION

The ten tubes employed in the superheterodyne circuit are used as fol lows: ane type 58 as R.F. omplifier on Bradacast Band, one type 2A7 as combined ascillotor and first detectar, one type 58 as intermediote frequency amplifier, ane type $2 \mathrm{B7}$ as second detector and AVC fube, one type 56 as phase inverter, faur type 45 's in a push-pull-parallel autput stage and one type 80 restifier.

## AUDIO POWER OUTPUT OF 10 WATTS

The power output afforded by the push-pull-parallel output circuit using four 45's is a full ten walts. Thus, volume will not only be great enough for any slzed home, but will also enable use of the receiver at large parties, club meetings or dances without additianal amplification.

## THREE SEPARATE TUNING RANGES

The sel covers a bond of frequencies from 18 to 550 meters in three steps as follows: from 18 to 50 meters ( 16,500 to 6000 KC ); from 75 to 200 meters ( 4000 to 1500 KC ); and from 200 to 550 meters ( 1500 to 545 KC ). The first band takes in all of the most popular forsign and domestic short wave broadcasting stations, the second includes aircraft, police and amateur stations within its ronge and the third is the standard American broadcast range.

## CIRCUIT FEATURES

Some of the mare outstanding feafures include: sensitivity is better than 2 microvolts per mefor, assuring reception of weak foreign stations; selectivity 64 KC at 10,000 times, allowing complete separatlon of stations over the entire dial.

## BEAUTIFUL CONSOLE CABINET

For those desiring fine furniture, the Lafayette "Commander" has been made available in the striking console illustrated abave. Matched American hard woods are blended in a pleasing design that is especially attractive.

Model AM-4-Lafayette 10 Tube Three Band "Cammander" chassis, speaker and tubes. Less cabinef. 110 valts, 60 eycle operation. $131 / 2^{\prime \prime} \times 101 / 4$ " $x$ "". Shpg. wt., 36 Ibs. Code Serus. List price $\$ 67.00$.
33.50

Model AM-45-Same as obave in Consale Cabinet. 37 " $\times 201 / 2^{\prime \prime} \times 121 / 4^{\prime \prime}$. Shpg. wt., 65 Ibs. Cade Sarae. List price $\$ 85.00$.
Your Cosi
-42.50
All above avallable at 220 volls, at cost of $\$ 2.00$ extra.


## 10" ELECTRO-DYNAMIC SPEAKER

Note the large ${ }^{10 "}$ electro-dynamic speaker used in the new Lafayette "Commander". It has been especially designed for use with the powerful push-pull-parallel 45 audio amplifier incorporated in this amazing receiver. Together they provide really "Full Range" reproduction that will give you a new conception of rodio reproduction.


IT is with considerable pride that Lafayelle offers this now and $I$ improved seven-lube All-Wove Superheterodyne, a versatile receiver that brings in not anly all the regular wave American Broad. castino stations, but dozens of European, African, Asiatic and Austrolion shorl wave broadcasting stations as well. Tube for tube, It is unquestionably without equal in the present day market, and It sells for a price that will be greeted with cheers by people who have always wanted to enioy the thrills of dual-wave reception without being forced to pay foncy prices. Just check over the features listed below - note the careful attention to detail both in design and canstruction - and you will agree that Lafayelte again leads in value givino.

## high grade material throughout

There was no stinting on the part of Lafoyette engineers in the use of fine high grade materials. The workmanship is af the usual high Lafayette standard, and trauble.free operation is assured by the foct that almost $40 \%$ af all factary time is devoted to continual testing and retesting of the sel during all stages of manufacture.

## ALL MODERN IMPROVEMENTS

Every modern improverpent in eircuit design and mechanical canstruction that could possibly be utilized has been incorporated in this receiver. You dan't have to worry about changing fashions in receivers if you own one of these Deluxe All-Wave Superhets; your set has everything on It that is of any real use; no frills, but honest features that contribute to the actual performance as yoi hear it through the clear voiced dynamic speaker. No "trick" fea. tures have been added merely as a selling point-but every "prac. lical" feature that wauld add to the actual performance of the receiver is there.

## R.F. STAGE ON ALL BANDS

It is important to note that the R.F. stage functions on both the short, medium short and broadcast bands. This nat only reduces image frequency interference but also considerably reduces the noise level and adds to the selectivity of the receiver. Very fow seven-lube sets hove this highly desirable feature. This is anather reoson why Lafayette engineers con guarantee Eurapean reception an this remarkable receiver-read the Guarantee which appears an the opposite page and you will agree that na offer cauld be fairer.

## HIGH SENSITIVITY AND SELECTIVITY

The ability to pick up weak and distant stations is really remarkable. Sensitivity is rated al approximately 2 and 8 microvalts absolute on the standard and shart wave bands, respectively. Despite this extreme sensitivity, the circuit has been engineered so that the reception is far above the normal noise level. This is important to remember, as on inherently quiet receiver is essential for foreign reception. With o good antenna you will receive stations in London, Paris, Maseaw and even Sydney, Australia, regularly and with good strength.

Selectivity has been adiusted to the optimum value-not too sharp so that the reception is distorted-and not so broad that the stofions interfere with one another-but exactly right so that stations in adjacent 10 Kilacycle channels can easily be cleanly separated.

## EXCEPTIONAIIY FINE VALUE

Despite the great care that was taken in the design and construction of this receiver, it is law in price. It is nat the cheapest seventube receiver an the market today-there are cheaper ones-but when it is compared with receivers that approach its high quality in performance and construction then its exceplionally fine value is readily realized.

## NEW TUBES

SEVEN high gain newly develaped lubes are used in an Impraved superhe"erodyne circuit as fallows; ane 687 Diade Pentade as secand detectar and first avdia frequency tube; three 606 advanced varia-mu tubes in the first radio frequency stage, the first detectar (mixer) stage, and in the intermediale frequency stage; ane 42 pentade autpul tube is used in the second or final audio stage; ane 76 advanced triade in the ascillatar stage. An 80 rectifier is used to supply the necessary plate valtages.

## TRIPLE INDICATOR AIRPLANE DIAL

An important fecture of this superlalive set is the incarporation of a Triple Indicator Airplarte Dial for tuning both standard and shart wave bands. In addition to an accurate indication of bath standard and shart wave frequencles, the fully illuminated diaf registers the selting of bath tane and volume cantrols. A double painter on the $41 / 4$ inch dial spreads the bands so that critical tuning is accomplished with camparative ease. An $8: 1$ ratio on the cantral further simplifies accurate tuning.

CONTINUOUS ALL-WAVE COVERAGE
The frequency range of this receiver extends fram 18,300 io $5,800 \mathrm{KC}$ ( 16,4 ta 51.7 meters) on the shart wave band, from 5,800 to 1.700 KC ( 51.7 to 176.4 meters) an the medium short wave band, and from 1,750 to 530 KC (171.4 to 568 meters) an the standard braadcast band. It thus includes within ifs range all stations between 530 and $18,300 \mathrm{KC}$.

## FULL ELECTRO.DYNAMIC SPEAKER

An improved Electro-Dynamic Speaker, measuring 8 inches in diameter assures maximum fidelliy of tane aver the entire audio frequency band. It will safely handle the three watl autput withaut rattling or blasting.

## BEAUTIFUL CONSOLE OR MANTEL CABINETS

In keeping with the electrical and mechanical quality of the seven-tube Triple Band chassis, Lafoyette has chasen cabinets of apprapriate finish and appearance. The twa illustrated are beautiful examples of the cabinel makers art. They are both salidly built to eliminate any possibility of cabinet vibration, and they will cantribute a definite decorative nale to any raom in which they ore used.

The mantel model is striking in its simplicity. Large baffe area for the speaker is obtained by careful placement of the latter unit. A silk orille covers the speaker apening without affecting the sound emissian in the slightest. The console madel is truly a majestic piece of furniture with the chassis maunted high ta affard maximum operating canvenience. It is a piece of furniture that deserves a prominent place in any living room. The beoutifully grained woods are a delight to the eye and the finish is such as you would expeet in the finest highest priced furniture.

## EUROPEAN RECEPTION GUARANTEED

This receiver has been corefully adiusted for maximum sensilivity and will under reasanably fovaroble weather conditions pravide enjoyable Eurapean reception. That is the guarantee that Whalesale Radio Service Ca. gives yqu on this recoiver and that Whalesale Rodia Service Ca., lives up to with a money back agreement. Whalesale Radia Service Co. make na wild promises in order to sell you a receiver - but it does live up ta the promises it makes. Our Lafoyette 30 day free trial offer has been a palicy of this company since its inceptlan - use it to prove our claims.

Model B.15-Chassis, Tubes and Speaker. Size of chassis $131 / 4^{\prime \prime}$ lang, $101 / 4^{\prime \prime}$ deep and $71 / 4^{\prime \prime}$ high. For 110 valt, $50-60$ cycles $A C$, operation. Shpg. wh., 36 lbs. Code Festa.
List price $\$ 63.00$. Your Coss.
$\$ 31.50$
Model E-16-Lafoyefle All-Wove Seven Tube Superheterodyne in Mantel Cobinet and complete with tubes. For 110 Volts $50-60$ cycle AC operation. Dimensions: $201 / /^{\prime \prime} \times 151 / 4^{\prime \prime}$ x $111 / \mathbf{n}^{m}$. Shpg. wt., 40 lbs .

Code Febri. List Price $\$ 69.90$ Your Cost
34.95

Model B-17-Lafoyelte Seven Tube All-Wave Superheterodyne in Cansole Cobinet measuring $381 / \mathrm{m}^{\prime \prime}$ high, $22^{1 / 4 \prime}$ wide and 11 " deep. For $110-125$ volt, $50-60$ cycle AC operatian. Complete with tubes. Shpg wh 60 lbs. Cade Ficus. Lisi rice $\$ 85.00$ Your Cost.
Elfher Model for 220 Volfe
-42.5
\$2.50 eddifional
 VELOPMENT "THE ARMORED

NERVE CENTER" RIVALS THE HUMAN BRAIN AS A MASTER CONTROL UNIT - IT IS YOUR GUARANTEE OF PERFECT RADIO RECEPTION

THE "Armored Nerve Center" used in the new 10 -Tube Deluxe All-Wave Superheteradyne is the result of months of research and develapment wark by Lafayatle engineers. This is no mere trick name, but represents what is prabably the most carefully designed and most effective luning unit on the market. The tuning coils and the switches that cut them in ond out af the circuit were designed especially for each other, and na campromises in either electrical efficiency or mechanical reliability were talerated.

THOROUGH SHIELDING PREVENTS COUPLING
The ward "armared" is rightfully used, far the internol shielding of the Armared Nerve Center suggosts bottleship canstruction. Lafayette engineers found that ardinary shielding did not campletely eliminate caupling effects between cails, porticularly the high frequency cails, sa they decided to use extraardinary precaulians in the shape af heavy, rugged metal baffie plates that obsalutely confine the electro-magnetic and electrastatle fields af the various cails to their awn individual campartments. The result? Smaoth, interferencefree reception an all wave bands, withaut the slightest trace of inferoction effects!

SHORT LEADS CONTRIBUTE TO COIL EFFICIENCY
The plocement af the coils in relation to the switch sections has been worked aut with great precision so as to keep crifical connecting leads extremely short. This is af extreme importance at the very short wavelengths, where the total amount of wire on the actual funing coils is sometimes no greater than the length of the conneclions to the rest of the circuit. This careful engineering is refiected in the high average of performance of the 10 .Tube Deluxe Superheteradyne on all wave bands. The sensitivity an the broadcast band is 1 microvolt, on the 75-200 meter bond 2 microvalts, on the 30.75 meter band 2 microvalts, and on the 14.30 meter band 3 microvalts.

PERMANENT ADJUSTMENT ASSURED
The cut-away view of the Armored Nerve Center shows the artangement of the parts, and also indicales that trimmer condensers with ceramic insulation are used. These are used because they hold their adjustments and are not affected by temperature and humidity changes. The receiver is aligned by competent ungineers of the Lafayette factory.

4 SETS FOR THE PRICE OF ONE
THIS new product of Lafayefle engineering skill is really and Iruly FOUR sels in one, although the price you pay for it is no more than the price of an ardinary receiver. Not only domestic broadcasting alane, but the entire warld of radio becames available $1 a$ you. Yau proctically have four separate receivers for four separate bands.

The first band is the regular American braadcast band beiween 200 and 550 meters.

The secand band covers the range befween 75 and 200 meters within the limifs of which are included the thrilling shart wave palice broadcasting statians, the amateur statians on bath the 80 and 160 meter bands and the aircraft stations.

The third band, from 30 ta 75 meters, is af particular interest to the braadcost listener, since it is on this band that the fareion sfatians braadcast during the evening haurs. Landan, Berlin, Paris, Madrid, Moscow, are all an this band with interesting braadeasts interspersed with announcements in English.

And fourth, we have the band from 141030 meters which is used far ihe broadcasting of foreign and damestic short wave pragrams during the daytime. This band also has the other omusing amateur phane band at 20 meters where you can eavesdrop an conversations between amateurs thousands of miles apart.



Above curves illustrate the remarkable selectivity and sensitivity available on the Latayette Model F. 62


The first tube is one of the new type 6D6 varia-mu tubes and is used in the radio frequency pre-amplifier stage that considerably increases the sensitivity of the receiver and greatly decreases imoge frequency interference and background noise. This is followed by a type 76 tube as oscillator and o Pype 6D6 as modulator or first detector which, in turn, is followed by a high gain intermediate fresuency amplifier stage using onother type 6DS vario-mu fube. A lype 75 lube follows this with the diode used as the second detector thus making it capable of handling great power without overloading or dislorting. Another lype 76 fube is used for the sole purpose of providing outomatic volume control action thus providing a more positive and effective control over varying signal strengths. This completes the R.F. portion of the receiver which is followed by the audio system described below.

AUDIO POWER OUTPUT OF 12 WATTS!
Of particular interest is the newly developed Closs " $A$ " Prime audio amplifier hoving an output of 12 watfs. The second detector is followed by the triode section of the 75 which is, in furn, followed by a type 42 fube that is transformer coupled to a pair of 42 's in Class " $A$ " Prime. The rectifier is a type 523 high vacuum heavy duty tube. No mere written description can do full justice to this amazingly powerful amplifier. Musical reproduction, especially of symphony orches. tras, will have a new meaning for you when you hear the full rounded sonorous tones that only ample reserve power can make possible.

Selectivity is also of a high order - providing full 10 KC . separation without affecting the tone quality in the slightest degree due to side band cutting.

IMPROVED AIRPLANE TYPE DIAL
A new and greolly improved dial makes the funing of both domestic and foreign stations a simple matter. The calibration for the standard American broadcast band is etched on the outermost of four concentric circles, the figures being lorge and legible. The three inner circles contain the markings of the short wave bands which are given in megacycles for quick reference. The dial is four inches in diameter over all and is brightly illuminated when the set is turned on.

The furning ratio of the dial is 12 to 1 which is fine enough for the most critical short wave station "fishing" yet quick enough for rapid exploration of the broadcast band. Four controls in all ore provided; band selector. puning, volume and tone.


For use in forsign countries a special model is available. This model incorporates an additional ( 5 in all) long wave band from 850 to 2000 meters. In all other respects, aside from this additional band, it is the same as the Model F- 62 described abave. This special long wave model is known as the Model F-58. For prices on this model see the following page.


LAFAYETTE 10-TUBE DE LUXE ALL WAVE SUPER WITH CAPEHART AUTOMATIC RECORD CHANGER
THE Lafayette 10 -Tube madels have been made available in the beautiful Phano-Radia Console picfured at the right. These madels include the famous Capehart Autamatic Recard Changer which plays ten 10 -inch or 12 -inch records, either 78 or $331 / 3$ R.P.M. Last record repeats until switch is furned aff. Any recard may be repeated or rejected af will. Radia receiver as per listing below. Madel F-4f-Lafoyetle 10.Tube Armared Nerve Center All-Wave Superheterodyne Receiver (as described on pages 14-15) in Phona: Radia Cobinet with CAPEHART RECORD CHANGER as deseribed above. Far operation an $105-120$ volts, 60 cycles AC . Dimensians: 210 lbs . Cade Favus. List price $\$ 279.00$. Yaur Cosi
Model f-45-Same as abave, but radia has additianal Eurapean band from 850 ta 2000 meters. Cade Fasce. List price $\$ 295.00$. Your Cost ............................................................ $\$ 147.50$ The abave receivers are available for $200-240$ valt operation of $\$ 6.00$ additional.


Madel F-46-Lafayefle 10-Tube Armared Nerve Center All-Wave Superheteradyne Receiver in Phona-Radio cabinet with Dual Speed Phonagraph Mator and Electric Pick-up. Plays 78 and 33 R.P.M. recards. Far aperatian an $105-120$ valts, $50-60$ cycles AC. Camplete with tubes. Dimensians: $42^{\prime \prime}$ high, $271 / 2^{\prime \prime}$ wide and $19 \prime \prime$ deep.
 Madel F-47-Same as Madel F.46, but radio has additional European band from 850 to 2000 meters. Code Filbus. List price $\$ 199.00$. Your Cost...
$\$ 99.50$
Add $\$ 7.50$ If deslred with Speciel Latayette Hi-Fldellity speaker.
Models F-46 and $F .47$ avallable at $200-240$ valts at an addillonal $\$ 3.00$.
LAFAYETTE 10-TUBE "LITTLE SYMPHONY" ALL-WAVE SUPER WITH TWO SPEED PHONOĠRAPH COMBINATION
THE handsame hardwoad mantel combination cabinet illustroted at the left houses the Lafayette 10 -Tube Deluxe All-Wave receiver and a powerful dual speed phonagraph motar and electric pick-up. Phonograph recordings (either 78 ar $331 / 3$ R.P.M.) and the mas $\phi$ wonderful radio entertainment being broadcosted is thus ploced at your disposal.

Model F-49-Lafayette 10.Tube Deluxe Armored Nerve Center All. Wave Superhet Phano-Radia Combination with dual speed AC. Complete with tubes. Dimensions: $261 / 4^{\prime \prime}$ high, $163 / 4^{\prime \prime}$ wide and $16^{\prime \prime}$ deep. Shpg. wh., 80 lbs. Code Fugas. List price $\$ 8 \geq .51$
$\$ 165.00$. Your Cost........... Madel F.50-Same as Model F.49, but with additianol European band from 850 to 2000 meters. Code Feras. List price $\$ 179.00$. Your Cost
.$\$ 89.50$
Models F. 49 and F. 50 avallable for 200-240


HIGH FIDELITY SPEAKER
The receivers described on this and the following page are regularly supplied with a 10 -inch dynamic speoker. They can be ob. lained with a speclal 12 -inch Lafayette HiFidelity speaker. This speaker fits the con. sale cablnets anly. If desired, add $\$ 7.50$ to prices quoted. volts al an additional $\$ 5.00$.

##  OTH the Four Band and Five Band models of the

BLafayette 10 -Tube All-Wave Armored Nerve Center Superheterodyne are available in the cabinets shown on this page.
The Mantel Cabinet illustrated below is an exquisite piece of radio furniture constructed of selected American hardwoods. Straight grained Americon walnut, rich Claro walnut and fine burl maple are used in a semi-modernistic design that cannot fail to please the most critical person.

The Console Cabinet cannot adequately be described; it must be seen to be appreciated. Two-toned butt walnut with overlays of birdseye maple are blended in a design that is truly matchless. A straight line effect is used throughout, presenting an overall appearance that is artistic, but in no way "flasiny".

## LAFAYETTE ARMORED NERVE CENTER ALLWAVE SUPERHETERODYNE Four Bands - 14 to 550 Meters chassis onir

Model F-62-CHASSIS only with matched 10 -inch dynamic speaker and tubes. For $105-120$ volts, $50-60$ cycles AC. Dimensions: 9 " high, $131 / 2^{\prime \prime}$ wide and $10^{\prime \prime}$ deep. Shpg. wt., 40 lbs. Code Gefre. List price $\$ 99.90$.
${ }^{5} 49.95$ Your Cost Model $5-63-5 a m e$ as above except for $200-240$ valts, 25.60 cycles $A C$. Shpg. Wh., 42 lbs . Code Galic. List price $\$ 105.00$. Your Cost $\$ 52.50$ MANTEL CABINET
Model F-60-Lafayette 10-tube Armored Nerve Center AllWave Superheterodyne Receiver in the Mantel Cabinet illustrated below. Complete with $10^{\prime \prime}$ dynamic speaker and tubes. Dimensions: $211 / 4^{\prime \prime}$ high, $16^{\prime \prime}$ wide and $121 / 4^{\prime \prime}$ deep. For $105-120$ volts, $50-60$ cycles AC operation. Shpg. wt., 55 Ibs. Code Gayre. List price $\$ 115.00$.

## Your Cost

${ }^{5} 57.50$
Model F.61-Same as above, but for $200-240$ volis, $25-60$ cycles $A C$. Shpo. wt., 57 lbs. Code Ginza. List price $\$ 119.90$. Your Cost
Model F-25-Lafayette 10 -tube Armored Nerve Center AllWove Superheterodyne Receiver in the attractive Console Cabinet illustrated at the upper right hand corner of this poge. Dimensions: $381 / /^{\prime \prime}$ high, $221 / 2^{\prime \prime}$ wide and $131 / 2^{\prime \prime}$ deep. Complete with tubes. For operation on 105-120 volis, 50-60 cycles AC. Shpg. wt., 85 lbs . Code Fanus.
\$64.50 List price $\$ 129.00$. Your Cost
les AC Modol F-26-Same as above for $200-240$ valts, $25-60$ cycles AC. Code
Foeda. List price $\$ 133.50$. Your Cost............... 86.75

## LAFAYETTE 10-TUBE EUROPEAN MODELS

## Five Bands - 14 to 2000 Meters

Model F.58-Lafoyetle 10 -Tube Five Bond Armored Nerve Center All. Wave Superheterodyne CHASSIS ONLY, with matched 10 -inch dynamic speaker and fubes. For $110-220-240$ volts, $25-60$ cycles AC operatlon. Dimensions: $131 / 2^{\prime \prime}$ wide $10^{\prime \prime}$ deep and $9^{\prime \prime}$ high. Shpg. wt., 12 lbs Code Gonga. List price $\$ 115.50$.
57.75

Model F.5s-Lafayette 10 -Tube Armored Nerve Center Five Band Model F-5s-Lafayette 10 -Tube Armored Nerve Center Five Band
Superhel Receiver in Mantel Cabinet illustrated at the right. Complete Superhel Receiver in Mantel Cabinet illusirated at the right. Complete
with 10 -inch speaker and all fubes. Dimensions: $21 / 6^{\prime \prime}$ high, $16^{\circ}$ wide with 10 -inch speakef and all fubes. Dimensions: $21 / 4^{\prime \prime}$ high, $16^{\prime \prime}$ wide
and $12 \frac{1}{\prime \prime}$ deep. For $110-220-240$ volts, $25-60$ cycles AC operation. Shpg. wt., 57 lbs . Code Goyer. List price $\$ 129.50$ Your Cost
64.75

Model F.43-Lafayelte 10 -Tube Armared Nerve Center Five Band Superhet in Console Cobinet illustrated above. Dimensions: $381 / 4^{\prime \prime}$ Superhet in Console Cabinef illustraped above. Dimensians: $301 / 4$
high, $22^{\prime \prime} 2^{\prime \prime}$ wide and $13 / 2^{\prime \prime}$ deep. Complete with iubes. For operation high, $221 / 2^{\prime \prime}$ wide and $131 / 2^{\prime \prime}$ deep. Complete with iubes. For operairon
on $110-220-240$ volis, $25-60$ cycles AC. Shpg. wt., $87 \mathrm{lbs} .5 \%$ Code Fetico. List price $\$ 143.90$. Your Cosi.
71.95
spicify voltage conntction reoulred

# BAT'IERY SETS for! 

FOUR DISTINCT TUNING RANGES: 180 TO 560 METERS, 71 TO 187 METERS - 30 TO 71 METERS - 15 TO 30 METERS

CARMERS, LUMBERMEN, RANCHERS ond other people who live away from electric lines have Fbeen badly neglected in the past by radio set monufacturers. Lafoyelte engineers, ofter o careful survey, have develaped a new line of economical all-battery operaled receivers that are fully the equal of the AC models.

## THE ADVENTURER

This is a truly sensational 10 - fube All.Wove recelver cavering ALL bonds between 15 and 560 meters. This range is divided into four bands as followst one from 180 to 560 meters which takes in all the American broadcasting stations and many palice stalions, the second from 71 ta 187 meters includes palice calls, amateur, airpart and aircroft stations, the third from 30 to 71 metels includes the band that is used for the foreign short wave broodcasts in the evening, the fourth, 15 ta 50 mefers, is the band used for foreign short wave broodcasts during the daytime.
Ten pubes in a superheterodyne circuit assure you of real performance. One lype 34 lube is used as a R.F. amplifer on Broadcast Band, a type IC6 os cambined madulatar and ascillator, twa type $34^{\prime}$ 's as I.F. omplifiers, one type $30^{\prime}$ as second detector A.V.C., and four type $30^{\circ}$ 's in the audio system of which two are in a class " $B$ " autpul stoge, final tube is a voltage regulator With a $11 / 2$ watt push-pull audio system and on 8 inch motor mognetic speoker, the tone quality of the Adventurer will satisfy the most discriminating tastes. An alrplane type dial with a 20 ta 1 ratia makes funing a simple malter. Bottery current consumption is extramely low. Madel F-55-Lafayetie 10 Tube Adventurer Chassis with mubes and speaker, but less
 Complete set of Burgess 8atteries and Eveready Air-Cell. Shpg. wi., 85 lbs . $\$ 10.40$
If desired with permanent magnet dynamic speaker add $\$ 5.50$ to above price.


Model P-56-Lafayette Adventurer in Montal Cabinet with tubes but less batteries. Dimensians: $183 /{ }^{\prime \prime}$ high $151 / 2^{\prime \prime}$ wide and $10^{\prime \prime}$ deep. Shpg. wt. 45 lbs. Code Conse. 4 I 51

YOU would hove to be tald that this was a baltery operated receiver . . . because you wauld naver guess if by iust listoning io ft . It has power - tone quality - selectivity - sensitivity all those things yau assaciate with a modern up-ta-date electric receiver . . . yel it operates entircly from balteries. No langer need yau be penalized because yau da nat have hause current available. Now yau can enioy the same type of receptian that city dwellers enjoy.

## SIX ACTIVE TUBES-SUPERHETERODYNE CIRCUIT

Six of the latest most improved type tubes are used in a highly selective and sensitive super heteradyne circuil including: ane type GA7 dual purpose fube that acts os bath ascillatar and mixer, twa type 34 fubes as intermediate frequency amplifers, one type 30 as A.V.C. tube and anather 30 as secand delector follawed by a type 33 pentade pawer oufput fube. The frequency range is from 190 to 550 meters. A large reductian type airplane dial makes funing a simple matter. And the use af a pre-selector stage tuned by ane sectian af the three-gang candenser provides excellent selectivity and assures ample separatian between statians

Model A.E3-Lafoyelle "Cauntry Gentleman" 6-Tube Battery Receiver complete with tubes, but less batteries. Dimensions: $16 \frac{1}{2 \prime \prime} \times 8^{\prime \prime} x 131 / 2^{\prime \prime}$. Shpg. wi., 18 lbs . Cade Ephor. 2 ? 9 List price \$43.90. Youp Cast.

Complete sel of Ben Hur batferies including $1-221 / 2 \mathrm{~V}$ " C ", 3-45 V " B " and 1-Burgess " $A$ " Pack. Shpg. wt., 48 lbs. Yaup Cost
$\$ 5.60$


# Cafayette 32 volis 6 

 WNERS of 32 valt Delca and similor farm power plants can now eniay the same fine quality of reproduction as their urban friends wha have regular 110 valt hause current available. This new Lafayelte 32 valt receiver is a full size 6 -lube superheterodyne using the new 6.3 V series of fubes including 1-6B7, 1-606, 1-677, 1-12A5 and 2-1273's.

## SEPARATE HIGH VOLTAGE B SUPPIY

All 8 and $C$ valfages are secured fram a separate vibratar type pawer pack. This unit is the real reasan far the excellent peffarmance of this receiver and is an exclusive Lafayette develapment. The tatal current drain af the receiver is anly 50 watts - na mare than an ardinary lampl

## SUPERHETERODYNE CIRCUIT

A highly seleclive and very sensitive superheteradyne circuit is used in this remarkable receiver. A special preselector stage is tuned by ane section of the three-gang candensar and provides an exceptlanally high image ratio thus greatly impraving the selectivity of the receiver. Both autamatic valume cantral and a full range tone contral are included. The speaker is af the dynamic type and the dial is a large full visian airplane type. Bath volume and tane sellings are recarded by special indicatars mounted directly an the dial face, and gaverned by the contral knobs. A Vernier reduction drive ratia mokes critical funing simple
Receiver is housed in the affractive Mantel cabinet illustraled of the right. Constructed af selected hardwoods blended in a neat design, it connot fail ta grace any set af furniture. Model E-44-Lafayette 32 voll Receiver complete with fubes ond Mantel Cabinet. 32 volts DC only. Dimensions: $16^{\prime \prime}$ wide by $20 \%{ }^{\prime \prime}$ high by $11^{\prime \prime}$ deep. Shpg. $w t ., 38 \mathrm{lbs}$. Code
${ }^{5} 36.95$

## The THRILL of BUILDING yoUR OWN with $L \mathcal{Z}$ CSDEB AI S

## ANDENJOY REAL RESULTS ON ALL HAM BANDS!

BUILD THIS PROFESSIONAL TYPE 9-TUBE SUPER


#### Abstract

THE now Madel XY22069 9-Tube Band Switching "Ham" Superhelerodyne enables the amateur ta bring the receiving end of his station up-to-date at a reasanable cast. Supplied in kit form, with the chassis accurately farmed and drilled, this set con be asseinbled and wired in a couple of eveninos.


## PRE-ASSEMBLED TUNING UNIT

Admittedly it is very difficulf far the average amaleur, with his limited cellar or altic facilities, ta assemble and line up o faur. range cail unit with its complicated switch. Yau are saved this trauble in the Madel kit, for the entire cail-switch assembly is furnished os an ossembled and wired unit.

## HIGH GAIN CIRCUIT

The sensitive circuit uses nine of the latest high gain fubes. A 806 works as R.F. amplifier on all bands. This is fallowed by a 6 C6 canverter, a 41 ascillotor, 6D6 first I.F., $6 B 7$ secand I.F., diade detectar and a.v.c. lube, 76 A.F. amplifier, 42 autput tube, 76 beal frequency ascillatar and 80 rectifier. A speciol three-position switch cuts in the a.r.c. far phane receptian in the first pasitian; cuts it out and thraws in manual cantral, in the secand pasition, and cuts in manual contral and the beat ascillator far C.W. reception in the third positian. This makes for aperating canvenience and gives the operator ony desired degree af cantrol.

## DEMOUNTABLE POWER UNIT

The six-inch dynamic speaker, power pack and oudio output sloge are all on a demountable chassis unit. If desired, it may be un. mounted and ploced a shart distonce from the funer. A crackle finished front panel is supplied. The whale completed receiver measures $201 / 4$ inches lang, 9 inches high and $101 / 2$ inches deep.

## 6-TUBE ACLONG AND SHORT WAVE SUPERHET


© HORT.WAVE "DX" fans will especiolIy appreciale the new Trupest 6-Tube "ckip Band" receiver kit, for it takes in nat only the entire domestic broodsast band from 200 to 550 meters, but the impartant fareign channel from 17.6 to 50 meters os well. It is so easy to assemble and wire that even a novice can do the job ond have the set work the first time he furns it on. The diagrams and instructions are very explicit and the parts fit perfectly on chassis.

This is an all $A C$ receiver, using the sfurdy 6.3 volt series of fubes. The 6A7 is the first detectar-oscillatar, warking into two I.F. stoges employing 6D6's. A type 75 tube performs the multiple functians of secand defector, automatic valume contral tube and first audia amplifier, and feeds a type 42 output tube. The rectifier is an 80. With two I.F. stages and outomotic volume cantrol, the "Skip Band" receiver is a set thot you will be proud to demonstrate os o product of your mechanical skill. A $\delta$ inch dynamic speaker, whose field coil is part of the receiver's filter system, is supplied separately. Chassis meosures $101 / 4^{\prime \prime} \times 61 / 2^{\prime \prime} x 7^{\prime \prime}$ high overall.
Model XY22012-Trutest 6 -tube "Skip Band" kit of parls, less tubes and speaker. Shpg. wt., 17 lbs . Code Leram. Your Cost
$\$ 56.50$
Special 6 inch dynamic speoker.
$\$ 3.45$
Matched kit of Lafoyelt fubes.
88.25

## 8-TUBE T.R.F. RECEIVER KIT

The Trutest ADVANCED ECONOMY 8 is without doubt one of the best broadcost receiver kits availoble on the market today. It is o real, man-sized autfit, the formed metal chassis measuring 12" deep, $161 / 2^{\prime \prime}$ wide and $71 / 4^{\prime \prime}$ high. The neal appearance and logical orrangement of
 the parts never foil to orouse fovorable comment. Each component hos been corefully designed ta provide an omple safety factor, resulfing in a finished unit thot will glve trouble-free service.
For the service man or custam-sef builder the ADVANCED ECON. OMY 8 is a sure.fire maney maker. If can be ossembled in a short periad of time, the only taols necessary being pliers, screwdriver and soldering iron. Installed in o console cabinet, along with a dynamic speaker, it attracts attentian from peaple interested in high quality radio apparatus - people who have money to spend. The reliable, time-tried T.R.F. circuit mokes the ADVANCED ECONOMY 8 a real performer, with sensitivity, selectivity and power much in excess of normal requirements. Three stoges of R.F. using type 6D6 pentodes work into a type 6C6 defector; a 76 first audio and two 42 's in the autput stage and type 80 rectifier. The audio outpul is 7 walts. For general smoothness of operation this combination is unbeatoble.

Model XY22031-Trutest Economy 8-Tube Kit, less fubes ond speaker. Shpg. wht, 28 lbs. Code Trute. List price \$35.00. \$ 4.95
Model XY22038-Matched $10^{\prime \prime}$ Dynamic Speaker. Shpg. wi., 10 lbs. Your Cost
Kit of 8 matched tubes. Shpg. wt., 7 lbs. Your Cost........... $\$ 4.00$ The Klt is shipped complete with all necessary instructions ond diogroms for easy, quick assembly.


USES 10 of the latest type tubes in an advonced superhet circuit. Three ranges cover from 18 to 550 meters. Furnished with matched $91 / 2$-inch dynamic speaker. For 110 volts, 60 cycles AC operation. Detalled description on page 11.

Lafayelte 10 -Tube 3 -Band Chassis complete with all tubes and matched $91 / 2$-inch $d y-33.50$


## 7.TUBE DELUXE

DOWERFUL three band superhet using the latest radio developments. R.F. stage on all bands. Covers from 16.4 to 566 meters. Comes with matched 8 -inch dynamic speaker. For operation on 110 volt, 60 cycles AC. Complete descrip. tion on pages 12-1 3.
Lafoyette 7-Tube Deluxe Chassis, camplete with all tubes and $81 / 2$-inch dynamic $\$ 31.51$


## 7-TUBE "AIR CRUISER"

NEW three band superhet covering range from 18 to 550 meters. Airplane dial has individually calibrated bands. Unusually sensitive and selective. Comes with 8 -inch Elec-tro-Dynamic speaker. For operation on 110 volts, 60 cycles $A C$. Full description on page 10.
Lolayette 7-Tube "Air Cruiser" Chassis, with oll


## 10-TUBE "4-BAND" DELUXE

EXTREMELY powerful superhet cir-
E cuit. covers a funing range from 14 to 200 meters. Comes with a matched 10 -inch dynamic speaker. For use on 110 volts, 60 cycles $A C$. Detailed description on pages 14-17.

Lafoyelle 10 -Tube $4-8$ and Chassis complete with all tubes and matched 10 -inch speaker. Your Cost
Similar to above but with five bands 15 to 2000 meters. $\$ 57.75$
$T$ is unquestionably true that there are many people who do nol own "up-fo-date" radios solely because they do not wish to part with the beauliful pieces of radio furnifure they now own. It is also true that many people cannot secure a radio in a cabinel that meets with their approval or one that blends harmoniously with the furniture they now possess.
With these facts in mind, Lafayette Radias are available in chassis form. Now it is only necessary to select the type of radio he desires, and then have it mounted into his fovorite cabinet, old or new.
The models described and illustrated above offer o selection that covers the requirements af a great majority of the purchasers of quality equipment. In all cases, every modern advancement in radio design has been incorporated into the finished design of the receiver. Police calls, European stations, airplane calls, amateurs and, of course, the American broodeast stations are placed at your command through the medium of these superlative sets. Mast important, although quality has been in no way sacrificed, they are priced low. For complete satisfaction, we heartily recommend the purchase of a Lafayelte Chassis.


## THE AUBURN 12-TUBE MAGNIFICENT FOR THE DISCRIMINATING BUYER

E OR those discriminating buyers who want a pawerful, precision built instrument of the utmost capabilities, with quality and not price the first cansideration, we recommend the Auburn Madel C. 75 12. Tube Magnificent, a set that lives up to its name. Far canvenience in mounting in consale cabinets, this set is made in three sections: radio tuner, audio amplifier and $\mathbf{1 2}$-inch cancert grand dynamic speaker.

## EASILY OPERATED BAND SPREAD SYSTEM

The Model C. 75 uses the famous Auburn band s-p-r-e-a-d system that makes foreign-station tuning iust as easy as domestic reception. There is no crowding on any wavelength; the band spreader has the effect of enlarging the dial many times. All the short-wave channels from 12.5 to 200 meters, as well as the regular 200.550 meter broadcas! bond, are completely covered, with plenty of averlap, so that there ore no "dead areas". Foreign broadcosters, ships at sea, airplanes in flight, amateurs and police stations will come in by the hundred.
Fractional microvolt sensitivity ( .8 to 1.5 microvolts absolute) is your guarantee of loud speaker signals on short-wave and broadcast stations all aver the world. Other features include automatic volume cantrol, automatic compensated tone control, rubber mounted chassis, and provision for all types of antennas. Tubes used are: $3-78,1-6 \mathrm{~A}$, 1-76, 1-85, 1-80 in the funer; 2-76, 2-42, 1-80 in the amplifier.
Madel C-75-Auburn 12-Tube Magnificent All-Wave Superhetero. dyne chassis and speaker, with tubes, less cabinet. Tuner dimensions: $12 \frac{1}{2}$ " wide $\times 10^{\prime \prime}$ high x $11^{\prime \prime}$ deep. Amplifier dimensions: $13^{\prime \prime}$
 Model C-76-Chassis, speaker and pubes with 5 bands $\mathbf{1 2 - 2 0 0 0}$ meters. For 110.250 volis AC, $\mathbf{2 5}-60$ cycles. Code Damas. Your Cosi
. $\$ 79.95$

## THE AUBURN MODEL C-92 - 8-TUBE SUPER GIVES ENJOYABLE EUROPEAN RECEPTION

THE Auburn Model C-92 8-tube Superheterodyne gives the public what it wants in a modern radio re-ceiver-enjoyable reception of European and other foreign stations. The patented AUBURN band s-p-r-e-a-d dial permits elusive stations to be tuned in as readily as any local broodcaster. Sensitivity of the C-92 is from . 8 to 1.5 microvalts which means that the $\mathrm{C}-92$ will miss nothing on the air.
A novel and valuable feature is the TONE COMPEN. SATOR which lifts the bass notes as the volume is cut down, thus maintaining full natural tone at low volume. Frequency range of the C-92 is from 540 to $25,000 \mathrm{KC}$ ( $12-555$ meters). Superheterodyne circuit uses $3-78$ 's, $1-85,1-6 A 7,1-76,1-42$ and $1-80$.
Model C-92-AUBURN 8-Tube All-Wave Superhet Chassis, with lubes and speaker but less cabinet. Dimensians: $131 / 4^{\prime \prime}$ wide $\times 81 / 2^{\prime \prime}$ high x $111 / 4 "$ deep. Shpg. wt., 29 lbs . Code Gades. $42.50 .{ }^{3} 1$
List price $\$ 85.00$. Your Cost............................
Model C-93-AUBURN 8-Tube Chassis, speaker and tubes with FIVE BANDS $12-2000$ meters. For $110-250$ volts, $25-60$ cycles, Code


## 

 E removed for service meroly by loosening four wing-nuts!
Vibrator can be inspect. ed or reploced without removing chassis from carl One of the outstanding features of this remark. oble receiver is the single unit construction that permits the removal of the entire chassis for service merely by loosening four wing-nuts! The entire chassls is constructed utilizing the some principles used in the construction of the ordinary type hame rodio - everything is eosily occessible - no trick mountings thot couse "heodoches" when servicing. The receiver housing remains permanently oftached to the car and

## Single Unit "Quick Service" Construction

 $\star$ Modern in Appearance and DesignONE of the most outstonding values ever offered in on Auto Radio Receiverl A six tube Superhet Auto Radio using the lotest type fubes ond with all of the lotest feotures such oss AIRPLANE TYPE DIAL ... AUTOMATIC YOLUME CONTROL . SINGLE UNIT "QUICK SERVICE" CONSTRUCTION....ETC. for only $\$ 22.95$. It is not 0 small set - but is FULL SIZE and, in addition, has mony feotures not found in other, more expensive, auto radio receivers.

## AUTOMATIC VOLUME CONTROL

The outomatic volume control system used in the receiver is positive ond quick oeting ond minimizes foding due to poss. ing under bridges, between steel buildings, under elevated structures, etc. It makes unnecessary the constont adjustment of the monual volume control when passing from a strong signal areo to a weak one.

## exceptionally sensitive and selective

Six tuned circuits (not including the oscillotor tuning) make this one of the most selective outo rodio sels ever built. And through the use of high goin coils in the R.F. and I.F. stoges logether with the new high gain tubes, o remorkoble degree of sensitivity hos been obtained.

Six fubes are used in the circuit including: 2-78's, 1-77, 1-75, $1-41$ and $1-84$. The output is actuolly 3 watts which is more thon sufficient to override all car ond road noises. Remote control is of the indirectly lighted oirplane type and is equipped with a lock type switch to prevent unouthorized use. The receiver housing is attractively finished in black and silver in modernlstic design.
Model AM-20-Lafayette "Rambler" Auto Radio complete with Suppressor Kit for six cylinder car, oirplane type remote control, two foot remote control cobles, and kit of matched tubes. Dimensions: $101 / 2^{\prime \prime}$ long, $71 / 2^{\prime \prime}$ deep, $65 / 8^{\prime \prime}$ high. Shpg. wt., 25 Ibs. Code Bosun. List price $\$ 13.90$. Your Cost - Special.
22.9.95

## need not be removed at any time <br> SUPPPRESSORLESS/ "triple flitered" AUTO RADIO! <br> $A^{\text {GAIN Laforelte presents something new and worthwhile - a "triple.filtered" }}$

 Auto Radio that eliminates the need for suppressors in $98 \%$ of the installations mode in modern automobiles/ Every possible "nolse entrance point" has been carefully filtered to guard against the pickup of interfering noises. It is proctically noise-proofl
## COMPACT - ACCESSIBLE CONSTRUCTION

It is a simple set to mount - requiring only a single mounting hole - and it is a still simpler set to servicel By dropping the cover - on which is mounted the speaker - the entire set is accessiblel All of the lubes are right there in front of you and can easily be removed or inserted. It is o compoct set measuring only $81 / 4^{\prime \prime} \times 7 / 2^{\prime \prime} \times 71 / 4^{\prime \prime}$, and it can be mounted on either side of the car - right ar left and still have the set mounted in the correct position.

## SIX TUBE SUPERHETERODYNE CIRCUITAUTOMATIC VOLUME CONTROL

Six tubes are used including two 606's, one 75, one 41, one 6A7 and one 84 . The three gang condenser is rubber cushioned agalnst shock and vibrotion. And the airplane type remote control is equipped with a locking device that prevents unauthorixed use. Another valuable feature is the inclusion of a tone contral this together with the six-inch electro-dynamic speaker accounts for the excellent tone quality. Selectivity is especially good and sensitivity is less than 1 microvolt per meterl An audio output of three watts provides ample volume to override all car and traffic noises. The positive automatic valume cantrol keeps the valume constant.

Model C. 60 - Lafayette "Triple Filtered" AUTO RADIO complete with Remate



## $\star$ "Full Range" Reproduction for your car! $\star$ Maximum Practical Sensitivity and Selectivity

ADELUXE Custom-Built recelver in the desion af which all price cansiderations were forgollen. It incorparates every warthwhile feature known in auta radia design today. A mere listing af its feafures, hawever, gives na inkling af the great care that was taken in the application of these features in this particular receiver - the Lafoyette Road King.

While the lubes used in the Raad King are practically the same as thase used in ather receivers the results ablained are sa superiar that there can be na camparison. The perfeclly engineared circuit uses six lubes: 1-75, 1-77, 2-78's, 1-41 and 1-84. Sensitivity and selactivity, due to the use af a high gain tuned radia frequency stage and a carafully selected Intermediate frequency, are exceptianally fine. Sensitivity is rated at $1 / 2$ micravolt per meter ( 2 microvalts (absolute) per 4 meters) I

## AUTOMATIC VOLUME CONTROL

A special lang range autamatic volume cantral incarporated in the circuit eliminates the need for canstant adjustment of the manual valume contral when passing between steel buildings, under bridges, etc., in order to maintain a canstant valume level. This feature alsa minimizes the annayance caused by "blasting" when tuning fram weak to strang statians.

## fULL RANGE TONE CONTROL

A full range tane contral, aperated by means af a knab on the side af the hausing, enables immediate selectian af either high or low nates.

## NON-GLARE AEROPLANE REMOTE CONTROL

A new type af aeroplane remote cantral is equipped with an adiustable pilat light dimmer so that the brightness af the light can be regulated to prevent interference with driving visian at night. The targe fully sensitized dynamic speaker (9 watts field excitation) is thoroughly dust-proofed to pratect it against dust and grit. Canstruction of the receiver thraughout is exceptianaliy rugged and rattle-praof. The receiver housing is finished in an attractive durable black erystallized laequer.
Madel L-s0-Lafayette "Raod King" Auta Radio camplete with suppressor kit for slx eylinder car, airplane trpe



* Mount it anywhere!
$\star$ Airplane Dial
$\star$ No Rectifier-All Tubes Amplify
- Automatic Volume Control

Al last a refreshingly new idea in outa radios. A particularly A handsome dashboord ar roof maunfed receiver that is extremely simple and unusually sturdy in constructian. Just maunt the receiver wherever yau prefer - it is equally adaptable for mounting to the dashbaord - to the back of the front seat - or to the cailing. Installation requires but a few minules and far service the entire receiver can be remaved from the car merely by laosening two serews.

## HIGH SENSITIVITY ASSURES GOOD RECEPTION

With a sensitivity of ane micravalt "absalute (per 4 meters) the Lafayelle 5 fube Superhet is superior to many home receivers in its ability to pick up stations. On any raod that on autamabile can travel yau will always have plenty of radio entertalnment. The full range automatic valume contral holds the signals steady as you go over hilis or dawn inta valleys and prevents blasting as yau fune from one station to onather. The airplane type dial is particularly easy to read.

## NEW TYPE TUBES-LOW CURRENT DRAIN

Five late type tubes are used including: 2-606, 1-6C6, 1-75 and 1-41. Note that all ore octive fubes na rectifier. Full 5 inch electro-dynamic speaker.
Madel E-62-Lafayeffe 5 Tube "Dash-Board" Maunt Auto Radio camplete with fubes and kit of suppressors for 6 cylinder car. Dimenslons: $12^{\prime \prime} \times 8^{\prime \prime} \times 4^{\prime \prime}$. Shpg. wh., 21 Ibs. Cade Covey. List price $\$ 39.00$.
Yaur Cast
${ }^{s} 19.95$

## AUTO

UTAH "B" Eliminator


## For Majestic

 Model 66 Exact duplicate Contains transformer, vibrator, filter condensers and type 84 rectifler tube. In hasvy metal container. Complete instructions included. Shpg. wt 8 lbs . XN14232-Unit, with tubeYour Cost

${ }^{5} 5.25$



## RGA m-34

## Vibrator

The genuine factory Part No. 7604. Full wave type. Double shielded, nolseless operation.
$\mathrm{XC}^{\mathrm{X} 2596}$
Your
Cost En. 3.60
Vibrator base only with filter condensers for above. Part No. 6577 XN14154Your Cost
$47^{\circ}$
Vibrators For M-105
Part No. 7689 ,
XN141SS-Your Cast $\$ 4.71$ Vibrators For M-107 Part No. 7780 xM14156.-Your Cost $\$ 2.93$

## Special 'Low Resistance'

 Abto Radio FusesHave resistance of approximately $25 \%$ to $30 \%$ lower than standard radio fuses.

| Stock No. | Ampe | Your Cost |
| :--- | :---: | :---: |
| XL12320 | 5 | Esch |
| XL12321 | 10 | 3 |
| XL12322 | 15 | 3 |
| $X L 12323$ | 20 |  |

## GEN-E-MOTOR Auto "B'" Eliminators

 Combined motor and generator operating from a 6 -volt storage battery. Can mount in exceptionally small space-3 5 - $\mathbf{x 5} \times \times 57 /{ }^{4}$ Each complete with latest type filter. Will curry up to $25 \%$ overload Employs latest type ball-bearing motor. Shpg. wt. 17 lbs .

|  | Out- |  |  | Y |
| :---: | :---: | :---: | :---: | :---: |
| Stock No. XN14209 | put |  |  |  |
|  |  | M.A. Taps |  |  |
| XN14210 | 200 | 30 |  |  |
| XN14228 | 225 | 50 None |  |  |
| XN14229 | 250 | 50 None | 4.2 |  |
|  | For | Police Car |  |  |
| XN14245 | 135 | $30 \quad 67 \frac{1 / 2}{}$ | 1.1 | 14.70 |
| For | Sound | Truck Equ | ipment |  |
| XN14224 | 275 | 120 None | 9.0 | 19.50 |
| XN14211 | 300 | 100 None | 8.75 | 19.98 |
|  | 32 V | olt Lighting | Plants |  |
| XN14213 | 135 | 671/2 |  | 13.52 |
| XN14222 | 180 | 90 |  | 13.52 |
| XN14212 | 180 | $676$ |  | 14.70 |

## POWERAOK

Fan Belt Driven IIO Volt A.C. Generator

For use with P. A. systems, electric lights, neon signa, A. C.-D. C. seta, ete Operates from any auto fan belt. Uitilizes third brush of generator; no connection to storage battery. Voltage varien ao more than 10 volts at any car speed. Full output at idling speed. Comes complete with power switch, double outlet, $B X$ cable, mounting bracket, cable and full instructions. Shpg. wt. 50 lbs. XS17212-175 Watt Output
Your
XS172is-250 Watt Output
Your Cost
Ford V-8 Mounting
Replaces part of the water pump housing and makes simple and efficient installatfon. Made of dieccast iron. Fita any 8 cylinder Ford. Shyg. wt. 7 lbs. X517214-Your Cost
For either of the above model Poweracks. Contains $0-150$ volt A. C. voltmeter, Wattage Regulator, Power Switch and Outlet receptacle. Just plug in and set wattage regulator at 110 volts. Shpg. wt. 5 lbs. XSIf215


General Multi-Tap Auto "R" Supply


Delivers wel! filtered A. C. from e 6 volt storage battery. Tapa provided at $90,185,180$ and 250 volts. Battery drain only 4.0 amperes at full load. Uses type 84 rectifier tube. In cadmium plated metal case $61 / x^{61 / 421 / 5^{\prime \prime} . ~ S h p g . ~ w t . ~} 15$ 1bs. $64 \times 61 / x^{2} / 夕^{*}$ Shpg. wt. ${ }^{15}$ Ibs.
XN14252-Power Supply, with rectifier tube.
Your
Cost
s8.82

## GEN-E-MOTOR

## MEMOTs

In cedmium plated case $2 \% \times 51 / 3 \times 4 \%$. Replaces vi-
 types. Shpg XM14201-Delivers 225 volts it 50 M. A. from 6 volt source. Drain $8 . \mathrm{A}^{2}$ amperes.
XN14230-Delivers 250 volte at 50 M. A. from 6 volt source. Drain 4.2 Your Cost Ench, 8 Either Type.
XM14233-Delivers 180 volts from a 32 volt source.
Your Cost Each
9.70

Special Auto Radio Bulb Round bulb, miniature base. 6-8 volts 015 amperes. XL12273-Your Cost $10^{c}$

## hercules

Metal Car Antenna


Two-piece all metal adjustable antenaa. 8* wide. Length variable from 3 to 4 feet. Equipped with 2 springs. Rainproof insulation Shpy wt, 6 llw.

## One Piece Aerial



Made of one piece of heavy metsi, and fully plated. Comes complete with springs, rubber grommets and all necessary hardware. Size $8 \times 35^{\prime \prime}$ Shpg. wt. 6 lbs .
XY22047-Your Cost

## DX Auto Aerial

One aerial is mounted under each running board and a wire laced between them through apecial hooks provided. May be used singly if deaired. Shpg. Wt. 8 lhs
XY22041-Single Unit Aerial Your Cost
KY22042-Two Units for 35
CIllustrated). Your Cost

## CRL Auto Suppressors

For use on the older type cars. Have bakelite sheathe. All fittings frmly anchored; no parta can
no
nome noise. Cable type has two acrew terminals.
XE5246-Spark Plug Type
Your Cost Each $16^{\circ}$ XE5247-Cable Typ Your Cost $I 8^{c}$


## Quantity Limited!

Remote Control Cables Thene cablen, manufactured by he s. S. White Co., are the finest obtainable. Used by many well known set manulacturera an standard equipment on their auto sets. Ends cannot unravel. Both enda terminate in brasy couplings $14^{*}$ in diameter. Six sizes a vailable. Shpg. wt. 3 lls.

| Stock No: | $\begin{aligned} & \text { Igth. } \\ & \text { Ins. } \end{aligned}$ | Your | $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Leth. } \\ & \text { Snat. } \end{aligned}$ | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| XN14194 | 14 | \$0.19 | XN14197 | 38 | \$0.49 |
| XN14195 | 20 | . 25 | XN14198 | 47 |  |
| XN14196 | 29 | . 35 | XN14199 | 72 | 5 |

Speclal Cable For
Majestic, Clarion and A. K.

## Auto Sets

Nine foot cable with 8 foot sheath
Nal
$\times 16078-Y o u r ~ C o n t . ~$


Stock Ifth. Your No. Ins. Cost $\begin{array}{rrr}\text { KN14197 } & 38 & \$ 0.49 \\ \mathbf{N N 1 4 1 9 8} & 47 & .69\end{array}$

Kit A-2
Contains 1 Receiver and 1 Anteana Impedance Matching Tranaformers, and 10 ft . of special shielded transmission line. Shps. st. 2 bs. XN14192
Your Cost
Kit A-3
Complete kit. Contains everything in kits A-1 and A-2. Shpg.wt. 4 lbs. $\$ 40$
XN14193-YourCost. ........

## Roof Antennas



## LYNCH Auto Antenna Systems


call
Kit $A-1$
Contains 25 ft . "Hi-Mho" Antenna Wire, two rear axle insulators, one fly wheel housing in sulator, 10 ft . lead-in wire and all connectors suiator, 10 ft . lea
XNICI91-Your Cost

## ,

rowr cost Each..

# ACCESSORIES 

Wire Wound Ignition Suppressors
Offer a high resistance to noise frequencles, yet permit ample flow of current for ignition purposes be. cause of their low D.C. resistance ( 500 ohms) Will not cut down the speed of any car, Housed in bakelite casinga. Two in bakelire casings. spark
types a valiable: for spar types available: or spark
plug and for distributor. pg. wt. 8 oz
كES296-Spark Plug Type
XE5297-Distributor Type
Your Cost Each,
Either Type
$29^{\circ}$

## BELDEN

Tinned Copper Shielding


The finest copper shielding availble. Fine mesh closely woven assures perlect shielding. Shpg. wt per $100 \mathrm{ft}, 4 \mathrm{lbs}$.
(Q16214 Inside diam. $\left.{ }^{13} \mathrm{~m}^{\prime \prime} 7\right)^{\circ}$ Your Cost Por Ft.
XQ16215-Inside diam. 7 " ${ }^{\prime \prime}$ Your Cost, Per Ft. Per 100 ft .
$\times$ Q16216 Inside diam isin 52.45 Your Cost, Per Ft. Per 100 ft .
${ }^{28} 6^{6 \prime}$

## Distributor Silencer



A new and improved type which eliminates high trequency kick backs and noise pick-up from the choke unit mountedinside the metal
case, thus eliminatine possibility of 8 horts
3 lbs. frame. Shpg. wt. 3 lbs.
$\times P 14217-y o u r ~ C o s t ~$ $59^{\circ}$

## "Sash Cord" <br> Auto Antenna Wire <br> 

Tresigned expressly for use in conatruction of under car auto antenna. Consiste of 42 strands of 27 copper wire wound on a buse of heavy motton. Has great tensile strength, s. flexble, and provides greater pick-up than other types of auto aurial wire. XY20909.
Your Cost, Per Foot 25 ft. Coll

## Thuteat Automatic Battery Charge Rate Regulator

The Trutest Regulator advances the charging rate of the generator by approximately amperes when the set or appilance is turned on, original charging rate when the equlpment is original charging rate when the equipment is not operating. Thus, generator and battery are Full instructions included. Shpg. wt. 2 lbs . XN14258 Trutest Automatic Charge Rate Regulator. Your Cost

### 2.25

## New! SHERWOOD Master Filter

Eliminates Individual Suppressors This filter is designed to replace all re-
sistors, suppressors or filters as used in connection with auto radio installations. The Sherwood Master Filter is placed in the distributor head only, thus eliminating the necessity for using any type of suppression on the spark plugs. Consists of elght individual coils wound into a master coil, having an A.C. resistance of 420 ohms at 3400 R.P.M. Constructed with solid bakelite housing that will resist heat of $400^{\circ}$ and is moisture proof. Will stand up under continuous excessive vibration. Shpg, wt. 8 oz. XN14135-Sherwood Master Filter Your Cost

s 1.60

## BELDEN Shielded Auto

Ignition Wire


## 7 Millimoter

Standard 7 mm . Lacquer braided wire covered by clowely wt. 100 ft. spooi, 4 lbs. Wt. 1021621 Por Foot. XQ16222-100 ft. spool Your Cost, Your C
special.

4.95

## Shielded Loom <br> 

Standard Loorn with a tinned braided shield on the outside. For shielding and protecting wiring in autos, etc. Will pass heavy wire.


## Armored Cable



For auto, radio, outdoor, P. A.systems and oil burner installations. Armor when grounded acts as
shield. Shpg, wt., per 100 ft., 8 lbs. shield. Shps. wt., per $100 \mathrm{ft}, 8 \mathrm{lbs}$.

 $\begin{array}{lll}\times Q 20856 & 2 . C o n d . & 212 \mathrm{c} \\ \times Q 20857-3 \text {-Cond } & \end{array}$ $\begin{array}{lll}\text { XQ20857-3-Cond. 3c } & 2.50\end{array}$

Auto Ignition Wire


7 mm . black lacquered braided wire for automobile ignition and hgh tensjon work. Shpg. wt. XY20852-1
Your Cost
ially designed for 9 mm . wire rpecishy. wis. 4 lbs. Neon sign use. Shpg. wt.
X Yos53 100 ft .
Your Cost.......

## Auto Radio Locks -

Prevent the theft of auto sets. Fit over one chassis mounting bolt, and prevent its removal until luck is opened by key. Yule lock mounted in cast-steel casing. Black lacquer finish. Two keys provided. Shpre wt. 2 lbs. Cost Each Similar to the ubove, but of one-pice bar Shpk. wt. 2 lbs.
XN14137-Your Cost Each

## Trutest

Vibrator Condensers
Exact replacement condensers. Oll impregnated. Rated at 1600 V . Small square metal cans are $11 / \operatorname{tox}^{2}$ 7/ $x^{1}{ }^{\prime \prime}$ with the exception
326 which is $_{7} / x^{0} 6 x^{5} 6^{\circ \prime}$

| Stock | Cap. |  | Your |
| :---: | :---: | :---: | :---: |
| No. | Mfds. |  | Cos |
| XD3240 * | . 007 |  |  |
| XD3241* | . 01 |  |  |
| XD3242 * | . 02 |  |  |
| $\times \mathrm{C} 3243$ | . 007 | Type |  |
| XD3244 | . 01 |  |  |
| XD3245 | . 02 |  |  |
| XD3246 | . 0071 |  |  |

Condensers indicated with \%have two leads-other one lead.

## ELKON Type



The following condensers are mounted in long metal cans and are equlpped with two leads and end
 .5 is $3^{3} / \mathrm{m}^{13} / 4 \times 3 / \mathrm{m}^{\prime \prime}$


## Generator Silencer

Both the generator commutator and cutout are sources of noise. This noise can
 ne eliminated by using
our generator silencer
XP14215-.5 mfd.
$21^{6}$
Your Cost Each


## Ammeter Condenser

A condenser especially desizned to elimingt the noise orivinating in the noise originating in wiring running from the ammeter such as the horn wiring head-light wiring, dashlight wirling, etc. Mounted it
metal cunequipped with metal can equipped with mounting lug that automatically grounds one side of the condenser and with a fiexible lead and lug for attaching to the ammeter.
XN14218
Your Cost.

## Dome LIght Filter

For eliminating noise originating in the wiring running to the dome light. Has self contained choke and condenser. XN14208Your Cost

## Tritest "Airplane Dial"

## Special Compact Suppressor Kits

These "Trutest" kits employ a new and simplified type of suppressor that will make the work of the auto radio installer much easier. These suppressors will fit any make car without the necessity for cutting any wires. Just unscrew spark plug cap, screw suppressor in its place and clip connecting wire to terminal provided on top of unit. Kits contain one spark plug suppressor for each cylinder and one distributor suppressor. XE5200-Four Cylinders Your Cost............. Your Cost.
XE5281-Six Cyllnders. Your Cost. derm Yourght C - Special Set of 8 SuppresYors for Ford V8. \$T, Your Cost.


XE527
pressor.
Your Cont Each
XE5272
preseor. Cost Each
XE5253-Special ….... $4^{c}$
XE5253-Special Compuct Type
for Buick Cary.
for Buick Cara.
Your Cost Each

## Remote Control

Built of pressed steel, rust-proofed and finished in black lacquer. Dial, illuminated by a pilot bulb, has sweep hand indicator of the popular airplane type. Key is part of volume control knob. Entire unit clamps on steering column. Size: $315^{\circ}$ high, $23 \%^{\prime \prime}$ wide, $1^{\circ}$ thick. Can be used as a replacement control in many standard sets. Shpg. wt. 3 lhs.
XN14241-Remote control with knobs and pilot light; less cables, couplers and clamps. Your Cost
XN14243-18" Cables-Your Cost, Per Pair XN14246-24" Cables-Your Cost, Per Pair XN14247-30" Cables-Your Cost, Per Pair XN14242 Connecting Couplers-Your Cost, Per Pair XN14244-Cable Clampo-Your Cost, Per Pair



# MALLORY REPLACEMENT VIBAATORS ELKONODE For all Stantevd Alvo Readio Sets 



The popular Auto Radio, as we know te today, has been made possible only by the fact that Maliory Engineors originated and manufectured the frot vibrator type power supply. Of the two million sets in use today, includins those powered by "B" batteries and motor generators, over hall are equipped with Mallory Eikonode vibrator "B" power supplios. It is apparent, therefore, that Mallory is and always will be the leader in the vibrator fleld. There is a Mallory vibrator for every make and type of Auto Radio. Most Important, Mallory Vibrators are now priced so low that the use of substitutes will be talse economy.




## ARCTURUS tubes

| Type No. | $\begin{aligned} & \text { List } \\ & \text { Price } \end{aligned}$ | Tour Cost | Type No. | $\underset{\text { Priste }}{\text { List }}$ | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 146 | \$1.35 | \$.73 | 22 | \$1.35 | 5.13 |
| $1{ }^{1} 6$ | 1.60 | . 87 | 244 | 1.00 | . 52 |
| 243 | 1.35 | . 13 | 26 | . 75 | . 38 |
| 245 | 1.10 | . 58 | 21 | . 80 | . 41 |
| 246 | 1.10 | . 58 | 30 | . 90 | . 47 |
| 2AT | 1.35 | . 13 | 31 | . 90 | . 41 |
| 287 | 1.35 | . 13 | 32 | 1.35 | . 3 |
| 573 | 1.00 | . 52 | 33 | 1.10 | . 58 |
| ${ }_{6 A 1}$ | 1.35 | . 33 | 34 | 1.35 | . 13 |
| 6 BJ | 1.35 | . 33 | 35 | 1.00 | . 52 |
| ${ }_{6} 6$ | 1.10 | . 58 | 36 | 1.00 | . 52 |
| 6D6 | 1.00 | . 52 | 37 | . 95 | . 49 |
| 6 6) | 1.60 | . 81 | 38 | 1.00 | . 52 |
| $6 \mathrm{C4}$ (84) | 1.35 | . 13 | 39 | 1.00 | . 52 |
| 1223 | 1.10 | . 58 | 41 | 1.00 | . 52 |
| 1225 (12.6 V.) | 1.50 | . 81 | 42 | 1.10 | . 58 |
| 1225 (6.3 V.) | 1.50 | . 81 | 45 | 1.10 | . 58 |
| 2575 | 1.10 | . 58 | 44 | 1.00 | . 52 |
| 014 | . 70 | . 35 | 45 | . 85 | . 44 |
| 10 | 2.10 | 1.16 | 46 | 1.10 | . 58 |
| 12 A | 1.00 | . 52 | 50 | 2.60 | 1.45 |

## 

## Universal Floor Polisher and Floor Wax

A tiresame and tedious job becomes o pleasure when using this light-in-weight floor polisher. The 25 H . of cord en. able all parts of the room to be reoched from one outlet. So constructed that floor polisher fifs under furniture ond creeps into inconvenient corners. Motor is eosily shut off ond on by switch on handle. The sheepskin mop is woshable and eosily replaced. Complete with cord, floor mop, 1 lb . can Universal poste wax ond 1 pint Universol liquid wax. Shpg. wi., 43 lbs.

XP15269-
Your Cost ... $\mathbf{2 3 . 5 0}$

## GE "Llie Way" Cleaner

Defect dirt better with this new cleoner. Equipped with a powerful motor-driven brush-type molor. It is olso one of the light. est and easiest cleaners to operofe. weighing bui 131/2 lbs. A vi. brotion. proof Mozdo lomp costs a llah directly oheod of the cleoner. The easily operated adiust. mentscrew pormits the nozzle to be selot ihe proper heigh for tharough cleaning. Rubber bumpers protecl furnifure. Bakelite handle has togole switch Gueranteed for one year. Complete with $181 / 2 \mathrm{ft}$. rubber covered cord. For 115 volts AC, 251060 cycles, or DC. Shpe wt. 15 lbs.

## x81777)-

Your Cost
831.95

## "Miraele" Automatie Toastor

The losi word in outamatic toasters. Has only six working parts - no clockwork mechonism. Simply place two slices in compartment, furn diol, and "Miracle" does the rest. Makes any degree of toast, light, medium or dark. Finished in chrome plote and rich black enomel. Switch card included. Shpg. wi., 6 lbs.
86.95


## Night light

For use os trouble light or night light. Fits all outlets; operates on AC or DC, 110 volis. Sokelite bose and hood. Cames complete with genuine Mazdo bulb. Builf-in switch. Shpg. wt.,

256

## 1 lb . <br> XMis23t-Your Cost, Eoch.

## GE Moderne Automatic Iron

Weighs only $31 / 2 \mathrm{lbs}$. Thermal switch, with "off" position makes it unnecessary to disconnect plug when iran is not used. Outstanding features consist of heat indicotor, Colrod heoting element, thumb-rest, butfon-soving button nooks, ond heel-stand. Permanenlly connected 10,000 cycle cord with spring cord protector. 1000 wotts. $115-125$ volis AC only. Shpg. wi.. 5 lbs. XV18041-
6.95

Tour Cost

## GE A.C-Matic Iron

Sove your energy and speed your ironing with this fast heating iron. A fully outomatic iron with a complete range of ironing heats. Provides even ironing temperature rote for all types of materiol. Has button-soving nooks, heelstond, thumb rest and long life Colrad eloment. 6 Ib . Iron. Finished in Chromeplote. For 115-125 volis AC only. Shpg. wt., 9 Ibs. EVisis-Your Cosi
33.79

## AT PRICES <br> THEIR OWN

## GE Vacuum Cleaner

Just whot the housewife needs o cleaner thot gats all the dirt ond is extremely simple to oper ote. The powerful motor driven brush brings deep lying dirt to the surfoce, combs and freshens the rug pile. Hos both front ond reor wheels to focilitole operotion. Air cooled motor requires no oiling. Adjustment screw provides correct nozzle height for all rugs. 7. blade fan provides pow. erful suction. Rubber bumpers prolect furniture. Has pistol-arip handle with convenient switch. Shpg. wt., 30 libs.
XSi772 -
Your
Cost
22.45


GE "Tldy" Cleaner
For quick cleaning in hard-to-gef-al ploces. It does all the small jobs the larger models con'l do. Goes deep into uphoistery and mattresses, thoroughly cleans stair carpets, drapes and automobile intepiors. The extensian rod enables the housewife to reach from floor to ceiling and other inaccessible ploces. The deodorizer, contoining dichloricide crystols repels insects from clothes, rugs, furniture and drapes and abolishes unpleasont odors in the house. The "Tidy" cleoner is guaranteed for one year. Shpg. wt., 9 Ibs.
xsil780-Complete with blower and extension rod, less deodorizer sef.
Tour Cost.
. 11.75

## Deodorizer Set

Consists of oloss dichloricide container ond two cons of dichloricide.
xsilfis1-Your Cost.

## Ev'ryday Twin Hoi Plates

Heoting elements of these hol plates ore made of the best resistance
 wire ond are designed for long life. Frames of heovy pressed steel with reinforced corners and sturdy defochoble leos. Madels ore finished in two-toned green, and hove bullt-in switches. For use on 110 volts AC. Complete with cord and plug reody for use. Shpg. Wt., 12 lbs. XV11102-Your Cost.

## ELECTicalappladces

## THAT T STORY

1935 TOASTMASTER AND HOSPITALITY TRAY
Needs no watehing-the Flexible Clack times the loasting auto. matically and pops up the finished loast as soan as il is finished.

The now Hospitality Tray is of wood, treated to resist acids and alkalis. Finished in mahogany, sycamore or walnut. The culting block, with trimming and sizing knife, is finished the some as the Pray. Includes erystal clear glass dish with five comporiments.


## G. E. HOTPOINT ELECTRIC MIXER

Mixes, beats, whips, stirs and chaps foods. Has powerful 3 -speed motor provided with tilt-back neck. Comes complete with two Pyrex bowls, double beoter, drink mixer, iulce extractar, extractor bowl and oll dropper. Finished in green baked enamol. Easy to assomble. Shpg. wt., 18 lbs .
Xyiss42-Your Cost.
\$16.45

## ELECTROMIX

## A HOUSEMOLD NECESSITY

A combination Whipper and Mix. or in one. Eliminates the tiresome task of beating ar mixing by hand. Detachable stoinless beater cleans in. stantly. Mixing unil plugs into any elec. tric outlet. Shpg. wt., 8 Ibs XV18124-Your Cost.
\$1.15


THE NEW GRILLETTE
Prepores your meal right at the loble. Fealures include: Removable plates (makes for easy cleaning); a removable grease re. ceptoclo; now iype cool handies. Unit is guaranteed for one year against burnouts. Adiustable slide with vertical colch permits toasting of "iriple decker" sandwiches or thick steaks and chops. Available with elther nickel plate or bright chromium finish. Size $101 / 2^{\prime \prime} \times 5 \frac{1}{4}$ ". Base $113 / 4 \times 6 \frac{1}{3}$ ". Shpg. wh., 8 lbs.
EVisi26-Nickel Plated.
Your Cast.
1.49 xyis127-Chrome Plated.
81.79

## DETECTO "ACE" BATHROOM SCALE

Crealed in the modern manner. The "noating" rack brings the dial to a quick stop. Registers up to 300 black washable mat covering the platform. Guaronfeed for five years. Shpog wt., 10 lbs. xsivias-


XV18111-Two-Slico Toastmaster and Hospitality Tray. Shpg. wh., 12 lbs. $\mathbf{Y}$. 6.80

Two-Slice Toastmaster only. Shpg. wt., 7 lbs. xy1108-
Your Cost 2.50

One-Slice Toastmaster only. Shpg. wt., 7 lbs. Yyier Cost. 3.60

NATIONAL COFFEEVAC COFFEE WITMOUT THAT METALLIC TASTE
The secrel of the finest coffee that you can possibly make is the "controlled can possibly make is the conirolied temperalure of the Coffee.Vac. It never boils. . sciontifically designed to brow coffee. Consisls of six-cup Coffee. Vae with siove and cord sot and chromium plated serving lray. Shpg. wl., 7 lbs . IVis3s7-
Y18358-10 Cup some as above.
Your Cost... \$4.95 xY1828:-6 Cup. with stove, less tray.
Youi Cost... $\$ 3.25$
xy18290 - 10 Cup.
with stove, loss
tray.
Your Cost... $\$ 3.95$


## HAMILTON BEACH ELECTRIC MIXER

A portable mixer thol every woman will want. Molor lips back so thet beaters droin into the bowl. Beoters are eosily removed. Finished in trory and block baked-on onomal. Cast iron base, chrome plated beaters. Complete with opoque olass exlroctor bowl, two ivory mixing bowls, sonitary luice extroctor and single agliotor for mixing drinks in glass. Shpg. Wi., $2 i$ ibs. XVie215-
Your Cost
c 15.45


## SUNBEAM MIXMASTER

The best known of all Kitchen Mixers. A real delight to all women who use 1 . Light and pertable, asily moved from place to place. Has powerful multi-speed motor. Does everyling in the line of mixing and beafing. Shpg. wt., 26 lbs. XV1827:-
15.45 Yous Cost.
IVis118-Food Chopper oftochment. Complete with power unit, food chopper, 2 vegetoble and I meat tulife. Shpe wh., 5 ibs.
4.75

## SUNKIST JUICE EXTRACTOR

## Apartment size

Just the thing for extrocting juice from oranges. lomons and limes. Consists of colored glass container with aluminum strainor, deep gloss juice extracting bowl, bettlewore reaming bulb. Finished in ivory ond chromium plete. The GIIbert Universal Motor has conveniont ioggle switch and operates on $I 10$ valts AC or DC. Size $7 x 7 / z^{\circ}$. Shpg. wt., 2 lbs.
XVItict-Vour Cost.
4.85

## THE ROYAL "CULINAIRE"

The most powerful Mixer-Chopper-Ceoter on the morket todoy. Sllent Y MP. molor is mounted in base-no oil or armase con drip into the bowl. All olfochments fit directly on the moln drive shaft. Comes complete with speciol tralte bowl, 2 lerge beofers and ane bowl cover. Motor for operation on 100 to 120 volts, AC or DC. Motors . . use on speciol voltoges supplied of an addilional $\$ 1.50$. Shpo. wh., Is lbs. xvierme
Tour Ceal.


\title{

Oufity ELEGTRIC FANS and CLOGKS <br> <br> Stancor 8" Fans <br> <br> Stancor 8" Fans

A real hiph quality fon of - law price. feotures include a free-action oscillatar, faur bladed aluminum prapeller, cast metal housing and base, pow. erful induction motar. Consumes anly 25 watts. Displaces 350 cu . H . of air per minule. Slurdy wire guard gives ample blade protectian. Finished in green. for 110 volts, 60 eyclos. AC (only) with switch. Shpg. wt., 7 lbs.

## xvil357-

Your Cast, Each
3.49

Similar to the above model, but without an ascillator, less switch. Shóg. wt., 6 lbs. xy14358-
Your Cosl, Each
s2.25


## Signal $\mathbf{g}^{\prime \prime}$ Oscillator Fan

Out of the hot sun inta a caol room fanned by o Signal fan. Coal air brings renewed on ergy to all in the home, office and factory. Its high quality and dosign will bring years of service and satisfaction. This oscillating type fon is constructed with a Unlversal AC.DC motor. Four blades with wire guard. Displaces 740 cu . ft . of air per minute. On-aff switch air per minute. On-aff switch
maunted in the base. Comes maunted in the base. Comes praved cord and plug. Finished n green, brass lacquered blades. Shpo. wt., 12 lbs . xvis363-
Your Cosit.......


## The G. E. "Chef"

This wall or shelf kitchen clock will harmanize with any klichen calar scheme. An accurate timekeeper, equipped with a self-starting molar, it may be had in green with ivary stripes, ivary with red stripes or black with white stripes. Shpg. wt., 2 lbs.
XV18030-
Your Cost

The G. E. Morning Star
An attractive alarm clack for the baudair ar any other raom that requires an accurato timepiece. This high quality, low-priced clack assures pasitive, occurate time with a self starting matar. The maulded plastic material case is 5 in . high. Calor, black. Shpg. wt., 2 lb . 2 lb.
$\mathrm{x} V 1803$
Your XV18031-
Your Cost

Telaire Alr Meter
Yaur health and comfart depend on the humidity ar amaunt of moisture in the air. Avoid harmful dryness with the Telaire Air Meler which registers humidity and tom. perature simultanoously. It is an accurate, sensitive and dependable instrument. En. cased in genuine Bakelite, and measures $31 / 2^{\prime \prime} \times 1 / 2^{\prime \prime} \times 2^{\prime \prime}$. Shpo. wi., 8 dz . XVis031Your Cost
$\$ 1.33$

## Polar-Cub Eloctric Fans

## Polar-Cub Eloctric Fans

Inducilan type matar (non-radio interfering) for operation an 110 volts, 60 cycles AC. Four blades, with wire pratecting guard, Cansumes only 27 watts. Has adjustable lilt tap. Finished in baked green onamel; bright finished blades.
 Comes with card and plug. Shpg. wi., 3 tbs.
XVis361-Your Cost.
. 1.29
Similar to the above, but 8 inches in diamoter. Consumes 38 walts. Complete with cord and plug. Green enameled finish. Shog. wf., 5 lbs.
Xyiss62-Your Cast, Special $\qquad$ $\$ 1.49$


RCA Radiotron Tubes are the standard ol excellence the world over and we back them up with as broad a guarantee as has ever been placed on a Radio Tube. We guarantee that they will give efficient service for six months and should any tubes purchased from us fail to do so we will replace them cheerfully and promptly - without quibbling or red tape. Burnouts and


SHORT WAVE BROADCASTING STATIONS OF THE WORLD

| Approx. Mega. eyeles on Dial | Meters | Station | Locatlon | Approz. Megaeycles on Dial | Meters | Stalloh | Location |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.40 | 125.10 | WIXAZ | Springfield, Masa. | 6.07 | 49.42 | UOR2 | Vienna, Auntria |
| 2.74 | 109.60 | VE9C1 | London, Ont., Canada | 6.07 | 49.42 | OXY | Skamleback, Denmark |
| 4.11 | 72.99 | HCJB | Quito, Ecusdor | 6.08 | 49.34 | W9XAA | Chicago, Illinois |
| 4.27 | 70.20 | RV15 | Khabarovak, U. S. S. R. | 6.09 | 49.26 | VE9BJ | St. John, N. B. |
| 4.79 | 62.56 | VE9BY | London, Ont., Canada | 6.09 | 49.26 | VE9GW | Bowmanville, Ont., Canada |
| 4.79 | 62.56 | W2XV | Lone Isiand City, N. Y. | 5.10 | 49.18 | ZTJ | Johanneaburg, So. Alrica |
| 5.14 | 58.81 | OK1PT | Prague, Crecinoslovakia | 6.10 | 49.18 | W9XF | Chicago, Illinois |
| 5.17 | 58.03 | PMY | Bandoeng, Java | 6.10 | 49.18 | W3XAL | Bound Brook, N. J. |
| 5.50 | 54.52 | W2XBH | New York, N. Y. | 6.11 | 49.10 | VUC | Calcutta, India |
| 5.69 | 52.70 | FIUI | Tananarive, Madagascar | 6.11 | 49.10 | VE9CG | Calgary, Alta., Canada |
| 5.71 | 52.54 | VE9CL | Winnipeg, Man., Canada | 6.11 | 49.10 | YV1BC | Caracas, Venezuela |
| 5.86 | 51.22 | XDA | Mexico, D. F., Mexico | 6.12 | 49.02 | W2XE | New York, N. Y. |
| 5.88 | 51.02 | HJ2ABA | Tunja, Colombia | 6.12 | 49.02 | FLE | Paris, France |
| 5.93 | 50.60 | HJAABE | Medellin, Colombia | 6.12 | 49.02 | ZTJ | Johannesburg, So. Africa |
| 5.94 | 50.51 | НЛА ${ }^{\text {H }}$ | Barranquilla, Colombia | 6.12 | 49.02 | VE9HX | Halifax, Nova Scotia |
| 5.97 | 50.25 | HVJ | Vatican City, Italy | 6.13 | 48.95 | YV11BM0 | Maracaibo, Venezuela |
| 6.00 | 50.00 | YO1 | Bucharest, Roumania | 6.14 | 48.86 | W8XK | Pitteburgh, Penna. |
| 6.00 | 50.00 | RW59 | Moscow, U. S. S. R. | 615 | 48.78 | VE9CL | Winnipeg, Man., Canada |
| 6.00 | 50.00 | EAJ25 | Barcelona, Spain | 6.15 | 48.78 | HKA | Barranquilla, Colombia |
| 6.00 | 50.00 | HKD | Barranquilla, Colombia | 6.20 | 48.35 | HKC | Bogota, Colombia |
| 6.00 | 50.00 | HR | Tegueigalpo, Honduray | 622 | 48.23 | 12RO | Rome, Italy |
| 6.00 | 50.00 | VE9DR | Drummondville, Que., Can. | 6.24 | 48.05 | HKD | Barranquilla, Colombia |
| 6.02 | 49.83 | W9XF | Chicago, Illinois | 6.25 | 48.00 | CN8MC | Casablanca, Morocco |
| 6.02 | 49.83 | DJC | Zeesen, Germany | 6.25 | 48.00 | HJ3ABF | Bogota, Colombia. |
| 6.03 | 49.75 | XEW | Mexico, D. F., Mexico | 6.32 | 47.50 | TITR | San Jose, Costa Rica |
| 6.03 | 49.75 | VE9CA | Calgary, Alta., Canada | 6.38 | 47.00 | HJ5ABD | Cali, Colombia |
| 6.04 | 49.67 | W4XB | Miemi Beach, Fla. | 6.38 | 47.00 | HC1DR | Quito, Ecuador |
| 6.04 | 49.67 | WIXAL | Boston, Mass. | 6.39 | 46.96 | W3XAL | Bound Brook, N. J. |
| 6.05 | 49.59 | GSA | Daventry, Enghand | 6.43 | 46.67 | VE9BY | London, Ont., Canada |
| 6.05 | 49.59 | VE9HX | Halifax, Nova Scotia | 6.61 | 45.38 | RW72 | Moscow, U. S. S. R. |
| 6.06 | 49.50 | ZL2ZX | Wellington, New Zealand | 6.62 | 45.31 | PRADO | Rio Bamba, Ecuador |
| 6.06 | 49.50 | CMCl | Havana, Cuba | 6.67 | 45.00 | F8KR | Constantine, Algeria |
| 6.06 | 49.50 | W8XAL | Cincinnat, Ohio | 6.67 | 45.00 | TGW | Guatemala City,Guatemala |
| 6.06 | 49.50 | VQ7LO | Nairobi, Kenya, Alrica | 6.98 | 43.00 | EAR110 | Madrid, Spain |
| 6.06 | 49.50 | W3xAU | Philadelphie, Penna. | 7.21 | 41.60 | HJUABB | Manizales, Colombia |
| 6.07 | 49.42 | VE9CS | Vancouver, B. C. | 7.2R | 41.60 | EAR58 | Tenerife, Canary Islands |
| 7.44 | 40.30 | HBQ | Radio Nationg, Geneva, Switzerland | $\begin{aligned} & 11.78 \\ & 11.79 \end{aligned}$ | $\begin{aligned} & 25.47 \\ & 25.45 \end{aligned}$ | VE9DR WIXAL | Drummondville, Que., C'an. Boston, Mass. |
| 7.56 | 39.70 | HKF | Bogota, Colombia | 11.81 | 25.40 | 12RO | Rome, Italy |
| 7.61 | 39.42 | HJ3ABF | Bogota, Colombia | 11.81 | 25.40 | VE9GW | Bowmanville, Ont., Canada |
| 7.80 | 38.47 | HBP | Radio Naclona, Geneva, Switzerland | $\begin{aligned} & 11.83 \\ & 11.83 \end{aligned}$ | $\begin{aligned} & 25.36 \\ & 25.36 \end{aligned}$ | $\begin{aligned} & \text { W2XE } \\ & \text { W9XAA } \end{aligned}$ | New York, N. Y. Chicago, Illinois |
| 7.88 | 38.07 | JIAA | Tokio, Japan | 11.86 | 25.28 | GSE | Daventry, England |
| 8.00 | 37.50 | HC2JSB | Guayaquil, Ecuador | 11.87 | 25.27 | W8XK | Pitisburgh, Penna. |
| 8.11 | 36.99 | HCJB | Quito, Ecuador | 11.90 | 25.20 | FYA | Paris, France |
| 8.65 | 34.68 | VE9BY | London, Ont., Canada | 11.90 | 25.20 | CT3AQ | Funchal, Madeira |
| 8.93 | 33.50 | TGX | Gmatemala City, Guatemala | 12.82 | 23.39 | CNR | Rabat, Morocco |
| 9.30 | 32.26 | CNR | Rabat, Morocco | 12.85 | 23.35 | W2XO | Schenectady, N. Y. |
| 9.49 | 31.61 | SR1 | Poznan, Poland | 13.95 | 21.51 | Y01 | Bucharest, Roumania |
| 9.51 | 31.55 | VK3ME | Melbourne. Australia | 14.63 | 20.51 | XDA | Mexico, D. F., Mexico |
| 9.51 | 31.55 | G88 | Daventry, England | 15.01 | 19.99 | CM6XJ | Mavana, Cuba |
| 9.52 | 31.51 | OXY | Skamleback, Denmark | 15.08 | 19.90 | T14NRH | Heredia, Costa Rica |
| 9.53 | 31.48 | W2XAF | Schenectady, N. Y. | 15.14 | 19.84 | HVJ | Vatican Cliy, Italy |
| 9.56 | 31.38 | DJA | Zeesen, Germany | 15.14 | 19.84 | GSF | Daventry, England |
| 9.57 | 31.35 | W1XAZ | Springfeld, Mass. | 15.20 | 19.82 | DJB | Zeesen, Germany |
| 9.57 | 31.35 | W8XK | Pitteburyh, Penna. | 15.21 | 19.73 | W8XK | Pittsburgh, Penna. |
| 9.58 | 31.30 | GSC | Daventry, England | 15.24 | 19.68 | FYA | Paris, France |
| 9.59 | 31.28 | W3XAU | Philadelphla, Penna. | 15.25 | 19.66 | W2XAL | New York, N. Y. |
| 9.59 | 31.28 | VK2ME | Sydney, Australis | 15.27 | 19.64 | W2XE | New York, N. Y. |
| 9.59 | 31.28 | HBL | Radio Nations, Geneva, Switzerland | 15.33 15.49 | 19.56 19.36 | W2XAD JIAA | Schenectady, N. Y. Tokio, Japan |
| 9.60 | 31.25 | CTIAA | Lisbon, Portugal | 17.76 | 16.89 | DJE | Zeeaen, Germany |
|  |  |  |  | 17.77 | 16.88 | GSG | Daventry, England |
| 9.68 9.87 | 31.00 30.40 | T14NRH | Heredia, Coata Rica Madrid, Spain | 17.77 17.78 | 16.88 | PHI | Eindhoven, Holland |
| 10.35 | 28.99 | LSX | Buenos Aires, Argentina | 17.78 | 16.87 | W9XF | Bound Brook, N. J. Chicago, Illinois |
| 11.18 | 26.83 | CT3AQ | Funchal, Madeira | 17.78 | 16.87 | W8XK | Pittsburgh, Penna. |
| 11.70 | 25.63 | FYA | Papia, France | 17.78 | 16.87 | W9XAA | Chicago, Illinois |
| 11.72 | 25.60 | VE9JR | Winnipeg, Man., Canada | 18.83 | 15.93 | PLE | Bandoeng, Java |
| 11.73 | 25.58 | PHI | Eindhoven, Holland | 20.73 21.46 | 14.47 13.98 | WSY | Buenos Aires, Argentina Boston, Mase. |
| 11.75 | 25.53 | CSD | Daventry, England | 21.47 | 13.97 | GSH | Daventry, England |
| 11.76 | 25.51 | DJD | Zeesen, Germany | 21.50 | 13.95 | W9XF | Chicago, Illinois |
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- V -

Variable Condensers

#  

| Tubular Cartridge Units |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Compact condensers in tubular cardboard containers only $21 / 4^{\prime \prime}$ long．Have stiff wire leads．Ideal for use in midget receivers where space is a factor． |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Stock Cap＇y Peak Diam．Your No．Mid．Volts Inches Cost |  |  |  |  |
|  |  |  |  |  |
| $\begin{array}{lllll}\text { XD3139 } & 1 / 200 & \text { 20，} \\ \times 0.17\end{array}$ |  |  |  |  |
| $\begin{array}{lllll}\text { XD3101 } & 2 & 500 & 5 \\ \text { XD }\end{array}$ |  |  |  |  |
| XD314 | 4 | 600 | 位 | ． 29 |
| $\begin{array}{lllll}\text { XD3141 } & 1 & 250 & 18 & .16\end{array}$ |  |  |  |  |
| XD314 | 2 | 250 |  | ． 20 |
| $\begin{array}{lllll}\text { XD3143 } & 4 & 250 & 11 / 8 & .25\end{array}$ |  |  |  |  |
| XD314 | 5 | 175 | \％ | ． 22 |
| $\begin{array}{lllll}\text { XD3145 } & 5 & 50 & 5 / 8 & .16\end{array}$ |  |  |  |  |
| XD314 | （10 | 50 |  | ． 18 |
| $\begin{array}{lllll}\text { XD3257 } & 25 & 50 & 13 & \text { 行 } \\ \text { O }\end{array}$ |  |  |  |  |
| $\begin{array}{lllll}\times 0359 & 56 & 18 & .16 \\ \times 03102 & 10 & 25 & 96 & .18\end{array}$ |  |  |  |  |
|  |  |  |  |  |
| $\begin{array}{lllll}\text { XD3103 } & 25 & 25 & 7 / 8 & \mathbf{2 8}\end{array}$ |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |



Compact Condensers in Round Inverted Metal Cans
$1^{\prime \prime}$ in Diameter
Designed for use in sets where space is limited These units are contained in round dra wn aluminum shells only $1^{1 "}$ in diameter and provided with a $4 / 8$ threaded stud．For in verted mounting．Have insulated leads for connec－ tions；separate positive and negative leads． 450 volts D．C．working voltage．Their low power factor and low leakage insure maximum filtering action． All sealed so as to be moisture
proof．Furnished with mounting nut．Shpg．wt． 1 lb ．

| Stock <br> No． | Cap＇y <br> Mid． | Peak <br> Volts | Your <br> Cost |
| :---: | :---: | :---: | :---: |
| XD3376 | 2 | 550 | $\$ 0.30$ |
| XD3377 | 4 | 550 | .34 |
| XD3378 | 6 | 550 | .39 |
| XD3379 | 8 | 550 | .40 |

## Round Inverted Metal Can－500 Volts Peak



These single and dual section elec－ trolytics contained in cylindrical aluminum cans．Fit $\$ / /^{\prime \prime}$ hole，and are furnished with hex nut and rated，working voltage 460 volts D．C．Designed for use in all other radio equipment．
Stock Cap＇y Size Your No．Mid．L Dia．Cost


## Cardboard Type With Mounting Flanges

 These units are con－ tained in tough fibre cardboard housings and provided with mounting tabs at either end．When clamp mounting is desired，these tabs may be cut off without breaking the cardboard housing

| Stock | Cap＇yl | Pe |  | Si |  | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M／d． | Volt | L | W | D |  |
| XD3115 | 4 | 500 | 41／8 | $13 / 8$ | $1 / 16$ | 0.23 |
| XD3116 | 8 | 600 | 41／8 | 13 | $13 / 10$ | ． 26 |
| XD3117 | 4－4－4 | 500 | $41 / 8$ | 1\％ | 1960 | 70 |
| XD3118 | 8－8 | 500 | $41 \%$ | 13 |  | ． 49 |
| $\times$ X3119 | 8－8－8 | 500 | 41／8 | 13 | 13 | ． 17 |
| XD312S | 50 | 25 | 419 | 13 | \％ | ． 39 |

## Round Upright Metal Can Units－500 V Peak

Mounted in cylindrical aluminum containers and provided with solder ug terminals．Will fitstandard ring mountings．Peak voltage 500 volt D．C．；working voltage 450 volt D．C．



## MERSHON Wet

## Electrolytics

Only a limited quantity of these genuine Mershon wet electroiytics a re being offered at these ezception－ ally low prices．All are brand new－recent fac－ tory output．All are of the clamp mounting type ex－ cept two as noted below． supplied with clamp；stud mounting units supplied with lock－washer and

Stock No．
$\times{ }^{2} 2690$ $\times{ }^{\times 2691}$ XD2686 $\times{ }^{\times D 2694}$ $\times{ }^{\times 2688}$


Cap＇y ${ }_{6}{ }^{\text {Mfd．}}$
Idd．
6
6
6
8
8
8

## Tubular Condenser Kit

The most attractive condenser bargain ever of－ fered to the serviceman．Each kit contains 25 tubular condensers，manufactured by a famous condenser manufacturer，and all are STAND－ ARD SIZES no＂fluke＂capacities or voltages． Range from 200 to 600 volts D．C．working voltage，from .0005 to .1 mfd ．Shpg． wt． 31 lbs.
XD 3258 ．
Your Cost，Kit of 25.


## SANGAMO＂ILLINI＂ <br> Mica Condensers

 Here is an op－ portunity for the service－ man on brand up on brand

quality mica condensers at prices far below the present market quota－ tions．These Sangamo condensers are constructed with the finest ruby mica，and are housed in moulded bakelite cases．All units have capacities marked on them．

| Stock | $\begin{aligned} & \text { Cap'y } \\ & \text { M/ } \end{aligned}$ | Your Cos | Stock | Cap＇y | Yo |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No． | M（d． | Each | No． | Mid． | Each |
| $\times$－ 4176 | ． 001 | 5 | $\times$（ 4173 | ． 0005 |  |
| XD4171 | ． 003 |  | $\times \mathrm{D} 4180$ | ． 00005 |  |
| $\times \mathrm{C} 4170$ | ． 000125 |  | $\times$ X 1174 | ． 0009 |  |
| XD4172 | ． 00045 |  | XD4175 | ． 00002 |  |

## SPECIAL KIT－ 12 UNITS

 Contains the following 4－． $001 \quad 1$ 1－． 00045 1－． 00002 1－． 003 1－． 0005 1－． 00005 $2-.0001251-.0009$ XD4166－Kit of 12 Your Cost，SpecialSPECIAL KIT -25 UNITS
Contains the following： $6-.001 \quad 2-.000452-.00002$ $\begin{array}{ll}4-.003 & 2-.0005 \\ 4-.000125 & 2-.0009\end{array}$
XD4167－Kit 25
Your Cost，Special 009

SPECIAL KIT－SO UNITS Contains the following $\begin{array}{ccc}8-.001 & 5-.00045 & 5-.00002 \\ 5-.003 & 8-.0005 & 6-.00005\end{array}$ 8 －． 000125 6－．0009 XD4168－Kit of 50 ST，
Your Cost，Special． .25 SPECIAL KIT－100 UNITS Contains the following 24－． 001 8－． $0004510-.00002$ $\begin{array}{lll}12-.003 & 10-.0005 & 12-.00005\end{array}$ 16 －． 0001258 －． 0009 XD4169－Kit of 100 S 2.40
Your Cost，Special
． 1 Mfd．Cased By．Pass Condenser
Metal cased lug mounting type． 1 mfd by－pass rated at 200
volts．Shpg．wt． 11 lb. X8461 Special． $7^{\text {c }}$

## AEROVOX Triple ．I Condenser



Made especially for General Mo－ tors，G．M．Part No． 1200473 （Model A chassis．） Connections brought out to solder lugs．Can common negative．
300 volts $\mathrm{D} . \mathrm{C}$ ． working．

|  | Type 1460 | Micas |  |
| :---: | :---: | :---: | :---: |
| Stock | Cap＇y | List | Your |
| No． | Mid． | Price | Cost |
| XD3813 | ． 002 | \＄0．35 | \＄0．12 |
| XD4183 | ． 00025 | ． 20 | ． 06 |



WHOLESALE PADIO SERVICE CO．Inc－NEW YORK－ATLANTR－MEWZARK
$\begin{array}{lcccc}\text { Stock Mirs. Capy. Wkg. Your } \\ \text { No. } & \text { No. Mid. } & \text { Volts Cost }\end{array}$

## ATWATER KENT

## $\begin{array}{lllll}\text { XD } 3013 & 25955 & 8-8-8 & 150 & \$ 0.95 \\ \mathbf{X D} 2951 & & 8-8 & 300 & \end{array}$  <br> $\mathrm{XD}^{2020} \mathrm{R}-8857 \mathrm{O}^{8-20} \quad 150-20$ $\begin{array}{llll}\mathbf{X D} 3021 & \mathrm{R}-8449 & 8-8-35 & 150-20 \\ \mathbf{X D} 3022 & \mathrm{R}-11300 & 8-8-10 & 150-25\end{array}$ <br> CROSLEY <br> $\begin{array}{llll}\text { XD2804 } & \mathbf{W}-27488 & 6-8 & 300-25 \\ \times{ }^{2} 2805 & W-27488 & 6-8 & 400-25\end{array}$ XB502 W-30124 8-16-16 125-125-100 $\begin{array}{llll}\text { XB503 } & \text { W-29012 } & 12-2.5 & 40-80 \text { A.C. } \\ \times 8504 & \text { W-29150 } & 7-6-8 & 450-400-25\end{array}$ X8505 W-30059 $\begin{array}{llll}\mathbf{X D 3 0 2 3} & W-26896 A & 12-6 & 300-25 \\ \times \mathbf{X D} 3024 & \mathrm{~W}-29264 \mathrm{~A} & 16-16-8 & 125-125-20\end{array}$ $\begin{array}{llll}\times 03024 & W-2964 A A & 16-16-8 & 125-126-20 \\ \times 03025 & W-29806 A & 16-16-8 & 126-100-125\end{array}$ $\times{ }^{\text {XD3026 }}$ W-30568 $\quad 8-8-8 \quad 250-250-2$   $\times{ }^{\times 1} 3035$ W-33311A $12-8 \quad 250-35$  $\begin{array}{llll}\text { XD3037 } & \mathrm{W}-27488 & 6-8 & 300-25 \\ \times 10 & \mathrm{~A} . \mathrm{C}\end{array}$

| DETROLA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| XP3039 $\times \quad 3040$ |  | 4-17-8 | 135 | . 85 |
|  |  |  |  |  |
| EMERSON |  |  |  |  |
| FADA |  |  |  |  |
| XD3043 | 1362-MS | 8-16 | 200 | . 86 |
| XD3044 | 1450-MS | 16-8-8 | 0-250-1 | 1.38 |
|  | ALVIN | (MOTO | ROLA) |  |
| XD2806 $\times \mathbf{D 2 8 0 7}$ | 88825 | ${ }_{8}^{25} 8$ | $\xrightarrow{20}$ | . 83 |
| GENERAL HOUSEHOLD <br> UTILITIES |  |  |  |  |
| $\times \mathrm{D} 2808$ | 24144 |  |  | , |
| $\times \mathrm{X} 2809$ | 24851 | 8-8 | 150-50 | 40 |
| XD2810 | 24459 |  | 500 | . 65 |
| XD2811 | 24458 | $8-8$ | $350-450$ | . 55 |
| XD2812 | 25195 | 4-4 | 200-50 | . 36 |
| XD2813 | 24789 |  | 25 | . 21 |
| $\times{ }^{\text {P2814 }}$ | 27715 | 4-8 | 350-100 | . 52 |
| D3041 | 27151 | 4-25-10-4 | 100-25 | 5 |
| $\times$ X 3042 | 26201 | 4-12-4 | 150 | x |

Wholesale Radio Service Company
ofters the most comprehensive line of
exact duplicate electrolytics for popul
lar A. C. D. D. C. sett. Every one of the
units listed below conforms in every
way toithe specifications of the original
manufacturer. At the exceptionally
low prices at which they are being of
fered, it will pay the servicemanto use
them rather than makeshift replace-
ments. Quantities limited.
$\begin{array}{ccccc}\begin{array}{c}\text { Stock } \\ \text { No. }\end{array} & \begin{array}{c}\text { Mirs. } \\ \text { No. }\end{array} & \begin{array}{c}\text { Capy. } \\ \text { Mid. }\end{array} & \begin{array}{l}\text { Wkg. } \\ \text { Volts }\end{array} & \begin{array}{c}\text { Your } \\ \text { Cost }\end{array}\end{array}$ GRIGSBY-GRUNOW
XD2817

| 7402 | 10 | 6 |
| :---: | :---: | :---: |
| 7784 | 20 | 30 |
| 8118 | 20 | 30 |
| 7724 | 8 | 300 |
| 7824 | $8-16$ | $300-450$ |
| 8385 | $8-8$ | 450 |
| 8755 | $8-4$ | 450 |
| 9337 | 8 | 200 |
| 9661 | $8-16-10$ | $140-15$ |
| 10067 | 10 | 25 |
| 9979 | $8-8$ | 350 |
| 10193 | 8 | 450 |
| 10208 | $10-10$ | 25 |
| 10488 | 10 | 25 |
| 10369 | $8-8$ | 400 |
| 10630 | $8-8-10$ | $400-400-25$ |
| 10946 | 10 | 30 |
| 11017 | 16 | 450 |
| 11200 | $4-2$ | 450 |
| 11452 | $4-8$ | 450 |
| 11640 | $4-6-10$ | $300-350-25$ |
| 11794 | 20 | 30 |
| 12026 | $20-10$ | 25 |
| 12038 | 16 | 450 |

$\begin{array}{lllll} & 1-1-2 & 450-450-300 & .75 \\ \times D 2928 & 30-2080 & 80-2072 & 8-4-10 & 350-350-25 \\ \mathbf{X D} & 1.10\end{array}$
Pilot

| $\begin{array}{\|l} \mathrm{XD} 2855 \\ \times \mathrm{D} 2856 \end{array}$ | 22481 | ${ }_{5}^{5} 5$ | 25 50 | . 218 |
| :---: | :---: | :---: | :---: | :---: |
| XD2857 | 22484 | 8 | 150 | 29 |
| XD2858 | 70871 | 8-5-5-4-1 | 2 150-25-25- |  |
|  |  |  | 150-150 | 1.50 |
| XD2966 |  | 2 | 100 | . 27 |
| XD2967 | 22483 | 2 | 350 | . 39 |
| RCA-VICTOR |  |  |  |  |
| XD2859 | 64570-1 | 4 | 450 | . 30 |
| XD2860 | 64570-7 | 25 | 200 | . 55 |
| XD2861 | 64460-3 | 4 | 200 | . 28 |
| XD2862 | 66126-2 | 4-4 | 300 | . 49 |
| XD2863 | 66143-3 | 4-4 | 450-150 | . 45 |
| XD2864 | 66122-2 | 4-4 | 250 | . 38 |
| XD2865 | 66140-4 | 1-3.6 | 225-100 | . 33 |
| XD2866 | 66140-2 | 5-5 | 35 | . 27 |
| XD2867 | 66143-2 | 10-4 | 300-150 | . 55 |
| XD2868 | 66140-8 | 8 | 160 | . 33 |
| XD2869 | 66174-1 | 4-4-4 | 140-220-140 | . 62 |
| XD2885 | 66174-1 | 4-4-4- | 140-220-140- |  |
| XD2886 | 66140-6 | 15-4-4 | $\begin{aligned} & 20-140-180 \\ & 150 \end{aligned}$ | $\begin{array}{r} 1.35 \\ \mathbf{3 5} \end{array}$ |

## Dual 4 Mfd. 450 Volt

## Electrolytic

A special offer of these 4-4
condensers. 500 volt peak. In cardboard container with flanges for mounting Size $41 / 8 \times 11 / 4 \times 11 / 6^{\prime \prime} ; m \operatorname{mg}$. centers $46 /^{\prime \prime}$ inal positive

## Special 5 Mfd. 100 Volt Tubular Electrolytic

An ideal condenser for use in midget sets. Caworling vitac volus tubular cardboard con
tainer $2 \times \frac{4}{4}$ ". Has $31 / 4^{\prime \prime}$ wire leads. XD2910-
Your Cost Each

| Stock No. | $\begin{aligned} & \text { Mrs. } \\ & \text { No. } \end{aligned}$ | Capy. <br> Mid. | Wkg. Volts | Your Cost |
| :---: | :---: | :---: | :---: | :---: |
| RCA-VICTOR (Cont'd) |  |  |  |  |
| XD2887 | 66185-1 | 5-5-8-8 | $\begin{aligned} & 40-40-230 \\ & 380 \end{aligned}$ |  |
| XD2888 | 66139-1 | 4 | 380 25 | 50.95 .21 |
| XD2889 | 66189-2 | $8-4-4-4$ | $325-140-280-$ | 81 |
| XD2890 | 66171-1 | 8-8-4- | 225-150-150- |  |
|  |  | 10-8-8 | 20-150-150 | 1.59 |
| XD2891 | 66170-2 | 10-10 | 350-100 | . 55 |
| XD2892 | 66196-1 | 8 | 450 | . 37 |
| XD2893 | 66185-2 | 5-5-8-8 | 40-420 | . 85 |
| XD2894 | 66197-11 |  | 150 | . 28 |
| XD2895 | 68519-4 | 4-8 | 450 | . 58 |
| XD2896 | 68505-3 | 8-8 | 450 | . 59 |
| XD2897 | 68526-1 | 8 | 250 | . 38 |
| XD2898 | 66139-2 | 4 | 25 | . 21 |
| XD2899 | 68531-2 | 10-8-4 | 50-200-450 | 1.10 |
| XD2900 | 68527-2 | 10-10-4 | 25-25-200 | . 70 |
| XD2901 | 66143-3 | 4-4 | 450-150 | . 45 |
| XD2929 | 66160-2 | 8-4-10 | 175-175-25 | . 55 |
| XD2930 | 66155 | 4-4-10-4 | $300-300-$ | 5 |
| XD2931 | 66181 | 10-10-4 | 25-25-150 | . 52 |
| XD2932 | 66195 | 8-15 | 25 | . 32 |
| XD2933 | 66140-5 | 15-5 | 30 | . 32 |
| XD2934 | 66197-2 | 5-5 | 50 | . 32 |
| SHELBOURNE |  |  |  |  |
| XD2902 |  | 8-8 | 300-35 | . 55 |
| SPARTON |  |  |  |  |
| XD2972 | A10001 | 6-10-4 | 250-250-200 | 1.14 |
| $\times \mathrm{X} 2973$ | A9754 | 4-12 | 450 | 1.05 |
| XD2935 | A9550 | 5-5-25 | 150 | 1.30 |
| STEWART WARNER |  |  |  |  |
| XD2936 | 83374 | 3 | 100 | . 20 |
| XD2937 | 83394 | 12 | 100 | . 35 |
| XD2938 | 83803 | 12 | 25 | . 20 |
| TATRO |  |  |  |  |
| XD2903 |  | 10 | 40 | . 35 |

## SPARTON



| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Mirs. } \\ & \text { No. } \end{aligned}$ | Capy. | Wkg. Volts | You |
| :---: | :---: | :---: | :---: | :---: |
| RCA-VICTOR (Cont'd) |  |  |  |  |
|  |  |  |  |  |
| X02888 | 66139-1 | 4 | 25 | so.9 |
| D2889 | 66189-2 |  | $\begin{aligned} & 5-140-280- \\ & 20 \end{aligned}$ |  |
| XD2890 | 66171-1 |  | 225-150-150- |  |
|  | 66 | 10-8-8 | 20-150-150 |  |
| XD2892 | 66196 |  | ${ }_{450}$ |  |
| XD2893 | 66185-2 | 5-5-8-8 | 40-420 | 8 |
| XD2894 | 66197-11 |  | 150 |  |
| XD2895 | 68519-4 | 4-8 | 450 |  |
| XD2896 | 68505-3 | 8 8-8 | 450 |  |
| D2897 | 68526 |  | 250 |  |
| D2898 | 66139-2 |  | 25 |  |
| XD2899 | 68531-2 | 10-8-4 | 50-200-450 | 1.10 |
| XD2900 | 68527-2 | 10-10-4 | 25-25-200 | . 7 |
| XD2901 | 66143-3 | 4-4 | 450-150 |  |
| D2929 | 66160 | 8-4-10 | 175-1 |  |
| D2930 | 66155 | 4-4-10 | 300-3 |  |
| XD2931 | 66181 | 10-10-4 | 25-25-1 |  |
| XD2932 | 66195 | 8-15 | 25 |  |
| - | ${ }^{66140-5}$ | 15-5 | 30 |  |
| XD2934 | 66197-2 | 6-5 | 50 |  |
| SHELBOURNE |  |  |  |  |
| SPARTON |  |  |  |  |
| XD2972 | A10001 | 6-10-4 | 250-250-2 | 1.14 |
| XD2973 | A9754 | 4-12 | 450 | 1.05 |
| XD2935 | A9550 | 5-5-25 | 150 | 1.3 |
| STEWART WARNER |  |  |  |  |
| XD2936 | 83374 |  | 100 | . 20 |
| + | 83394 | 12 | 100 | . 35 |
| - TATRO ${ }^{25803}$ |  |  |  |  |
|  |  |  |  |  |
| XD2903 |  | 10 | 40 |  |



| (MONTGOMERY WARD) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2905 | 80939 | 8-16 | 300 | 5 |
| $\times 02906$ | 80995 |  | 25 | 25 |
| 22907 | 81021 | 12-12 | 25 | . 35 |
| X ${ }^{1} 2908$ | 81016 |  | 300 | . 60 |
| XD2939 | 80984B | 16-6- | 475-150-350- |  |
| XD3092 | 81018A | 6-2-2 | ${ }^{150-300-300}$ | 1.35 |
| XD3093 | 82002 B | 2-4-4 | 250-250-25 | . 45 |
| XD3094 | 80956 A | 8-8-20 | 200-200-25 | . 60 |
| $\times$ X 3095 | 80998A | 4-20-30 | 150-150-100 | . 60 |
| XD3096 | 81000 | 2-8 | 300-150 | . 50 |
| XD3097 | 80944A | 4-13-7 | 150 | . 60 |
| X03098 | 80996 | 4-12-12 | 150 | 50 |
| XD3099 | 80944 C | 4-12-15 | 150-150-160 | . 60 |
| WURLITZER |  |  |  |  |
| XD2909 | Y-3052-R | 10 | 25 | . 25 |
| XD2910 | Y-3228 | 5 | 100 | . 22 |
| ZENITH |  |  |  |  |
| XD2911 |  |  |  | . 29 |
| $\times$ X2912 | 22-189 | 20 | 25 | . 25 |
| XD3010 | 22-236 | 8-8-10 | 300-300-25 | . 75 |
| XD3006 | 525-P | 5-25-5 |  |  |
| XD3011 | 22-230 | 8-8 | 450 | . 90 |

## Dual 8 Mfd. 450 Volt <br> Electrolytic <br> A special offer of these $8-8$ mid., 450 volt conIn cardboard container size $3^{3} \times 17 /{ }^{17} \times 1{ }^{15} /{ }^{\prime \prime}$ Has common negative lead $\times \mathrm{C} 1022$ <br> Your Cost Each, Special.

16 Conductor Remote Control Cable


Consists of 16 conductors wo ven
into a flat into a flat wide. Each conductor composed of 10 strands wire in a rubber Ideal for re- mote control extension cable Brown rayon covering. Shpg. wt. 31 bs .
Xq16133-35 Foot Coil
Your Cost................
Combination Outlet Box Receptacle and "On-Off"
 Switch
Consists of a 10 am pere, 125 volt "onbakelite plug receptacle mounted in a fine porcelain base that fits any standard outlet box. Heavy duty brass contacts. Ideal for use with irons, fans and other electrical appliances. Shpg. wht. 11 lb . Your Cost Each 10 For

## CARTER Jacks



Type 103. Three springs; one open circuit closed when plug inserted.

Combination Radio Wall Outlet
Provides outlets for aerial and ground in addition to an A. Cividual switch for the A. C. Attractive bronze wall plate will fit standard "gem" box Complete with tip plugs. Shpg. wt 1 lb .
XM13221-
$53^{\circ}$

## GENERAL MOTORS

## Voltage Divider

For Model A, (D)
180 . 140, 150 , है पु पु ohms tapped at 460-2000-1700-240-
800 ohms. Part No.
$\times \times 20393$
1201395.3

## 175 Kc. Midget I. F.

## Transformer

Midget double tuned I. F. transformer. Compact type used in latest receivers. Dimensions 1 "/8" diameter, $2 \frac{5}{8}{ }^{\prime \prime}$ high. Trimmer condensers have genuine Isolantite bases, and are tuned from top of assembly. Due to precision winding, these units provide exceptionally high ain Quantity limited.
XH10036-

## POLYMET By-Pass Condensers



Electrolytic Condensers at BARGAIN PRICES
 Cardboard

Electrolytics Standard units of highest quality. Cardboard containers with leads for connections. All ratings. Only a limited quantity; order some now.


Dual 8 Mfd. 450 Volts

## Upright Can

 Electrolytic Tubular type units housed in drawn a luminum shells $5^{\prime \prime}$ high, $11 / /^{\prime \prime}$ in diameter. Made by one of the largest and most reputable manufacturers. Conserva-
G.E. Rotary Switch

On and off switch. Rated 3 amperes, 125 volts. Approved $3 / 4{ }^{\prime \prime}$ shaft for standard knob. XM12827
Your Cost Each, Special.


SPECLALI 2.5 Volt Filament Transformer
 Aruggedly
built trans-

Quantith Limiteds Radiola Double Choke Models 60, 62 built trans-semi-open semi-open type with
s $t$
r mounting. volts at 3.5 amperes (for 2 type 24, 27, 35, etc., or 3 type $56,57,58$, etc.).
Primary for 110 volts, 60 cycles A.C. Shpg. wt. 2 lbs . XC1636
Your Cost Each


## FADA Andio Trans.

former and Choke Straightaudiotransformer used in early model Fada receivers. Ratio $8: 1$.
Primary 3500 ohms Primary 3500 ohms,
secondary 8000 ohms. Open type with long insulated leads. Size $8 \times 17 / 8 x$ $21 /{ }^{2} \mathrm{Shpg}$. Wt. 2 lbs .
XC1838-Your Cost Fada Choke: Similar in appea Fada Choke. Simila in appearance to the above. Rated at 6 henries, maximum D. C. 75 M . A. Resistance 580 ohms. 21 bs. XC1839-
Your Cost


## RCA-VICTOR Field Coil <br> nyaf Model R-4

## Genuine RCA-Victor

 part used in above model receiver. Part sistance 1900 ohms Can be used in many other midget eceivers. Size 1 16 high, 2 wide Only a limited quantity. Order yours a now before quantity. Order yours now before it is too late. Shpg. wt. 2 lbsTuantltM Mimlted


RCA Part No. 8345. Consists of two heavy duty filter chokes rated at 30 henries each. maximum D.C. 100 milliam peres. D.C.resistance 900 and 1800 ohms. In container with crimp fuge for mounting. Color coded leads for mounting. Color coded connections, Size $6 / 4 \times 38 / 4 \times 2 / 8$.
Shpg. wt. 6 lbs. $\times \mathrm{C2182}$
Your Cost, Special.


## KOLSTER Pentode Output Transformers

A popular type strap mounting unit ideal for general replacement purposes. To match the impedance of a single pentode such as 47,245
 such as 47, 2A5, etc. to a $6-15$ ohm vaice coil $3 \times 2 \times 13{ }^{\prime \prime}$ : mounting centers $31 / 2^{\prime \prime}$ Shpg. wt. 2 Yos.
$\times 1837-Y$.


## GREBE Phono Matching

## Transformer

Used to match a low impedance magnetic pick-up to any type input of Radio or power a mplifier. Single winding, tapped at 150,300 and 1100 ohms D. C. resistance. Size $21 / / \times 17 / 8 \times 2 / 6^{\prime \prime}$. Shpg. wt. 2 lbs.
XC2237-Your Cost.
$29^{\circ}$

## Tone Controls for

## RCA-VICTOR

For Models R-32, R-52, RE-45, RE-75 Genuine RCA-Victor Part No. 10408, for the above model sets. Has resistance of 1 Has resistance of 1
megohm. Has slotted megohm. Has siotted shaft for screw-driver control. ${ }^{\mathrm{XG} 8343}$
Your Cost
Each $\qquad$ $19^{\circ}$

For Models R-7, R-9, R-10 D. C., R-7 D. C. and R-9 D. C.


Genuine RCA Part No. 2996 for the above model receiv ers. Resistance 500,000 ohms. Bradley control. Can be used in any receiver Shpg. wt. 11 lb . XG8344-
Your Cost Your Cost IOc

Special 15,000 Ohm Control Made by Frost. Tapered for ant. and "C"'bias. housing. $5 / 8^{\prime \prime}$ shaft. Get a lew at this low price. Quantity limited. XG8347
Your Cost, special


## CRL Volume Controls



These "special" Crols volume con trols can be used in many of the present day receivers. Only a limited quantity available.
$\times G 8348$ XG8348-25,000 $\mathrm{Ohm}^{\mathrm{Ch}}$. Your Cost Each. Dual Volume Control- 5000 ohms wire wound and 15,000 carbon atrip. XH9696
Your Cost
Each.

## ELKON U20 Rectifiers



Used in the early model Fada and Farrand, etc., speakers. Input 20 volts A. C.; output 12 volts D. C. at 1 ampe
$\mathbf{X A 4 3 3 -}$
Your
Your
Cost
Metal Binding Posts
These binding posts are constructed of brass,
nickel plated. Only the two types shown below are available. Excellent for use on panels for quick connections. A Quantities are limIted. XM13020-Type A. Bolt and nut mounting. Knurled screw top. Heavy duty type.
XM13021
XM13021-Type B. Removable wood screw mounting, Can be mounted with a $10-32$ bolt. ${ }^{\circ}$ Your Cost Each
10 For.
Flat top knurled machine screws to fit type B.
XM13018-Your Cost Each.

## 

Final Closeout
Majestic 175 Kc.


## I. F. Coil

Can be used in Majestic or any other receiver employing 175 Kc . I.F. transformers. Each section accurately wound and perlectly insulated. On genuine isolantite form. Inductance of each section approximately 40mh. Every serviceman should keep alew in stock at all time.
$\times \mathrm{XH10048}$ Your Cost Each

STROMBERG-CARLSON 2 Mfd . Condensers


The original Stromberg in early model receivers. Working voltage 400 volts D.C. In metal container $41 / 5 \times 214 x^{5 / 87}$. Solder lug terminals. Can be used in general repair work as filter or by-pass condenser. Shpg. wt. 1 lb.
Your Cost Each


| Genmine ATWATER KENT Condensers |  |  |
| :---: | :---: | :---: |
| The genu | ine con |  |
| densers | used in |  |
| Atwater | Kent re- |  |
|  | A.K. |  |
| No. | No. | Part |
| X ${ }^{\text {P1428 }}$ | 15262 | H1, B1, |
| $\times 81425$ | 15263 | H2, B2 |
| $\times 81431$ | 16461 | H6 |
| $\times \mathrm{X} 1432$ | 16828 | B5 |
| $\times 81433$ | 15158 |  |
| $\times 81436$ | 21430 | H39 |
| $\times \mathrm{B1437}$ | 16318 | B4 |
| $\times \mathrm{XB1438}$ | 16233 | H4, H10 |
| $\times 81439$ | 15780 |  |
| XB1440 | 21180 |  |
| XB1441 | 15640 |  |
| Your Co | st Each |  |

## Dial Scale Assortment



Just the thing for the serviceman. Consists of an assortment of fan type scales, drum type scales, etc.
in all sizes and colors. You can't go wrong at this ridiculously low price. Get yours now! XH980110 for
$19^{\circ}$

## LimitedQuantity

CILBERT Toy Motor
Operates on A. C. or D. C. A well built toy motor that can be used to activate dancing dolls, win-
dow displays, etc. dow displays, etc.
Operates on 15 volts Operates on 15 volt teries. Can be made to turn in either direction. Frame is connected to one side of the voltage supply, and one of two leads to the other according to the direction (clock wise or counter
Quantity limited.
XS17323
Your Cost, special.

## $\star$ Special Carbon Resistor Kit $\star$

XE5277-Shpg. wt. 21/4 lbs. Your Cost, Special.

100 Resistors


Another Wholesale Radio Service Company scoop. Just what the serviceman needs. This kit contains an assort ment of 100 carbon resistors, 25 assorted $1 / 4$ and $1 / 2$ watt sizes and 75 one watt sizes. Values range from 100 ohms to 10 megohms. All color coded according to RMA specifications. In cardboard box with color code chartimprinted in cover. Size $7 \times 3{ }^{3} 4 x$ $11 / 6^{\prime \prime}$.


RMA Color Coded Carbon Resistors


These standard RMA color coded resistors are being offered at a price resistors are being offered at a price ing, be sure to specily stock numing, be sure to specily stock num-
ber of type and resistance desired. Available in $1 / 2$ and 1 watt sizes only; only the resistance values isted below are available. Res. Res. Res. Res. Ohms Ohms Ohms Ohms $\begin{array}{llll}100 & 2000 & 20000 & 300000 \\ 150 & 2500 & 25000 & 400000\end{array}$ $\begin{array}{llll}150 & 2500 & 25000 & 400000 \\ 200 & 3000 & 30000 & 500000\end{array}$ $\begin{array}{llll}250 & 5000 & 35000 & 750000 \\ 500 & 6000 & 50000 & 1\end{array}$ $\begin{array}{llll}500 & 6000 & 50000 & 1 \\ 600 & 7500 & 75000 & 11 / 6 \mathrm{Meg} .\end{array}$ $\begin{array}{rrrr}600 & 7500 & 75000 & 11 / 2 \\ 750 & 10000 & 100000 & 2 \text { Meg. }\end{array}$ $\begin{array}{rrrr}900 & 12000 & 150000 & 21 / 2 \mathrm{Meg} . \\ 1000 & 13000 & 200000 & \end{array}$ $\begin{array}{llll}1000 & 13000 & 200000 & 3 \\ 1500 & 15000 & 250000 & 5 \\ \text { Meg. }\end{array}$ XES239-15000 250000 XES239-1/2 Watt Type
XES240-1 XE5240-1 Watt Type Your Cost. Either Type 100 For

## JONES products

"Under Rug'"
Extension Cords
 flat rayon covcords that fit cords that fit without bulging. Have eyeleted holes for tacks. Three types a vail6 foot cords with trio tap at one end and male and female plugs at the other; 6 foot cords with convenience outlet and male and female plugs. Quantities limited. XM13212-Six Foot Cord with Trio Tap.-Six Foot Cord with Convenience Outlet.
Your Cost Each.
$17^{\circ}$ EMher Type.......... Cord Xith Trio Tap. Twelve Foot Cord
wit

## Your Cost.

$21^{c}$

## Screen Grid Clip with

 Lead
Ias 6 inc green rublead XP15262-100 for 50.85
Your Cost Each............ ${ }^{\text {I }}$ e

The purchase of the entire factory output on the items listed below enables us to offer them at these "throw away" prices. Besides the innumerable uses to which they may be placed, the hardware alone may be salvaged to afford great saving.


Nickel plated brass hardware. Single $8 / 8^{\circ}$ Binding post terminals. Well insulated. List, $\$ 1.00$

Double Circuit Panel Mount Jack


Closed circuit type Nickel plated brass hardware. $3 /{ }^{\prime}$ " panel hole mounting. Binding posts. List $\$ 1.00$
XM12858

Pushbuttontype. Moulded bakelite mount nickel plated brass hardware. Binding post terminal. mounting. List $\$ 1.00$


Eight Contact

## Inductance Switch

Low loss switch. Nickel plated brass hardware.
Mounts in single ". panel hole. List $\$ 1.50$
XM12860

Fibre Tubing

## For RF and IF Coils



Finest quality fibre tubing. Have holes for connections. Two sizes. XH10230- A p
prox. $25 / 6 \times 11^{\prime \prime}$.
Your Cost Each.
XH10233-Approx. 41 ǐxi $1 / i^{\sim}$.
Your Cost Each

## C-H Radio Ontlet

Can be used as aerlal and ground outlet, or as speaker outlet. Standard equipment in many apartment houses, hotels, etc. Plate of brass with brushed finish. Jack nickeled finish. Fits standard outlet box. Shpg. wt. 1 lb .
$\underset{\text { XM13232- }}{\substack{\text { Your Cost, } \\ \text { Special }}}$
Yourcost, Specta

## LimitedQuantity

## NA-ALD

## 5-Prong Socket



## Speaker Grill Cloth

Fine quality brown oruse behind speaker grills. Neat appe
left.
XW19609 -
Your Cost ${ }^{\text {E }}$

## Special Bargain

 2-Watt Carbon Resistors

All RMA color coded. Offered at a price far below the present market. Every serviceman should a vail himself of this opportunity by purchasing a complete stock now. Only sizes shown in listing are available. Quantities limited.

| Res. Ohms | Res. Ohms | Res. Ohms | Res. Ohms |
| :---: | :---: | :---: | :---: |
| 400 | 3000 | 17000 | 60000 |
| 500 | 4500 | 20000 | 75000 |
| 750 | 6500 | 25000 | 80000 |
| 1000 | 9000 | 30000 | 140000 |
| 2000 | 10000 | 40000 |  |
| 2500 | 15000 | 50000 |  |
| XE5245- |  |  |  |
| Your | ost. |  |  |

RCA Output Transformer For models Genuine P6. Genuine Part
No. 6019. To match a single 71A or 45 to a 5-15 ohm voice coil. Shpg. wt. 3 lbs.
XC2170

Your Cost Each


## RCA Remote Control Relay



The genuine RCA part used in thereused in thereunits with R-86R, RAE-59, RAE-68, RAE-79, etc. Operates with from 10 to 14 volts A.C. or D.C. on the contacts. Voltage can be applied only momentarily.
ampere
XN14624-Your Cost

SPECIAL 9-Wire Battery Cable Composed of nine coded conductors with brown cotton overbraid. In Ony lengths. ORy a limited quantity


## 

## SPECIAL:

## Tubular By-Pass

 Condensers

An unprecedented offer of popular types of tubular by-pass condensers at new low prices. All conservatively rated and of standard manufacture. Finest quality foil and condenser paper used in their construction. All waximpregnated and sealed. Have wire leads for connections. All marked as to rated capacity. Quantities limited; order a supply while they are available.

| Stock No. | $\begin{aligned} & \text { Cap'y } \\ & \text { Mfd. } \end{aligned}$ | Wkg. Volts | Your Cost | Dual Units |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XD3656 | . 01 | 200) | c | Stock | Cap'y | Wkg. | Your |
| XD3657 | . 02 | 200 |  | No. | Mfd. | Volts | Cost |
| XD3658 | . 05 | 400 |  | XD3664 | .01-. 01 | 400 | 50.07 |
| XD3660 | . 12 | 400 |  | XD3665 | .02-.0001 | 4001 |  |
| $\times$ X 3661 | . 15 | 400 |  | XD3666 | .02-.04 | 400 |  |
| XD3662 | . 25 | 600 | c | $\times \mathrm{X} 3667$ | .04-.04 | 400 |  |
| XD3663 | . 5 | 400 |  | XD3668 | .05-.05 | 400 | \$0.07 |

R. F. Choke Assortment

Bakelite and Fibre Assortment


Consists of ten standard wood core R. $F$. chokes with inductances ranging from 2 to 22 millihenries. Every serviceman and set builder can make good use of this assortment. All types with leads: all in perfect condition. Only limited quan tity available. Shpg. wt. 2 lbs. XH10110Your Cost
Box of 10.


## SANGAMO Audio Transformers



Only a few of these high quality audio components are now a vailable. At the unusually low prices at which they are being offered, it is urgent that you fill your requirements now. All, with the exception of the Type $F$ plate impedance, are full cased in metal containers with solder lug side terminals. Core material is high permeability silicon steel, so that exceptionally wide frequency response is realzed. Ideal for use in all types of radio and $\mathbf{P} \mathbf{A}$ equipment. Average size $3 \times 21 / 2 \times 21 / 2{ }^{*}$

## TYPE H171

Push-pull output transformer to match a pair of $71 \mathrm{~A}^{\prime} \mathrm{s}, 45^{\prime} \mathrm{s}$, or $50^{\prime} \mathrm{s}$ to a $5-15$-ohm voice coil of a dynamic speaker. Solder lug terminals. Shpg, wt. 3 lbs. Your Cost

## TYPE G210

Output transformer designed to match push-pull 10's to a $5-15-\mathrm{ohm}$ voice coll of a dynamic speaker. Will provide excellent tone quality. Shpg, wt. 31 hs . Ity. Shpg. wt. 31 hs . Your Cost

## Portable Carrying Case for Speakers



[^0]Your Cost. Special

Especially designed for use with portable P. A. systems. This two speaker case is ruggedly built to withstand rough usage. Composed of hardwood with leatherette covering. Corners reenforced with metal strips; bumpers on top and bottom. Speaker openings protected by Speaker openings protected by
leatherette flaps which may be leatherette flaps which may be
folded back when speakers are in folded back when speakers are in
use. Case divides into two equal use. Case divides into two equal
halves, and is held together by four side mounted hinge clasps. Provisions made inside of case to hold long lengths of cable. Will take speakers up to $14^{\prime \prime}$. Heavy leather handle. Size $20^{\prime \prime}$ high, $181 /$ " $^{\prime \prime}$ wide and $131 / \mathrm{y}^{\prime \prime}$ deep. Shpg. wt. 17 lbs.

## TYPE D210

Push-Pull output transformer to match single or push-pull type 10 tubes to a magnetic speaker Secondary impedance 4000 ohms plate to plate. Shpy. wt. 3 lbs XA369 List $\$ 12.00$ Your Cost.
$45^{\circ}$

## TYPE F

Plate impedance. Uncased type. Used in the plate circuit of deteccor. Also used for impedance coupled amplification. Tap provided for auto-transformer coupKAB. Shpg. wt 8 lbs
 XA366-Li
Your Cost 13
s.95

## "Professional'' Speaker Cabinets



## Model illustrated at left is designed to house

 arge dynamic apeaker chassis. Will accommodate speakers up to 14 " in diameter. Cabinet constructed with fine two-toned walnut veneer, ubbed to high polish. Speaker opeming covered by a dull gold grill cloth. Top front of cabinet houses a drawer which may be used for storing spare equipment, etc. Drawer is out ined in gold and blackinlay which presents an extremely pleasant appearance. Baflle has $101 \%^{\prime \prime}$ hole. Provisions in cabinet to mount speaker shelf $11^{3} 4^{\prime \prime}$ deep. Hole for line switch in side of cabinet, and provisions for mounting ndicator lamp at bottom. Size of cabinet $321 / 2$ high, $13^{\prime \prime}$ deep and $20^{\circ}$ wide. Quantity limited. Shpg. wt. 50 lbs.
## XY22195-

## Your Cost, Special.

$\qquad$ s9.95

## Theatre Type Speaker Cabinet

Designed for use on theatre stages, this cabinet presenta a beautiful appearance. May also be used as a fireplace baffle Panel is $30 \% \mathrm{~m}^{\prime \prime}$ wide, and is constructed of two-toned straight grained walnut. Height 331/2". Speaker housing will take speakers up to $12^{\prime \prime}$ in diameter, and extends $71.2^{\prime \prime}$ behind panel. Baffle hole $101 \mathrm{~h}^{\prime \prime}$. Speaker opening covered by dul! gold cloth and lattice work frame. Provisions on rear of panel for mountinc indicator lamp jewel included. Quantity limited.
XY22196-Shpg. wit
$\$ 7.95$


## FORD-MAJESTIC 'GB' Power Supply

 Model 40-18805BThe genuine Majestic part. Built for use in Ford model $40-18805 B$ receivers. Complete pack; contains transiormer, vibrator, filter condensers and buffer condensers. Set uses 2-6ET's, 1-6A7S, 1-6C7, 1-6Y5 and 1-42. Entire unit plugs into six prong socket in chassis. Bufter condensers in separate metal contalner mounted on side of casing. All parts rubber cushion floated: will stand up under ae vere operating conditions.
Quantity limited. Shpg. wt. 8 ibs .
XP15691-Your Cost,
Special

s3.95

#  <br> General Replacement Volume Controls <br> <br> FINAL CLOSEOUT! Discontinued Types of 

 <br> <br> FINAL CLOSEOUT! Discontinued Types of}


## Type A

Type D For replacement in all types of receivers. Type A controls are standard: Type B controls have porcelain bases: Type C control is rheostat type: with power switch: Type D control is metal cased potentiometer with switch. QUANTITIES LIMITED
 Screen Voltage Antenna Shunt Antenna Shunt Voltage Divider Antenna Shunt
" ${ }^{\text {" Bias Control }}$


## ANY TYPE... 19c

The listing below comprises a special offer of Electrad Volume Controls at prices far below the market. Units are of the famous RI series, which though discontinued, are known to give smooth and noiseless operation. All in factory cartons. Metal cases with $2^{\prime \prime}$ shafts. Taper indicated by letters following resistance as follows; Control


## VICTOR Speaker <br> For Models R-32, RE-45 and RE-75

Improved type made by Magnavox especially for the above model sets. 3000 ohm field. Special cone of acoustic paper: flexidle spider. Construction exceptionally rugged. Finished in black lacquer. Will improve tone and volume. Comes with special! Victor plug. Shag. wt. 12 lb .58
$\times W 19391$
Your Cost, Special
3.91


A line of standard volume and tone controls which are exceptionally compact. Plain type extends only $11 / 4$ " behind panel: switch type only foal for use where space saying is necessary. All potentiometer ing is necessary, indicates taper as follows;
A-Antenna Shunt.
C-"C" Bias,
AC-Ant. Shunt and "C" Bias. S-Screen Voltage.
T-Audio Grid or Tone Control.


## 

in CRL Volume Controls
Only a fortunate purchase of a quantity genuine CRL volume controls allows us to offer them at a price far below the present market. Available only in the sizes shown in the listing below. These numbers will service a great majority of the receivers on the market at present. Will provide smooth, noiseless control. All have standard shafts milled flat on one side, and have ${ }^{6}{ }^{\prime \prime}$ "bushings. We urge you to order now to a void disappointment.
Stock No. Res. Ohms Tapered For

|  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
| Stock No. | Res. Ohms | Tapered For |  |  |
| XG8260 | 10,000 | Antenna, "C" Bias |  |  |
| XG8261 | 25,000 | Voltage Divider |  |  |
| XG8262 | 50,000 | Voltage Divider |  |  |
| XG8263 | 100,000 | Voltage Divider |  |  |
| XG8264 | 500,000 | Audio Grid or Tone |  |  |
| XG8265 | $1,000,000$ | Audio Grid or Tone | EACH |  |

## AERO Aerial Wire

Many strands of very fine wire of high conductivity over which is laid a special covering of neutral buff color. An indoor aerial of unusual efficiency. This wire is used as standard equiprent on many A. C.-D. C. receivers. 100 foot spools. Shag. wt. 8 oz .
XR16167
Your Cost Each.
Per Dozen. .......


CUTLER-HAMMER Power Switches

## S.P.S.T.

 Single circuit toggle switch. Rated 10 amps, at 125 volts. For heavy duty work. Used on motors up to $1 / 3$ HP. XM12813Your Cost
## Each.

Double Pole-Single Throw Same rating as the above. Makes and breaks two circuits.
XM12814 -Your Cost:...

## MIDGET

## Short Jacks

## Bakelite insulation

${ }^{3}{ }^{4}$ " mtg. hole.
XF6548-Closed Circuit.
$\times 66549-1$
Open Circuit.
Your Cost. Your Cost,
Either Type

## 30 Henry -50 Ma.

 Filter ChokeOpen frame type
choke. Inductchoke. Induct-
ance 30 henries. Current carrying capacity 50 milliamperes. 450 ohms. $6^{\prime \prime}$
 ceivers. Shag. wt. 3 lbs.

Your Last Char


## Genuine RCA-VICTOR Remote Control

Only a few left. This control automatically tunes up to 60 feet, may be added. Servicemen can Only a few left. This control automatically tunes up to touch of a button on the remote control box. It RCA Remote Units. Packed in original factory will turn the set on or off, increase or decrease cartons with full instructions. For sets with horivolume and pick out any one of six different stavolume and pick our any one six ar er statrons quickly and easily. Engineered and built by XY19425the Westinghouse Co. Unit comes complete with Your Cost Each, control box and 25 feet of cable. Additional cable, Special.

## Terminal Board Remote Control Box

Twelve screw terminals on fibre

## Contact Points

Phosphor bronze contacts for re mote assembly. Complete with screws and mounting plate. XP15264
Your Cost Each
$5^{c}$
plate mounted on metal feet. Complate with 2 feet of 12 wire cable. Has many practical uses other than with the remote control Shpt. wt. 2 lbs.

Can be used as an additional re mote control unit or as a replacespecial Comes with 25 feet of special cable. Comp Strip. Shag. Your Cost, Special

Transformer and Capacitor Pack For above Remote Control. Containe transformer, capacitor and tapped choke. Transformer primary 110 volts, 60 cycles A. C.; secondary 23 volts A. C. Ships.
wt. 6 lbs.
.

# $: m \times \cdot 15$ quantity LIMITED 

JEFFERSON Mike Trans-
former-2-Button
 A transformer
for double
button micro-
phone. Has
turn ratio of
1:45. Imped-
ance ratio 1:
2000. Has lat
response
curye irom curve rom
$30-7000 \mathrm{cy}$
cles. $31 / 10 \times 2{ }^{2}$
 NA•ALD Test Adapter A five to five prong adapter with filament, cathode and control grid brought out to clips on top of socket. Useful for making quick voltage and cur-
rent measurements.
$\mathbf{X K 1 1 7 2 6 - Y o u r ~ C o s t . ~}$

Type A-Illustrated. Heavy pressed steel painted green. Size $16 \frac{1}{4} \times 9 \times 1^{1 /} /^{\prime \prime}$. Shpg. wt. 4 lbs . XM12885-
$19^{\circ}$
Type C-Cadmium plated. Open sides. For 6 tube set. Has 18 cutouts and holes. Size $105 / 8 \times 71 / 3 \times 2^{\prime \prime}$. Shpg. wt. 4 lbs. XM12863-Your Cost Each

FINAL CLOSE-OUT OF THESE METAL CHASSIS

Are adaptable for many of the new circuits, using up to nine tubes. Layout ample for all parts used.

Type D-Cadmium plated. Open sides. For midget set. Size 9 x $41 / 2 \times 2$ ". Shpg. wt. 2 lbs

## XM12861-

Your Cost Each.
$25^{\circ}$
Type E-Cadmium plated, closed sides. 28 cutouts. For 6 tube set. Size $15 \times 73 / 4 \times 21 / 8^{\prime \prime}$. Shpg. wt. 41 bs . XM12862-
Your Cost Each
$29^{\circ}$
Type F-Cadmium plated, closed sides. For 9 tube set. 40 cutouts and holes for mounts. Size $171 / 2 \times 10 \times 31 / 2^{\prime \prime}$. Shpg. wt. 6 lbs.

A. K. Audio Transformer Genuine A. K. replacement Part No. 13276-14016. Used in Models $41,43,44,45,46$
$47,52,53,56$ and 57. First stage audio. Can be used as a replacement in a great number of standard receivers. Sealed in metal can with long leads. Shpg. wt. 31 lbs .
Your Cost Each

## Dial Pointer

Mounts on panel. Indicates dial settings. Of brass, with mounting screw and washers. XP15263-
Your Cost Each. 1 12 For. leads. Shpg.

## Barginhereut <br> On REPLACEMENT <br> VOLTAGE DIVIDERS



Manufacturer's Type
Although originally designed for use in standard receivers made by famous manufacturers, these units may be used for general replacement parts. All conservatively rated. Priced for immediate clearance. Quantities limited. Your CostEach

Stock Total
No. Resis. Watts

## $\times \times 20444 \quad 8195 \quad 75 \quad 1690-205-2140-3750-410$

 $\begin{array}{rrr}8195 & 75 & 1690-205-2140-3750 \\ 3940 & 75 & 1600-1900-440\end{array}$ $\times 20445$$\times \times 2940$
$\times 290$

1600-1900-440 400-350-350-190
840.60-220-3000-3000
$840-60-220-3000-3$
$17400-8600$

Stock Tota No. Resis. Watts $\begin{array}{lrr}\times \times 20562 & 6000 & 75 \\ \times \times 20564 & 2580 & 75\end{array}$ $\begin{array}{lll}\times \times 20564 & 2580 & 75 \\ \times \times 20565 & 2080 & 85 \\ \times \times 20\end{array}$

Tap
4200-380-1420 $500-0-1460-540-0-80$ 1460-540-0-80 1280-4000-300-2200 1500-1000-130-60 4920

## Special Bargain Band Switch

Ideal for use in multi-band receivers. Triple pole, double throw. Silver plated contacts, self cleaning rotor. Double shielded to provide high efficiency. This type of multiband switch is of the shorting type. Mounts in a single $3 夕^{\prime \prime}$ " panel hole. Has a $43 / 8$ " shaft with flat for knob Only a few left. At this price it will pay 1 .
X M12999-
Your Cost Each.......

## Output Transformer



RCA Part No. 5899. Used in the 106 A. C. speaker and in the 41 A. C and D. C. sets. Used to match a single $71 \mathrm{~A}, 45$ or 50 tube to a $5-15$ ohm voice coil. Also contains two 1 mfd condensers. Shpg. wt. 3 lbs . $\mathrm{xC2500}-$
Your Cost
$39^{c}$

## Extention Cords

## esmammuminel

Five foot lengths of flexible cord that will not break. Two types: one with silk overbraid, one with cotton overbraid. Can also be used as speaker extension cords. Have eye lugs at one end and phone tips at the other. Only a bimited quan tity available. Order now.
XN13941-Cotton Covered Your Cost Each
XN13942-Silk Covered
Your Cost Each
C........

PACENT Oversized
P. P. Input Transformer
 Constructed with extra
$h e a y y$ duty core of high permeabil. ity metal. Itsuse Its use
will invariably improve reception. overali ratio 2.5
to 1. Fully shielded in black lacquered metal case and provided with insulated leads. Size $33 / 4 \times 21 / 3 \times 21 / 2^{\prime \prime}$. Shpg. $\mathrm{wt}$.
$\times \mathrm{C} 1807$ bs.
Your Cost Ea

## RCA Rectifiers

Genuine No. 5878 for use with the 106 A. C. speaker;
Delivers 95 Shpg. wt. 4 lbs.
$\times \mathbf{W} 19206$ Your Cost. Per Pair
S. H. Air Gap Arrester Your Cost Each


All bakelite, air gap type. Espefor doublet type for doublet type cause it does not cause it does not aerial through a high resistance. XR16756-
Shpg. wt. per unit, 8 ozs.

Type D-75 Watts

$$
6^{\prime \prime} \text { Long }
$$

| $\begin{aligned} & \text { Mfgr's } \\ & \text { No. } \end{aligned}$ | Resistance in Ohms | Current in Millia mperes | Your Cost Each |
| :---: | :---: | :---: | :---: |
| D-3 | 300 | 500 |  |
| D-4 | 400 | 432 |  |
| D-5 | 500 | 387 |  |
| D-7. 5 | 750 | 316 |  |
| D-8 | 800 | 306 |  |
| D-12.5 | 1250 | 245 |  |
| D-15 | 1500 | 224 |  |
| D-35 | 3500 | 143 |  |
| D-40 | 4000 | 137 |  |
| D-45 | 4500 | 129 |  |
| D-75 | 7500 | 100 |  |
| D-80 | 8000 | 97 |  |
| D-90 | 9000 | 89 ) |  |
| D-120 | 12000 | 79 |  |
| D-300 | 30000 | 50 |  |
| D-400 | 40000 | 43 \} |  |
| D-600 | 60000 | 35 |  |
| D-800 | 80000 | $31)$ |  |

## CROSLEY Coils



Genuine Crosley replacement antenna and R. F. parts. Can be used for other sets.
Your choice of any of the following coils. Each
$5^{c}$
Shpg. wt., any coil, 1 ib
Models 20,21 and 22
XC1855-R. F. Coil No. 6435
Models 53, 54, 57, 77 and 91 XC1862-Antenna Coil No. 20444
Models 602, 704, 704A, 704B XC1860-R. F. Coil No. 4365.

## Tip Jack

Tip Jack with positive single
 conductor con-
test panels, instruments, battery leads, and in sets for aerial and ground, battery and speaker connections, etc. Hole $\mathbb{K}^{\prime \prime}$. Easy and convenient to mount.
XFG444
Your
Cost.


## MAGIC Embossing \& Engraving Pencils

Engraving Pencil will burn lettering designs, etc., in wood, leather, rubber, and like materials. Easily used. Heat adjusts itself. Absolutely no danger.
Embossing Pencil will emboss lettering, etc., in beautiful colors: gold, silver, blue, green, purple, copper on leather cloth, silk, paper, wood celluloid, bakelite, etc. Very simple to use.
XP15158 Engraving Pencil for 110 volt. Shpg. wt. 2 lbs. $\$ 1.15$
Your Cost...................................................



Your Cost
$83^{c}$

## G.M. Wall Type Set Coupler



For coupling any type receiver to a
twisted pair transmission line. May be used with or without the antenna coupler listed a bove. but better results will be obtained More than one antenna coupler may be used on a single aerial if desired be used on a single aerialif desired
so that several sets can be operated sot atime. When properly installed, at the same time that all the other electrical wiring is done, this unit becomes a permanent part of the antenna installation.


VALUES to interesx the SJiV/

Detector and Oscillator Coil

500
2ung
$\vdots$
0The genuine RCA Coil used in Models 80, 82, 86 and RAE68. An inductively coupled detector and oscillator coil wound on a bakelite tube. Made to track with a $15-70 \mathrm{mmf}$. Padding condenser.

## XH10131

Your Cost Each
$29^{\circ}$
VICTOR R. F. Coil For Models: R32, RE45, R52, RE75, RES4, RES6 The original Victor R. F. Coil, Part No 10448, used in the a bove model receiv-
ers. For 1st, 3rd and 4th R. F. stages Wound on a bakelite tube $2 \% / \mathrm{y}^{\prime \prime}$ long, $11 / 3^{\prime \prime}$ in diameter. Shpg. wt.
 RCA Magnetic Speaker Coils Part No. 1966. Used in models 30A, 50, 51 and in centralized radio speaker. Also for 100 A . 100B and 103. $11 /{ }^{\prime \prime}$ diam., Y" thick, $/ 4 / 9^{c}$
XW19212Your Cost Each. VICTOR Speaker Plug Used on the Victor speaker, for Set Models R2, RE-75. Heavy plated contact prongs, molded in genuine bakelite. in genuine bakelite. Equipped with a
metal guard. Shpg. wt. 8 ozs. XW19223 Your Cost

## Preselector Coll

 Consists of three windings on one bakelite tube. Has antenna primary and two loosely coupled secondaries. Used on Radiola Models 80, 82, 86 and the corresponding General Electric, Westinghouse and Graybar Models. Shpg. wt. 2 lbs. I?

## XH10130-Your Cose...

 Radiolas $60,62,64$ and 66Here is the enuine "I.F." Transformer or the Radiola Models, each has been peaked at its corect frequency factory. Shpg.


For Radiola Models $60,62,64$ ist, 2nd, 3rd, "I. F." Transformer (RCA No. 8942.)
XC2164-
Your Cost


For Model 66
1st and 2nd "I. F." Transformer RCA No. 8481.)
XC2165-
Your Cost Each
$\$ 1.25$
3rd "I. F." Transformer. (RCA No. 8482.) Your Cost. \$. ${ }^{\text {KC2166 }}$

## For Model 67

1st Intermediate Stage. (RCA 8481.)

XC2165-Your Cost
3rd Intermediate Stage. (RCA 8500 )
$\times \mathrm{C} 2162$ - Your Cost.

## YAXLEY Relays

Series type to
be used in series with feed line of some instrument in order to turn on an auxili-
ary circuit.
Will close with a current as small as 60

M. A. b carry up to $23 / 4$ amperes making itt suitable for turning on "B" supplies when used in series with auto receivers. Only a limited quantity left in stock. To a void disappointment, place your orders now. Shpg. wt. 31 lbs. $\qquad$


Your Cost, Special

## H. and H. Two-Circuit

## Rotary

## Switch

A heavy duty witch that has where high amperage is used. First snap makes one circuit, second snap makes second circuit and third snap is the off position. Diameter of base $312^{\prime \prime}$. Rated 20 amps., 250 volts. Shpg. wt. 2 lis.
$\times \mathrm{M} 12820$. Your Cost, Special


## VICTOR R.F. Coils

 Originally used in Vietor Models RE35, 39 and 57. Part No. 10817 is the antenna or link coil. Part No. 10830 is the second R. F. coil coupling 2-screen grid R. F. also be used in other recelvers for this purpose. XH10107-Part No. 10817 I ${ }^{c}$ XH10109 -
Xour Cost Each
$23^{c}$

## VICTOR

Female Receptacle


Used on the Victor amplifier, for Models R-32, RE-45, R-52, RE-75 Equipped with sixteen heavy duty plated positive contact springs Four isolated contact springs for Four isolated contact springs for springs are for plate and filament | voltages for receiver. |
| :--- |
| $\times W 19222-Y o u r \operatorname{Cost}$ |
| 19 |

## Trimmer Condenser

 RCA Part No 7114, capacity $5-15 \mathrm{mfds}$. Used in the Radiola 42,48 etc. A fine crimmer concan be used for practically any purpose that condensers of this type are commonly used for. Has high quality ceramic insulation and Shpg. wt. 1 lb
Shpg. wt. 1
$\times H 8529-1$
XH8529-
Your Cos

13 Contact Switch Rotary Type


41 Pos. No. 1

年 ftitittttitit
Used in RCA Model RE-57 combination. Rectangles in the schematic diagram above denote connections that are tied together when the switch is in the respecive positions as shown. Contacts bronze. Housed in heavy metal shell with a micarta cover. Controlled by knob. Can be used in many ways in conjunction with transmitters to change from phone to key, one power supply to another, etc. Shpg. wt. 2 lbs. $39^{c}$
XM12856-Your Cost.
VICTOR Antenna Choke Models R32, RE45, RS2, RE75 Replacement Part No.
10444, for the above
models. Consists of 150 turns of No. 34 wire, wound on a wooden spool
XH10122-


RADIOLA Speaker Filter RCA Part No. 5853 designed to emphasize the high notes in Model XW19454- $20^{c}$

## Your Invention

By E. B. Lyford


An up to date book on patents, trademarksand copyrights that takes
all the mystery away from these subjects. No legal technicalities; just plain facts written in everyday language. Explains every step necessary to protect your patent attorney, patentlow foreion patent and ey, protures doreigh patents, and other features down to equipment. Handsomely bound in rich gold lettered eloth. Shpg. wt. $1 \mathrm{lb}, 22147$
Your Cost
s 1.00

## THORDARSON Manual



Just the thing fo the serviceman or sound technician. Contains three individual sections
dealing with: Sound dealing with: Sound mitters, Service Problems. Chock full of diagrams, service hints, parts lists, etc. Tells how to build all kinds of test instrucludes schematic diagrams and parts lists for transmitters from 20 to 1000 Watts both CW and phone. A valuable book for the "ham." Book $8\}$ ind11". Loose leaf type
binding. binding,

## Pocket "Gadget"

By Ghirardi and Freed. Consists of a series of 6 cards eyeleted at one corner and indexed at the edges. Tell at a glance the sources causing 275 different "troubles" in radio receivers. Wlll save you hours of time and bother. Includes hum, fading, noise, weak signals, distortion, etc.
XY22145-Your Cost

## New UTC Varitone



A revolutionary audio device which permits fun or emphasis of high or low notes or both. Makes phomo and radio reception more pleasant and more life-like. Type VT-1 and VT-2 used in conjunction with a 50,000 ohm potentiometer. Technical details, including all possible tone variations (curves) sent on request. Shpg. wt. each 2 lbs .
Type VT-1: Designed to work from a single plate or low impedance line or mike to one or two grids List $\$ 8.50$
XE5531-Your Cos
Type VT-2: For insertion acrosa a 200 S. 5000 to $20,000 \mathrm{ohm}$ plate. List $\$ 6.00$ XE5532-Your Cost
Type VT-3! Connects riode. No external control used. List $\$ 5.00$ XE5533
Your Cost


## Short Wave Station Finder

Make short wave tuning easy. They produce an audio frequency note which is entirely independent of the I.F. used in the receiver. Operates using a single tube Which derives its power from the receiver. Unit produces a clear 450 cycle note which is almost inaudible until a station is tuned-in, when it becomes very loud. Switch wlith $18^{\prime \prime}$ leads furnished. No changes in receiver wiring necessary. Uses a 27 or 56 when set uses 2.5 volt tubes and a 37 when set uses 6 volt tubes. Full instructions included. Size $3 \times 3 \times 5^{\prime \prime}$. Shpg XN14143-Station Finder, less Tube. Your Cost


Your Cost

## 350 Watt Gas Engine Driven Generator

 Ideal for use with P.A. systems, ham stations, electrical apetc. Engine is a four cycle motor which develops hos H. P. one quart of gas. Air cooled engine has built-in magneto, full lift carburetor, mechanical govThe pioneer menerator delivers 110 to 120 volts 60 cyeles $A$ 350 watts. Also delivers 6 volts D. C. at 3 to 5 amps. for charging storage batteries. Generator coupled to engine by $V$-pulleys and belt. Fintire assembly mounted on steel frame $12 \times 26^{\prime \prime}$. Comes complete, ready to operate. Shpg. wt. 98 lbs . XY19899-850 Watt Gas Driven Genersitor.
$\$ 20$

Universal Speaker Tester


Designed for use in conjunction with all types of speaker tests. Three analyzer type control knobs provide the following: voice coil Impedances from 1 to 15 ohms in elght steps: output impedances to match any exlsting types of output tubes no $650,1000,1500,2000,2500,3000$, $5000,10,000$ ohms. Jack top posts $5000,10,000$ ohms. Jack top posts for all connections. The speaker will handle 5 watts continuously. with removable front. Size $12 \times 12 x$ 6". Shpg. w $^{\text {XW19388- }}$
Your
Cost
s 13.25
NATIONAL Coil Dope


For use as a cement for holding windings in position. Does not aftect low loss features of coil form. Provides tough protective we. 15237
Your Cost Each
$90^{\circ}$

## Special BH Type

 Rectifier TubeThis type of tube has been used in practically every popular make of eliminatoronthe market
xarke.
Your Cost $?$ Special.


## THORDARSON

"250" Amplifier


Only a few left. For use in small P. A, systems, with tuners, etc. Uses 1-27, 1-50 and $2-81$ 's in a circuit affording 4.2 watts of power output. Provision is made in the amplifier to provide field excitation for any 2500 ohm D. C. speaker. All connections brought out to termiVoltage taps at $150,135,112,90,67$ and 45 volts for all " $B$ " voltages. Housed in pressed volts for ail B voltages. Housed in pressed steel chassis. All parts oversized.
safety switch. Furnished with 4 and 5 prong safety 3 witch. Furnished with 4 and 5 prong adapters for easy connection to detector cuit of tuner. Full instructions included. cuit of tuner. Amplifier, less tubes. XP15750-Your Cost.

## (1118)

Condenser
Analyzer


Tests

## paper

dielectric
and all
electroly-ticconChecks by means of means of
slstance
method
under an
applied
voltage.
Resultant minute leakage current indicated by means of special Neon Glow Tube Indicator. Three controls adjust circuit for the allowable electrical characteristics of the condenser under test. Checks opens, shorts, leakages and intermittent condensers. Built-in power supply, for operation on 110 volts, 60 cycles A. C., Voltages up to 700 volts a vailable at terminals. An '01A is used for a rectifier. In metal case $33^{3} \times 41 / 2 \times 71 / 2^{\prime \prime}$. Finished in durable black lacquer. All binding posts, switches, etc clearly marked on panel. Shpg. wt. 81 ls
Neon Tube but less '01A. $\$$
Your Cost
\$TE.40

Condenser Analyzer


## 

## Console Radio Cabinet With Doors



The ideal piece of radio furniture to house the radio you now own or intend to purchase. A strikingly beautiful cabinet that will prove a welcome addition to any set of furniture. Constructed of two toned walnut with dull rubbed finish. Carved moldings on front relieve the straight line effect. Two French type doors open on hinges. Will take large radio receivers and speakers. Limited quantity makes imperative that you order now. Ca binet stands $391 / 3^{\prime \prime}$ high, $28^{\prime \prime}$ wide and $141 / 2 "$ deep. Comes with front
panel, undrilled. Shpg. wt. 75 lbs . X Y22197
Your Cost,
Special


Collapsible Fioor Stand For Microphones
 Light, compact, adjustable floor stand that can easily be carried from place to place. Priple tube assembly made of brass, chromium plated. Extension range 36 to $78^{\prime \prime}$. Furnished with 6inch microphone ring to take full sized microphone Springs included with stand. Shpg. wt. 6 lbs. List $\$ 12.50$

Centralab
s. 7.35


Your Cost

## Treasure Chest Cabinet

Built of fine quality walnut eneer with rubbed finish. Carved front, top and sides. Panel drilled for all receiver controls (dial, volume control and selector). Has opening for grille cloth. Size $13^{3} \times 8 \times 10 \times 14^{\prime \prime}$, lid closed. Inside dimensions $12 \times 73 \times 77 / \%^{\prime \prime}$. XY19968-16 $\$$ St

## Genuine MAJESTIC Tubes at Tremendons Savings TUUANTITIES LIMITED



These genuine Majestic tubes are being offered at a price far below the standard. All are brand new, in factory cartons, and are guaranteed for a perlod of 90 days (burnouts and broken glass excepted). Order enough to fill your requirements before our limited supply is gone.

| Type | Type | Type | Type | Any Type |
| :---: | :---: | :---: | :---: | :---: |
| 4 S | 6D7S | 355 | 58 S | -ge |
| 2A6S | 6 E 7 | 55 S | 858 |  |
| 6B7 | 625 | 67AS |  | Each |

Speaker Cabinet
For Speakers up to 12"


A beautiful cabinet of grained hardwoods blended in a modernistic finished design. Front of twotoned maple veneer and walnut veneer; sides of straight grained walnut veneer. Top has overlay of black ebony finished wood. Opening for speaker co vered by a dull gold cloth. Provided with felt pads. Will take chassis up to 12" BAFFLE has $10^{\prime \prime}$ diameter hole. Size $17 \times 13 \times 81 /{ }^{\prime \prime}$. Shpg. wt. 20 lbs. XY19967-
Your Cost

RESISTORS

CRL resistors cannot fail under any load that does not melt the wire leads from the ends They are more rugged than the ordinary types and give permanently satisfactory results. Have $11 / /^{\prime \prime}$ wire leads.

## Handy Resistor Rack

A useful accessory that shows at a glance your resistor inventory. You cannot be "out of stock" when you have this quick inventory device. Comes complete with forty of the most popular resistor sizes, twenty 1 watt resistors and twenty $\mu_{4}$ watt resistors. Shpg. wt. 3 lbs. XD3308-Complete Rack with 40 Assorted
resistors.

Type 314-Size 1x1/4"
(Free R. M.

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 200 | 2500 | 10000 | 30000 | 150000 | 2 Meg . |
| 500 | 3000 | 15000 | 50000 | 250000 | 5 Meg |
| 1000 | 5000 | 20000 | 75000 | 500000 |  |
| 2000 | 8000 | 25000 | 100000 | 1 Meg . |  |
|  | 1 W |  |  | 1/4 Watt |  |

53.43
-
Ohms
10000
20000
$10^{c}$
Type 310 -Size
art with Every Resistor Purchase

## ATR Inverter

110 Volts D. C. to A. C. 200 Watts


A simple, inexpensive device for producing 110 volts, 60 cycles A.C. from a 110 volt D. C. source. Conservatively rated at 200 watts. No rotating parts, no oiling or greasing necessary. Only moving element is the plug-in type vibrator. Unit fused for protection. Has control knob to vary output. Completely enclosed in metal housing. Furnished with 6 loot cord and plug for input. Has receptacle for output connections. Size $8 \times 7^{3}$ + $x$ Shpg. wt. 15 lbs List $\$ 18.50$
$\times 517216-5 ?$ XS17216-
Your Cost.
s 10.88

## Peak Preselector



An efficient "signal booster". Lises two 58 tubes in a high gain circuit which increases the signal Input to any short wave receiver. Improvements afforded by this unit include: increase in signal gain; increase in sensitivity and selectivity; absolute rejection of image or repeat spots; reduction of noise to signal ratio. Covers the range from 14 to 200 Covers the range from 14 to 200
meters. Airplane type dial with meters. Airplane type dial with
reduction drive. Built-in colls. reduction drive. Built-in colis.
Only two wires to conuect; incoronly two wires to conuect, incormetal case $71 / \times 91 / 4 \times 10^{\prime \prime}$. Shpg. wt. 16 lbs.
XN13760-Peak Preselector, less tubes.
Your Cost
$\$ 19.80$

## General Utility Steel Cabinets


#### Abstract

Preparedespecially for use ting units, input ting units, input stages, mixers stages, mixers, etc. Constructed of steel, finished in black crystallized lacquer. Have spot welded comers. Top fits snugly and is held in place by self tapping screws which are furnished with each unit. Create a professional looking finished job. A vailable in four standard sizes to fit almost every requirement Stock  XY22177 11×12×8* 9 lbs. 1.69


## NOTE

A special Amateur Equipment Catalog will be mailed FREE to all requesting it.

## SPECLAL Sectional P.A. Rack

For Public Address Use or for 6 HIam" Stations
Designed expressly for permanent installations of Public Address Systems or "ham" stations. These racks will improve the appearance of any existing installation by affording a professional overall appearance. Entire assembly constructed of steel with black crystalline laccuer finish. Its fiexible mount ing requirements make it adaptable to almost any apparatus. Comes furnished with three shelves, besides the bottom shelf. Rack stands 5 feet high, $1914^{"}$ wide and $12 \%^{\prime \prime}$ " deep. Channel type of construction allows hiding of Channel unge of construction allows hiding of re-enforced with steel braces. Shipped in knock-down form, with all necessary nuts knock-down form, with all necessary nuts,
bolts and washers. Can be assembled with ease in a short time. Shpg. wt. 60 lbs .
XY22152-Complete P. A.
Rack
Your Cost, Special . ......
Additional steel shelves to fit the above rack. Shyg. wt. 7 lbs
XY22159
Your Cost Each


# QRCAVictorCo <br> Victorco  

## RCA-VICTOR I. F.



## Transformers

These intermediate frequency transformers are correctly engineered and well constructed. Ideal for use by the set builder. Shpg. wt. 2 lbs

For R-80, 82, 86, RAE-68 XC2580-First I. F. No. 8567 XC2581-Second I. F. No. 8565 XC2582-Third I. F. No. 8566 Your Cost, Any Type.
$\$ 1.26$
For RE-20, R-50, R-55, RAE-59 and RAE-79
First I. F. No. 7281 SI. 21 Second I. F. No. 7282 \$ XC2584-Your Cost. 1. 44 Third I. F. No. 7283 \$T. 95 For Models R-4, R-6, R-7, TA, 7 D. C., R-9, R-9 D. C. R-10'D. C., RE-16A First I. F. No. 2991
$\times 12586-Y$ ur Cost. $\$ 1.22$ Second I. F. No. 2992
$\times$ C2587-Your Cost.

For R-11, RE-18, RE-18A, R-21 and RAE-26
 Second I. F. No. 7267 ST. 201

For R-8, 10, 12, RE-19
XC2590--First I. F. No. 7340 Your Cost, Either Type
51.20

## Field Coil Assemblies

These assemblies consist of the field coil magnet and In all pate In all receivers, it is necessary to replace the entire as sembly
For Model R-22. Part No. 7606. XC2565 Your Cost.


For Models R-28P, R-37, R-38
Part No. 8988.
$\times C 2566$ Your Cost. $\$$ STI For Model RE-40P
RCA No. 9003. Cost. \$T. 4 I For Model 331
Part No. 9434.
XC2568-Your Cost. $\$ 2.80$

Drive Clutch Assembly


The complete turning ch ase mbly used in the following RCA-Victor receivers: 118, 211, $128,224,322,135 B$
$235 \mathrm{~B}, 143,242,262$, $235 \mathrm{~B}, 143,242,262$,
281 and 381 . Comprises drive shaft, bearings, ring, spool, spring and washers completely assembled. Simple to 1 lb . 1 l . XP15268-List $\$ 1.00$ Your Cost Each


A compactly constructed, self contained R. F. oscillator designed for service work in conjunction with all types of radio receivers. Covers an extremely wide frequency range from 90 K. C. to 25,000 K. C.
( 3300 to 12 meters). This ( 3300 to 12 meters). This
range is covered in eight $s t e p s, ~$ a range switch being provided to select the bands. The dial scale is calibrated directly in frequency and accurate to within plus or minus 3\%. Employs two '30 tubes, and requires one $221 / 2$-volt "C" battery. Attenuator, mounted on front panel, is efficient over the entire range. Variable Vernier dial is adjustable from $6: 1$ to $20: 1$ ratio. Enclosed in black wrinkle finish aluminum case provided with handle. Size $83 / 2 \times 93 / 644 / 2^{\prime \prime}$. Shpg. wt. $31 / 2 \mathrm{lbs}$., less batteries. XJ10596-Test Oscillator, with tubes, less batteries


N0T E- The RCA-Victor Company will shortly announce a newly designed oscillator having provisions for use with the new Oscillograph. A kit of pallso be available at that time. Prices and information will be furnished on request.

## RCA M-34 Power

 Transformer The Genuine RCA Part No. 9430 for the M-84 auto set. Delivers the neccssary high voltages for the receiver. Takes only a few minutes to install. Has color coded leads. XC2013 ListYour Cost.

## M-34 Filter Block

 Genuine RCA Part No. 7600. Contains one reactor, one choke coil, one .5 mid., two 4.0 mfd . and one $375 \mathrm{~mm} / \mathrm{d}$. capacitors. In metal container with crimping lugs. Color coded leads. Ready to install. Shpg. wt. 3 lbs. XB1024List 4.06
Your Cost

## Orthophonic Sound Box

The finest unit of its kind. Will improve the tone and volume of any Victrola now in use. Has a ribbed aluminum diaphragm that provides a more extensive frequency response than the old types. Universal fitting; replaces units on all Vetrolas with the exception of the model $2-35$ which requires a special adapter. Genuine RCA Part No. 6927, dull bronze finish. Shpg. wt. 1 lb . $\times$ X350 Your Cost.
${ }^{2} .70$

## New RCA Universal Output Transformer

A single trans former for matching all existing types of output tubes, either single or P.P., to all dynamic speakers. Covers voice coil impedances from 1 ohm to 15 ohms .
 Primary load imo pedances 1000 to 20,000 ohms. Hedances fidelity response characteristics make this unit especially atistics make this unit especially at-
tractive; frequency range from 30 tractive; frequency range from 30
to 10,000 c.p.s. Maximum working to 10,000 c.p.s. Maximum worling
voltage potential 500 volts. Angle voltage potential 500 volts. Angle
brackets with slots allow mountbrackets with slots allow mount-
ing in any position. Has tinned ing in any position. Has tinned solder lug terminals. Baked varnish impregnation. Size $23 / 421 / 1 \times 2$ Sbpg. wt. 8 lbs. Part No. 7852. XESS36
Your Cost Each. s. 1.17

Similar to the above, but fully shielded in cadmium plated metal case. Bakelite terminal board with lug terminals. Vacuum impregnated to allow use in tropical 7853. Shpg. wt. 31 lbs . S XE5537-Your Cost. 1.45

## Capacitor Pack

Models R-8, R-10, R-12
and RE-19
Genuine Part No.
7342 for the above
Shpg. wt. 3 lbs
XB534
Your $\$ 4.05$
Cost.

## N ©TF. As authorized distributors for the RCA Victor Company, we can supply any genuine RCA Factory Replacement Part at a dis count of $40 \%$ from the list price. Write us your requirements, and allow us to serve you speedily, efficiently and at the lowest prices. A further list ing of Genuine RCA-Victor parts will be found on pages 46 and 47 in Catalog No. 56.

Phonograph Oscillator


This unit, the model RK-24 is a small broadcast band oscillator. Although designed primarily for use with the RCA Midget Record Player model R-93, it may be used with any standard receiver. It helps make additional profits for the servmake additional pronts for the serviceman through the sale of additime, solves one of the most difficult time, solves one of the most difreult
problems in phonograph modernization work. All necessary leads are brought out from the oscillator-no chassis wiring changes are necessary One tube is used; a 2A7 with sets using 2.5 volt tubes; 26 A 7 with sets using 6.3 volt tubes. All parts mounted on a cadmium plated metal chassis. Shpg. wt. 6 lbs .
XK10599-RK-24 Phonograph Oscillator, less tube
54.65

Your Cost

## ICTOR

Dial Drive Assembly
RCA Part No. 2999. Used in models $R-7 A$,
$R-9, R-43, R-10$, R-9, R-43, R-10,
R-11, R-8, RE-18, RE-26, RE-16A, R-4 andR-6. Comes complete with friction rublockwashers.
Ockwashe
Your Cost Each

$24^{\circ}$
Knurled Nut Wrench


A quality tool designed for tightening or removing knurled nuts such as those used on toggle switches. Prevents marring of cabinet. Will fit nuts from $5 / 8^{\prime \prime}$ to $1 / 2^{n}$. Overal ength 81/2". Part No. 10982. Shpg. wt. 1 lb .
XP15267
Your Cost Each
$\$ 1.20$

## RCA-VICTOR <br> Cabinet Refinishing Kit



Contains all the necessary equipment for repairing scratched, dented or otherwise marred furniture. Al tems packed in a durable leatherette case measuring $91 / 2 \times 41 / 2 \times 214$. Contains the following: 1 can Refco Contains the following: 1 can Reico Oil for cleaning; 1 can of Valvoline for rubbing; 1 assortment of sand2 packages of Aniline Stain powders; 1 touch-up brush; 1 spatula 1 rubbing block; 1 instruction sheet Shpg. wt. 5 lbs.
XP15238-
Your Cost.

R. F. Coil

Assemblies

All furnished complete with shield cans, grid leads and grid caps. Shpg, wt. 1 lb.

Stock Part
No, No.
No, No. Models Cost ER127 X-622 14,21,31 50.90 BR151 $3016 \quad 15,22,32$ BR134 6043 11, 12, 16 BR131 6053 $\quad 17,24,25$ Antenma Coils BR135 3017 15,22,32 BR129 6042 11, 12, 16 $\begin{array}{llll}B R 156 & 6052 & 17,24,25 & 1.10\end{array}$

## Dial Scale For

S-14, S-21 and S-31;
Bremer Tully S-81, S-82
The original replacement dial scale Part No. X-613 for the above model sets. Easy to install.


BR411-
Your Cost
Each
Complete dial drum and scale assembly for above sets. Genuine Shpg. wt. 2 lb
BR2013-
Your Cost
$85^{\circ}$
Dial Scale for
11, 12, 16, 33, 17, 24, 25


Celluloid scale, black numerals. Part No. 6046. To replace defective scale, break rivets out of drum casting and fasten new scale with machine screws.
BR410-Your Cost Each 22 ${ }^{\text {c }}$

## Low Impedance Pick-up Coil

Part No. P-152. Used in model S-31. Impedance 20 ohms. Can be used as a general replacement. Coil wax impregnated and moisture proot; leads have rubber insulating sleeves. ER405
Your Cost Each

## Solenoid Coil for

## Model 42

Genuine part No. 4867. Controls the operation of the
automatic record
changer by actuating the starting lever. Shpg, wt. 1 lb .
BR166
Your Cost
Each.
${ }^{\text {s } 1.50}$
Governor Ball and Spring Assemblies
Used in types $F$,
$K$, and No. 3
motors. Early
model combina-
tions. Can be used as a general replacement.
22124
Your Cost Each

## Power Transformers



Models S-14, S-21 and S-31; Bremer Tully S-81, S-82 Original Part No. X.755. Shpg. wt. 21 bs . Your Cost $\$ 3.75$
BR113-You

Models 15, 22, 32 and 42
Genuine Replacement Part No. 3015. Shpg. wt. 10 lbs BR119
Your Cost
\$2.75
Similar to the above, but for 25 cycle. Part No. 3030. Shpg. wt. 16 lbs.
BR120 - your cost 4.25

Models 11, 12, 16 and 33
Original replacement Part No. 6070. Shpg. wt, 6 lbs BR122-
$\$ 3.45$
Models 17, 24 and 25 Genuine Part No. 6068. Shpg. wt. 81 bs . Your Cost $\$ 3.65$

Audio Transformers
Input Transformers


Models P-3, P-10, P-11, P-13 Genuine Part No. P-188. Shpg. wht. 2 lbs. Your Cost $\$ 1.35$
BRO Models S-14, S-21 and S-31; Bremer Tully S-81 and S-82 Genuine Part No. X-656. Shpg. Wt. 3 libs.
BR183 Your cost $\$ 2.2,5$ For Brunswick Panatrope 31 Genuine Part No, X-682. Shpg. WR187-Your Cost \$1.75

Output Transformers Models S-14, S-21 and S-31; Bremer Tully S-81 and S-82 Genuine Part No. X-658. Shpg. wt. 3 lbs. Your Cost $\$ 1.75$
BR202-You

Models 15, 22, 32 and 42 Genuine Part No. 3054. Shpg. wt. 3 lbs.
$\$ 1.95$
Models 11, 12, 16 and 33 Genuine Part No. 6083. Coil only. Shpg. wt. 1 lb . Shple wt. 1 lb . Cost.....75
BR185

## Phono-Input Trans

former Model S-31

## Panotrope

Part No. X769 for the above Panztrope model. Used to match the impedance of a 200 ohm
 pick-up to grid of a type 27 tube. Fully shielded, with terminal board. Shpg. wt. 4 lbs .
BR188-
Your Cost Each ...
ST.

## Condenser Blocks



Models S-14, S-21, S-31; Bremer Tully $\$$-81, $\mathbf{5 - 8 2}$ Genuine Part No. X-756. Shpg. wrt. 3 lbs .
\$1.25
Models 15, 22, 32 and 42 Genuine Part No. 3029. Shpg, wt Albs.
$\$ 2.25$
Models 11, 12, 16 and 33 Genuine Part No. 6023. Shpg. wt. 2 lbs
BR274-Your Cost
SI

Models 17, 24 and 25 Genuine Part No. 6022. Shpg.


## Electrolytics

Models 11, 12, 16 and 33 Part No. 928. 7 Mid.
BR290-Your Cost....

Models 17, 24 and 25 Part No. 929. 6 Mid.
BR292-Your Cost....

## Volume Controls

For Models 15, 22, 32 and 42 Part No. 3028. Cost $\$$ 1.
BR401-Your For Models 14, 21 and 31;
Bremer Tully Models 81, 82 Part No. X626. With switch. BR295
Your Cost ........ $5^{c}$
For Models 11, 12, 16 and 33 Genuine Part No. 6647. 75 ${ }^{\text {C }}$ For Models 17, 24 and 25 Part No. 6649. Genuine Bradley control with switch. \$ ${ }^{\text {BR739-Your Cost }}$ For Models P-3, P-10, P-11, PR-28C, PR-38C and PR-48C Genuine Part No. P-190. $55^{\text {c }}$
BR415-Your Cost.

## Filter Chokes



For Models 15, 22, 32 and 42 Part No. 3013. Shpg. wt. 3 lbs. PR173. Your Cost Each
$85^{\circ}$
For Models 14, 21 and 31
Part No. X-647. Shpg. wt. 4 Ibs . BR-164 Your \$1.45 Similar to a bove, but for 25 cycle eceivers. Part No. X-705. Shpg BR165-Your Cost \$1. 45
For Models $\mathbf{S - 1 4 , ~ \$ - 2 1 , ~ \$ - 3 1}$ Part No. X-757. Shpg. wt. 4 lbs BR169
Your Cost Each


## Oscillator

 Coil AssembliesContain all pad ding, plate and grid by-pass condensers. In shields. Shpg. wt. 1 lb .
For Models 11, 12, 16 and 33 Part No. 6044. cost. 8 I. 95
BR154-Your

For Models 17, 24 and 25 Part No. 6054.
BR153-Your Cost
51.95

## I. F.

## Transformers

Furaished complete in aluminum cans. Have grid lead, trim mer condensers and mounting bracket.
 Shpg. wt. 1 lb .

For Models 11, 12, 16 and 33
First I. F. Transformer
Part No. 6031. Cost. \$1.35
BR133-Your Cost
Similar to above, but for sets using AVC. Part No. $6035 . \$ 5.35$
BR2226-Your Cost.

Second I. F. Transformer
Part No. 6032.
BR132-Your Cost $\$$ T. 65
For Models 17, 24 and 25
First I. F. Transformer
Part No. 6033. Cost. \$T.35
BR315 Your
Second I. F. Transtormer Part No. 6032.
${ }^{1.65}$
Antenna Loading Coils

S.14, S-21, S-31

Part No. X-741. Also used in Bremer-Tully models $\mathrm{S}-81$ and $\mathrm{S}-82$. Ideal general replaceBR161
Your Cost Each


## Isolantite Bushing

Part No. 6409. Used in all modeis employing in all modeis employing loss ; idealfor use in high frequency receivers, etc.
BR1069
Your Cost Each
$25^{\circ}$

## Four Gang Condenser

 Models 15, 22, 32, 42

Part No. 3004. Complete with trimmers. Shpg. wt. 7 lbs .
BR252
Your Cost Each. .... \$2.75


# 25 yifuw Clarion Radio for REPIACEMENT PARTS 

As sole distributors for all Clarion products we are prepared to supply practically any replacement part required. We carry complete stock of all the most used parts, including coils, transformers, condensers, etc. All Clarion parts are maintained in the New York Warehouse only, but may be ordered through Atlanta or Newark if more convenient.

A special department has been created for the handling of Clarion replacement parts and should any new products be developed from time to time by Clarion engineers these will also be a vailable to authorized dealers at exceptionally attractive prices and discounts. If you are a Clarion dealer it will pay you to get in touch with us so that we can keep you informed of all new developments as they are completed by Clarion engineers.


60 Cycle-110 Voits

| Stock <br> No. | Clarion <br> No. | Model <br> No. | Your <br> Cost |
| :---: | :---: | :---: | :---: |
| CL132 | G1578 | 300 | $\$ 3.50$ |
| CL264 | G1152 | 56 | 3.50 |
| CL267 | G1644 | 340 | 2.20 |
| CL482 | G1768 | 470 | $\mathbf{1 . 5 0}$ |
| CLL103 | G2013 | 51 | 3.95 |
| CL200 | G1151 | 61,70 | 3.25 |
| CL232 | G1381 | 160 | 2.50 |
| CLL02 | G1255 | 80 | 2.00 |
| CL262 | G1437 | 200 | 1.75 |
| CL269 | G1528 | 240 | 1.95 |


| 25 | C | Volts |  |
| :---: | :---: | :---: | :---: |
| Stock No. | Clarion No. | Model No. | Your Cost |
| CL199 | G1151A | 61,70 | \$3.95 |
| CL198 | G1162A | 56 | 4.25 |
| CL101 | G1240A | 90, 94 | 3.50 |
| CL479 | G1323A | 40 | 3.50 |
| CL233 | G1490A | 260 | 3.50 |
| CL135 | G1644A | 340 | 3.50 |
| CL478 | G1255A | 80 | 2.95 |
| CL134 | G1381A | 160 | 3.75 |
| CL229 | G1518A | 280 | 3.75 |
| CL168 | G1578A | 300 | 3.75 |
| CL100 | G1662A | 360 | 3.10 |
| CL166 | G2113 | 51 | 5.85 |


| 60 |  |  |  |
| :---: | :---: | :---: | :---: |
| Cycle-220 Volts |  |  |  |
| Stock | Clarion | Model | Your |
| No. | No. | No. | Cost |
| CL480 | G1578B | 300 | $\$ 3.75$ |
| CL169 | G1240B | 90,94 | 3.45 |
| CL266 | G1323B | 40 | 3.75 |
| CL196 | G1616B | 320 | 1.65 |
| CL167 | G1662B | 360 | 3.95 |
| CL136 | G1490B | 260 | 2.50 |
| CL228 | G1151B | 61,70 | 3.50 |


| Dynamic Speakers |  |  |  |
| :--- | :---: | :---: | ---: |
| Less Output Transformers |  |  |  |
| Stock | Clarion | Model | Your |
| No. | No. | No. | Cost |
| CL125 | G1500 | 220 | $\mathbf{\$ 2 . 7 5}$ |
| CL126 | G1501 | 260 | 2.50 |
| CL128 | G1502 | 240 | 2.50 |
| CL160 | G1503 | 280 | 2.25 |
| CL161 | G1505 | 300 | 2.25 |
| CL162 | G1506 | 340 | $\mathbf{2 . 9 5}$ |
| CL460 | G1706 | 472 | $\mathbf{1 . 5 0}$ |


| Wave Change Switch For Model 480 |  |  |  |
| :---: | :---: | :---: | :---: |
| Clarion Part No. 4919. Triple pole, double throw. <br> CL525-Your Cost Each |  |  |  |
| Variable Condensers |  |  |  |
| Stock No. | Clarion No. | Model No. | Your Cost |
| CL178 | G1080 | 51 | $\$ 2.95$ |
| CL177* | P4432 | 820 | 1.95 |
| CL182* | P4468 | 340 | 2.25 |
| CL422* | P4745 | 450 | 2.25 |
| CL173 $\dagger$ | P4629 | 422,425 | 1.25 |
| CL174 $\dagger$ | P4712 | 440 | 1.25 |
| CL175 | P4856 | 470 | 1.25 |
| CL176 $\dagger$ | P4744 | AR-100 | 1.5 |

## Condenser Blocks

| Stock No. | Clarion No. | Models | Your Cost |
| :---: | :---: | :---: | :---: |
| CL217 | G1529 | 240 | \$2.95 |
| CL372 | P4709 | 440 | 2.95 |
| CL380 | P4737 | 450 | 2.95 |
| CL226 | G1480 | 220 | 2.95 |
| CL209 | G1384 | 100 | 2.95 |
| CL227* | G1529A | 240 | 2.95 |
| CL212 | G1573 | 300 | 2.95 |
| CL219 | G1319 | 40 | 2.95 |
| CL207* | G1480A | 220 | 2.25 |
| CL364 $\dagger$ | G1529B | 240 | 2.75 |
| CL201 | G2033 | 51 | 3.95 |
| CL206 | G1164 | 70 | 3.95 |
| CL216 | 1106 | 60 | 3.95 |
| CL.220* | G2133 | 51 | 3.95 |
| CL377 | P4584 | 400 | 1.10 |
| CL363 | P4585 | 400 | . 80 |
| CL371 | P4717 | 423 | 95 |
| CL202 | G1178 | 61 | 3.75 |
| CL222 | G1187 | 56 | 3.75 |
| CL204 | G1256 | 80 | 2.25 |
| CL213* | G1298A | 90, 94 | 2.50 |
| CL208 | G1350 | 84,85 | 2.50 |
| CL221 | G1298 | 90,94 | 2.05 |
| CL225 | G1298C | 95 | 1.35 |
| CL211** | G1319A | 40 | 3.25 |
| CL223* | G1350A | 84, 85 | 3.25 |
| CL218 | G1413 | 160 | 1.25 |
| CL214 | G1492 | 260 | 2.95 |
| * 25 Cy | $\dagger 22$ | 20 Volt |  |


| By-Pass Blocks |  |  |  |
| :---: | :---: | :---: | :---: |
| Stock No: | Clarion No. | Models | Your Cost |
| CL191 | G1057 | 51 | 50.85 |
| CL376 | G1108 | 60 (A.F.) | . 85 |
| CL224 | G1540 | 240 | . 85 |
| CL185 | G1167 | 61,70 (R.F.) | 1.85 |
| CL189 | G1262 | 80,90 (A.F.) | 1.00 |
| CL183 | G1295 | 80, 90 (R.F. | 1.10 |
| CL192 | G1326 | 40 | . 75 |
| CL334 | G1348 | 45 | . 75 |
| CL205 | G1511 | 220 | . 75 |
| CL188 | G1622 | 322 | . 75 |
| CL186 | G1351 | 84 | . 50 |
| CL203 | G1498 | 260 | . 60 |
| CL190 | G1642 | 340 | . 80 |
| Voltage Dividers |  |  |  |
| Stock No. | Clarion No. | - Models | Your Cost |
| CL296 | P1335 | 60 Jr . | \$0.75 |
| CL315 | P1819 | 40, 100 | . 42 |
| CL299 | P4268 | 220 | . 35 |
| CL295 | P4269 | 241, 260 | . 35 |
| CL294 | P4305 | 280 | . 35 |
| CL320 | P4379 | 300 | . 35 |
| CL298 | P4267 | 300 | 45 |
| CL319 | P4303 | 280 (Bias | ) .20 |
| CL300 | P4512 | 340 | . 39 |
| CL325 | P4533 | 360 | . 25 |
| CL318 | P4534 | 360 | 15 |
| CL585 | P4947 | ( 300 ohms) 480 | . 48 |


$\begin{array}{llll}\text { Stock Clarion } & \text { Your } \\ \text { No. No. } & \text { Nodels Cost }\end{array}$

Audio Transformers

| Stock | Clarion | Models | Your |
| :---: | :---: | :---: | :---: |
| ${ }_{\text {cinc }}$ |  |  | Cost |
| CL255 | G1045 | 51 | \$1.05 |
| CL245 | G1109 | 60 Jr. | 1.45 |
| CL248 | G1182 | 61 | 1.45 |
| CL249 | G1778 | 480 | . 95 |
| CL257* | G1586 | 300 | . 85 |
| CL250 | G1812 | 490 | 75 |
| CL438* | G1838 | 500 | 1.25 |
| CL588 | G1419 | 280 | 1.25 |
| - Driver | Transfor |  |  |

* Driver Transformer.


## Output <br> Output

| Stock No | Clarion No. | Models | Your |
| :---: | :---: | :---: | :---: |
| No. | No. |  | Cost |
| CL253 | G1051 | 51 | \$1.15 |
| CL256 | G1420 | 160 | . 85 |
| CL279 | G1516 | 280 | . 85 |
| CL240 | G1660 | 360 | . 85 |
| CL247 | G1813 | 490 | . 85 |
| CL262A | G1276 | $\begin{aligned} & 80,84 \\ & 85,94 \end{aligned}$ | . 75 |
| CL243 | G1697 | 425, 440 | . 75 |
| CL241 | G1617 | 320 | . 55 |
| CL242 | G1689 | 400 | . 65 |
| CL278 | G1748 | AR-100 | . 95 |

I. F. Coils

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Clarion } \\ & \text { No. } \end{aligned}$ | Models | Your Cost |
| :---: | :---: | :---: | :---: |
| CL118 | P4885 | 470 |  |
| CL544 |  | 420 |  |
| CL541 | ${ }^{\text {P4 }} 655$ | 420 (2nd) | 1.25 |
| CL545 | P4716 | 422 (2nd) | 25 |
| CL120 | G1531 | 240 (1s | 1.25 |
| CL115 | G1532 | 240 (2r | 1.25 |
| L104 | G1533 | 240 | 1.25 |
| 1110 | G1575 | 300 (3r | 1.25 |
| CL114 | G1647 | 340 | 1.25 |
| CL105 | G1661 | 360 | 1.25 |
| CL538 | G1843 | 490 | . 95 |
| CL119 | P4711 | 40 | 5 |
| cL116 | P4798 | AR-1 |  |
| CL111 | G1494 | 260 (2nd) | . 95 |
| CL159 | G1414 | 160 (1st) | 5 |
| CL107 | G1402 | 120 | 5 |
| CL540 | ${ }^{\text {P4 }} 4$ | 220 | H0 |
| cL533 | P4730 | 450 (18t) | 1.25 |
| CL543 | P4731 | 450 (2nd) | 1.25 |
| CL427 | P4879 |  | 1.75 |
| CL121 | G1610 | 241 (1s) | 1.15 |
| CL117 | G1611 | 241 (2nd) | 1.15 |
| cL108 | G1638 | $\begin{aligned} & 320\left(\begin{array}{c} \text { osc. an } \\ \text { 1. F.) } \end{array}\right. \end{aligned}$ |  |
|  |  |  |  |
| CL109 | G1576 | 300 |  |



Input

Stock CL255 CL255 CL245 G1109 CL249 CL257*
CL438*

## Cone and Voice Coll <br> For AR-100 Auto Set

 Original Clarion Part No. G1751. CL59"A" Choke for AR-100 Clarion Part No. P4799, $29^{\circ}$
R. F. Colls

## S

| Stock | Clarion |  | Your |
| :--- | :--- | :---: | :---: |
| No. | No. | Models | Cost |
| CL547 | P4741 | 450 | $\mathbf{5 0 . 6 0}$ |
| CL562 | G1544 | 240 | .65 |
| CL147 | G1650 | 340 | .65 |
| CL149 | G1191 | $56(2$ nd) | .65 |
| CL144 | G1192 | $56(3$ rd | .65 |
| CL145 | G1272 | $80(1$ st) | .65 |
| CL146 | G1293 | 90 | .65 |
| CL139 | G1803 | 480 | .40 |
| CL140 | G1376 | 100 | .40 |
| CL558 | G1090 | $51(2 n d)$ | .95 |
| CL156 | G1183 | 61 | .50 |
| CL578 | G1342 | 45 | .55 |
|  | Antenna | Coils |  |
| CL532 | P4739 | 450 | .65 |
| CL561 | G1493 | 241 | .65 |
| CL530 | G1649 | 340 | .65 |
| CL154 | G1163 | 70 | .65 |
| CL158 | G1543 | 240 | .85 |
| CL148 | G1294 | 90 | .55 |
| CL531 | G1343 | 45 | .45 |
| CL152 | G1386 | 100 | .35 |
| CL150 | G1386 | 220 | .50 |
| CL549 | G1089 | 51 | .75 |
| CL584 | P4591 | 400 | .65 |

## Space limitations prevent us from showing a complete

 tabulation of all the Clarion parts avallable. If the part you require is not listed, write us giving model number and prices.
# बाuantivy lmited at Savinag to 4 or 

## Power Transformers



PLATE TRANSFORMER 70 SERIES 7 BPG Pack
Part No. 67. Shpg. wt. 6 lbs.
XC2104-Your Cost.


1. F. Transformers


Each coil bears the manufacturers part number stamped on the housing.

| Stock No. | Model No. | Part No. | Stage | Your Cost |
| :---: | :---: | :---: | :---: | :---: |
| XC2489 | 15, 15B, |  |  |  |
|  | 150,55 | 4429 | Output | \$0.69 |
| XC2491 | $\begin{gathered} 15,15 B, \\ 150 \end{gathered}$ | 4428 | Composite |  |
| XC2303 | 25 | 5326 | 1st I.F. | 1.19 |
| $\times \mathrm{C} 230$ ? | 25 | 5337 | 2nd I.F. | 1.19 |
| $\times \mathrm{C} 2318$ | 25B | 5601 | 1st I.F. | 1.25 |
| $\times \mathrm{X} 2319$ | 25 B | 5602 | 2nd I.F. | 1.25 |
| XC2498 | 60 | 4439 | 1st I.F. | 1.95 |
| $\times \mathrm{C} 2499$ | 60 | 4267 | 2nd I.F. | 1.95 |
| XC2324 | 200 | 6250 | 1st I.F. | 1.25 |
| XC2325 | 200 | 6254 | 2nd I.F. | 1.29 |
| $\times \mathrm{C} 2332$ | 300 | 7205 | 1st I.F. | 1.19 |
| $\times \mathrm{C} 2333$ | 300 | 7230 | 2nd I.F. | 1.35 |
| XC2415 | 310A | 7821 | 1st I.F. | . 79 |
| XC2416 | 310A | 7812 | 2nd I.F. |  |
| $\times \mathrm{C} 2451$ | 460 | 10149 | (coil only) | .59 1.10 |
| $\times \mathrm{C} 2452$ | 460 | 10253 | 2nd I.F. | 45 |

## Pilot Light Dimmer



For Models 300 300A and 320 Duplicate of the original Majestic Part No. 7785. Used as a resonance indicator in the above model sets. Complete, no changes Employs new heavy duty primary coil: will not burn put. Shpg. wt. 2 lbs. $\rightarrow$ e $\times \mathrm{C} 514$

3

## Condenser Blocks

Models 90B, 100B
Part No. 1564 . Shpg. wt. $6 \mathrm{lbs} . \$$ \$. 75
XB1065-Your Cost..........

## Majestic 60, 160

Part No. 3858. Shpg. wt. 9 lbs. $\$$ T. 95
XB1072-Your Cost.......... 95 Majestic 30 Choke and Condenser Part No. 3622. Shpg. wt. 10 lbs. $\$ 2.25$
XB1073-Your Cost......... 2.25

## Audio Transformers

 and Filter Chokes

STRAIGHT AUDIO TRANSFORMER MANESTIC 70 SERIES
Part No. 638. Shpg. wt. 5 lbs.
XC2091-Your Cost
$85^{\circ}$
PUSH-PULL OUTPUT TRANSFORMER MAJESTIC 90 SERIES
Part No. 134. Shpg. wt. 3 lbs.
XC2107-Your Cost
$59^{\circ}$
90-B PUSH-PULL OUTPUT
TRANSFORMER
P.P. Output, Majestic Part No. 1552.
XC2095
Your Cost...................

130A PUSH-PULL INPUT TRANSFORMER
Part No. 1883. Shpg. wt. $6 \mathrm{lbs} . ~ \$ \$ .25$
XC2093 Your Cost.............. 2.25
CHOKE FOR 70 SERIES
Part No. 66. Shpg. wt. 8 Ibs.
XC2101-Your Cost.
$23^{\circ}$
DOUBLE CHOKE FOR 180 SERIES Part No. 626. Shpg. wt. 8 lbs. $\ldots . . .45^{c}$

## DOUBLE CHOKE FOR 90 SERIES

 Part No. 281. Shpg. wt. 91bs.XC2103-Your Cost..................

By-Pass Assemblies


MODEL 220
Genuine Majestic replacement Part No. 6577 . Shpg. wt. 2 lbs.
XB723-Your Cost Each $39^{\circ}$
MODEL 35
Part No. 5792. Shpg, wt. 2 lbs.
XB724-Your Cost Each..... $\qquad$ $39^{\circ}$
MODEL 45
Part No. 5926. Shpg. wt. 2 lbs.
XB725 Your Cost Each.....
FREED-EISEMANN Volume and Tuning Dial Castings


Exact duplicates of the original Freed-Eisemann Part Nos. 2445 (tuning dial) and 2446 (volume control) castings. Will fit chassis exactly; no changes necessary to install. Of cast iron finished in gilt. Will not break of crack. Shpg. wt. 2 lbs each.
XF6150 Volume Control Casting.
Your Cost Each ........ 85
XF6151-Tuning Dial Casting. Your Cost
Each.
$90^{\circ}$


## Parcel Post Rates for Various Zones

Parcels up to 8 oz . may be shipped anywhere in U.S.A. for 11 亿c for each 2 oz . Rates Subject to Change by U. S. Postal Authorities

| Zone Number . . . . . . . . . . . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost for 9 to 16 oz. | BC | 8 C | Sc | 10c | 11 c | 12 c | 14. | 15 c |
| Each addit'l lb, or fraction | 1.1 c | 1.15 | 2 c | 3.5 c | 5.3 c | 7 C | 9c | 11 c |

## TEREMS

Wholesale Radio Service Company buys for cash and sells for cash. That is the secret of our low price polley. We cannot afford to give credit as we ask none ourselves.
We ship C.O. D. if desired, providing a deposit of $20 \%$ accompanies your order. We cannot ship C. O. D. without a deposit. C. O. D. packages can be shipped to all parts of the United States, Porto Rico, Hawaii, Alaska and Mexico. We CANNOT ship C.O.D. to any country outside of the United States, excepting those mentioned. Orders generally, cannot be sent Parcel Post, C. O. D. care of banks, as most banks refuse to handle such shipments.

The safest and best way to send money is by postal, express, or telegraph mones arder, bank draft or firm checks. Do not send cash. If absolutely necessary to send cash, reglster the letter. ALL ORDERS FOR FIFTY ( 850.00 ) DOLLARS OR MORE DEDUCT $2 \%$ FROM THE TOTAL AS A TRANSPORTATION DEDUCT $2 \%$ FROM THE TOTAL, AS ALETRANSPORTATION ALLOWANCE
PRODUCTS.

IMPORTANT. Indicate catalog number and stock number on order blank. The number of this catalog shown on front cover is 57.
When ordering, specify method of shipment you prefer. In the upper right hand corner of the order blank you wil! find a series of squares marked "Express." "Parcel Post." "Frelght." "Boat," and "Best Way" arranged for your instructions. All merchandise shipped by express subject to inspection if you specify this in your order blank
specify this in your order Nank. CHANDISE FOR ADJUSTMENT PLEASE WRITE, STATING FULL DETAILS, BEFORE RETURNING PACKAGE. We will FMMEDIATELY forward necessary shipping instructions. Your coIMMEDIATELY forward necessary shipping instructions. Ys to give operation in this respect will be appreciated-and it wilk herefully and you bet

## FOREIGN ORDERS

Orders from foreign countries receive careful attention. They are packed and shipped to ensure very prompt and satisfactory delivery. Our terms on ALL foreign sales are as follows: Payment in New York by letter of credit against documents, or $50 \%$ deposit WITH ORDER, balance sight draft against Bill of Lading. These conditions will not apply to certain countries where rigid exchange coatrol conditions exist. In countries where rigid exchange control exists, merchandise plus transportation charges must be paid for in full in New York before shipment can be made. All quotations F. O. B. 100 Sixth Avenue, New York, with slight additional charge for export packing. ORDERS UP TO with slight additional charge for export packing. ORDERS $\$ 25.00$ PAYABLE IN FULL IN ADVANCE, PLUS SHPPING CFARGES. Remittance by draft on New York bank in U. S. Currency. We do not recommend that
will be delayed until cleared. foreign shipments is 14 c per pound. The average Parcel Post rate on oreign shipments rate averages $11 / 4$ per cent of the order's value, with a minimum rate of 25 cents.
Our catalog prices are F.O.B. Warehouse, packed for domestic shipment. For Special export packing and delivery to pier, there is a sllght additional charge covering our extra costs. There is no extra charge for shipments to points outside the United States, which can be for warded packed as for domestic shipment.

## PARCEL POST

Freight and Express shipments are sent transportation collect. Orders shlpped by parcel post must be prepaid, and we therefore request that you INCLUDE POSTAGE FOR PARCEL POST SHIPMENTS. Estimate the cost of postage to your town by finding the weight of the articles you are purchasing (weight of each item is given in catalog) determine the zone in which your town is located, and then from the above chart you can find the cost of sending the package to your town.

Example: Mr. John Jones lives in Edwight, West Virginta. He orders a condenser, which according to the catalog weighs 3 pounds. The nearest blg city to Edwight is Charlestown, which he finds from the above chart is in the 4 th zone. The cost of sending 3 pounds to the 4 th zone is 17 c and he adds this amount to his remittance plus cost of insurance.

## INSURANCE

All parcel post packages are covered against damage or loss. Insurance costs and postage should be added to the amount sent. Charges are as follows:When value of parcel is up to $\$ 5.00$
botween
$\begin{array}{rrr}\$ 5.00 \\ 5.00 & & \\ 25.00 & \$ 25.00 \\ 50.00\end{array}$ 25.00 \& 50.00 50.00 \& 100.00
extra

## C. (1. D. SIIPMENTS

Transportation charges on C. O. D. parcels are slightly bigher than those fully prepaid. $C$. $O$. $D$. charges in addition to the reguiar postage costs outlined are as follows including insurance:-
When value of pareel is un to
$\$ 5.00$
the extra eharge 1s 12c (Inel. Ins.) $\begin{array}{ccc}\text { 5. \& } & 525 . \\ \text { 25. } & 50 . \\ 50 . & 5 & 100 . \\ 100 . & \text { \& } & 150 .\end{array}$
 -. 3208 " 320
" 40 e 150. \& 200 . - 45 c (.

For eneh $\$ 50.00$ value above $\$ 200.00$ the charge is 5 e more (Ineluding insurance). The Post Office also charges an oxtra mall money order feo on each C.O.D. pareel.

If you are doubtful as to the correct amount do not hesitate to send us sufficient postage. We GUARANTEE to refund any excess remittance.

Parcel post shipments to all zones must not exceed 70 pounds. The limit of size on all parcel post packages is one hundred inches in length and girth combined. Example: a package 35 inches long, 10 inches wide and 5 inches high, package 35 inches long, 10 inches wide and 5 inches high, 35 inches. plus $2 \times 10$ inches width, plus $2 \times 5$ inches height, equals 65 inches).

## OUR SERVICE

We endeavor at all times to give you the tnest possible service. According to figures prepared by our Traffic Departservice, According to figures prepared by our Traffc Department, $96 \%$ of all orders are shipped within 24 hours of receipt. Very often orders go forward within a few hours after their
arrival. Al! packages are inspected before shipment to avold arrival. All pack
errors and delays.

## SPECIAL NDTICE

Customers located nearer our Southern headquarters should send orders to 430 West Peachtree St., Atlanta, Ga. Others, including foreign customers, should send orders to 100-6th Ave., New York City.

When corresponding about any shipment or articles received please write to the address from which merchandise was shipped.

## TO INSURE PROMPT DELIVERY

To insure prompt delivery of your orders or correspondence to us and to avoid possible error by the Post Office please make certain that you write (preferably print) or type our FULL name:

Wholesale Radio SERVICE Company, Inc.
on all letter envelopes or packages. Address ail mail to the company.

# ound <br> An Amplifier for Every Known Application Now Avallable 

## V/7AL to Every SOUND TECHNICIAN!

o$N$ the following poges the reader will find a doseription of the most complete line of sound amplifiers, systems and occessories offered by ony one organization. Ronging in power oulput from $31 / 2$ to 100 watts, of prices fram $\$ 9.75$ to $\$ 81.50$, these amplifiers meet every sound requirement. All this equipment is characterized by dependability, efficiency and ruggedness. The types of circuits used are the most efficient for each application, and were chosen by Lafayette engineers without regord for various "trick" arrangements that are devlsed by others for publicity purposes rather than for any genuine technical cansiderations.

## Careful, Competent Engineering

The world-wide reputation ochioved by Lofoyefle Sound Equipment, which is sold exclusively by Wholesale Radio Service Co., Inc., is founded on competent, careful engineering. One entire labaratory, in which the most modern testing and measuring apporatus is available, is devated solely to the development of sound amplifiers. Lafayatte engineers are sound specialists, with years of experience in the design, construction and field use of amplifiers and related units. In designing eoch item in the Lafayette line, they treat it as on individual problem, and consider all possible technical requirements and canditions of operotion. They build numerous models and subject them to the strictest known lests for their frequency response, harmonic content, power output into various loads, gain and hum level. When finally an omplifier is released for production, it is a fully engineered product that will do everything cloimed for it.

## "Tube Manual" Systom of Rating Exposed

Although wo are proud to say that the published ratings of Lafayefte amplifiers hove always been and always will be hanest, the practice of other sales argonizations of incorrectly rating capabilities of comparative units now forces us, as a matter of salf. defense, to expose some of the methods used.
It is the proctice of many manufacturers to rate their amplifiers according to the outputs for the tubes as given in the fube manuals. This is ridiculous, as the conditions under which these figures were obtained are rorely encountered in actual practice. The method of operoting the tubes is important and significant; for instance, a pair of 45's is normaliy rated at 4 walts. but it is possible to obtain 18 watls out of them 1 On the other hond the 6A6 lube is rated in the manufocfurer's manual as having an output of ten watts with a certain driver, whereas under proctical operating conditions the moximum usable output with this same driver is actually 6 watts 1

## Power Into $\mathbf{5 0 0}$-Ohm Line Is What Counts!

The output obtainable at the output impedance of the fube means nothing. The minimum lass with o high efficiency oulput transformer (and every amplifier must have an oulput transfarmer) is 1 db , the loss depending on the level. Many transformers have an insertion lass" of 3 db , which means that anly ane-half the plate power will be delivered to the voice coil or the line. It's what goes into the speakers that counts, remember, and not what is dissipated in the plate circuit.

To ovoid all misunderstanding, we publish with eoch amplifier description, a uniform box of technical characteristics which constitutes the Irue story of that amplifier. This glves peak oulpul, maximum output into the ideal plate impedance load, maximum output into a 500.0 hm line (and this is OUR
honest raling of the amplifier), harmonic content of the rated maximum outputs, gain and hum level in db and power consumption fram the line. The frequency charocteristic is also meosured into the 500 -ohm line as shown by eoch curve.
Hence Lofoyette amplifier ratings cannot be compared with those of other units thot ore rated hypo thetically. When the output of a Lafoyatte omplifier is given os 15 watts, this is the actual usable power abiainable from the amplifier and no allowances need be made for the difference between the rated output and the octual powar output as must be done in the cose of most competitive amplifiers having ratings based on ideal operating conditions.

## Peak and Distortion Ratings Clarified

The peak power is merely the maximum measureable output without regard for wave shape. We state it anly 10 indicate the overload limits and to expase competitors who give the peok output os the maximum useful output. We do not state the "maximum undistorted oulput." as this is a very loose term. Instead, we give the harmanic cantent, which is accurotely measurable ond really indicates the quality of on omplifier.

## Method of Measuring Distortion

Harmonic content, which is effectively the distortion, cannot be measured by a eathode ray oscillograph, but requires eloborate ascillators and bridges, found only in the finer lobarotories. Lofayette laboratory facilities include not only these harmonic analyzers, but also every other known device for amplifier measurement. Under average conditions $8 \%$ harmonic content is considered acceplable; all Lafayetle amplifiers are well below this figure.

## ATTENTION! RESEARCH LABORATORIES AND COLLEGES

Lafayette engineers are so confident that the rating of each lafayette amplifier is correct that they will gladly submit any lafayette amplifier to accredited Research Laboratories and colleges for measurement purposes.

## Special Service on Sound Systems

Before any Lafayette sound system is shipped to a customer, it is set up complett in our sound auditarium and checked thoroughly. This is on exclusive service affered by Wholesale Radio. If the customer has made an improper selection of any component, we notify him in advonce and make suitable suggestions before actual shipment is mode. We maintain a special Sound Engineering Department iust for this purpose, and invite you to take advantage of its years of experience and knowledge. Its services are free.

## Compare the Figures 1

from the foregoing you can now understand why Lafoyette Sound Equipment has established an international reputation for excellence in design, rugged. ness in construction and perfection in operation, and why it is the choice of thinking sound technicions the world over. As convincing final proof of its superiority. world over. As convincing final proof of its superiority, we present on the two following pages o starting comparison of two typical amplifiers-the new Lofayefte Madel 130 -A 100 . Wall unit and a so-called " 100 walt"
amplifier of the nearest competitive moke. The parformance figures speak for themselves!

# The $\mathbb{L}$ afayette IOO Watt Amplifier 

## DESIGNED FOR AIRPORTS, BALL PARKS, AIRPLANES, WILL SERVE CROWDS OF 100,000 PEOPLE-LOWEST TUBE COST OF ANY 100-WATT AMPLIFIER

THE largesi sound amplifier previously ovailable in the Lalayette line, the 60 -woll unit, is not quite big enough for certoln spe. cial applications; for instance, at oirparts, large foatboll stadio and open-air meetings where on extremely high naise level pre valis. An output of at least 100 wolts was deemed necessary, so Lofoyette engineers storted on intensive sfudy of high-power amplifer considerations and also of existing designs.
Examination and trial of several typleal high-powered amplifiers revealed quickly that they suffered noticeably from distortion at high levels and that their operating cast, due to the use of expensive transmitting lype fubes, was very high. In some of these units the monufaclurers had quite evidently tried to sove money by using tronsformers thot certainly were never intended to corry the loods imposed on them. In one amplliter sold is a " 100 -wati" Jab, the aulpul franeformer was na larger than the trenstarmer used In lafuyette 15 -watt ampltifer.

## SPECIAL COMPONENTS NECESSARY

Lafayette engineers decided that their 100 woll omplifier must deliver 100 walts of usoble energy into a 500 -ohm line, with less than the allowoble $8 \%$ harmonic content. Cost was to be sec ondory, as there cauld be no campromise with quality and de pendability in an amplifier designed to feed vaice and music to crowds of 100,000 people
Fartunatoly for the purchoser, Lafoyelte engineers devised o unique methad of using receiving type tubes to deliver the neces sary 100 wotts, To occomplish this full 100 -walt transformers were bull, bul the reduced fube cost (os campared with the casl af transmitting iypes) campensated for this so nicely that the Lofoyette 100 -Wott Amplifier, with oll its custom built components, casts na more than dishoneslly constructed " 100 -watl" amplifiers that aren't 100 -watt amplifers of all.

## CHARACTERISTICS VERIFIED

The use of eight ordinary $59^{\circ}$ s, costing less than 90 cents aplece, to give real 100 -wall outpul was so revolutionaly, and the general characteristics so good, that lafayefte sent a camplete sample amplifier to the testing laborotory of a lorge tube monu focturer, with the request that they "give it the works." The en ginears were particularly interested in lube life, as the fubes are the anly parts that would need eventual replocement. The report that came back from the tube laboratary so completely checked the ariginal measurements of Lafoyalle engineers that Wholesale Rodio Service Ca., Inc. os sole distributors for lafayette produels, is hoppy to present the detailed technical characteristics and to sponsor the completed amplifer as the finest high-powered amplifer on the market. We sell if with camplete confidence in its capabilities and yau can use it with complote confidence

## HARMONIC CONTENT AT RECORD LOW

With 100 wotts going inta a 500 -ohm line, a condition representing actual operation and not merely theory, the meosured hor monic canfent is only $3 \%$. This phenomenal performance is nol approached by any ather 100 -wall amplifier we know of. We emphasize the foct that this is 100 watls of energy in the octuol 500 -ohm line, not meraly info a thearetical plate impedance load This is a "wide range" as well os o high-power amplifier, as the frequency respanse eurvo shows.

## 8-WATT DRIVER REQUIRED

The Lafayotte 100 . Watt Amplifier can be driven by any amplifier with an outpul of 8 wolls. For coordinated results, we recom mend the Lafoyette Model $356 . \mathrm{P}$ High.Fidelity Driver. This uses a 53 , two 58 's and two 243 's, and actually delivers 12 walts a - harmonic cantent of only $3 \%$. At the overage level required a drive the 100 -woff amplifier, the driver has a harmanic cantent of less than $2 \%$, which means that the total content of the whole system is less than $6 \%$ when the full 100 -watt outpul is delivered o a 500 -ohm line

## The Finest High-Powered Unit on the Market!

# COMPARATIVE YESTS SHOW SUPERIORITY OF LaFAYETTE DESIGNS 

ENTIRELY AC OPERATED - NO GRID BIAS BATTERIES<br>EXTRA HEAYY TRANSFORMERS AND FILTER SYSTEM

Athough 11 hos never been the policy of Wholesale Rodio Service Co., Inc. to cost rofiections on apparatus sald by other frms, there has been so much deliberate mis-rating af amplifiers, and porlicularly high-pawered amplifiers, that in all lairness to prospective purchasers of this trpe of equipment we ore pre. sonling some date on comporative lests made in the Lafoyotte laboratory. This invoived a compotitive lea.woll amplifier, whose performance is best indicoled by the oscillograph tracing, Fig. 3 repradueed herowith alongside a similor tracing, Fig. 2, of the some signal os handied by the Lofoyette amplifier.

## NOISE, NOT OUALITY

This omplifier, Flo. 1, purchased on the apen morkel complete with all fubes ond the recommended driver, showed up so badly that we refraln from publishing the actuol hormonic content and hum lovel figures for foor thol our reoders will think them im. probable. The unit delivered 100 watis all right; in foct it do. livered 180 wolts, but the best description of this autput is "nondescript." It wos mare hum, distartion and plain noisa than actual signal. This is the emplifer with the output fransformer equivalent to the Lafayatte 15 -watt trensformer in size.
Tho bore filter system consists of only 2 mf . of condenser end one receiver lype choke. Campare this puny fiter with the 16 mf . af condenser and 2.15 h chotes in the Lalayette 100 -watt ompllifer.

## BATTERY DIAS STILL USEDI

In this doy of complete AC operotion, it is astonishing to find this "100-woll" amplifier using old-fashioned battory blas. No botteries to dry up ore used in the Lafoyette omplifter, which obloins ALL its power from the 110 -volf line.

## Ho SAVING IN TUBE COST

The difierence in fube cost is starting. Whersos the two trans. mitting type tubes in the competitive omplifior cost o total of approximataly $\$ 30$, the eight recolving type fubes in the Lofayette omplifier cast only $\$ 8.00$. Lofayatte engineors have invested this soving in really odequole power and output transformers, in a husky fifter system, ond in generally superior construction. Type 58 lubes ore avalloble everywhere, and a spare sel of them con be kept on hond of all times.

## ENORMOUS TRANSFORMERS USED

Some ldee of the size of the output transformer used in the 100 . woll amplliar can be oblolned from fig. 4. In which o iype 30 lube is included for comparison. Saund men aecustomed to ordinory tronsfarmers display ostonishment when they see and lift one of these brutes. It measures $\pi / 4^{\prime \prime} \times 51 / 2^{" x} \times 5^{\prime \prime}$ and weighs 20 lbs.

## RIGID STEEL CONATRUCTION

To support the woight of oll the camponents, Lofoyette enginears hove gon to extremely heary steel construction. The amplifer is designed for canveniont rack mounting, olthough it con be used just as reodily an a toble tap. The ponal is of $3 / 32^{\circ}$ steel, the pon and side supporting member of $1 / 16^{\prime \prime}$ stock. All surfoces ore finished in block locquer which protects the steel permanenlly ogoinst rust.
On the front ponel are merely o plole ammoter, a line switch, fuse and o pilot light. All input ond oufpul connections are mode of the bock of the chassis. An extro lla-volf receplocte is provided so thot the driver omplifier can be controlted by the some line swith that turns the moin amplifior on and off.

# Utility High-Gain Amplifiers for All Applications 

Compact - Strong - Efficient Ideal for Office Call Systems Quality Combined with Low Price Provision for Speaker Field Current



The pertect fiequency iesponse lof utility purposes including electronic epplications eveliable in this model.


The lequency esponse of this ullity amptitier is welt suited for all form of commercial applicalion.


SPECIAL INEXPENSIVE SYSTEMS
Several tested saund systems using the 6B5 and 245 amplifiers are sugaested below. These will meet average requirements for small "public address" applicatlons but of course they are by no meons the anly passible combinations. Let us knaw whot your sound the oniy passible combinations. Let us knaw whot your sound problem is ond we will make recommendatians. It is important unusually law prices.
Systom No. 161-P-Consisting of Lafayette Model 110.A 6B5 5. Wolt Amplifier with tubes, o Trutest Model XMI3348 double button micraphone with desk stond and 12 ft . of shielded cable, o Lafoyette Model XN1 3540 Senior Micraphane Input Stage, ane 8-inch dynamic DC speaker which obtains its field current fram the amplifier. Shpg. wt.i 35 Ibs. Code Paiso. List price $\$ 57.00 . \$ 2.8 .50$
Yaur Cost ...................................... 8.
Systom Na. 162.P-Cansists of the Lafayelte Model 112.A 2 A5 3.5. Woft Amplifier with tubes, a Trutest Model XM13348 double. bulton carban microphone, with desk stand and 12 ft . of shielded cable, a Lafoyette Model XNI 3540 Seniar Microphone input stage and one 8 -inch DC dynamic speaker obtoining its field current from the omplifier. Shpg: wt., 35 lbs. Code Picro. List price $\$ 19.50$. Your Cost

## TECHNICAL CHARACTERISTICS

## Poak output <br> Max. output at 7000 ohms

8 walts

## Harmonic content

Humlevel......-56 db Gain
Power consumption from líne
5 watls
$6 \%$
. .76 db
50 watts
THE fine fealures of the new 685 fube are used 10 maximum odvantoge by Lafoyetto engineers in the new Madel 110 -A 5-Wall Amplifier. This tube is similar to the 2B6, which was so papular last season, in that it cansists of a amall driver triode and - large pawer triode in one envelope, but it has a 6.3 -vall heater instead of 2.5 as with the 2B6, and hos oreater power aulpul with less distartion.

## Three Stages with Two Tubes

The combination of 057 and 0685 in this utility amplifier gives the full equivalent of three sloges of amplification, with the goin of 76 db . The hum level of minus 56 db means that the aperation is exceedingly quiet. Glonce at the Irequency response on this page and you will see that this omplifier is sultable for labaratory purpases as well os the general run of saund applicatians.

## Useful for Many Purposes

The small size, strang construction and medium power output of the Lafayette S-Watt Ampllfier make il very useful for electronically controlled caunters using phata-alectric cells, sarters, measuring devices, dictophones, etc. For smoll affice call systems and phono. graph ond microphone reproduction in cafes and club rooms it is ideal. A large broadeasting orgonization uses Lolayelte ampli. fiers of this pype (the previous 216 model) for sound effect reproduclian and inter-studio call systems.

## High Quality at Low Expense

The law price of the campleted amplifier natwithstanding, all the ports ore of the highest quality and were selected to meet the usual high standards of the Lefayette labaratory. The same care in manufocturing and testing received by all ather Lafayette amplifiers also goes inta this compact unit.
Rigidly constructed of steel, the Lafayette 5-Walt Amplifier will give long and enduring service. Once installed, it requires no attention ather than occasional inspection.

## Two 5 Watt Models Available

Two madels of the 685 amplifier are ovailable; one with provision for field supply to iwo speakers with 2000 -ohm fields, the other without field facilities. An 83 rectifier lube is used in both cases with the 57 and the 685 . No output transformer is furnished, os most small speakers carry their own.

## Special 3.5 Waft 245 Ampllfier

For applications requiring less than 5 wotts, the Lafayelte 2A5 Utilfy Amplifier, with on output af 3.5 watts, will prove effective and ecanamical. If is identical in physical size with the 685 unil and uses a 57, a 245 and on 83. The excellent characteristics of this handy littie amplifier are indicaled by the curves.
Field supply provision for one 2500 -ohm field is optianal. No autpul transformer is supplied, as this will be found on the laud speaker ilself.
This ampllifier is particularly well adapted for modernizing old style phonographs. Its output is adeguate for the purpose, and the unli liself can be cancealed readily in a recard campariment or ather corner of the phanograph case.

## TECHNICAL CHARACTERISTICS



Lafayelte Madel 110-4-685 5-Watt Amplifier, less tubes and field supply cannections. Dimensions: $91 / 4^{\prime \prime}$ wide, $71 / 2^{\prime \prime}$ deep and $71 / 4^{\prime \prime}$ high. Shpg. wt., 12 lbs. Code Ampeus. List price $\$ 19.50$. . $\$ 7.7$ Latayette Model 1t1-A-685 5-Wall Amplifier, same as obove but with two 2000 -ohm field supply connections. Shpg. Wi., 14 lbs. Code Antlg. Lis! price $\$ 25.90$. Youp Cost.................... $\$ 12.95$
Lafayette Model 112 -A-2A5 3.5.Wall Amplifier, less tubes and field supply cannections. Dimensions: $9 / 4^{\prime \prime}$ wide, $71 / 2^{\prime \prime}$ deep and $71 / 4^{\prime \prime}$ high. Shpe. wt., 12 lbs . Code Ainus. List price $\$ 19.50$. Your Cosi
. $\$ 9.75$
Laforette Model 113-A-2A5 3.5.Wat Amplifier, Jess tubes but with field supply cannections. Shpo. wi., 12 lbs. Code Ancro. Liss price $\$ 19.50$. Vour Cost.
$\$ 8.75$
$\$ 230$
Kit of lubes for Model 685 Amplifier. Vour Cosi
82.30
$\$ 1.60$

# The Inexpensive Ultra High Gain Amplifier 

## IECHNICAL CHARACYERISIICS

Peak output
18 watts
Max. output into $\mathbf{4 0 0 0}$-ohm load.... 15 watts
Max. output Into $500-\mathrm{hm}$ line...... 12 watts
Harmonic content at rated max. outputs. . $4 \%$
Gain...... 94 db Hum level....... -47 db Powor consumpiton from llno..... . 80 wrats ONTHS of research and refinement hove gone into the new
Lafoyette Model 124 - 12 . Wall Amplifier, which uses type $24 S$ as triodes in a novel push-pulf "A" prime circuit. Solling for only $\$ 17.50$, If includes the Lofoyette electronic two-positian mixer and warks directly with o erystal microphone without the need for on axpensive pre-ompllfer. Compore this compact, efficient systom with any similar 12 or 15 watt amplifer! the nearest campelitive omplifier costs more, hos no mixer, requires pro-amplificolion and has much higter hormanic cantont

## Convenience with Ecenomy

A 12-wolt amslitter with bullt-in mixer ond with enough gain to operote a er-stal mieraphone represents o big advance in amplifier technique. Lafoyelle engineers did some clover work on this unlt and ve prediet thol it will entoy wide use in mony opplicotions whers a medium pawer, low priced, easily operaled amplifier is required.

## Four Stage Circult wish Mixer

The Lofoyolto olectronic mixer (patent pending) uses o type 53 lube, ond unlike ather mixer devices, which hove o slight loss, i actually affards a goin. Two input signols, say fram radio and microphone, or microphane ond phonagroph, can be blended smathly and remain under perfect control of oll times. The mixer lube is followed by a 57,056 and two $245{ }^{\circ}$ 's in Closs " $A$ " prime, with on 83 in the power system. The gain of 94 db and the hor monic content of only $4 \%$ put this amplifier in a class by itself.

## Flexibility of Input Arrangement

This 12 -wott omplifier will operate from proctically ony input impedance without a motching transformer provided a minimum of .017 volls is avollable from the driving source. With erystal miero phones and phanograph pickups the operation is as 3 mooth ond clean as aryone could desire. The erystol types of instruments ore recommended for their simplieity, reliability and highly favorable frequency charocleristics.

## Heavy Dury Parts Ihroughout

Don't lot the unprecedented price of the Madel 124 . A omplifier mislead yeo into thinking that ordinary recoiver-type parts are used to lover the overall cast. All componenis ore heovy, oversize units, selected by Lofoyelte engineers especially for the job. The amplifier tias wilhstood severe overlood tests over lang periods ond in noumal operation wlll require no service or altention other than routive inspection and checking of the lubes.

## Outpui Impedances

No output transformer is supplied with the omplifier, as most medium s ze dynamic speokers have their own fransformers. How. ever, spoce has been lefi under the chassis for o high-quality transformer, which may be ordered of slight extro cost. This trans former hes 7 up to 15 ohms and 250.500 ohm secondory windings to toke ore of oll voice coil or line requirements.

## High Quality at Low Cost

The low srice of the Model 124-A Amplifier notwithstanding, this is a "wice range" unit, with a frequency rospanse much in excess of ordinary sound requirements. The response is down only 1 db at 50 syees and 2.5 db of 10,000 eycles, os study of the occampany. ing curve will show.
This performance is best oppreciated if the reader will compore it with th at of a competitive amplifiep roled of 15 walts and colled "high njelity" by its makers. At 15 wotls the harmonic contont meosured over $20 \%$, which means that repraduction is utterly worthless. At 12 woils it was still $9 \%$, os compared with $4 \%-$ less then holf - for the Lofayette Model 124.A omplifier. Add to this the foet thot the campetitive ompllifer had a goin of only 60 , not the enough for a carbon mitio, and you have on idea of the superia-liy of the Lafoyelte produci. All meosurements os to har. superio-ily of the Lafoyelte product. All meosurements os morely a monic content were made with a hormonte enalpzer, not merely a cathode ray oscillograp
should be kept in mind.

## Special Systems

In coroparing the prices of the following systems with those of similar systoms sold elsowhere, please remember that the Model 124-A Amplifier includes the iwo-position electronic mixer and works with crystol microphone directly. There are no extras to buy er the lost minut.

## Built-in Mixer at No Extra Cost

## Uses Crystal Mikes Without Pre-Amplification

## Quality Reproduction at Low Price

Ideal for the Average Sound System


An almost unbelievable irequency response is ablatined from this amplifler which Includes the output trensformer.


Model 124.A-Lafoyelle 12.Woll Push.Pull 2A5 Class "A" Prime Amplifier, less tubes and outpul transformer. Dimensions: $7^{\prime \prime}$ deep $\times 16^{\prime \prime}$ wide $\times 81 / 4 "$ high Shpg. wh., 32 Ibs. Codes 7.50
Ardes. Lisl price $\$ 35.00$. Yaur Cost.................. 10 Madel 125 . A-Lafayelte 12 -Watt Amplifier. less tubes but with out-
put transfarmer. Shpa. wh., 35 lbs. Code Aspro. List price $\$ 11.80$. put transfarmer. Shpg. wh., 35 lbs. Code Aspro. List price $\$ 41.80$.

 lubes and oulpul transformer, ane XMI 3363 erystal microphone with floor stand and 12 ft . cable, iwo Lafayolto AC P. A. speakers XW19375 two demouniable baffes. Shpg. wt., 115 lbs. Cade Paegel. List price $\$ 149.00$.
74.50 XY19838-Your Cost
mplifier with System Model No. $165 . \mathrm{P}$-Consists of one $124-\mathrm{A}$ omplifier with
tubes and outout transformer, two XM13363 crystal microphones, two floor stonds two 12 ff . cobles, one Lafayetle high fidelity $A C$ speaker XW19301, one demounlable flare bame XY20053. Shpg. Wh. 125 lbs. Code Poena. List price $\$ 167.50$. Your Cost. ...... $\$ 83.75$ system Model No. 1i6.P-Consists of ano 124-A amplifier with fubes ond oulput transformer one XM13363 crystal mierophone, one floor stand, one $\mathbf{1 2} \mathbf{f}$. coble, iwo Lofayette high fidelity AC speakers XWIg301, iwo flore baffes XY20053. Shpg. wl., 150 Ibs. Sode Polus. List price $\$ 175.00$. Your Cost.

## The Versatile High Gain Medium Power Amplifier

Built-in Two Channel Mixer
High Gain - Suitable for Use with Crystal Mike Full 15 Watts into 500 Ohm Line
Low Harmonic Content


The above curve lllustrates the remarkable trequency response of this ampllifer as measured into the 500 -ohm line.

Model 154.P-Lofoyette Sound System, consisting of Model 132.A Amplifier, one Model XM13363 crystol microphone with floor stond and 12 ff , coble, one Model XY220 dual speed phonograph turn. Ioble with crysial pickup, two Model XWl9301 Lofoyetle High Fidelity AC trpe speokers, two Model XY20053 flore boffes, ond oll tubes. Shpg. wi., 185 lbs. Code Petio. List price $\$ 250.00$. Your Cost
$\$ 125.00$
Model 155-P-Lofoyette Sound System, consisting of Model 132-A Amplifier, Iwo Model XM13363 crystal microphones with two foor stonds and two 12 ft . cobles, four Model 19375 12-inch speokers stonds and two with field supplies, four Modal XYYg838 fore boffes, ond oll
 Your Cost
$\$ 122.50$
Model 153.P-Lofoyelle Sound System, consisting of Model 132.A Amplifier, two Model 13363 crystol microphones with two floor stonds ond two 12 ft . cobles, two Model 19375 Lofoyette 12-inch speakers with field supplies ond iwo Model 19838 hore boffes, and oll tubes, Shpg. wt.. 135 Ibs. Code Pecio. List price
.$\$ 179.00$. Your Cost........................................

## IECHNICAL CHARACTERISTICS

## Peak output <br> 22 matts

Mat. power into 10,004-ohm load.
18 matts
Max. power Into 500-ohm Ilne.
15 watts
Harmonic content at rated max. outputs $51 / 2 \%$
Gain. . . . . 97 db Mumlevel. . . . . -50 db
Power consumption from Ine..... 105 watts
HE demand for on inexpensive, medium-power, high-galn omplifier suilable for call systems, donce holls, smoll auditoriums, oic., hos led Loloyette engineers to devote considerable lime to the develapment of high goin circuils. Their efforts ore roflected in the entire 1935 line of Lofoyette omplifiers described in this cotolog, and porticularly in the Model 132-A 15-Woll Amplifier using push-pull 685's

## Gain Enough for Crystal Miko

With the erystal type microphone goining incroasing fovar because of ils simplicity, wide frequency response and general convenience, enough goin hos been built inlo the Model 132-A Amplifier to moke the use of this type proclicable without pre. amplificotion. Since the crystal mike does not require a local botlery or o motching fransformer, this arrangement also represents a soving in incidental accessories.

## Phase Invertor Circuit

Four stoges of amplificatlon are used. Alt the odvontoges of push-pulf inter-stage amplification, without the disadvantages of inter-stoge tronsformers, are mode possible by a unique phose inverter system.
The circull comprises a 646 electronic mixer, 76 voltoge omplifier, 6A6 phase inverter and two 685's in push-pull in the outpul stoge and a 573 rectifer.

## Two Channel Mixer

Two input signals con be mixed under perfect control in the electronic mixer stage. This feoture is important for many sloge effects ond for imposing a voice onnouncement into a musical propram without actually culling the lotter off. The music volume is simply furned down, the mike volume UD; ofter the onnounce. ment hos been compleied, the process is merely reversed. Many inferasting effecis can be obtoined by monipulation of the contrals.

## Honest Reting

The output of the Model 132-A Amplifer is is watts into a 500 -ohm line, nol merely into the plate impedance. At this output the hormonic content-the real indication of omplifier quality-is onty 51/\%.
The Mod ol 132-A Amplifer is wpplied with or without on output tronstormer. Some ideo of the relotive size of the Lofoyette transformer against the size of o so-called "15 watt" unit of competitive moke moy be obloined from the accompanying photooroph. The aclual transformer, inside the case, is even smeller than the picture indleates.


## Special Service on Sound Systerne

Wholesole Rodio offers o special service on sound systems. Its experienced sound technicians check each order to make sure the purchoser hos mode no mistakes. Then the actual system, including the amplifer ond oll occessories, is set up and operated. This thorough service is the purehaser's protection agoinst onnoying mistokes and deloys.

A diagrom showing the corred connections between paris is supplied with all sysiems.
The three systems listed below will serve most requirements for medium sized sound installations. Do not hesitate to write to us for recommendations if you think something a little different would be better in your own cose.

Madel 132-A-Lafoyetfe 15-Wott Migh Goin Push-Pull 685 Amplifier with Mixer, tess tubes and outpul transformer. Dimensions:

Model 135 -A-Lofoyatte 15. Watt Amplifier, with output transformer. Shpg. wl., ts lbs. Code Argll. List price $\$ 55.00$. Your Cosf.. $327.30^{\circ}$ Kit of fubes for above amplifiars. Yaur Cast.

# The Semi-Portable Amplifier With Field Supply 

## TECHNICAL CHARACTERISTICS



THE new M.odel 102-A Push-Pull Parallel $2 A_{3}$ amplifier, with Pull oufput of 20 watts, was developed by Lafoyette enginears lo fill the specific demond that exists for a high quality sound amplifier capable af supplying feld current to at least iwo powertul speakers. In fixed sound systems this is afways a canvenience, and in partable or mobile systems it is prelly much a necessity, as the additional weight of separate field supplies would odd cansiderably to the overall weight of the outfit.

## Regulation of B Clrcuit Important

Attempts to draw the fiold current from the filter circuit of the plate supply system have, in general, been very unsuccessful, mainly for the reason that the overage power pock requires law resistance chakes. The high resistance of the usual speaker field practically puts the amplifier itself out of cammission.

## Class A Amplifier Most Adaptable

Lafoyotto engineers, after much sludy of the problem, decided on the use of push-pull poraftel $2 A 3$ 's in Class " $A$ ", os this system is about the only one that has satisfactory plate current characterislies. The cu'rent remains constant, and the plate supply regulation is therefore nat dependant on the use of low resistance eloments.

## Separate Círcuit for Speakers

Do nol canfuse the field supply arrangement used in this Lafoyette amplifier with ordinary systems in which the speaker fields merely replace filfer chokes, and therefare carry pulsating rather than really filtered DC. The amplifler tubes receive their current from on independent filter circuit, nat directiy dependent an the speaker fiolds.

Speakers need nat be purchased with the amplifier, as the latter is entirely complete by itself. However, two 2500 ohm auditarium type dynamics, eoch requiring up la 14 walts, may be odded at any lime and will be energized by the pawer circuit wlthoul the amplifier oulpul being offected in the slightest way. The power Iransformer is on oversize unit designed especially for this heovy service. This 28 watl field supply, ovailable in the Model 102-A Amplifier at no extra cast to you, has heretafare been available anly in separate field exciters costing aboul $\$ 15$ opiece.

## Stabilized Blas Supply

Anather innovation in the power system is provision for stabilized bios valtage to the 2A3's. This is obtained right off the regular pack, withaut an extra rectifier fube, and contributes noticeobly toward the general stabllity and low harmonic content.

## Wide Range Oualisy

The accompanying frequency response curve and the listed harmenic centent figure - only $4 \%$ - show that the Madel 102-A Ampllfier easily lalls in the "wide range" class. As a matter of fact this amplifier is much better.than any input device that will be connecled ta it. Convenient tone and volume contrals ore provided.

## Effective Tube Line-Up

The lube line-up is impressive. A 57, connecled as a triade, works inta a 5 , alsa triode connecled, as a phase inverter. This leeds into twe 53's in push-pull parallel, which in furn are transformer coupled to lour 2A3's in push-pull parallel. A high qualily output Iransforner is included in the amplifier. This has impedances from .7 up to 15 for voice cails and $250-500$ ohm taps for line connectians. The frequency response curve as usual was oblained with this Iransformer in actual use. Strang steel construction is used throughout in the Model 102-A. A screen covar prolects the fubes and werking ports.

## Full 20 Watts Into 500 Ohm Line

Supplies Field Current to Two 14 Watt Fields
Ideal Unit for Portable Amplifiers
Low Harmonic Content


The "wide range" response of the semi-portable amplifler lakes portable ampllfiers out of the ordinary class.


Model 102-A-Lofoyette 2 A3 20-Watt Amplifier, less tubes. Dimensions : $8^{\prime \prime}$ deep $\times 18^{\prime \prime}$ wide $\times 10^{\circ \prime}$ high. Shpg. wt., 55 lbs . Code Argil. List price $\$ 69.00$.
Your Cost
s34.50 Kit of tubes for above omplifier: 2-57, 2-53, 4-2A3, 1-83 Your Cost $\$ 5.35$
Sound System-Model 174.P-Consists of Model 102-A Amplifier, Model 350 -P Electranic three-pasition mixer, two Model XW19300 Lafayette high-fidelity DC speakers with iwo Model XY20053 flare baffles, ane Madel XM13363 crystal mieraphone, flaor stand, 12 ff . cable, and all lubes. Shpg. Wt., 172 lbs Cade $\$ 114.50$
Penos. List price $\$ 225.00$. Yaur Cost........... $\$ 1.010$
If phonagroph repraduction is desired add $\mathbf{\$ 2 7 . 5 0}$ to abave price for dual speed partable with crystal pick-up.

# The Broadcast Type Auditorium Amplifier 


#### Abstract

Employs Most Efficiency Amplification Known Fully Adequate for Auditorium Use "Wide Range" Frequency Response 85 DB Gain Permits Use of Carbon Microphones Directly


## TECNNICAL CHARACTERISTICS

Poak ouiput<br>40 watts Max. output into 6000 -ohm load.... 36 watts Max. output into $500 \cdot \mathrm{ohm}$ line...... 30 watts Marmonic content at rated maz. outputs $6 \%$ Galn<br>$-85.5 \mathrm{db}$<br>Hum leval<br>Average drain from line<br>minus 67 db<br>150 watis

WHEN Class " 8 " amplification wos introduced several years ago, very lifte practical design ond operating information wos available, ond many sound fechnicians who used early amplifiers embodying the principle formed the unworronted opinion that it was inferior to less efficient mathods of amplification as for as quolity wos concerned. Time and experience hove proved that the Closs " $B^{\prime \prime}$ principle is obsolutoly sound, ond that unsolisfoctory performonce is usuolly due to hophozord construction or plain lgnorance on the port of the designers. The lotter foisted many badly made omplifiers on the morket, with the result thot Class " 8 " obteined a very poor repulation in the feld.

## Broadcasting Stations Uso Class "B"

Certoinly there is no more convincing evidence of Closs "g" effectiveness and desirability then its olmost universol occeplonce of high-powered, high-fidelity broodcosting stolions using powers up to 500 kilowatis. Quolity comes first, cost second, in these big stations, and they use Closs " 8 " becouse it gives quolty, and incidentally, gives it of low cast.

## Lafayotte Has Always Recognized Class "B"

Lofoyelte engineers hove always opprecioted the true possibilities of Closs "g. and hove mode some notoble cantribulions to the ort in the woy of practicoble, efficient, low-priced omplifiers to meet oll sound epplicotions, An exomple of their thorough knowl. adge of Closs " 3 " principlos is the new Lofoyelle Model 100-A Amplifier, tllustroted herewith. This delivers full 30 wolls inta a 500 -ohm fine, with o harmonic contont of only $6 \%$. The frequency response curve, reproduced on this poge, is unusually good, the response being of only 2.6 db of 12,000 cycles ond .6 db af 30 cysles. This amplifier falls well within the "wide range" clossin. callon, and gives superlative reproduction of voice, phonogroph music and radio progroms.

## Three Stage Circuit

A 57 is direct coupled to o 59, which in furn drives o poir of 59 's with on 83 reclifier. These three stoges provide the high goin of 85.3 db and permit the use of a corbon microphone wlithout preomplificotion. The hum level is minus 67 db . Tone and volume controls ore included for convenience in odfustment.

## Lifetime Conatruction Throughout

Constructed of the best components on o rigid steal chassis, finished in mor-proof block crystolline enamel, the Model 100-A Amplifier wilt give long ond trouble-free service. A screen cover, alsa of heovy steel, protects the lubes, provides plenty of ventilation and enhonces the oppearonce of the whole instrument.

## Ideally Sultod for Auditoriums

The Lofoyette Model 100.A Amplifior, with its full 30 wolts output, is well suited for the overoge ouditorium, thealre, amusement holl, ete. With its oversize ports ond proper ventilation, it con be kept running for hours at o lime, and wilt require no oftention.

Lofoyelle Model 180-A Amplifier, with output fransformer having voice coil impedonces of 7 to 15 ohms and line impedances of 250.500 ohms, but withoul rubes. Dimensions $111 / 2^{\prime \prime}$ deep, $20^{\prime \prime}$ long, $10^{m}$ high. For operotion of $110-115$ volls, $50-60^{2}$ evcios AC. Shpg. wt., 90 Jbs. Cane Archi. Lisi price 879.50 .
33.75

## Complete Sound Systems

Three systoms using this omplifer as the basic unit are sug. gested bolow. If you hove o perticula installation problem, do nol hesitate la wrile to us for consultotion; the odvice is free and we wonl to help you.
Sound System No. $150-$-IIlustroted herewith is a caordinoted sound system of greal effectiveness. If consists of the Model 150-A Lafayette 30 Wall Amplifier with iubes, one professionol Model XM-13486 Amperite volocity microphane with prooressionol model and 25 feet of cable, one Lafoyette Model $350-\mathrm{P}$ three pasilian mixer, iwo Lofoyette high fidelity AC speokers XW-19301 and swo Model XY-20053 large fore bafles. Shpg. wt., 22 lbs . Code Perce Lisi price \$35.00.
1722.50

Sound Syatem No. 151-P-Consists of the Model 150-A Amplifier with tubes two Model XM-13363 crystal microphones with floor stonds and two 12 foot cables, one Madel $350-\mathrm{P}$-three positian mixer, six Lafoyette $12^{\prime \prime}$ speakers with their own field supplies XW. 19875, ond six demountable boffles XY-19838. Shpg. wI. 320 lbs. Code Polea. List price $\$ 397.00$.
rour Cosi ............................................................ $\$ 198.50$
Sound System No. 152-P-Cansists of Model 150-A Amplifier with lubes, two Model XM-13363 erystol micraphones with floor stands ond two 12 fool cables, one Model 350-P-three position mizer one Model XY-220 phanograph lurnlable with erystal pickup, four Lafayette high fidelity AC speakers, XW-19301, ond four demount able flare boffles, XY-20053. All necessary tubes included. Shpg. Your. 340 lbs. Code Parol. Lisi price $\$ 35.00$.
Your Cost
$\$ 217.50$

## The Stadium Type Power Amplifier

## TECHNICAL CHARACTERISTICS


#### Abstract

Peak output 100 watts Max. outpur into $\mathbf{3 0 0 0}$-0hm luad. .75 watts Max. outpus into 500 -ohm line 60 watts Harmonle content at rated max. outputs $4 \%$ ( $5 \%$ rotal with recommended $2 A 3$ driver) Gain 14 db ( 95.0 db with rec. driver) Hum level $-51 \mathrm{db}$


Power consumption from line evg. 210 watis
A SOUND amplifier with plenly of "sock" is needed in armaries athielic stadlums, roce tracks, etc., in order to override the high local noise level created by peaple, animals and vehicles for applications of this kind, the Lafoyelte Model 104.A 60 . Wot Class "B" Amplifier is recommended, os it has a conservatively roted oulpul of 60 watts inta a 500 -ohm line, and 60 wolts of elec trical energy canverted into sound is a lat af sound. This enormaus autpul has been obtoined with o harmonic content af only $4 \%$ for the amplifier ilself and a tatal of anly $5 \%$ for the amplifier plus the recommanded driver - an accomplishment that bespeak Lafoyeme engineers' mastery of Class "今" principles.

## Excepilonal Frequency Response

As indicated by the curve, the response of the 60 -Watf Amplifier with Driver is virtually hat from 50 to 8000 eycles and is octually up only 1.2 db of 10,000 cycles. The hum level is minus 51 db . Thus the loud speakers connecied to thils amplifier reproduce high-quality valice and music and no! merely nolse, as is the case with many so-colled "high power" amplifiers in which high outputs are achieved of the expense of frequency respanse and distortion

## Economy in Operation

The Lofayelte policy of using receiving type tubes instead of expensive transmitting types means that bath the inlfial cost and the upkeep of this omplifier ore low. The uubes employed are oblainable everywhere - four lype 59 's and twa type 80 's. Every user of the amplifier con wall afford la keep a brace of spare lubes on hand alf the lime, as the investment in them is sa slight.

## Special Input Transformer

A special input transformer is pravided, sa that the amplifier may be driven either fram a 500 -ahm tine or directly from the plates of a poir ol 243 lubes. The lattar fubes are used in the Lafayelte Model 356 -P Driver-Amplifiar which is recommended for use with this 60 -wolt unit. See poge 50 for data on this driver.

## Oversize Parts Carry Full load Easlly

Whether aparated at roam volum or balt-part ieval, the 60. Wati Amplifier carries the laad withaut the stightest strain on any part. All parts are capable af corrying twice as much current as they da with peak oulpul from the systam: this is your guarontee of reliable, trouble-free aperolion of all limes. The chassis is of heavy steel, with a prolective screen caver, finished averall in the famous Lafayolta black crackle. We have checked this $60-\mathrm{Wafl}$ Amplifier against some competitive 100 -wall lobs, and faund that it actually weighs morel Your first look at this husky instrument will convince you thol Lafayelle engineers have allowed a wide morgin of sofety all around
The pawer Iransformer of the Lofoyelte 60 -Woll Amplifier was much larger than the corresponding unit of o so-colted " 100 . watl amplifier thot was analyzed in the Lafayelte loborotory. In proportion to the lood, the flter system of he Lofoyelle amplifer was fully two end o half times the size of the "joa-wall" oulfit. If only praspective purchosers of sound equipment cauld make these comparisons themselves they would undersiand why Lafayetle sound equipment is rapidy forging ahead to leodership

## Excellent for Modulator Service

The Lafayette Model 104 -A $60-$ Watl Amplifier makes an efficient,
high-quality modulator for amoteur or small broodcost fransmit. lers. As it cantoins its own power supply, it con be added ta existing C.W. oulfls withoul disturbing onything more than one plate leod. A speciol output Iransformer has been designed for this purpose. Wrile far prices and further details, and describe the fransmitier you have in mind

Complet Sound Sysiem with Mizer
With the complete sound system Illustrated, using the 60. Watl Amplifier, sound intetligence can be projected to crowds os great as 50,000 . Speech thraugh a microphone or music from records wilf be clear and cleon cul and perfectly undersiandable lo everyone. The smooth operation of this system is due to the care with which Lofoyette engineers have selected ond coordinoled all the components. The Lolayelle Electranic Mixer (patents pending) permits voice and music to be blended logether with perfect noiseless control. The speakers ore special high pawer units and are completely weotherproof. Complete operating instructions, and also the services of our experienced seund experts, are evail.


A high power ampllfier with an equalized characterisilic. Actual response of ampllitier and driver.

able. The abave system is offered as a iypical layout; hawever, it must be realized that the application of anplifier layout of this size cannot be handled in a haphozord manner, but must be studied very carefully
Lofayette Model 104-A 60 -wall Amplifier, less tubes but with 500 . 5000 -ohm primary impedance input tronsformer ond $250-250$ - 500 -ohm secondary output transformer. Dimensions: $113 / 4^{\prime \prime}$ deep, $193 / 4$ "
 Kit of tubes for above amplifier. Your Cast 35.90 Complefe Sound System No. 160-P-Consists of Lafayefte Model 104.A 60-Walt Amplifier, one Model XM1 3363 piezo microphane with foor stand ond 12 ft . cable, Lafayetle Model 356-P 243 Driver, Model 350 -P electronic mixer, Madel XY220 porlable furntable with crystal pick-up, six Lafayelfe super gionl Model Y20046 speaker driving units with matching Iransformers, six 6 ft . Model L-72 weatherproof trumpels with six field exciter units, and all necessary lubes. Shpg. wh., 610 lbs. Code Pipor. \$ S (ist price $\$ 950.00$, Youp Cost.................. 1

## The High Gain Auditorium Amplifier



## TECHNICAL CHARACTERISTICS



MANY sound technicians hove a strong preference for Class They seem to fight shy of Class B Bystems and pentodes, probably because they hod bad experiences with early Class B amplifiers that were put on the market before the principles and true possibilittes of this method were fully understood by engineers. This prejudice continues to exist in spite of the fact that Class 8 is now universally recognized for its quality as well as its economy and is used in all the new broodeasting stations.

## Class A Prime Excellent

For those who prefer Class A and triodes, which cortainly are excellent, Lafoyette enginaers, have designed a fine 30 Watt amplifier using push-pull porallel $45^{\circ}$ 's in Class A prime. This is the result of considerable researth on type 45 amplifiers, which revealed that many existing systems were considerably over-rated. The best circuif investigoted in the laborolory provided only 25 watts at the maximum allowable harmonic content of $7 \%$.

## Push-Pull Parallel Arrangement Devised

As Lafoyette engineers did not consider this satisfactory, they sought means of increasing the output and decreasing the harmonic content. After much study of driver and oulput combinations, they found that 30 actual watts of power could be delivered to a 500 -ohm line by the use of $45^{\prime}$ 's in push-pull parallel. The tube set-up in the finol amplifier is: one 53 electronic mixer, 53 voltoge omplifier driving a 2A3, which is transformer coupled to four 45 's in push-pull porallel, with on 83 rectifier.

## Separate Bias Rectifler

A separate rectifier. using o 45 tube and a three-stoge filter, supplies bias voltoge to the driver and output fubes. The filter comprises two receiver type chokes and three condensers and is absolutely noiseless. This separate bias arrangement gives the amplifier rockbound stability at all volume levels.

## Wide Range Quality

The occompanying frequency response curve shows that the Model 115 -A 30 . Watl Amplifier is a wide-range unit. The response is down only 4 db at 50 eycles and 3 db at 10,000 cycles. Repraduction of rodio, microphone and pick-up signals is clean and duction of rodio, mic
crisp of all volumes.

## Output Transformer Included

A high-quality Lafayelte output transformer is furnished as a permanent port of the amplifier. The frequency response curve was taken with this transformer in the circuit, so it is a true picture of the amplifier's performance. The secondary has 7 up to 15 ohm secondaries for voice coil connections, and a $250-500$ ohm winding for line work.

## Two Position Mlxer

In comparing the price of the Lafayelte Model 115-A 30 Watt Ampllifier with similar amplifiers, the reader should note carefully that it includes a Lofayette fwo-position alectronic mixer (patent pending). This permits unusually smooth control of twe inputs, ond

## Low Tube and Operating Cost

## Uses Crystal Mikes Directly

## Built-in Two Position Mixer for Easy Control

 Wide Range Quality for Auditoriums and Theatres

An audiorium amplifier with a frequency response which is superior to many socalled "high fldelliy" ampllilers.
is particularly valuable in superimposing a voice announcement on a musical program without interrupting the latter. For the atrical effects this mixer will prove very valuable and effective.

## For Auditorium and Theatre Use

The full usoble output of 30 watts makes the Lafoyelte Model 115-A Amplifier ideal for school auditoriums, theatres, dance halls, in. door skating rinks and swimming pools. The high gain of 94 db allows the use of carbon and crystal type microphones without pre-amplification.

## Standard Lafayette Steel Construction

With a strong chassis of heavy steel and a screen cover to protect the tubes, the Model $115-\mathrm{A}$ Amplifier conforms to the usuol high Lafayette standard of construction. All controls ore placed for convenient manipulation.

## Ampllifer Systems

Several excellent amplifier systems are suggested below. As with all Lafoyetle systems, these ore set up and tested thoroughly in our sound auditorium before shipment is made.

Lofayette Model 115-A 30-Watt Push-Pull Parallel 45 " $A$ " Prime Amplifier, complete with two-position mixer and output transformer, less tubes. Dimensions: $12^{\prime \prime \prime}$ deep $\times 13^{\prime \prime \prime}$ wide $\times 10^{\prime \prime}$ high. Shpg. Wh.. 57 lbs. Code Aeris. List price $\$ 89.50 . . \$ 4$. Kit of tubes for obove amplifier: 2-53, 1-2A3, 5-45, and 1-83.

Systom No. 170-P-Consists of Model 115-A Lofoyette 30-Watt Amplifier os described, with two-position mixer and all tubes, one Madel XM1363 erystal microphone, floor stand, and 12 H . coble, $t$ two Lafoyette high fidelity AC speakers with two flore type baffes 20053. Shpg. wi., 190 lbs. Code Paria. List price $\$ 230.00$. Your Cost.
${ }^{\$ 115.00}$
Svitem No. 171-P-Consists of Model 115-A Lofayelle Amplifier, Model XMI363 erystal microphone with stand and 12 ft . cable, dual speed phonagraph portable furntable with erystal pick-up, four $12^{\mu}$ Lofayetle AC Model XW19875 P.A. speakers and four demountable lype bames. Shpg. wt., 190 lbs. Code Paile. List price $\$ 320.00$. Youp Cosi

## Complete Wide Range Theatre Amplifiers



Peak output
Max. output into 10,000 -ohm load Max. output into 500 -ohm line Harmonic content Gain.... 103 db Hum level Power consumption

## TECHNICAL CHARACTERISTICS

THOUGH it measures only $141 / 2^{\prime \prime} \times 83 / /^{\prime \prime} \times 9^{\prime \prime}$ hlgh overoll, the Lafoyette 15 Watt Theatre Amplfier contoins oll the features previously found only in lorge rack-and-panel autfits. The circuit has the enormous amplificotion of 103 db , permitting the use of a crystol microphone for announcing purposes without the necessity for a pre-amplifier. The unit has separote voltage control for two photo-cell inpuls, separate connections for sound-on-disc or mike input, and o changeover switch to permit quick shifting from p.e cell to microphone. All controls ore on front ponel of amplifier

## 23 watts

18 watts 15 watts $51 / 2 \%$ $-55 \mathrm{db}$ 105 watts

OBILE

NEW, VERSATILE 6-VOLT AUTO AMPLIFIERS CONVERTIBLE TO 110-VOLT USE
| N designing their 1935 line of six-volt outs amplliters, Lafayette engineers oftocked the situation from a now angle. They knew from previous experience that most auto amplifiers ore actually used only a few weeks during the year, usually for ballyhoo purposes around election time, and that they gather dust the rest of the lime. Obviously, then, a straight six-volt amplifier is a rather poor investment for the service mon who expects to moke a decent return on his money.

110-VOLT CONVERSION ESSENTIAL
Realizing this, Lafayette engineers designed their new auto amplifiers, ranging from 12 to 25 wats, in such o way that they can also be used on 110 volts AC, with o seporate little power pock. Nat o single wire or part in the amplifier itself is disturbed; all the user hos to do is change the conAny of the three new Lafayette outo amplifiers con be used just os effectively in ouditoriums, theatres, meeting hols, etc., os in cars. Furthermore, there is nothing to prevent the user from carrying the AC pock in the cor and stringing a flexible tine to on AC outlet in some nearby store or roodside stone, if the opportunity presents itself s the car battery is thus relieved of o necessarily heavy load
Latest Inovation in COMPACT Ampuriers Leads New Line of COMBINATION UNITS!

TECHNICAL CHARACTERISTICS
Peak output . . ............................... . . 18 watts
Max, output into plate impedance ....... 15 watts
Max. output into 500 -ohm line........ 12 watts Harmonic content at rated max. outputs $6 \%$ Gain ........................... 104 db
Power consumption 14 amperes from 6 volt battery

New Remote Control Six-Volt Mobile Amplifier Ideal for Small Car Systems - Uses Crystal Mike

THE Model 135.A Lafoyelle Remote 6. Volt Amplifier is Ideal for the service mon who owns a small car and needs o comport unit on those occasion but wall poring autsidition in hoo occasional but well.poring outside bal. supply dynamotor, measures only $12^{\prime \prime} \times 71^{\prime \prime} \times y^{\prime \prime}$ and mounts to the engine bulkhead by means of a single heavy bolt. The line switch and pilot light are on the case, but the volume control is remotecontrolled by o flexible drive shaft to a control head on the steering column. A switch on the unit permits the genorator to be shut of between announcements, thus saving battery current.

CRYSTAL MIKES USED DIRECTLY
The tremendous gain of 104 db is made possible by a circuit using a 6C6 voltage amplifier, 6A6 phase inverter and two 6B5's. This means that crystal type micraphones and phonograph pick-ups can be used directly without pre-amplificotion. The Model 135 . A Amplifier includes on output transformer with 7 up to is ohms and $250-500$ ohm windings for the usual voice coil or line connections.
Model 135 -A-Lofoyette Auto Amplifier, with remote control unit. Less tubes. Dimensions, $12^{\prime \prime}$ wide $\times 71 / 4^{\prime \prime}$ deep $\times 71 / 2^{\prime \prime}$ high. Shoo. wt., $\$ 39.50$
25 lbs. Code Aries. List price $\$ 79.00$. Your Cost............ 39.
Kit of tubes for above amplifier: 1-6C6, 1-6A6, 2-6B5. Your Cost. .... $\$ 3.11$ Model 361-P-Special AC Power Pack for Model 135-A Amplifier. With 83 rectifier lube, Dimensions: $81 / 4^{\prime \prime}$ wide $\times 61 / 2^{\prime \prime}$ deep $\times 6 \frac{1}{2}$ " high. Shoo. wt.: 23 lbs. List price $\$ 16.50$. Your Cost.

# Two-Position Mixer Optional 

 Use Crystal Mike without Pre-Amplifier
## MODEL 136.A 15.WATT AUTO AMPLIFIER

## Technical Characteristics

Peak outpur inc. output into plato impedance Max, output into 500 ohm line Harmonic content. ........6\%
Power consumption 96 watts

Gain 16 amp . Irom 6.v. battery

FOR regular sound trucks carrying several large trumpets, an aulput af at least F 15 watts is necessary for satisfoctary coverage of crawds. The Madel Lafayette 15 -Watt Auta Amplifier fills the bill nicely.

## NEW APPLICATION OF TYPE 6 A6 TUBE

The circuil camprises twa 6C6's in an electranic mixer stage, 53 valtage amplifler, 59 driver and twa 6A6's. The latter are used in an exclusive Class B circuit de: velaped by Lafayette enqineers. Nate that where we say "15 watts," we mean 15 watts af useful pawer inta o 500 -ahm line.
Model 136-X-Lafayelte 15.Watl Auta Amplifier, with autput transfarmer, but less lubes and less mixer. Dimensians: $14 \%$ " wide $\times 101 / 4$ " deep $\times 81 / 4^{\prime \prime}$ high averall. Shpg. wi., 43 lbs. Cade Arras. List price \$67.50.
Your Cast
\$33.75
Kit of tubes for above amplifier: 2-6C6, 1-53, 1-59, 2-6A6. Yaur Cast...... \$4.00 Model 136.4 -With Twa-Pasitian Mixer, built inta the amplifier, allaws easy mixing of phanagraph music and vaice. List price $\$ 79.00$. Your Casl. Madel 362-P-Special AC Pawer Pack far Madel 136-A Amplifier. Dimenslans: $12^{\text {n }}$ wide $\times 71 / 4^{\prime \prime}$ deep $\times 63 / 3^{\prime \prime}$ high averall. With 83 Dimensians:
rectifier tube. Shpg. wt., 2 I lbs. List price $\$ 16.50$. Yaur Cast $\$ 8.25$ Saund System No. 186.P-Using Madel 136.A 15. Walt Amplifier with tubes, ane Madel XM13476 crystal hand microphane with 12 ft. cable, twa Lafayetle 6 -vall driving units and twa Lafayefte


## New Development Provides Maximum Output from Battery Source High Gain Circuit Uses Crystal Mike Directly with Two-Position Mixer

## MODEL 137-A LAFAYETTE 25-WATT AUTO AMPLIFIER Technical Characteristics

## Paak output

Maximum power output into plate impedance Maximum power Into 500 -ohm line Galn
Power consumption 120 wis., or 20 amp . from 6-v. battery

## 42 watts

31 watts
25 watts 96 db

| 4 |  |  |  | Moogh |
| :---: | :---: | :---: | :---: | :---: |
| 330 | 100 | +os | \%om | * |

FOR the busy sound truck that is sent to large autdar meatings, athletic events, Fetc., the 25 watts of power delivered by the Lafayelte Mádel 137.A Auta Amplifier will prave very effective. This extra heavy amplifier represents about the Ampliner wall prave very enecive. is a truck with a self-contained gosaline engine driven generalar to leed on AC amplifier.

## BATTERY FLOATS ON LINE

During narmal aperation of this amplifier, it is necessary to keep the engine of the car running, so that the battery flats acrass the generotar autput and is nat colled an to supply much actual current.
The tubes used are a 6 A6 as electranic mixer, 53 valtoge amplifier, 59 driver and our 79's in the output stage of on exclusive Lafayelle circuit. A twa-circuit mixer is included, and also an output translarmer.
When canverted ta AC optoration by means of the special pawer pack, this amplifier is fine far large thearres, halls, auditariums, elc.
Model 157-A-Lafayette 25. Walt Auta Amplifier, wlith autput iransfarmer but less fubes. Dimensions: $18^{\prime \prime}$ wide $\times 91 / 2^{\prime \prime}$ deep $\times 103 / /^{\prime \prime}$ high averall. Shpg. wh., 63 lbs . Cade Arsis. Llist price $\$ 129.50$. Your Cost
Kif af lubes far above amplifior: 1-6A6, 1-53, 1-59, 4-79. Your Cost
64.75 Kit af lubes for above amplifior: $1-6 A 6,1-53,1-59,4-79$. Your Cost...... $\$ 5.00$
Model $365 . \mathrm{P}-$ Special AC Pawer Pack for Madel 137 -A Amplifier, with 83 rectifier fube. Dimensions $12^{\prime \prime}$ wide $x 71 / 4^{\prime \prime}$ deep $\times 712^{\prime \prime}$ high. Shpo. wh., 29 Ibs, List price $\$ 25.00$. Yout Cost. .................................... $\$ 12.50$ Sound System No. 187-P-Using Madel 137.A Amplifier, with fubes, Madel crystal hand micraphane with 12 ft . cable, iwa Lafoyette Supergiant driving units 220046 and twa Lafayette starmpraaf 6 ft . trumpels 2X420047. Shpg. wt., 200 lbs. Cade Pilus. List price $\$ 35 \% .00$. Your Calt.
${ }^{8} 179.50$


Note - see page 16 for 6 volt phono equipment.

## Complete PORTABLE Sound Systems

## MOER 140-A 2AS 20-WATT PORTABLE

## Firet Migh Fidelity Porrable

 First Pertablo with S-Pasition Mirer First Portable with Crysial MlerephonesN most "portable" amplifiers weight has herelofore been consiotered the most important foctor, ond many sacrlices hove been mode in tome quality, corvenience and general operoting etrectivenes, Lafoyeth englmeon decided thot since most "por. foble" tomplitiers ore heovy even of best, there is no sense skimp. ing on important parts, ond they went obout bullding a portable outit thet is fully the equal of ony similar fxed instollation.

## HIGH OUALITY $2 A 3$ UNIT USED

The Model 140 -A Push Pull Poratlel 24320 Wall Amplifier, de. seribed in detall on poope $\$ 5$ of this colalog, is mounted in a strowe ecrying cose olong with the wall known Lefoyette Model $350-\mathrm{P}$ thres-position Electronle Mixer. This is the only portable omplitis with the lotter unit, which permits smooth, oforliess control of three separate inputs

## USE CRYSAL MUKES OR PICK-UPS

Ab the Electrontc Mizer and the 243 ampllfer have a total gain of $\% \mathrm{db}$, crytiol type micrephones and pick-ups con be used directily. three channels can to used simultaneously.

## MATCMING LNES TO SPEAKERS

A epporaft case, identical with the omplifier case, houses two 12" high flotity dynomics, which drow their hold current from the omplitier. They are each mited with matching Iransformers and connect to the omplifer proper by meons of 500 -ahm lines; thus they aperaste under ideof conditions ond oive superlative reproduction. They are cood up to 7,000 cycles ond down to 40.) The cose is of split construction each lorge slde octing as a self. supporting betio for a speaker unit. The connecting cobles ore 50 ft . long, permitting plocement of the speokers o distonce from the ompliver.

## STRONG CASES WTL WITHSTANO ROUGH SERVICE

The corrying eaces are of strong *" thick plywood, covered with block leothentte and fited with metal corner pieces. Thay wure especiolly desiontd for the purpose and will withstand all kinds of obuse.
All operating contrals are on the front of the amplifier case ponel, for eosy monipulation
Model sem- 20 wotl portable as described including both cases, speakers, amplifier, mixer and aft necessary plups and cables. Dimensions of each cose. $191 / 2{ }^{\prime \prime}$ 18181/2". Shoo. wt., 175 lbs . Net wt. 114 lbs. Less tubes and microphone. Code Astro. List price $\$ 1900$. Your Cost.
Kit of tubes for above ampllier. Your Cost
59.50 fotel remerema Cmetel Micmophone mith hoor tond ond cable shoc. Wh asibs. Mist prico ton wi. Tour Cost Model XnNteit-Specioi collopsible mike stond. Cost..........s7.38 Model XYrzet-Dual speed phancoreph furniable with erystal pick-up. Shps. wi., 23 lbs. List price $\$ 55.00$. Your Cosf......st7.s0

## MODEA 141-A SINCLE CASE PORTABLE AMPLIFIER

Ideal for Whidow Advertiling Dual or Single Spenker Avallable Uses Now Type 685 Tubes
E OR bollyhoo purposes, small meotings, ele., where a medium size portabis amplifier is sumicient, we recommond the new Latayette Model III-A Porioble which is of ine single case type. This uses the Latoyette Model Ilo-A 685 Ampliner, deserlbed on page 52 of this cololog.

## SPEAKERS ON CASL

The front and bock of the cose occh hold an $8^{\circ}$ dynomic speoker, and form seff-supporting bofies. The connecting cobles ars 25 ff . long. The case meosures 15 Inchas squore and 10 inchos deep closed up for corrying. The outht is supplied with either one or two speokers.

## SELF-CONTANED MIKE SUPPLY

A special compartment is provided Inside the cose for two dry cells for mierophone current. Ether a single button or o doublo button hond microphone may be used. A motching Ironsformer is included.
This portoble omplifier tokes up very liftle room and can be carried very eosily in ony possenger cor. It con be set up in o minute ond gives excellent service. The service mon will find it o good invastmont, as if will aufekly poy for lisolf on lis hirst half good invest

AN AUDITORIUM PORTABLE


## A UTILITY PORTABLE



Model 141.A-Lofayotte Portoble, with one speoker less tubes. Dimensions: $15^{\prime \prime} 15^{\prime \prime} \times 10^{\prime \prime}$. Shpg. Wi. 50 lbs. Net 30 lbs. Code Aigle. List price $\$ 58$. Your Cost 29.11 Model 142.A-Lofoyette Portoble with two speokers less lubes. Shpg. wh., 55 lbs. Net wl., 35 lbs. Code Aigre. List price $\$ 67.00$. Youp Cost
Model XM13553-Desk Stond with $\mathbf{1} 2 \mathrm{ft}$. coble. Shpg. wi., 7 lbs. List price \$5.00. Youp Cost. ............................................... $\$ 2.45$ Model XM 13392-Double Button Mterophone. Shpg. wt., 3 lbs. ist price $\$ 11.50$. Your Cost......................................... $\$ 4.85$ Kit of lubes. Your Cosi............................................... $\$ 2.19$
Model XMis554-Double 8utton Microphone with fioor stond and 25 ft cable. Shpg. wt., 28 lbs. List price $\$ 21.90$. Your Cost. . $\$ 10.9 \%$

# for EVERY PLACE ond PURPOSE! 

 by far the quality of the Input soupces employed.



## Systems

System No. 180.P-Consists of Model 158.P Combinotion with tubes, Model XMI3552-Crystol microphone with floor stond and 12 ft . coble, two Lafayette Model XW19301 12" High.Fidelity AC speokers in carrying cose meosuring $191 / 2^{\prime \prime}$ wide, $131 / 2^{\prime \prime}$ deep x $19^{\prime \prime \prime}$ high, with their own field supplies and 50 ft . cobles os described with

Systom No, 181.-P-Consists of Madel 158-P Combination Unit with
 lubes, Model XX220 dual speed phonagroph furniable with erysial
pick-up, Model XM13468 professianol velocity microphone with floor stand and 25 H . card, and two High Fidelity 12 inch speakers In case os described. Shpo. wt., 214 lbs. Code
Picos. List Price $\$ 490.00$. Vour Cóst
$\$ 245.00$

HIGH FIDELITY SEMI-PORTABLE SOUND SYSTEM

## A Comploto Migh Fidellty Sound Systom TRF Radle Tunor Covers 7000 Cyclo Band Easy to Install-Completely Solf-Contained Self-Contained $\mathbf{3}$-Position Mixer <br> Operares Crystal and Velociry Microphones

COR versatility and all-round usefulness there is nothing on a Flevel with the new Laforette Modal 158-P High-Fidelity RadiaAudle Combination Unit. A single steel case frinished in black cracklel contains a complete portable sound system, pre-amplifier, three channal mizer ond high-fidality rodio funer, yef it measures only $19^{\prime \prime} \times 8 y^{-1} \times 12^{n}$ overall From the outside this looks tike on ordinary rodio receiver, but inside It is a peally ingenious instrument that represents a lai of coreful work by Lafayalte en. gineers.

## TRF RADIO TUNER

As high fidelity receplion, and nol $D X$, is desired, a broodband T.R.F. funer is used and oives morvelous repraduction of the new high fidelity stallons. Responding io a full band width of 7,000 cycles, this tuner, warking through the associoted audio amplifier, givas quality of reproduction comparable to that afforded by high grade erystal microphones ond pick-ups. This is accamplished in an exclusive Lafayelle Develaped Circuit.

## SENSITIVITY ENOUGH FOR GOOD RECEPTION

The rodio funer uses a pre-selector stage, two 58 R.F. amplifiers and o 56 connected as a diade defeclor to give linear delection of ali volume levels. While the sensilivity of 20 microvalis does not approach the fractional sensilivity of some superheferodynes, it is more than adequote for the requirements of partable service. Since ordinary supers are pretty much limifed to obout 4,000 eycles, they do not compore with this unit on the point of true high fidelity response on stotions that broadcast really high quallity music.

## Technical Characterlstics Audlo Section

## Poak outpu:

Maximum output Into plate Impedance..... 25 wattis
35 watts
Maximum output into 500 ohm line......... 20 watts
Harmonic coniont at ratod maximum outputs.... $5 \%$ Gain............ 108 db Hum level......... 50 db Power consumpilon trom line .............. 175 watts

## 20-WATT AUDIO AMPLIFIER

The omplifier system cantained in the Model $158 . \mathrm{P}$ Combination is another Lolayetle achiovement. It uses $2-53$ voltage amplifier. mixer, 53 yollage amplitior, 59 driver ond four 2A5's in Closs " $A$ " prime push-pull parallel, with a 523 reclifiep. An autput trons. former with the usual 7 up to 15 ahm and $250-500$ chm windings is Included in the systam. Crysial microphones os well os high quolity velocity can be used directly, os the gain is 108 db .

## NEW GROUNDING SYSTEM DEVELOPED

The clased juxtaposition of o high gain audlo amplifiar and a high fidelity radio tuner an the same chassis braught about innumerable problems in feedback ond hym suppression. Lafoyette engineers actually developed an anlirely now system of graund impedance networks in order lo make this unil possible.

## COMPACT CONSTRUCTION

The chassis of the Model $158-\mathrm{P}$ unil is Allod with apporalus, yet it is so carefully laid out that it daes nol appear crowded. The sabinet is fitted with louvers that provide plenty of ventilation for the fubes. While the whole outtit is heovy, it can be carried by the old of the man-slized handles on the side of the case.

## FLAT RESPONSE CURVE

With the response of the oudio amplifier down only 2 db at 15,000 cycles and $i, 5 \mathrm{db}$ of 50 evcles, this is truly a high fidelity unil. II will do full iustice to erystal or velocity type mikes and to the high fidelity funer incorporated in this unit.
Madel 158.P-Lafoyelle High-Fidelliy Radla-Audio Combination with lubes. Dimensions: $19^{\prime \prime}$ wide $x 834^{"}$ high $\times 12^{\prime \prime}$ deep overall. Shpo, wh. 85 lbs, Code Piplo. List price $\$ 190.00$.
Shpo. Weit
$\$ 95.01$
Kit of matched iubes, 4-245, 1-523, 1-59, 3-53, 1-56, 2-58.
Your Cost
37.15

# The Auditorium High Fidelity Amplifier 

Full 15 Watts Output
Actual 20-17,000 Cycles Coverage


TECHNICAL CHARACTERISTICS

## Peak output <br> Max. output into 10,000 -ohm load Max, output into 500 -ohm line 24 watts Harmonic content at max. rated outputs. $5 \%$ Gain. <br> 85.7 db Hum level Power consumption from line <br> $-55 \mathrm{db}$

N speaking of "high fidelity" it is necessary to be very specific and to dofine the term accurately. As accepled In engineering circles, the limits of "high fidelity" reproduction are 30 and 15,000 cycles. In designing their now Model 106-A High Fidelity Amplifier, Lafayette engineers have gone a litlle further, and the frequency response unit is actually within the limits of 20 to 17,000 eycles.

## Power and Galn Combined

This remarkable response is oblained af the full pawer output af 15 walts with a circuit that has a gain of 85.7 db . The combination of high-fidelity response with these features makes this amplifier extremely valuable for both laboratory and field applications. If is unexcelled for high-quality phonograph recording or repro. ducing systems that make use of erystal type pick.ups and dualspeaker reproducers. When it is realized that the usual range of radio reproduction is only 80106000 cycles, the capabilities of this amplifier become evident. Lafoyetle engineers spent manths working out the circuit and designing every individual part for its jab, and we are proud to present the result.

## Phase Inverter Gives Push-Pull Action

The odvantage of push-pull amplification are obtained throughout the three-stage circuit by means of a phase-inverter stage omploying a dual-triode 53 . This is fallowed by a pair of $56^{\circ} \mathrm{s}$, which in turn drives a pair of type 685's. The phase inverter eliminates the need for inferstage transformers, which are susceptible to hum pick-up frequency limitations. The rectifier is on 83.

## Oversize Components

The mechanical placement of the parts was found to be very important during the preliminary laboratory development work, and numerous experimental models were built and rebuilt before the Lafayelte engineers were satisfied with the value and position of every condenser, resistor and ground wire. Permanent alignment is assured by the use of a heavy steel chassis, supplemented by a perforated screen cover that tops off the amplifier and protects the fubes from falling abjects. The chassis is finished in black lacquer both inside ond outside.

## Importance of Output Transformer

To ollow the purchaser to adapt the Model 106. A High.Fidelity Amplifier to his own requirements, it is sold without an output transformer, and two of the latter ore listed separately. Naturally, the finol response of the amplifier depends on the quality of the selected transformer, as illustrated by the curves. Fig. I shows the response with the amplifler working into a pure resistive load-a condition never encountered in aclual practice. Fig. 2 shows the condrall response of the omplifier with Type A oulpui transformer, and fig. 3 the response of the amplifier with Type 8 fransformer.

Of course, the Type A ronsformer is recommended for true high. fidelity results, but the Type 8 is satisfoctory in same cases. As a malter of fact, the response of the Lolayatte Model 106-A High. Fidelity Amplifier even with the Type 8 transformer is better than thot of several ather so-colled high-fidelity amplifiers that Lafayelfe engineers bought and tested. Both transfarmers have from .7 up to 15 ohm secondaries for voice coils and $250-500$ ohm line connections. The input impedance is 500,000 ohms, making possible the use of o high Impedone pick-up direct without o matching

Ideal for Wide Frequency Sound Installations
and Laboratory Purposes


## Recognized in Technical Press

The original madel of this amplifier was described in the Jan. vary 1935 issue of "Radia Engineering," and was widely acclaimed by outside engineers as a real achievement in omplifier design.

## High Fidelity Sound System

The selectian of the proper parts of a high.fidelity system must be made with great care. Obviously there is no sense in using a specially designed amplifier of wide response with a cheap accessory that will limit the reproduction all by itself. For this reason the system listed below is highly recommended. You can depend on it to work perfectly from input to outpul. Don't forget we hove a Sound Consultation Service to answer any questions you may have on this or any other system described in this catalog.

Lafayelte Madel 106:A-High.Fidelity Amplifier, less Pubes and output transformer. Dimensions $7^{\prime \prime}$ deep x $16^{\prime \prime}$ wide x $81 / 4^{\prime \prime}$ high. Shpg. wt., 45 lbs. Code Albus. List price $\$ 69.00$. Yaur Cast
$\$ 34.51$ Xpis930-Type A output tronsformer. Shpg. wt., 10 lbs. Lis! price $\$ 25.00$ Yaur Casl.
$\$ 12.50$
XP15931-Type 8 output transformer. Shpo. wt., 7 lbs. List price 57.90 . Yaur Casi.
$\$ 3.95$
$\$ 4.80$
Sound System Na. 156-P-Cansists af Madel 106-A High-Fidelity Amplifier with fubes, No. 1 output transformer, ane Lafayotle High-Fidelity AC Speaker XW19301, one Model XW19307 Piezo "tweeter", one Lafayette Model 301-A pre-amplifier with tubes, and one Ámperite Model XM13468 broadcast studio type velocity mierophane, with stand and 50 ff . of shielded mieraphone cable.

104.75

OC High-Fldellty Ampllfer Alsa Avallable-A special model Lafayette High-Fidelity Amplifier for DC operation is also avail. able. This also has an output of 15 watts and uses one 77, one 37 and four $48^{\prime} \mathrm{s}$. It is similar in size and appearance to the AC madel. Write for further details if you are in o DC district.
Madel 107-A Lafayette DC High-Fidelity Amplifier, less tubes and output transformer. Shpg. wh., 32 lbs. Code Ambre. List price \$55.00. Your Cast.
$\$ 27.50$
(Choice of same outpui transformers listed for the $A C$ model.)
Kif af tubes for above ampllifer. Yaur Cost
$\$ 6.75$


[^1]
#  

Cafayette "Electronic Mixer"

## A Radically New Development

## - Affords Gain Instead of Loss

- Smooth Control by Electronic Means
- Mixes and Fades Three Channels - High Fidelity Frequency Characteristic


Here, at last, is the ideal Mixerl It is the answer to practically any mixing problem. No matter what the impedance of the input device, so long as it delivers a minimum of .05 voles it can be connected directly to this mixer without the use of a coupling transformer. Crystal microphones, crystal pickupa, condenser microphones (already equipped with a preamplifier) a 200,500 ohm or any impedance line, a radio receiver, a low impedance or high Impedance pickup, etc., can be used. Where the device requires an exciting current, such as is the case with a carbon microphone, model is aval!able that includes the necessary transformer. It has no Irequency discrimination, being flat from 20 to 17,000 cycles! It has no lome-in fact produces a slight gain. The gain from each channel having and in fact produces a slight gain. The gain from

## WILL MIX, FADE, etc., ANY OF THREE INPUTS

Any of three inputs-mike, radio and phonograph-three mlcrophonesin lact any combination - can be faded one into the other or any two or all three can be mixed together. It is provided with four controls consisting of a master control and the three individual channel controis. It is also provided with an off-on switch and a pilot light. The output impedance is to the grid of the amplifier tube-it can also be coupled to a pedance is to the grid of

## LOW IN PRICEI

Despite the fact that this Mixer will do all of these things--and do them
better than any type of mixer heretofore developed-it is amazingly LOW in price! And this low price has not been achieved through cheapening or skimping on the material used-but is only possible because of an entirely new design using an entirely new idea in mixing. This new design is exclusively Lafayette on which patents are peuding! Any infringements will be vigorously prosecuted to the full extent of the law. Lafayette the first to present ft to the trade-and of course at a price that is typically Lafayette.
$21 / 2$ Volts A. C. and 6 Volts A. C.-D. C. or Battery Modela Two models are a vallable-one for operation with $2 \frac{1}{2}$ volt tubes uning three 57's and another for operation with 6 volt tubes (which can be operated from either A. C.-D. C. or from a 6 volt storage battery) using three 6C6 tubes. The " $B$ " supply can be obtained from batteries or from any amplifier-anything from 100 to 400 volts being suitable. Filament current required $-21 / 2$ volt models 3 amps. -6 volt models .9 amps. Black crystalline steel case. Dimensions; $10 \times 7 \mathrm{~K} \times 51 /{ }^{"}$. Shpg. wt. 10 lbs. Model 350p_Code Pacus. 21/ v. A.C. Type.
Model $351 P$ Code Pagoa. 6 v.A.C.-D.C. Bat.Type
Your Cost Either Type, Complete with Tubes.
If channels are desired for use with carbon microphones add $\mathbf{\$ 2 . 5 0}$ for each channel (maximum 3 channels). Total number of channels in the mixer will always be three. A microphone battery will also be included mixer will always be three.
when this change is made.


## "High-Fidelity" and "P.A." Pre-Amplifiers HI-FIDELITY

The Latayette "hb-delitic" Pre-Amplifer is the most unusual high-galn A. C. operated pre-amplifier ever developed. Has a gain of 6 db . from a 200 ohm input to a 200 ohm gutput. Output level +5 db . Particularly designed for use with ribbon microphones and other low le vel input devices when used with amplifiers having a gain of over 60 db . Special output and input transformers pro vide a frequency response that is down only -2 db . at $30 \mathrm{c} . \mathrm{p}$ s. fist within $1 / 6 \mathrm{db}$. from 80 to 6000 c. p. B. and down only -1.5 db . at 10,000 c. p. B. and only -3 db . at 17,000 p. B .

SPECIAL "P. A." MODEL A specis1 "P. A." model for use where ex treme high-fidelity is not required is avallable having a requency response curve essentially fiat from 70 to 8,000 c. p. s. Negligible hum level. Chassis tubes, transformers, etc., mounted in sponge rubber to prevent mlcro phonics. This, together with the heavy steel case, effectively over comes this annoying difficulty with high-gain pre-amplifiers.
Two type 6C6 tubes are used in a special circuit in which one of the 6C6's is used as a screen-grid amplifier and the other as a triode Standard input impedances 50,200 and 500 ohms. When out put transformer is supplied output impedances are 50,200 and 500 ohms. Wlthout output transformer output is at high impedance for connection directly to grid of tube.

## SPECIALLY DESIGNED POWER SUPPLY

The Power Supply is a separate unit and extreme precautions have been taken to zuard against hum. Power Transformer has each winding Interleaved with a static shield. For operation from 110 volt 60 cycle A. C. Cases of $1 / /^{\prime \prime}$ steel. Amplifier $101 / 4 \times 71 / 4 \times 51 / 2^{\circ}$. Power Supply $81 / 4$ $1 /{ }^{*} \times 61 / 5 \times 6$ Shpg, wt. 88 lbs.
Model 306 -
complete with Power Supply but for high Impe
complete with Power Supply but
dance Output and tubes. Code Aegls.
Yance Output and th
Your Cost Special. Model 307A-"P. A." Lafayette Pre-A mplifier complete with Power Supply for 50-250-500 Output but less tubes. Code Atios Your Cost Model 504A-"Hi-Fidelity" Ialayette Pre-Amplifier Power Supply for high Impedance Output and Tubes. Code Acles. Your Cost
Code Acise. Your Cost : ... Model 305A-"Hi-Fidelity" Lafayette Pre-Amplifier complete with Power Supply for $50-200-500 \mathrm{ohm}$ Output less tubes Code Aedes. Your Cost.
Kit of Tubes for \&ny of the above. 2-6C6, 1-80



## Cafayette Input Stages

 Double ButtonBlack cryatallzed finished metal case containing the mike transformer, the battery and the volume control. 6 ft . shielded lead furnished.
$61 / 2 \times 5 \% \times 41 / 4$ deep. Shpg. wt. 61 bs
YM13487-List $\$ 12.50$
Single Button
Similar to above: for all single button microphones. XM1348s.-Shpg. wt. 61 bs . List $\$ 8.00$ Your Cost


## Cafayette Pre-Amplifier for

Crystal
or
Ribbon Microphones

Now a new Lafayette Pre-Amplifier that is suitable for use with mikes having a -65 db . level when used with an amplifier having a gain of over 80 db . Also, with mikes having a level of -70 db . when used with amplifiers having a gain of over 90 db . Thus it is posaible to use this pre-amplifier to provide the necessary pre-amplification required for crystal and ribbon microphones.
It can be operated either from A. C. or from a six volt storage battery, Plate supply can be obtained from the amplifier or from batteries if necessary. Both gain and tone controls are provided as well an a changeover switch for changing from mike to phono-pickup, terminals lor which are provided on the rear of the amplifier. A vailable with or without input transformer having input impedances of 50, 200 and 500 ohima. Without transiormer input is at high impedance directly to grid of tube. Transformer is symmetrically wound, wide range and has permalloy core. Amplifier dimensions; $10 \times 71 / 6 \times 516$ ". Steel case black crystallized finish. Shpg. wt. 10 lbs
Model 300 - Without input transformer but completes
with tube. Code Actus. Your Cost.............
Model 301A-With input transformer and tube
Code Acler. Your Cost

## Cafayette purnerg Sumerl

Cafayette "T - R - F" P. A. Tuner


* Excellent Tone Quality
* Highly Selective
* Dual-Reading Dial
* Four Gang Condenser

Where TONE QUALITY is far more Important than extreme aelectivity (such as furnished by the Lafayette Super-Het Tuner) we recommend the use of this Laiayette T.R.F. Tuner. This circuit providing more of the side bands, so necessary for overtones and shading, is some what better for ohtaining the finest tone quality posaible for radio reception.

## PENTODE TUBES PRE-SELECTOR CIRCUIT

Four tuned circults are used, tuned by sections of the four gang condenser. The first is a pre-selector circuit that makes possible really good selectivity without loss of side bands. The next two are tuned radio Prequency stages employing. two type 58 variable-mu pentoden followed by a tuned detector stage employing a type 57 pentode. If desired, a type 56 triode detector may be had instead. This type of detector is recommendad where transformer coupling is to be employed detector is recommendad where transformer coupling is to be employed
between the tuner and the amplifier or line. When ordering state which detector is deaired. The tuner is thoroughly shielded and filtered to detector is desired. The tuner in thoroughy shielded and filtered Filament supply for the tuner is self-contained. "B', supply of from 180 to 250 volts may be obtained from the average amplifier, or a separate aupply may be used, either ellminator or if necessary for short periods "B" batteries. The maximum current drain is 25 M . A. with an average drain of $10 \mathrm{M} . \mathrm{A}$. Furnished complete with plug and cord and full operating instructions. Size: 8 " wide, $71 /{ }^{" h}$ high. $10^{\prime \prime}$ deep. Shpg. wt. 12 Ibs. Model 352-p. Iarayrte "T, R, F. Tuner, legs tuben. \$T © list \$35.90. Code Penta. Your Cost Kit of matehed tubes $1-57,2-58{ }^{\circ} \mathrm{s}$.

Pr Penentenen

## Cafayezke "Super-Het" Tuner

## Cafayette

 "Remote Control" P. A. Tuner

## $\star$ Compact-Rellable-Remote Control

$\star$ Standard Rack Panel

## * Self-contained Filament Supply

No longer is it necessary to he at the $P$. A. Rack to tune the radio tuner from station to station or to control the volume. All tuner operations-tuning-volume adjustment-turning it on or off-can be done at a remote point, quickly, at the touch of a fingertip, with this new lafayette Remote Control Tuner.

## T. R. F. CIRCUIT

Because tone was ronsidered the primary factor in the development of this tuner the T. R. F. circuit was selected. A pre-selector stage tuner with one section of the four gang condenser is followed by two stagea of tuned radio frequency using two type 58 pentodea which in turn are followied by a type 57 detector. If desired, a type 56 triode detector may be had. This type of detector is preferable where transformer coupling is to be used to the amplifier or line. When ordering state which is desired. Each stage is well shielded and filtered to prevent oscillation regardiess of the type of amplifier and power supply system used. Tuner has its own flament supply, and requires 180 to 250 volts of "B" supply, which may be obtained from the amplifier. Maximum current draln is 25 M . A., a verage $10 \mathrm{M} . \mathrm{A}$. Overall dimensinns: 19 " long, $81 / 2^{\prime \prime}$ deep, $83^{3}$ " high. Will fit standard W.
E. rack. Shpg. wt. 30 lhes.

Modol 353 -p Lafayptte Remote Contrulled $\$$
Tuner, less tubes. Ijat, $\$ 65.00$. Code Picar. Your Cost
Matched Kit of tubes consisting of 1-57, 2-58's. Your Cost ..... $\$ 1.55$ XP15915 "B" Eliminatnr for Tuner, with tube. Shpg. wt. 15 Ihe. List \$15.90. Your Cost

[^2]

## Model "Twelve" Carbon

Exxellent for use in the amateur station, either port able or fixed. Two-button carbon type with dural diaphragm having pure gold spot centers. Highest grade carbon grapules used. Buttons are standard 200 ohms each. Scientifically damped for high quality voice reproduction. Bright nickel finigh. Shpg. wt. 2 lbe. XV18392-List $\$ 11.60$ Your Cost.

## Model "Twenty-Five"

A very efficient two-button carbon microphone which will give entirely satisfactory service in less critical public address installations. Frequency response 70 to 4000 cycles. Resistance 200 ohms per button. Heavy chromium plated brass frame. Special alloy diaphragm with 24 K gold contact points. Size $3^{\prime \prime}$ diameter, $2^{\prime \prime}$ thle



## Prolessional Model "Fifty"

One of the finest mikes on the market. Has atretched dural diaphragm only $.002^{\prime \prime}$ thick. Frequency response from 50 to 5700 cycles. Buttons have standard 200 ohm resistance. Will stand up under mont severe conditions of operation. Highly polished nickel finish. Size $21 /{ }^{\prime \prime}$ diameter, 1 thick. Shpg. wt. $21 / \mathrm{I}_{\mathrm{l}}$ lbs. $\times 213421$-List $\$ 50.00$ Your


## NEW:

## Cafayette

## Floor Stands

Stand No. 1: A new type featuring an automatic extension lock that does a way with bothersome set screws. Wil! not slip. New "Quick-way". hoolos and bevel edge on the chromium plated $61^{\prime \prime}$ diameter ring. Double baked black Japan finish on base and tubing. Base diameter $1019^{\circ}{ }^{\circ}$ Shpz. wt. 25 lbs. Shpg.
XMiss30
Your Cost I. 75

Stand No. 2: A large 20 lb . stand, all chromium plated. Professjonal type. Has standard set screw adjustment.
 diameter $10 Y^{\prime \prime}$. Extends from $45^{\prime \prime}$ to $72^{\prime \prime}$. Ring will take any standard microphone. Base drilled for insertion of microphone cable. Shpg. wt. 30 lbe.
XN13431-Your Cost
8.23

Stand No. 3: A really phenomenal value. Entire stand finished in satin silver. Very neat appearance. Extends from $42^{\prime \prime}$ to 72". Riag diameter 6 朋". base diameter $7 \mathrm{~L} / \mathrm{g}^{\prime \prime}$. Shpg. wt. 17 lbs .
XM1342t-
Your Cost.

KELLOGG

## Hand Microphone

Designed for use with portable P. A. systems, with transcievers, and with amateur broadcast stations. Single button type, 200 ohms resistance. Current required is 3 volts at .010 to 015 amperes. Button is thoroughly insulated from casing. Diaphragm is gold plated for perfect contact. Casing and handle of cast sluminum. Equlpped with two-conductor 18 strand tinsel cord, 6 ft . long. Size $61 /{ }^{\circ}$ high, $21 / 4$ "diameter. Shpg. wt.


## AMDRRICAN Electrostatio

## Microphones

A newly designed microphone designed especially for Publlc Address work. These models are very rugged, and incorporate many festures necessary for best performance and qually of reproduction. Are unaffected by atmospheric moisture, barometric and tempernture changes. The air-dielectric is a thin fllm of air having a dielectric strength of 14.0 Kv . per mm . Output level is 14.0 KV . per mm. 70 to 8500 c. p.s.;
 approximately - 74 db . Impedance is 400,000 ohms at 1000 cycles, allowing use in most casen without any matching transformer. Output may be fed into any conventional pre-a mplifier or directly into a high gain amplifier. Availablo in both floor stand and hand type models. Both provided with 15 feet of special low losa cable. Shps. wt. 5 lbs. XM13493-Fioor Stand Model List $\$ 20.00$
Your Cost. ..... TI.

XM13494-Hand Type Model
List $\$ 25.00$
84.7.

## RADIO RECEPTOR Dynamic Mlcrophone

 Full moving coll type. It extremely rugged, has high sensitivity and is noiseless in operation. Response is within 2 db . from 40 to $7,500 \mathrm{C} . \mathrm{P}$. S. Outrut level- 69 db . Impedance 30 ohms. May be operated at great distance from amplifier without appreciable loan. Pickup area uniform over an angle of $185^{\circ}$. No background noise. Weatherprool-not affected by hent or moisture. Housed in chrome finished metal case with connector for stand mounting or suspension. Shpg. wt. 5 lbs .XM1349s-Your Cost
821.56



## Condenser MIcrophone

It consists of a bigh quality, air-damped, atretched diaphragen transmitter head and two stage amplifier, using two type ' 30 tubes. The compensating dia phragm equalizes pressure and aspures constant performance. Excellent frequency response from 40 to 10,000 cycles. Output level 30 db . (approximately that of a two-button microphone). Requires 6 volts at 60 M . A., and 180 volts at 3 M . A. from batterien or Shure 41A Power Supply. It connects easily on carbon microphone circuits by omitting central lex of the circuit. Special terminal strip, easily accessble in the tube compartment, provides either 200 or 50 -ohm output impedance. Head ls chromum piated, and case is finished in double haked black rubber-tone japan. Furnished complete with 12 ft shielded color and coded cable. Adapter included so that unit may be suspended; bottom threaded for attaching to stand. Shpz. wt. $81 /$ lbs.
XW13507-Complete with tuben. List $\mathbf{5 6 7 . 5 0}$


Your Cost

## SHURE MODEL 41A POWER SUPPLY

Designed expressly for use with the Shure Condenser Microphone May also be used with other pre-amplifiers. 6 volts at 60 M . A. 200 volts at 5 M . A. Complete with plug for
XM1350. Your Cost, with Rectifier Tuive
${ }^{8} 23.52$

## Crystal Mike Studio Type Model 70C

Similar in appearance to above condenser mike. Consista of crystal head with an integral two stage pre-ampllier housed in modernistic black japanned cast case. Amplifier uses 2-'76 tubes. Quiet in operation, no hiss. Non-microphonic; not affected by temperature and humidity. Frequency range 30 to 10,000 eycles. Complete with tuben suspension adapter und 12 ft . of cable.

## XM13478-Your Cost

${ }^{8} 41.15$

## SEURE Power Stuply Model 4if

For use with above crystnl mike. Delivers 6 volts A. C. and 200 volts D. C. at 5 M . A. Uses type 80 rectifer. Complete with tube, plug for mike cable and A. C. cord and plug for use on 110 volts. cycle A.C. Shpy. wt. 8 ib
$\times \mathrm{M} 1347$ - Your Cost.
823.42

Crystal Mand Mike Model 71AS
Excellent for all types of P. A. work. No po-
larity, no button curlarity, no button current. Non-microphonic. Can be used in any position. High impedance; does not require match. ing tranctormer. Chrome polished case with ring for suapension Hes "push-to-talk" switch built into handle. Comes with 7 feet of cable. Shpg, wt. 8 lbs . List $\$ 26.50$. $\times \mathrm{M} 13476$
514.53

Model 714
Same as above, but without the switch. Shpg. wt. 6 lbs . List 525.00 XM13477-
Your Cost

## Carbon fifand Mike Model 11 B

Similar in appearance to the Two-button, 200 ohms per button. Excellent frequency response. Will stand rough usage Shpg. wt. 9 lbs.
XM13469
Your Cost

## PIEZO-ASTATIC Crystal Mike



It requires no field or button current-has no hiss--cannot "pack"-may be used in any position and has a high output making unnecesaary any great amount of pre-amplification. High impedance. No matching transformer necemsary. Case is $3^{\prime \prime}$ in diameter and $1^{*}$ thick and is finished in polished chromium. Diaphragm is screen protected. Complete with 6 ft. shielded cable. Shpg. wt. 2 lbs . Xour Cost.

## Crystal Mike

Model 70H improved diaphragm ype cryatal head with close fitting ring and 4 removable "quickway" hooks. Range from 80 to 10,000 cycles. High mpedance; no matching transformer necessary. Comes complete with 7 feet of rubber covered cable, ring and hookn Shpg. wt. 6 lbs.
XM13472
\$13.23

## Banquet Stand

Extends from $26 \%$ to 651/2" Nickel plated tubiag and In black wrinkle enamel. Comes with adapter for mounting mudel 70 H mike, and others using mount ingring. Your
Cost
So 5.30 Adapter Only $59^{\circ}$

## Special Cefoyetio a. c. Operated Velocity Mlke Pre-Ampllfier and <br> Power Supply



An unusually high gain pre-amplifier designed for une with velocity mikes. Hus following specifications: Input impedances of 50,200 sad 500 ohms; output impedance directly to grid of tube: guin +56 db.; output level +grid db . ramimum. Can be used with any velocity mike having an output level of not velowity mike having an output level of not
lens than -100 db ., when used in conjunction with a main a mplifier having gain of 70 db . or over. Amplifier usea two type GC6 tuines. Prower supply is a separate unit (not illustrated). Constructed of finest quality parts. Translormers static shielded between each windins; choke-condenwer filtered no as to be ahaolutely hum free. Cases of $1 / 0^{\circ}$ steel finlshed in black cracisle. Power aupply $81 / 4 \times 61 / 2 \times 61 / 2{ }^{\prime \prime}$ : pre-amplifier $101 / 4 \times 7 \times 51 / 2^{\prime \prime}$. Shyg. wt. 38 1bs.
XP15971-Pre-amplifier and Power Supply, lese tubes Your Cost, Special
For detailed constructional description of above pre-ampllfier and power supply, refer to page 65

## Amperite

## Models RB-S RB-M and RA-1

More compact than previous models, and yet provide
greater output (approximately 10 db .). Unusually ciear: greater output (approximately 10 db .). Unusually ciear; no peaks and no background noises. Not aflected by and thoroughly shlelded. Instructions including preamplifier diagram included.
Model RB-S-Recommended for public address work; especially designed for speech. Output -68 db. (open

Model RB-M-Includes nickel alloy (permalloy) transformer, RecModel RB-M-Includes nickel a loy (permalloy) trankformer, Rec-
ommended for speech and music. Output level 64 db . (open line). Impedance 200 ohms. Shpg. wt. 8 lbs . List $\$ 40.00$ \&22 52 XM13471-Your Cost
utput
Model RA-1-Response 42 to 10,000 eycles. Output
Especially designed for speech. Shpp. wt. 7 lbs . XM13452-List $\$ 25.00$. Your Cost. Special flexible "shock absorber" coupling. Connects mikes listed ubove to 1 " plpe stands. List $\$ 2.00$
XM13472 Your Cost. ....................................

## Ribbon Microphone Transformers

XM13509-Match ribbon to line. XM13511-Match line to grid. XM13510-Match ribbon to grin. XM133E - Match plate to line.


## Professional Model SR80

Frequency response unlform within plus or minus db. over the entire audible range. Used by brosdcast and recording studios throughout the world. Absolutely free from background noises; reproduction is lifelike. No frequency diserimination with angle from center. Highly directional qualities reduce acoustical feed-back and helpa eliminate undesirable noises. Specially treated luminum alloy ribbon. Frequency renponse 25 to 14,000 C. P. S. Sutput Level - 68 db . (open ine). Output impedance 50 or 200 ohms. Fully hielded in rugged bronze and steel case. Bushing hielded in rugred bron and steel case. Bushing


## Newl AMPERITE Junlor Velocity <br> Mlerophone

A radically new development. For use with portable P. A. systems or with statlonary systems in conjunction with platiorm speeches. Mike is the size of a match box-13/411/2x1". Output level is - 65 db . (open line). Frequency range 60 to 7500 cycles. Output 50 or 200 ohms; speclify type desired. Transformer housed inside mike case. Fully protected in metal case finished in black crackle enamel. Equipped with cable and shoulder atraps (to be placed around neek of speaker). Shpg. wt. 8 lbs. XM13465-List 530.00
Your Cost


Prices on replacement ribbons for ali velocity mikes quoted on request. Specify name and model of mike when ordering.

# UNIVERSALSE:MICROPHOMES 

UNIVERSAL Condenser Microphone
 Model E-30-A. C. Operated
Newly developed condenser microphone with built-in two stage a mpllfer employing 30 tubes. Power supply plugs into any 110 volt, $50-60$ cycle line; no complicated connections. Absolutely no hum or ripple. Frequency response flat from 35 to 1,000 c. p. S.; output greater than that of a stand-
ard two-buttoa carbon mike. Head has ard two-button carbon mike. Head has phragm ls protected by a solid cast grating. Ninety degree awivel of head permits use directly overhead; the bail ullows hanging by a wire or cord. Twenty-five feet of rubber covered, shielded cable furnished. Finished in black crackle. Shpg. wt. 11 lbs. XN13E1s-Model E- 30 Condenser Microphone, less tubes and power supply. List $\$ 60.00$
Your Cost
s35.28
Specially designed power supply for use with the above mierophone. Has binding post terminals and receptucle for microphone plug. In metal case provided with carrying handle. Shpg. wt. 10 Jbs.
XN135SC-Complete Power Supply. List $\$ 40.00$
Your Cost
\$23.52

## UNIVERSAL Dynamic Microphone



A new development in a full moving coll type of dynamic microphone. Has a flat frequency response from 50 to $10,000 \mathrm{c}, \mathrm{p} . \mathrm{s}$. Base notes reproduced with full fidelity by means of a special "breather" in the form of a tube with screen cap incorporated into the back of the housing. High frequency adjustment also provided. Impedance of coil is 30 ohms. Output level approximately -80 db . A special input transformer is avaliable for matching mike to line. Illustration showe atandard mierophone plug in the built-in jack (plug not included). Size $32 / 4^{\prime \prime}$ deep, $3 \% /^{\prime \prime}$ diam eter. Shpg. wt. 5 lbs. List $\$ 30.00$
XM13491-Dynamic Microphoné
Your Cost.
former. Mutches 21.41 Other side has seven taps ranging from 15 to 45 ohrme, and acts as a highly efficient tone control by limiting either high or low frequeacy response. Shpp. wt. 8 lbs XN13492-Your Cost
Floor Stund Has fitting for above mike Height sy ter 12" Hithly pollished chrome plate bar with positive base damadjustment. Basp in frosted silver crackle. Shpg. wt. 18 lbs. XN1354
XN1354t
Your Cost

Model "X" Mike


A low priced mike that will give excelleat performance. Available in either ingle or two-button types; standard 200 ohms per button. Duralumin diaphragm, pure gold contacts. Response 100 to over 4000 cycles. Chrome plate finish. 4000 cycles. Shpg . Wt. 3 lbs.
Shpg wt. 3 libs.
List $\$ 7.50$

## List $\$ 7.50$

Your Cost
$\times M 13113$
3.41 List $\$ 10.00$

Double
$\$ 5.88$ Your Cose

## UNIVERSAL Model "BB" Mike



An eapecially rugged unit designed for P. A. and amateur broadcast work. Has 24 K pure gold spot centers. Frequency response from 50 to 6000 cycles. Finished in polished chrome plate. $3^{*}$ diameter, 2 thick. Standard 200 ohm buttons. Shpg. wt.
3 lba.
$\times$ Mis40 -List $\$ 25.00$ Your Cost UNIVERSAL Model "KK" MIke
Similar to the above, but with more extensive frequency range. Entire unit Anished in 24 K polished gold. Runge 40 to over 6000 eycles. $21 /{ }^{*}$


UNIVERSAL Model "LL" Mike
One of the finest carbon mikes available. Of high carbon steal ground to within $1 / 1000$ inch accurucy. Pure gold contacts. Frequency range from 80 to 7000 cyclea. $34 / 2{ }^{" \prime}$ diameter. $134^{*}$ thick. Shpg. wt. $31 / 2$ lhs. List $\$ 60,00$ XM1340s Your Cose
'35.28
Model X desk stand for above mikes. $5^{\prime \prime}$ ring. Polished nickel plated bar, ebony rubber base cover. Comes with 8 mounting Pring. Shpg. XN13547
Your Cost
$\cdot 2$.

## "Brumo"

Veloclty Microphone


Designed enpecially for P. A. work, to reproduce apeech and music. Ite directional qualition, absence of hime and other noisee makes it ideul for use where quality is necesary. Frequency reC.P. 60 to 10,000 C. P. S. Output level pliner is not required wben main amplifier has a guin of 110 db . or over. Impedance 200 ohms. Units are quipped with special H-Per transformer and 6 feet of special rubber covered thielded cable. Housed in piston alloy case fipished in black crystalline. Size $91 / 521 / 2 \mathrm{x}$ $7^{\prime \prime}$. Shpg. wt. 6 ibs. List $\$ 25.60$

## XM13467 <br> Your

Model RV-3 High Fldelity
Profensional broadcast type used in otudios, for reproductions of speech and music. Frequency range covers from 30 to 14 gon cycles. Output level is 65 db (open line) Outlevel is- 65 db . (open line). Output lmpedance 200 ohms. Special H-Per transformer built-in. Shpg. wt. 8 lbs.
XM134ce
Your Cost
$\$ 55.01$


## Model "W" Watch Mike

 The amalleat protected single button mike. Standard 200 ohms resistance. Sulted for use as Gol microphone. phragm. Only $1 \%{ }^{\circ}$. In diameter, phragm. Only thick. Polished cast. Shpg. wt. 3 lhs. Polished cast. Shpg. XM13448 Your Cost$5 \rightarrow 6$

## Model " $Y$ "

Slmflar to above, but without pro-
tective cover. Shpg. wt. 1 lb .
XM13444
\$1.IS
Denigned especially for use in Transceivers and other portable radio-telephone equipment. Consints of a bent aluminum handle with a lightweight telephone receiver at one end and a high output single button mike at the other. Microphone has atandard 200 ohms reaistance; receiver has 2000 ohms impedance. Furnished with 6 loot four conductor cable with color coded phone tips. Shpy wh color XN14043 List $\$ 6.00$ ? 2 XN14043-List $\$ 6.00$ § 3.53

## Low priced MICRODHONE STANDS



## Desk Stands

Type A: Low priced, yet high quality. Has 5 octagon rhaped ring. Provided with 8 prings. Ring removeable. Height $9^{\prime \prime}$. Fin shed in wrinkle black enamel thread. Shpg. wt. 10 lbs. XN13540-


Your Cost, Special.
5 Meter Hand Set


## Your Cost

XM13410-Double
Your
Cost


#### Abstract

"Handl-Mike" Designed for use with Transceivers and portable P. A. aystems. Have gold contuct fucps. On-off switch in handle. For voice will give clear cut reproduction. $6^{\circ}$ long 21/2" diameter head. Shpg. wt. 2 lbs.


 Button 85.88$\$ 8.92$

## Desk Stand

For une with the above described Handi-Mikes. Has polished chromium plated upright, and ubber covered base. Mikes held in place by two spring clips. Use of stand sllows Ireedom of both handa while broudcaating. Shpg. xt. 2 lithe.


BRUSH "Tweeter"

## Crystal Speaker

Designed primar-
ly for use in radio receivers and $P$. A. aystems where faithful reproduction of the higher frequencles is deired. Keproduction on the tweet-
er" begins at the

response of the dynamic speaker starts to fall off (a bout 8000 cycles). and continues up to 8000 cycles. Unit to be comnected across the primary of the low frequency dynamlo speaker transformer. No field or flter system required. Due to its high effciency, it is generally used with a variable resistance or varible capacity type volume control. Dinmeter of cone $4^{4}$. Shpg. wt. 7 lbe. XW19306
List $\$ 7.00$
Your Cost

## s.20

## Crystal Speaker

## With Transformer

Similar to the above, but with translormer to match 4, 8 and 15 ohm voice coll and 500 ohm line. For theatre and P. A. use. Transformer especially designed to provide the ecesary frequency response Mounte on back of speaker. Shpg Wt. 9 ibs.
XW19307-Your Cost ${ }^{\text {S }}$ 6.01

## ses Microphone Cables EAccessories

## Heavy Duty Plugs and Sockets



Socket With Sleeve Stock No, Contacts Your Cost

| XL12418 | 2 | 50.42 |
| :--- | ---: | ---: |
| $X L 12413$ | 4 | .52 |
| $X L 12420$ | 6 | .63 |
| $X L 12421$ | 8 | .73 |
| $X L 12422$ | 10 | .43 |
| $X L 12423$ | 12 | .33 |

A series of heavy duty multiple contact pluga and sockets made of genuine moulded ba kelite with hea vily armored metal caps. Very sturdily made and are excellent for use with portable public address systems. Finished in black crackle lacquer. Shpg. wt. crac
1 lb

| Plus with Clemp |  |  |
| :---: | :---: | :---: |
|  | Contacts | Cost |
| XL12400 |  | 50.37 |
| XL12401 | 4 | . 45 |
| XL12402 | 6 | . 5 |
| XL12403 | 8 | . 6 |
| $\times \mathrm{Cl2404}$ | 10 | . 70 |
| XL12405 | 12 | 79 |
| -12e0s | h Soc |  |
| XL12406 |  | \$0.30 |
| XL12407 | 4 | . 36 |
| XL12408 | 6 | 42 |
| $\times 12209$ | 8 |  |
| $\times 112410$ | 10 |  |
| XL12414 | 12 | . 60 |
| Sacket with Clamp |  |  |
| Stock |  | Your |
| No. | Contact | Cont |
| XL12422 | 2 | \$0.40 |
| XL12413 | 4 | . 50 |
| XL12414 | 6 | . 61 |
| X21245 | 8 | . 11 |
| XL12416 | 10 | . 1 |
| XL12417 | 12 |  |

## "Twist Lock" Polarized Armered Cennecter:

Atwist of the wrist and
they are securely locked they are securely locked partaccidentally against breakage. Equipped with clamps for cable Will take large size wire up to $9 \%^{\circ}{ }^{\circ}$. Shpg. wt. ip to ${ }^{\prime}$. Shpg. wt. It Twe Wire Connectors XM1317S-Male
Your Cest
XM1317C-Pemal
Your Cost
Xm13177-Male
Your Cost.
XM13178-Female
Your Cost.
Four Wire Cennectors
XM13175-Male
Your Cote.
XMisite-
Your Coet
"Twist Lock" Receptacle Fits standard outlet box. let box
XW131s1


3 Wire.
XN13182--Four Wire.

"Twist Lock" Recessed and Bese Mount Plugs

For mounting on apparatus and to be used whth "Twist Lock" Femsle Connectors. Recesed type provides flush surface and prevents accidenta contacts with pronge. Shpg. wt. 1 lb .

Two Wire Male
XM1318s-Base Mount 25
XM111R-Recensed
Your Cost.
XM1318S-Bage Mount cm1318-Base Mount Your Cost. De....... Your Cost...............

Four Mre Male Xm1s1s7-Base Mount
Your Cent. Re..........
XM1318
Your Cont................. *Twist Locin Temale Receptaclo

Made of porcelaín. Shpg. wt. 1 lb.
XM13173-2 Wire, Each.... ise XM13174-8 Wire, Each .... $75 c$

## 3 Way Mike Plug

For quickly connecting double button mikes or any three wire cord. Has a moulded bakelite handle. Contacts are solid brass tinned for easy soldering. Shpg. wt. 1 lb .
XH13521-
3 Was Jack
For use with a bove piug. 26
3 Way Mike Connecter

$30^{\circ}$

-ucrephene
Cable with Armered Connectors Heavy rubber covered ahielded cable impervious to oll and water. Con. armored mad
clamped to cable.
Stock
Shipping
Xaicose Size
Weight
1 lb .
2
2 libs.
3 lbs.
5 lbs.
XQ160s2 25 ft
$\times 016033$. 50
11 lbs.
Shlelded Microphone Cable

First quality shieided three conductor Microphone Cable that will stand the hardest usage without becamins torn or cracked. Ends provided with suita ble lugs for easy connection. Very popular for indoor installations. Cotton covered. Shpg. wt. for 50 ft., $21 / 4 \mathrm{lbs}$
KQ16132
6 Ft. for
12 Fe. for

## Thitent Carbon Granules

Extra fine quality, same as used in bet-
ter grade mlcrophones-notadulterated. (1) Contains sufficient granules to refill on two-button microphone. Care must be used in measuring amount for each button. Must not be touched with ingers. Shpe. wt. 1 ib Your Cost

## C(MIMM)ILDD Mierophene

These-microphone springs sre made of the finest grade tempered steel, with formed loop ends. KMi3402-
Sot ef 8 for.


## BMS MIcrophones Studlo Model

For home broadcasting. Very easily attached. Does not interere with radio. Sliding awitch to turn on or off. Shpg. wt. 2 lbs XM13180 $? ?^{\circ}$

## Junlor Model

Similar to above but different case. Has button instead of switch. Shpg. wt. 2 lbs. XM13372-
Your Coet


## IITileat shielded Micrephene Cable



Consists of three conductors color coded in very closely woven tinned copper shielding with outer covering of bigh percentage rubber. Enpecially intended for outdoor use. Absolutely weather and brasion prool. Shpg. wt. 10 lbs. per 100 ft. 12 reser our cost 50 Ft. ior .... 210 25 Ft.for $1.20 \quad 100$ Ft.for 4.50

## Speclal Valuel Mike Cable

 Light duty cable similar to the above. $5^{\circ}$$X^{\circ}$ XQ16145-Your Cost Por Feot....... $\$ 2.00$
12 Ft. for ...so.55 0 Ft. Por . . 25 Fi. for .... 2.05100 Ft. for .... 3.00

## Rubber Covered 4-Wire Speaker Cable



Hes vily rubber covered four wire cable for use in connecting extension speakers outdoors or in portable equipment. Shpg. wt. for 50 ft. 6 lbs.
Yoicisi-- per Foot. . . . . . . . . . . . . . . Se

Per 100 Feet

## Armered Eakelite Microphene

 Connectert Diameter $13 /^{\prime \prime}$. Shpg. 1 b .Xnizsos-Plug $44^{c}$ XM13400-Socket Your Cost Eocket $\qquad$ $33^{\circ}$ Xmi3415-3 Wire Fush Receptacle, of hard Composition. Will fit above Female Socket No. XM13400. Your Cost Each
$75^{\circ}$

## C. H. Mike Connectors

 Plug has metal cover for protection. Shpg. wt. 1 lbXma319s-Plus
Your Cost Elach XM13308-Socket
Your Ceat Epeh
5 Wire Rubber Cevered Shiellod "Mike" Cable


Re-enforced with cord, rubber covered, stranded color coded microphone cable. Heavy cotton braid outer layer, ribbon sleeve shield. " Iive rubber. Excellent for Condenser Mikes. Outside diameter $1 /{ }^{\circ}$. For all outdoor temporery or permanent jobe. Shpg. wt. 10 lbe., 100 ft .
Your Cost Per Foot
Per 100 Feet.

## Public Adrress Units owTrumpets



## Cafrystite

Introduces a New Vari-Acoustic Trumpet

With the new Lafayette Vari-Acountic Trumpet you can adjust the low frequency response to suit yourself. A unique method of adjusting the back-pressure increases or decreases the low notes at will. The streamline shape eliminates the Insses that oceur when the contour of the trumpet is broken. Built throughout of weatherproof material. Finished in bright aluminum. Dimensions: 4 ft. long, hell $30^{\prime \prime}$ square. Weath erprool cover included
XY20041-Lafayette Vari-Acoustic Trumpet. Shpg. wt. 20 lbs
Shpg. wt. 20

${ }^{1} 14.50$

## NEW! <br> All-

Aluminum
"Dome" Baffle

A new Lafayette Cone Unit, especially de-
igned for use pith this and similar type trumsigned for use aith this and silmilar type trumpets, employs a cone made of a semi-weatherproof material that will stand great extremes of temperature and humidity. Unit is capable of handling 15 watts and has an unusually powerful field. Field current consumption 1 to $11 / 4$ a mps., at 6 V. Voice coil diam., $1 \mathrm{~K}{ }^{\prime \prime}$. impedance 8 to 12 ohms .

XY19830-Lafayette 6 V . Cone Unit. Shpg. Wt. 10 lbs .

##  <br> "Super Giant"

 Electro-Dynamic Driver UnitAn entirely new development in directive balflen for use with cone type speakers. Overcomen many difficult acoustic problems. All aluminum construction. Equipped with suspension rings. For $12^{\prime \prime}$ speakers. Reducer rings a vailable for ada pting to smaller speakers. Overall length 20". Diameter of bell 17" length of bell $10^{\prime \prime}$. Shpg. wt. 4 Ibs. $X Y 20044-$ List $\$ 15.00$ Your Cost
ADAPTER RINGS

8.82
opening for smaller for reducing size of ordering
ordering.


## "DEMOUNTABLE" <br> Directional Baffle

## A demountable directional speaker baffe that ca

 be quickly and easily amembled or taken apart in a ew minutes with a mocket wrench or a pair of plifera. Weatherproof material-aluminum finished. Beil opening $22 \times 23^{33^{\prime}}$ : lenxth space $27 \times 25 \times 3^{\prime \prime}$. Shpg. wt. 15 lbs .XY20052-7" opening X Y20053-10" opening Your Cost Either Type
s. 5.40
"Demountable" Speaker Housing For use with either flared or directional baffle Inside dim. $16 \times 16 \times 111 / 2$

## "DEMOUNTABLE"" <br> \section*{Flared Baffle}

Can be assembled or dinassernbled in a few minutes with a socket wrench or small pair of plierg. Fastened together with offset spadebolts. Dimensions
A new Lafayette product that again proves Isfayette's a bility to offer a finer-better product at a very low price. The dlaphragm In this unit is spun from sheets of the finest grade of duraluminum. It is then given various heat treatments and unnealing processes so as to provide a diaphragm that will respond to every change in electrical input yet remain rigid enough to assure an accurately centered voice coll at all times. The sound output of this unit is exceptionally high in relation to the electrical input-the result of careful placement of the voise coil in the magnetic field and a powerful field flux. Voice coll impedance 15 ohms. 6-8 V. field. Shpg. wt. $15 \mathrm{lbs} . S\} 5\} ?$
23.52

A new $100 \%$ weatherproof Trumpet that is guaranteed for a period of two years except where they are subjected to gross misusage or abuse. Constructed of a special all-weather material and securely bound at the edges with a solid brass welting. Detachable aluminum tone arm threaded for reproducer unit. Square bells $30 \times 30^{\prime \prime}$. Finished in bright alumlnum. Model L-72-6 ft. long. Shpg. wt. 25 lbs. List $\$ 42.50$
XY20047-Your Cost
54.99

Model L-54-54" long. List $\$ 35.00$

Mode! L-43-43" long. Shpz. wt. 16 lbs. List $\$ 30.00$ XY20049-Your Cost
${ }^{1} 17.64$

## Lafayette

 Trumpets
 ish. Weatherproom interial. Shpg. wt. 10 lbs XY19837-7; opening X Y 19838 - 10 opening Your Cost Either Typ
s3.95

## RACON High Quality Dynamic Speaker Units



## Glant Unit

 A powerful Dyamic Unit especially designed for ure with trumpet tyde horns. Handles 20 wate continHously or 50 watts peak. Hously or 50 watts peak. Han 15 ohm voice coliand requires 6 for feld excitation. amps. for feld excitation.Has threaded collar for Has threaded collar for
attaching horn or the triple connector described below. Shpg. wt. 26 lbs. Lese transformer. xW192cs-Your Cost Each.. 32.34

## RACON Master Unit

Similar in appearance to the above unit. Continuous operating capacity 20 watts, peak 50 watts. 15 ohm voice coll; 6-8 volts at 1.1 amps. field current. Shps. wt. 18 lbs. Lens coupling transiormer. XW19266 Your Cost.
825.37

Refer to page 81 of Catalog 56 for a compl

## RACON Baby



Continuous operating capacity 5 to $71 / 2$ watta; peak capacity 20 watts. Voice col! 15 ohms. Field current, 6 volts at $1 / 4$ a mps. Shpg. wt. 9 lbs. Complete, less XW19268-List $\$ 27.50$
Your Cost Each $\qquad$ 516.17

## RACON Super Giant

Particularly arlapted for theatre and auditorium 6 to 8 -volt fleld excitation. 1.1 a mpere consumption at 6 volts 15 -ohm voice coil impedance. Continuous operating eapacity 25 watts. Peak load capucity 50 watts.
Shpg. wt. 20 lbs.
XY1975i-List $\$ 66.00$
33631


Spenkers, Transformers, Trumpets, etc.

## RACON Trumpets

Made of fabric, impregnated and hardened.

## $31 / 2$ Ft. Trumpets

## Bell 22" Round

De Luxe Model. Equilpped with metal beaded edge, cast aluminum lerrule and ruspension ring. For indoor or temporary outdoor use. Shpg. wt. 17 lbs. List 527.50 I6. 15 Regular Model. Same as a bove but for in-


## 6 Ft. Trumpet-Bell $30^{*}$ Round

 stormprool Model. Metal beaded edge, cant aluminum throat, $4^{\circ}$ suspension ring. For outdoor une. Shpg. wt. 351 bs . XY19791-Your Cost All Metal Model. Cast alumer reinforced bell rim. Shpg. wt. 20 lbs. List $\$ 55.00$XY19745 Your Cost

## 

WRIGHT de COSTER

"Theatre" Models
309 and
319 319
Especially designed for use sousd on flm. Emphasizes
the volce frequencies. Yet covers an extremely full range. Equipped with input transformer having impedancer of: 10 (directly to voice coil) $500,1000,1500$ and 4000 ohms. Permits matching several speakers to an amplifier without using additional matching transformers. Conmervative maximum handiling capacity 15 watts. Field resistance 3000 ohms for operation on 220 to 275 volta D. C. at 75 to 90 M. A minimum 16 watts. Shpg, wt. 42 mini.
XW19372-Model 309. Dimen



Model 319-Similar to the 309 but will handle only 10 watts. Field resistance 3500 ohms-maximum dissipation 20 watts-minimum 12 watts. Shpg. wt. 30 lbs . XW19373-Model 819. Dimen sions: 121 " $^{\prime \prime}$ wide, $81 /{ }^{8}$ ions 124 $81 /{ }^{\circ} \mathrm{d}$. $124^{\circ} \mathrm{h}$.
Your $\operatorname{Cose} . . . . .22 .15$

## STANDARD MODELS

Standard typen for ordinary use in P. A. Radio, ete.

Xwig354-Model 305. Same handling capacity, dimensions, etc. as Model 809.
Your Cost
523.52 XWi9353-Model 315. Same as Model 319 but for ordinary use Your Cost

## WRIGHT DeCOSTER

## Model 425

New model. Same general deaign as the larger modela. Handing capacthe larger modela. Handling capac-
ity 7 watts. Field 2500 ohms. ity-7 watts. Field 2500 ohms.
State type of output translormer State type of output transired. $121 /{ }^{\prime \prime}$ wide, $7^{3} /{ }^{\prime \prime}$ deep.


## Cafayette P. A. Speakers



New 14-Inch "Photophone Type" Dynamics

Great power with exceptionally fine tone quality. Extremely large heavy field wound with approximately 5 , lbs. of pure copper wire is housed in a pot $5 y^{\prime \prime}$ long. Cone is $14^{\prime \prime}$ in diarueter and has a $11 / 4$ " voice coll witheter and has a $1 / 8$ voice cons with an impedance of 8 to 12 ohms .
D. C. field resistance 1000 ohms . Speaker will safely carry 15 watts Speaker will safely carry 15 watts
continuously, 25 watts peak. Fincontinuously, 25 watts peak. Fins
ished in bright radmlum plate. Shpg. wt. 29 lbs.
XW29153-Lafayette $14^{*}$ Photophone type Speaker. XW1915.- Same but with 2500 ohm field.
XW191S4-Same but with 6 volt field.
${ }^{s} 10.95$

## 14-Inch A. C. Model

The A. C. model is exactly the same in every detail except that it is equipped with a field supply. Requires 5 z8 tube. For 110 volts 60 cycle A. C. operation. Shpg. wit. 16 lbs.
XW19137-A. C. Model less tube.
Your Cost
${ }^{8} 15.45$

## Modifled 14-Inch Photophone Type

Has all of the characteristics of the Photophone speaker such as $14^{\prime \prime}$ cone, $11 /$ " $^{\prime \prime}$ diameter voice coil, 1000 ohm field, but is for use with a some what lower input. Will carry 10 watts-peak 18 watts. Field pot $31 /{ }^{\prime \prime}$ " long by $33 / 4$ dlameter. Voice coil impedance 8 to 12 ohms. No stand and no handle supplied. Dimensiona: $151 / 2^{\prime \prime}$ diameter, 9 deep. Shpg. wt. 14 lbs.

3043

## ARray?EAQ "p. A. Special"

Particularly designed for P. A. systems. Has 12" cone made of special acoustic paper. A
special line matching transformer has impedspecial line matching transiormer has imped-
ances of 250 and 500 ohms. Field resistance 1000 ohms. Two types-A. C. and D. C. A. C. uses $5 \mathrm{Z3}$ rectifier and comes complete with tube. Shpg. wt. A.C. $13 \mathrm{Jbs}, \mathrm{D} . \mathrm{C} .10 \mathrm{lbs}$.
XW19374.-
D.C.. P. A. Special
s. 7.95


XW19375-A.C., 'P. A. Special'
852.50

## II"A.C. Dymamic

An excellent speaker for use in small and medium size P. A. Systems and in radio receivers. This model uses the 25 Z tube for rectification Input transformers can be supplied to match any ordinary ty pe output tube. Specify desired type when ordering. Size $111 /{ }^{\prime \prime}$ high, $8^{\circ}$ wide, $6^{\prime \prime}$ deep. Shpg. wt. 20 lbs.
XW1914s-Less tube
Your Cost

## JENSEN

Auditorium Modele


In sound output these new Auditorium Speakers are $400 \%$ more efficient than the conventionaltype. They are fully capable of handling continuously 20 watts of energy, but the sound output from 20 watts electrical input is at least three times greater than that from other cone speakers of equivalent cone area. Construction and performance are beyond comparison. Dimensions: $O$ verall width, $181 /{ }^{\prime \prime}$;
height, $18^{23}{ }^{\prime \prime}$; depth, $813 / \mathrm{m}$. Bafle height, $1823 /{ }^{\prime \prime}$; depth, $813 /{ }^{\prime \prime}$. Bafle
opening, 12 Shpg. wt. D. C. 48 opening, $\mathrm{C}, 56 \mathrm{lbs}$.
$\times$ w19246- 110 volts A. C.
$\left.\begin{array}{l}\text { List } \$ 76.50 \\ \text { Your } \\ \text { Cost. }\end{array}\right\}$
(A. C. Models are priced with tube.) XW19248-110 volta D. C.
$\left.\left.\begin{array}{l}\text { List } \$ 51.50 \\ \text { Your } \\ \text { Cost } \ldots . . \ldots .\}\end{array}\right\} \leq 3\right\}$

## Ortho-Dynamic Models

These models will handle 12 watta continuously with a peak input of 18 watts. Frequency response is unusually uniform from 30 to 5500 cyclea. Finished in black and aluminum. A. C. models rectifer tube und come complete with tube. Shpg. Wt. D. C. models 25 lbs ; A.C. 35 lbs
volus D. C.
Your
Cour
s25.03
XW1920
List $\$ 53.50$
Your
5331
All Models are a vailable with either
of two types of input translormers. of two types of input transiormers. Regular is center tapped and has an impedance 4000 to suitable for most tubes. In for suitable for most tubes. Wine is for
500 ohm lines. When ordering state 500 ohm lines.
type desired.

ROLA "HIgh Fidelity"


## Speakers

 signed to meet the requirements for high fidelity repropower handling canpacity, and high efficioncy. Full 12 speaker with mas
sive fleld coil struc ture (maximum 3y/3 lbs. wire capacity).
Response 50 to 7500 cycles with a variation of leas than ten db. Standard field resistance 640 ohmp-other values to speclal order. 8 ohm (at 400 cycles) voice coll. Continuous power handling capeity 15 watts. Maximum field wattage 20 , minimum 8 , normal 18 watts. Voice coll diameter 13/4*. Speaker dimensions: 121//" wide, ${ }^{125}$ 体" high, $7^{31}$ 的" deep. Specily output transformer impedance desired. Two models D. C. and A. C. A. C. for 110 volta 60 cycles, tube included.
XWi9302-D. C. Shpg.
Your
Cost
XW19303-A. C. Shps. wt. 30 the
Your
cost.

## Cafayetle

 "High Fidellty" Speaker Designed by Lafayette Engineers to meet the demand for high fidelity reproduction with full efficiency; Unit utilizes a full 12 cone and an over-aized field pot to afford maximum power handling capacity. Frequency response eskentislly fiat from 50 to 8000 cycles. Supplied With standard field of
640 ohms: other field resiatances supplied on special order. Maximum field wattage 18, minimum 8, normal 18. Voice coil impedance 8 ohms (at 400 cycles ). Supplied with output transformer: specify type desired. Overall dimensions 121/a wide, $12 \%$ "high and $7 \%$ "deep. Available in D. C. and in A. C. 110 volt 60 cycle models. A. E. model with tube.

XWi9300 D. C. Model S<? Shpg. wt. 26 lbs
Xw19301-A. C. Model with tube.
Shpg. wt. 30 lbs.
Your Cost

## JENSEN "Hilgh Fidelity" <br> Speakers



True "high fidelity" covering a fre quency range from 30 to 8000 cycles. Quality construction throughout Cone diameter 12 Volce coil impedbandin capower handling capseity 10 watts continuously. Field coil re-
sistance 860 ohmssistance 860 ohms other values to special order. Maximum fleld Wattage 18 , normsl 14, minimum 10 . A. C.
model for operation on 110 volts, 60 cycles. model for operation on 110 volts, 60 cycles.
Regular input transformer 4200 ohma wili Regular input transformer 4200 ohma whi
match 4000 to 4500 ohms and has center tap. 500 ohm lime transformer also avallable. Dimensions: 12" wide, $124^{\prime \prime}$ high, $8^{\prime \prime}$ deep. Specify type of transformer desired when orderinc. Speakers finiahed in black and chrome. Eeavy duty construction: will ntand model includes tuperating condition. XW19304-D. C. Model 12
Your Cost
Xw1930S A. C. Mödel A12 \&
Your Cost

# Quality SPEAKERS for Every Requiremenf? 

Balanced Armature MagnetIc Speakers


Employ unusually powerful magnets and balanced armatures that provide double ended action, eliminating the need for any great amount of amplification. Highly menaltive and will handle conmiderable volume without rattling or distorting. Wide frequency range; natural tone. Pressed paper cones. Preased steel frames. Available in chassis form or in walnut finished cabinets having scroll grill front and back, and provided with 6 foot two back, and provibed with


> Sposker Chassis Only

Stock Cone Shpg. Your $\begin{array}{lclr}\text { NW19121 } & 3^{\prime \prime} & 2 \mathrm{lbs} & 51.20 \\ \text { XW19152 } & 5^{\prime \prime} & 3^{\prime \prime} \mathrm{bs} & 1.23 \\ \text { XW19199 } & 6^{\prime \prime} & 5 \mathrm{lbs} & 1.45 \\ \text { XW } & 0^{\prime \prime} & 7 \mathrm{lbs} & 1.89\end{array}$


## Speakers in Cablnets

| XW19106 | $5^{\prime \prime}$ | 4 lbs. | 2.25 |
| :--- | :--- | :--- | :--- |
| XW19107 | $6^{\prime \prime}$ | 6 lbs. | 2.40 |
| $\times W 19108$ | $9^{\prime \prime}$ | 8 lbs. | 3.15 |

## BBE Magnetic Speaker

 One of the finest magnetic speakers obtainable Reproduces the entire tonul range with lifelike fidelity. Impedance 7000 ohms at 1000 cycles. D. 10.sesistance 1000 sesistance 1000 ohms. Magnet Diameter 94". Handles large output without rattling. Shpp. wt. 7 XW19132Your cos
${ }^{5} 2.38$ special
Above speaker mounted in beautiul wainut cabinet with paneled front and dull gold grill cloth. Size $13 \times 11 \times 71 / 2^{\prime \prime}$. Shpg, wit. 9 lbs. XW19177
Your Cost, Special

### 84.23

A. C. -D. C. Compact


Designed forusetin
midgets. Will handle large output without distortion. Has 3000 oh m field. Fur-- utput transformer for single 38
 Your Cost

SI.45

## 81/2" Dymamic Speakers A.C. and D.C.

Will handle continuous output of 6 watts. All metal parts finished in bright cadmium plate. A. C. model has built-in field supply using a type 80 tube. D. C. model hus standard 2500 ohm field. Transformers supplied for any output tubes an per note. Specify type desired. supplied for any
Shpk. wt. 15 lbs.
Shpk. wt. 15 lbs. Model, less tube Xw19292-D. C. Model
Your Cost
Each.
$\$ 5.65$
Your
Cost

## F4-5" Dynamic

Type F4 speaker is a special $5^{\circ}$ model designed mainly for use in midget re ceivers. Con-
structed of high grade materials. Frequency re-
sponse excep-
tionally fine. Has standard 3000 ohm feld. Furnighed with output transformers as listed below Shpg, wt. 8 lus.
XW19115-For Single 45, 71A
XW19116-For Single 48
XW19117-For Single 47, 2A6.
Your Cost,
$\$ 2.95$
Type F8-6" Dynamic
Similar in every raspect to the above, but will handle greater above, but to ite larger size output due to ies larger size. Kwo ohm field. Shpg wit. \& 1 bs XW1S118-For Singie 45, 50
$\mathbf{X W 1 9 3 1 2 - F o r ~} \mathbf{P}$. P, 45,50. XW19314-For Single 47, 2A5. XW19315 For P. P. 47, 2A6. Your Cost, Any Type
\$3.45 A permanent magnet dynamic speaker which for sensitivity, tone fidelity and power handling ablity is the equal of the hnest electro-magnet energized type. Employs dome center shield and particle prool acoustic filter, Corrugated cone, Outside
dlameter $8^{\frac{1}{4}}{ }^{n}$. Special tranaformers available on order Shpg. wt. 9 lbs. XW19346-P, P, 45, 50
XW19347-P. P. 46, 47, 2A5 \$6.71
Your Cost Each, Any Type
 Shpg. wt. 4 lbs .
XW19131-Lese Output Transformer
Your Cost, Special
2A5. Your Cost, Special

## Speclal 6" Midget

 For midget and autoreceivers. Ruggedly built finished in cadmium plate. Fur-
nished with transnished with transformers as listed in note. Field colls as listed shpg. wt. 8
0 ohm fleld. XW19166-2500 ohm
$\times W 19122-6$ volt feld XW19109-1800 ohm field, tapped at 300 ohms. Any Cype Any Type

Special A. C. Dynamic Speaker

## Permanent Magnetic Speaker Type PM-8



## Special 6"Dynamic Speaker

A rea! bargain in speakers. This midget dynamic is exceptionally well constructed and shows a fine frequency response. Tone quality is full and natural, with botb highs und lows laithfully reproduced. Has a standard 1800 ohm field coil. Employs ridged pressed paper cone with scientifically designed apider. All metal parts finished in bright cadmium plute.
$95^{\circ}$
1.39

## (0)XFOTD speakeza

11" Class "B" Model
Deslgned for use with P. A. and other high power in-
stallations. Finest materials used in lts construcsized field coll has standsrd 2500 ohms re-
 vided with carrying handle. Transformera a vailable to match any tubes, as per note. Size $11^{*}$ wide. 63" deep, $1131^{\prime \prime}$ high. A really large speaker that will carry considerable power. Bright cadmium finish on all metal parts prevents
sust. Shpe. wt. 17 lbs. gust. Shpg wt. 17 lbs. \$ 4.71
$\times w 192$ Your Cost

## NOTE

## Oxford speakers listed on this page are furnished with trans-

 former to match: Single 38, 43; Singlo and P. P. 71A, 45, 47, 59, 59 Class 8, 89 Class ג, 79, 53, 2AS, Parallel 38, 47, 45. Specify type desired when ordering.
## 327:49: <br> Replacement Cones for Standard Speakers

## Stock

No Set or Speaker Dier Cour
XW19501 Atwater Kent $43,46,55$ $60,65,66,67,64 \ldots$.
XW19502 Atwater Kent, 80, 82, 84 $55 \mathrm{~B}, 627,87,90,92$
Early models 83,85
XW19611 Baldwin
KW19505 Bosch 48-58
XW19614 Brunswick D
XW19574 Colonial 83-LL, 18
XW19579 Colonjal 36
XW19617 Crosley M45, 40S
XW19519 Edison R4-5-7-8
XW19515 Eveready
XW19580 Fada, 15, 20, 32, 25
XW19581 Fada 10A; 10B
XW19582 Fada 14,70 series XW19583 Fada 11, 12, KU, KW
W19403 Genersl Electric 81, 51 71, 120, S22
KW19584 Jensen D4. D5
KW19519 Jensen D7, D8
XW19622 Jensen D1I
XW19645 Jensen D9, Inner Splder.
XW19625 Magnavox 144
XW19361 Magnavox 154 (2 pt Spider).
XW19530 Majestic Gl
KW19531 Majestic G2
XW19532 Majestic G8, G4
XW19646 Majestic G6, G7
XW19533 Majestic G5, G8, G9 XW19647 Majentic Gls
XW19535 Majestic G13. G19626 Majestic G10B, G10D. XW19587 Majestic G11B.
XW19590 Majestic G19
XW19547. Philco 20, 70, 90 small. 02996
XW19400 Philco 40, 41, 65, 76. 77. 96, 96, 111, 112 ,

90 large
XW19401 Philco 47, 71
XW19552 Philco 50,51 small, 80
XW19553 Philco 60 , 51 large
Xw19628 Orford 21/" deep.
XW19640 Rola
XW19648 Rols F6. F8
XW19641 Rola K9, Outside Spider 11
XW19597 Stewart-Warner, 2 point Spider
XW19550 Stewart-Warner, 3 polnt Wpider
XW19629 U.S.Apex Gloritone $26^{\prime \prime} 4^{\prime \prime}$ XW19642 U. S. Apex Gloritone 26. $813^{\prime \prime}$ W19570 Utah Stadlum 664
XW19571 Victor R E32, 45. 75, $52.9^{\prime \prime}$
XW19574 Zenith $52,72,50, \mathrm{LL} 18.1211$

## Replacement Cones for Automobile Radio Sets

Stock No.

Set or Spenker
XW19755 Arvin 10
Outer Your
XW19756 Atwater Kent 666
XW19757 Crosiley Roamlo 96, 98
XW19758 Crosley Roamio 103
XW19759 Emerson
XW19760 General Elec. B-40
XW19761 Majestic 66, 116 A
XW19762 Majestic 110 (Map
XW19763 Majestic 110 (Utab) XW19763 Majestic 110
XW19761 Majestic 118 (Ford) KW19762 Majestic 118
$\times W 19765$ Motorola 34
XW19765 Motorola 84
XW19766 Motorola 44 (Mag.)
XW19767 Motorola 44 (Utah)
XW19768 Motorola 77
XW19769 Motorola 77A
XW19770 Motorola 88
Xw19771 Motorola Supersix.
XW19772 Motorola Twin Eight
$\times W 19773$ Philco 5
XW19774 Philco 6, 7, 8, 9, 10,12 700,800

NOTE: We can supply other cencs for auto ets at lowest prices. Write for quote, givins ail information.
$61 /=1.00$

| $6^{\prime \prime}$ | 1.00 |
| :---: | :---: |
| 6 " | 1.00 |
| $5{ }^{*}$ | . 83 |
| 5 " | . 60 |
| $61{ }^{\prime \prime}$ | . 75 |
| $5^{\prime \prime}$ | . 75 |
| 5 " | . 75 |
| $6^{\prime \prime}$ | . 83 |
| $6 \frac{10}{}{ }^{\prime \prime}$ | .75 |
| $5{ }^{\circ}$ | . 75 |
| 5" | . 75 |
| $5{ }^{*}$ | . 75 |
| 6! ${ }^{\prime \prime}$ | 1.00 |
| $8{ }^{\prime \prime}$ | 1.25 |
| 8" | 1.25 |
| 632 ${ }^{\prime \prime}$ | 1.00 |
| $8{ }^{\circ}$ | 1.25 |
| $8^{\circ}$ | 1.20 |
| 5\%" | 1.00 |
| 8* | 1.25 |

Diam. Cost
10 多 ${ }^{\circ} \$ 1.15$

36-3170
36-8159
0286
Outer Diam.


## Genuine

 RCA-VICTOR Replacement Speaker Cones
## (s)

Wholesale Radio Service Company, authorized distributors of genuine RCA. Victor factory replacement parts, is now able to offer the servicemen a complete line of original speaker cones. Consult listing below for mont popular numbers. It you cannot find what you want, we can get it for you at a $40 \%$ discount.
XW19403-For RCA 106 Speaker. Used in models 34, 85, 39, 41 A. C. 41 D. C., 46, 47, 66, $62,64,67,50.55,59,80,82,86$, RE20, RE59. and RAE79, RCA Part No. 8558. SE. 1
XW19404-For models $R 6,7,8,9,10,11,12$, RE18, RE19. 21, 14, 15, 17, 42, 48, RCA part No. 8601 .
Your Cost Each Your Cost Each XW19405-For Your Cost Each
1.20

XW19406-For R28, 28P, RE40, R22, 100, 101, $110,111,114,115,300,301$, RCA No. 8987. Your Cost
Each
$60^{\circ}$
XW19407-For R5, R5X, R5 D.C., RCA No. Your Cost Each
XW19408-For R17M, R27 (Magnetic), RCA No. 7594
Your Cost Each
$60^{\circ}$
XW19405 - For R18W, R27 (Dybamic), RCA No. 7698.
Your Cost Each
XW19776-For RCA Auto Sets, models M-34, M-105. RCA No. 9023 Your Cost Each
$60^{\circ}$
XW19410-For R37, 38 $142 \mathrm{~B}, 241 \mathrm{~B}, 910$ RCA No. 9.428 . ${ }^{\text {Your Cost }} 6{ }^{\mathrm{c}}$ For 100-A Speaker RCA Xw19209 Each $75^{\circ}$ For 100-B No. 8359.

,
$75^{\circ}$



## RCA-Victor

Models R32.
RE45, R52, RE75
Exact duplicate of the the above model sets. Fits the chassis exactly; no changes necessary

## Cone Centering Shims

Flexible celluloid shims that will last indefinitely. Sixteen shims in a handy leatherette folder. Contains four each of the following sizes: . $0125^{\circ}, .010^{\prime \prime}$,
$0075^{\prime \prime}$ and $.005^{\prime \prime}$ .0075 and $.005^{\prime \prime}$. Takes care of all XW19649
Your Cost.
Special
$36^{\circ}$


Exact duplicate of the original. xwisso'

MAJESTIC G2 Cone
Exact duplicate $9^{\prime \prime}$ cone for models $71,72,91$ 92 and 181 .
XW19531-Your Cost Each... S
-

Xw1002 Airline 20 ( 2 winding) XW19668 Brunswick 16 XW19418 Colonial 33 A.C Xw19422 Crosley M45.
XW19686 Crosley Model 57, 58

## XW19669 Edison. <br> Xw19688 Gloritone $8^{\prime \prime}$ tapped

 XW19429 Jeasen D7, D8.XW19432 Jensen D9, D15
XW19432 Jensen D9, D15
XW19436 Jensen ${ }^{\text {X }}$
Xw19670 Magnavox 9 ' medium
XW19446 Majestic G1
XW19447 Majestic G2
XW19657 Majestic G4 GS
XW19677 Majestic G6, G20
XW19678 Majestic G3
XW19471 Rola C.
XW19411 Rola F4
XW19474 Rola F6, F8, K7, K9 XW19475 Rola F6, F8, K7, K9 XW19696 Silver-Marshall 30. XW19579 Stewart Warner 960 XW19482 Stromberg-Carlson. XW19484 Temple All Models XW19688 Utah $8^{\prime \prime}$ tspped
XW19652 Utah Midget
XW19652 Utah Midget XW19486 Vletor RE
XW19489 Zenith 52.
 for old coil with ill pertinemt. Send ustio such as model number of set, etc.

## Apex-Cloritone-U.S. Radio and Television and Montgomery Ward



For Chassis 26. Original part. 11500 ohms tapped at 9040 . Three different sized coils used. Specily types as shown below. Shpg. wt. 2 lbs.
XW19450-2s" dia., 1

## Radio Repair Cement Kit

An efficient Radio
Repair Ceraent Kit lor Speaker Cones: Voice Coils, R.F. Coils and Chokes. One bottle of all purposecement, and one bottle of cement.
Xw1949s-Complete with
handy brush
Your Cost

## ROLA F4 Field Coil

The midget field coil for Rola $5^{\prime \prime}$ speakers modelF4. D.C. resistance 3000 ohms. Can be used in a.great number of other standard speakers Size $2^{\prime \prime}$ wide, $1^{16} /$ on $^{\prime \prime}$ deep. $/ /^{\prime \prime}$ hole Shpg. wt. 2 lbs .
Your Cost Each, Special


## RCA Magnetic Speaker Colls

$25^{\text {c }}$


Part No. 708. Used in RCA 80, Victor Combinations, and 100 speakera Also W. E. 540 A. W. Size
$21 / 0^{\prime \prime}$ O. D. ${ }^{\prime \prime}$. thicic Be* hole.
XW19201-


Speaker Cement
For speaker cones and voice coils. Dries rapidly. To be applied with a fine brush. In sealed metal tubes.
XP15239-13" Tube
Your Cost Esch.
XP15240-3y Tube.
Your Cote Each.


## PIEZO-ASTATIC Crystal Pick-Up

## WEBSTER Pick-up High Fidelity

 R Pick

Cafayette
Dual Speed
Pick-Up

## 331/3 or 78 R.P.M.

Rubber-damped, providing absolutely clear reproduction. Available in 2500 or 5000 ohms impedances. Special impedancea to order at special prices on request. Specily type when ordering. Shpg. wt. 5 lbs.
XA13 - Compiete with volume control.
XAi43-Same as a bove except 200 ohms Impe
dance. dance.
Your Cost, Either Type

6.20
"Professional"
Pick-up

Model 100 Pick-Up


Designed for use where space and welght are important factors. Mounts just above turn-table shaft It is a genuine Magneto-induction type; no crystal or condenser materials used in its construction. Not affected by climate. Frequency response covers entire tone range Shpg. wt. 1 lb.
xatss-Your cost. 4.45
M日gerain NOTE We can supply any Audak - equipment not listed. Prices - quoted on request.

AUDAK Pick-llps
Model 2033

Ideal for use in all types of radio receivers. Fine irequency response In 200, 500 or 7500 ohms impedance. Specify impedance desired when ordering. Shpg.wt. 51 bs. 87.255 Model 433
A low priced model similar to the bove. Frequency response covers wide range. In 200,500 or 7500 ohms impedance. Specily imperance de Your Cost
$\$ 5.62$

Model HR-33 Electro-Chromatic Pick-Up


A high quality wide range pick-up for use with records up to $12^{\prime \prime}$ in diameter. Equipped with needle quallast for compenaation on frequencies below 300 cycles. Fines parts uned in its construction; ex ceptionslly fine reproduction is pro vided. Ayailable in 200, 500 and 7500 ohm impedances. Specify im pedance desired when ordering Shpg. wt. 5 lbs.
Your Cost .......... 9.85


For use in broadcant ntudios, theatres, etc. Finest pick-up made. Incorporates needle ballast for compensation on low frequencies. A valla ble in $200,500 \mathrm{and} 7500 \mathrm{ohm}$ impedancea. Specify impedance de-


## Semi-Professional

Simliar to above, but response not quote so exteasive. In 200, 500 and 7500 ohm impedances. Specily impedance desired. Shpg. wt. 6 lbo. XAMS
Your Cost
1I.8?

# Genuine RCA-Victor /howograph Eoulpment 


ad for RCA Model 67
Part No. 2601. Impedance of coll 48.6 ohms. Has long leads. Shpg. wt. 2 lbs. Yaur Your Cost

## For Victor RE-45 and RE-75

 Vietor Part No. 10779. Impedance 200 ohms. Has fine frequency reaponse. Shpg. wt. 2 lbs. $\times 1177$Your Cost Each
2.86

For RE-80, RE-81 and RE-84 Part No. 6335. Impedance 7 ohms. Pin jack connections. Shpg. wt. 2 ibs.
$\times A 391-Y$ Our Coit
2.40

## RCA Victor Pick-Up Colls

## Stock RCA Ohms

 XA186 $2314 \quad 20$ CD 20X XA175 $2641 \quad 200 \quad 12-15,10-69$ $\begin{array}{llll}\times A 169 & 2769 & 20 & \text { R-86, RE-57, }\end{array}$ RE-17, T-5 RAE-26, RAE-59, RAE-79
XA395 3168
12.7 RE-73, RE-16, RE-19
7 RE-81, RE-84, RE-80
$\times$ X $3976118 \quad 48.5 \mathrm{RE}-16 \mathrm{~A}$
XA398 10777200 RE-45, Re-75,
E-35, E-135

## Balanced Pick-Up



Used in Models R-86, RE-17, RE-57, RAE-68 and T-5 Electrols Assembly comprises head, arm, stop rod and connecting cable. Impedance of head 20 ohms. Fine response. Finished ín dull silver xallo
Your cose
Head only for sbove. N . $\$ 5.70$ XA390-Your Cost
(pelal TWo Bpeed Plckotp
special Two Epeed Pick-Up Most recently developed type. Used in Model 331. Has llat osponse from yctos 5000 cycles. Arm heavily counterhalanced to pro-
 prensure on both 78 and 33 R.P.M. records Assembly comprises head with impedance of 28 ohma, arm, stop rod, escutcheon and connecting cable. Finished in dull silver. Shpg. wt. 8 lbs.
XAss - Your Cost ........ \$. 5 Head only for above, RCA No. 6542. XA392-
Your Cost
\$3.49

We can supply any RCA-Victor part
at a discount of $\mathbf{4 0 \%}$ from the list
price.


Phono-Matching
Transformers


Part No. 6063-Used in RCA Model 67 Matches 48.5 ohm pick-up to grid of tube. Shpg. wt. 2 lhs. Cost.........3. 3 Part No. 6226-Used in Models RE-20 and CE-29. Matches 20 ohm pick-up to grid. Shpg wit. 2 Ibe.
XCl 631 - Your Cost. . . . . . .
$-15$
Part No. 6238 For Models RE-18 and RE18A. Matches 20 ohm pick-up to grid of tube Shyp wit. 2 lbs.

## Your Cost

Part No. RE-16, RE-16A For Models T-6, RE-57, Matches 20 ohm pick-up to grid. Shpg, wt 2 lbs.
XC1633- Your Cest
Part No. 74 For Models PT-33 and RE-19 Matches a 12.7 ohm pick-up to grid of tube. XCI634-Your Cest
1.68

Part No. 7632-For Model 331 . Also contains one reactor, two capacitors and two resiatora in the container. Matches 28 ohm pick up to ${ }^{\text {grid. Shpg. wt. } 81 \mathrm{lus.}}$
3.27

## PHONO-MOTORS Recowd Changers \& ACCESSORIES

## GREEN FLYER Governor Controlled

Two 8 peed Motor
$331 / 3$ or 78
R. P. M.
for A. C.

## Operation



May be adjusted for elther 78 or $381 / \mathrm{R}$. P. M. records. Geara are completely enclosed and rup in oil. Silent laminated bakelite apiral cut geara. Oversized, self-lubricated bearings. Will not overheat in closed cabinet. $10^{*}$ turntable. Has dial and pointer. Hardware bronze finished. Automatic stop available at slightly additional cost. Shpg.
wht 15 lbs.
Your Cost. Speed 110 volt, $50-60$ cycle A. C. \$
Your
XA102-Single Speed 78 R. P. M. Motor.
Your Cost
9.41
7.35

## Special 6 Volt Motors

Same quality as above, but lor 6 volt operation. Especially designed for sound truck installations. Will stand hard usage without giving trouble. Complete with $10^{\circ}$ turntable. Shpg. wt. 15 lbs.
XA137-Two-Speed, name as XA100 but for 6 volt Your Cost
13.82

Speclal Recording Motor, Dual Speed
Similar specifications to Model XA100, but field and rotor are $3 /$ " $^{\circ}$ longer and motor tis much more powerful. Specisi Green Flyer governor keeps speed constant under varylng losd coaditions. Com plete with $12{ }^{2}$ turntable. Shpg. wt. 15 lbs.
XA120-For $105-120$ volts, $50-60$ cycle A. C.
Your Cout

## Universal A. C.-D. C. Motor

Operates equally well on 110 volts A. C. or D. C. Silent in operation, with unvarying speed. Complete with $10^{\circ}$ turntible and automatic stop. All meta! parte rust proofed. For 78 R. P. M, records only, Shpg wt. 11 lbs.
11.47

Add 30 cto any of above pricos if a $\mathbf{1 2}^{\prime \prime}$ turntable ls desired.
Motors for ofher voltages supplitd at an additional 95c.

## PACKARD Record Changer

Sturdy construction simple to operate. Uses powerful two speed motor that plays either 78 or $331 / 3$ R. P. M. records Plays eight 10 " records automatically, repeating or rejecting any record at
will. Plays 12 records manually. last record repeats until switch is turned off. Uses new high impedance pick-up of the fat type with automatle weight adjustment. Entire unit bullt of copper plated steel, with all exposed parts finished in statuary bronce. Requires space $171 / 2^{\prime \prime}$ long, $612^{\prime \prime}$ high and $133 / 2^{\prime \prime}$ wide. For 110 volts. 60 cycles A. C. Shpg. wt. 30 lbs. XY19820-Your Cost
 sble. Uses geauine two-speed Green Flyer motor. Either 78 or $331 /$ R, P. M. speeds selected by a ahift lever. $12^{\prime \prime}$ lelt covored turntable. Employs aewly developedWebater High Fidelity pick-up (high impedance), with built-in volume control. Flat type, balanced su that no counter-weight is necessary. Sturdily built case covered with grained Fabrikoid. Size $171 / 4 x$ $131 / \times 8^{\prime \prime}$. For 110 volt 60 cycle A. C. operation. Shpg. wt. 25 Ibs. XY22031-List $\$ 60.00$
Your
Cost
s23.95
Similar to the above, but with Piezo Crystal Pick-up. tlonally fine reproduction.
${ }_{2}^{27.50}$ XY2013-YourCost

Special single Speed Fortablo Motor and Pick-Up Similar to the a bove, but with a Diehl single speed motor for 78 R. P. M. records. With turntable, needle cup and regulator. Shpg. Wt. 24 iba. For 110 volts, 60 cycle A. C. XY22049-Your Cost

## Thitent

## Scratch Filter

Eliminatro needle seratch. Fiters out the noise frequencles. Has cles. Has tipjacks on input inde, bind ing ponts on output
 ide. Can be used with any phono-radio combination. Shpg. wt. 8 lbs.
XA118-
Your
Cour
s.75

## Automatic Stop

Fully adjustable. Mounts under any turntable. Heayy duty type,

## XAs35 <br> Your



## Genulne Diamond Cutting Needle

## Same as those used in pro

 fessional studios for record ings. Genuine diamond point. Only a fortunate purchase allows us to sell them at this give ariay orice, Quentityls fimited.Xal32- Cost $\$]$

## RCA Model R-93 Record Player

A small electric motor and magnetic pick-up assembly housed in an attractive wainut finished cabinet measuring only $107 /{ }^{\prime \prime}$ long, $8^{\prime \prime}$ wide and $5^{\prime \prime}$ high. May be used in any convenient location in room, in conjuaction with any radio receiver (A. C.). Plays either $10^{\prime \prime}$ or $12^{\prime \prime}$ standard records (78 R. P. M.). Motor is induction type, hand starting. Pick-up employs viscaloid long life damping block. Volume control is built in. Phonoradio Switch included. Shpg. Wt. 10 lbs. $\mathbf{X A 1 0 4}$-List $\$ 16.50$
Your Cost

49.9
4.80
3.10

XA356-Pick-up only. Shpg. wt. 2 lbw Your Cose

## Dual Speed CAPEHART Automatic Record Changer

## Latest Model

## 10-12C-2

Equipped with the New balanced electrical pickup. Excellent device for the home, public address syatems, etc. Using ten long playing Vietor, records you can listen to four houre of muic without stop. Completely suto-
 matic, last record repeata
untll re-stacked or when master awitch is turned of. An encore mas be had of any record. Additional equipment includes a reject device be had or any record. Addional equpment iacludes an and unioading lever. Can be mounted in your own cabinet, or in our Deluxe Cabinet, made expresaly for the accommodation of this

XS17750-Mechanism complete, less cabinet. 0

Dual Speed Adapter


Can be attached to any phonomotor, in plece of turntable. Lever selects either 78 or $331 / / \mathrm{R}$. P. M. speeds. Disc in $12^{\prime \prime}$ in diameter; will sccommodate all records.
 Your Cost

RCA Phono Needle:

## STEEL

A vailable in Hall Tone, Full Tone and Extra Large Tone. Half Tone needles packed 75 to envelope: others 100 to envelope. Specliy type desired.
Your Cost,
per Envelope

## CHROMIUM

Semi-permanent needles. Available for use with 78 R. P. M. recording (green shank) and for 38 /s R. P. M. recordings (orange shank). Six to. package.
XA1s5-Orange ( 8315 R. P. M.)
XA357-Green (78 R. P. M.)
Your Cost, Either Type $5^{\circ}$
Packese of Sln. ..........

## TUNGSTONE

Also semi-permanent type. Avallable in Full Tone and Extra Loud Tonesires. Packed 8 to a container. XA157-Extra Loud Tone
XA158-Full Tone
Your Cost, Either Type
Contalnor op $8 . . . . . . . . .$. $5^{\circ}$

## Duall Super Recorder

Some of the many features of the new Duall Recorder are: a pailive feed for the recording head that provides uniform poacing of lines and prevents overlapping. Cholce of elther aluminum or celluloid recording heads (celluloid recommended). Plezo-electic Crystal Pickup for reproduction. Cutter head Rim drive assuring constant 78 R. P. M. speed. Vibration proof mounting
Standard Assembly consists of: motor and turniable for 78 R. P. M overhead leed mechanism for 80 -line recordings on 12 inch reccids. Feed outside-in. Cutting head for celluloid (if aluminum is preferred. specify). Cutting head, 15 to 800 ohms. Driving pins for celluloid are provided which can etsily be removed when recording on aluminum. A high Impedance Cryatal Play-back Pickup. Motor is lor 115 volt, 50 to 60 -cycle. All metal parts above, base chrome plated. Shpg wt. 30 lbs .
$\mathrm{XY} 19889-$ liat $\$ 275.00$ Y Y 198 Cost
${ }^{1} 147.50$
Same equipment an above, but with two-speed motor for both 78 and $381 / \mathrm{R} . \mathrm{P} . \mathrm{M}$. recording. Complete. Shpg. wt. 34 lbs.
X Y19890-Lint $\$ 330.00$
SIBO. 10

## Overhead Feed Mechanism

Overhead feed mechanism only for attaching to your pregent turntable. Motor should be of constant speed and have a rating of $1 / 20$ th horsepower for beat resulta. Cutter head impedance 15 ohms Shpg. wt. 12 lbs.
XY19891-List \$85.00. Your Cost
Extra feed screws for 88,96 or more lines for above overhead feed mechaniem. Specify whether for celluloid or aluminum. St.pg. wt 6 lbs.
XY19892-List $\$ 18.00$. Your Cost


## "HIgh Fidelity" Recorder

The Duall Super Recorder is available with a new specially developed cutter head that has "high fidelity" characteristics. It is flat within 2 db . from 100 to 5500 cycles. A special magnet having an unusually high percentage of cobalt steel is employed. This together with a new method of damping has increased the efficiency of the recorder several-fold. In all other respects it is identical to the Standard Super Recorder listed above. For Acetate Records only XY22080-Single apeed "High Fidellty." Your Cost
${ }^{8} 159.50$
X Y22081-Two speed "High Fidelity.
sT92.50

## Genuine <br> Sapphire

Reproducing
and Cutting

## Needles

Have genuine sapphire pointe. Ideal for cutting and re cording on all types of discs XA192-For cutting and recording On blank aluminum. \$2.05 Your Cost. rooved composition and cellulid Your
Cost
XA195-For reproducing
Your record.
Xal98-For cutting and record ing on celluloid.
Your Cost
Acotate Needles
Spacial aeedles for playing back celluloid records.
XA209 Envelope of 12 I( ${ }^{\text {c }}$

## Fibre Needles

For use in reproducing aluminum ecordings. Prolong record Ife. PA343-Envelope of 12 I Your Cost



RCA-
VICTOR Home Recording
 Blanks

## Double Faced Type

Dealgned primarily for experimenta use, these records will afiord fine ecordings. Of flexible composilion double faced To be played back with RCA-Victor Home Recordin Needles or similar typen.
XA3s1-6" Blankn. Package of Four
Your Cost
XA382-10" Blankr. Peckage
Two
Your Cost.
$66^{\circ}$
XA3*3-12* Blank
Your Cost Each.


## UNIVERSAL

 Power RecorderFor cutting any type of material and recording of all audible frequencies. Field coil energized by 6 volts. No lag in cutting; maximum brilliancy and full, clear reproduction assured. Arm is aluminum casting; all bearings adjustable pivot type. Lever adjusted spring sets needle pressure from 2 to 12 unces. 15 ohms impedance. Shps. wt. 5 lbs. $\mathbf{X N 1 3 5 3 8}$ List $\$ 50.00$ Your Cost 16 -Inch Lead Screw for above. 100 lines per inch.
320.40 XN13539 Your Cost

## ROTARY CONVERTORS

## Rarayelze Rotary

 Converters with Radio Filter A new line of low priced D. C. to A. C. converters incorporating many improved features. These include: Ball bearink motor, no oiling necensary; gond regulation of output voltage; extremely quiet operation. All furnished complete with efficient radio noise filter. Sizes other than those listed can be procured-prices on request Average shpg. wt. 25 lbm .32 Volts D. C. to 110 Volts A. C. 110 Volts D. C. to 110 Volts A.C. Stock Output Input Your Stock Output Input Your
 $\begin{array}{llllllll}\mathbf{X S 1 7 2 0 9} & 300 & 15.0 & \mathbf{3 3 . 9 5} & X S 17211 & 300 & 4.0 & 33.95\end{array}$

## JANETTE Rotary Converters

For operating 110 volt, 60 cycle A. C. electrica! appliances, radion, P. A. Systems, etc., from D. C. supplies. Models a vallable for any voltage from 6 to 220 volts as listed below. All are equipped with interference filters to prevent noise reaching the radio. If filter is not required, write for prices on model desired. Sizes are listed suitable for model desired. Sizes are listed suita ble for practically any requirement public Addresa midget radios up to large
Systems, Transmitters, etc.

| Stock | Output | Input | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Watts | Amps. | Stock |
| Nost |  |  |  |

## Acetate Coated <br> Aluminum Record Blanks <br> These recording blanks are entirely

 different-they have an aluminum base and are coated with a specia acetate compound. They are cut oxactly the same way that celluloid is cut but will give far better result than either celluloid or aluminum blanks. The purity of the coating eliminates the scratch due to gritty surfaces. Not pre-rrooved. Shpg surfaces. Not pre-Rroowt. per 3 blanks, 3 lbe.


## Plain Aluminum <br> \section*{Record Blanks}

For those preferring the ordinary aluminum blank we offer the follow ing in plain and pre-grooved:

| Stock No. Plain | Size | Your Cost |
| :---: | :---: | :---: |
| XA200 | 6 " | \$0.16 |
| XA201 | 8" | . 23 |
| XA202 | 10" | . 33 |
| XA203 | 12" | . 50 |
| Pre-grooved |  |  |
| X4204 | $6 "$ | 18 |
| XA205 | 8" | . 30 |
| XA206 | 10" | . 4 |
| XA207 | 12" | . 5 |

## UNIVERSAL

## "Silveroid" Blanks

Newly developed full frequency record blanks. Have aluminum base with special formula conting. Will rake recordings comparable to commercial records. Most important, there is practically no needle scratch. Supplied ungrooved only. in $10^{\prime \prime}$ and $12^{\prime \prime}$ sizes. Will last indefinitely if properly used.
XA388-10" Blanks
Your Cost Eech
$\times \mathrm{X} 387-12^{\prime \prime}$ Blanks
$71^{c}$
Your Cost Each

# S.W.Receivers䍚Ham 

## Amateur Communications Receiver Model ACR-136

$\star 540$ to 18,000 K.C. $\star$ No Plug-in Coils $\star 1$ Stage of R.F. $\star$ Complete Band Spread $\star$ Beat Frequency Oscillator

Allateurs, "hama" and short wave pnthusiants will welenme the addition if this new receiver $u$ the KCA line. A superheterodyne circuit is +m ployed with one atage of tuned R.F., which assurea low image Irequeney response and high signal $u$, noise ratio. There is sufficient sensitivity to go well below the noise level in almust any location Seven high gain tubes are umed as follows: $\mathbf{1 - 6 D G}$ as $\mathrm{K} . \mathrm{F}^{\circ}$. Amplifier 1-6A7 as Oscillator and Mixer; 1-6D6 as 1.F. Amplifier; 1-6B7 us com bined Second Detectur, AVC and Audie Amplifier: 1-6D6 Beat Frequency (secillator; 1-41 Output Tube and $1-80$ rectitier Tuning range covers the spectrum from 540 to 18,000 K.C. ( $850-16.5$ meters), taking in the entire short wave hand and the A merican broadrast hand. Desired band is selerted by means of a switch on the front panel Fiach band has separate "oils.

## CIRCUIT FEATURES

ircuit features include: an pftcient AVC eircuit with provisions for cutting out its action; a beat note oscillator; a full range tone control: a phone jark (when phonesarp plugged in speaker is muted); a "stand-by" awitch which removes plate voltages from tuhes during periods of transmission: a two-speed Vernier dial with 10 to 1 and 50 to 1 ratios; a bult-in plectro-dynamic speaker.
Eight control knobs for all operations on front panel uf the metal rabinut Size $22 \times 1013 \times 11 \mathrm{l} \mathbf{h}^{\prime \prime}$. Shpg. wit. 17 lbs .
XN13814 Model ACR-186 Receiver, completw $\$$ with tubes, power supply, speakrr, ete. with tubes, power rupply, speaker. ete.
NOTHING EISE TYBUY. Your Cost


## NATIONAL "FB-7A" <br> "FBX-A" Receivers



These efficient S. W. supers are well known Ls the trade. Employ 7 tubes (not including rectifier) In a high Eain circuit. Feature high welectivity and sensitivity, uniform gain over entire range, band spread tuning, beat wheillator, ete. FBX-A is same as FB-7A except that it includes a rystal filter. Tubes used are; 1-56, 1-57, $2-58^{\prime} \mathrm{s}, 1-59$ and $2-24^{\circ} \mathrm{s}$. Full visfon dial, calibration chart, plug-in coils and all controls mounted directly on front panel. In black crystalline finished metal cabinets. Shps. wt. 29 lbs. each. Range 34 M .C. to 1500 K .C XN13867 FB-7A Recriver cumplete, less tubes, culle and power supply. \$37.50
lint $\$ 62.50$. Your Cost
XN13871. FBX -A Receiver cumulete, tuber, colls and power supply. List $\mathbf{\$ 8 5 . 5 0}$. Your Cost
$\$ 51.90$
XN13877 5897^B Power Supply for use with either receiver. 115 volts, 60 cycles, liss tube. fist $\$ 26.50$. Your Cost

## NATIONAL "HRO"

## 9 -Tube Super-Het. Amateur Receiver

Designed for the advanced amateur. The $2!/ 5$ volt model (HR()-2) uren 4-56's, 3-57's, 1-2B7 and 1-2A5: the ix volt madel (HILO-6) uses 4-6D6s, 3-6C6's, 1-6B7 and 1-42. Power supply for A.C. operation, dther type, requires $1-80$ recificr. A madel with builtither type, requires include; two stagen of pre-selecticn, erystal filter. include. two stagen of pre-e voltrecter Nean triguer manual or AVC, vacuum tuke voltrater, Nets trigger Size of metal cabinet $8 / 4 \times 17!$ x $10^{\circ}$. Rack Panel avallable. Shpk. wit. 30 lbs .
XN13770 HRO-2 Heceiver complete with coilm, lees tubes, speaker and power supply. List $\$ 233.00$
XN13771-HRO-6 Receiver, complete with coils, less tules, sparaker $\$ 233.00$ and power zupply. List


XN13772 HKO-8 Receiver with built-in power supply and full ret of colls. \$ 54.21 Lass tubesand speaker. List \$257.00. Your Cost

Your Cost Per Set, Either Type

## NATIONAL SW-3

Three tube S . W. receiver. Unes XR-39 plug-in cuils. A. (. mudel uses $2-58^{\prime}$ and $1-27$; D. C. 6 volt model uses $2-36^{\prime \prime}$ is and 1-37; D.C. 2 volt model usen 2-se's and $1-30$. Shpg. wt. 20 lbs. All prices less tubes, coils and power supply. XN13817 A. C. Model. XN13819 6 Volt D. (: Mudel. XN13821 2 Voit D. C. Model
Your Cost, Any Type XN13807 SM80AB Pow Lint 526.50
Your Cost

N0TF: A complate listing of plug-in coils for National Models FB-7A, FBX-A N0TE: A complate listing of plug-in coils for National Models FB-7A, FBx

## HAMMARIUND Comet "Pro"

This exceptional short wave super cuvens a hand of frequencies from 1500 to $20,000 \mathrm{~K} . \mathrm{C}$. using four sets of coilw. Bandspreading can be abtained at any freyuency Employs air tuned Litz wire 1.F. coils. Excellent sensitivity and melectivity characteristics. Crystal filter uptional. Uses 4-58's, 2-57's, 1-2A5 and 1-80. Output 3 whtts. In black crystaline finishediegbinet. For use on 110 volts, 60 cycles $A$. C. Other voltages and frequencies available, price on request. All prices shown are less tubes, but with four colls covering from 15 to 250 meters. Shpg, wt. 51 Ibs. KN13833 Standard "Pro" with cabinet.
fist $\$ 150.00$ Your Cost YN13836-Standard "Pru" Chassis unly. List $\$ 135.00$ \$7 9.38 Your Cost.
 List 5180.00 . Your Cost
 1.ist $\$ 165.00$. Your Cost.

XH8492 Additional "Pro" coils for 8 to 16 meters.
XH8491 Additional "Pro" coils for 250 to 550 meters. Tist $\$ 5.00$. Your Cost, per Set (Either Range). XW19136 Specially matched 1 use with "Pro" receivers.
Your Cost.

3010 $\$ 2.94$ $\$ 7.95$
Advanced "Super Pro"
The new 15 tube S. W. Superhet. Considered fineat obtainable. Ukex $1-6 \mathrm{~A} 7,5-6 \mathrm{D} 6^{\prime} \mathrm{s}, 2-6 \mathrm{~B} 7$ 's, 2-6C6's, $3-42^{\prime} \mathrm{s}, 1-523$ and $1-1 \mathrm{~V}$. Two H. F. staces precede first detector. Band spread tuning at all frequencles. atages precede first detector, Band spread Covers range from 15 to 560 No plup-in coils. Heceiver and power supply in crystalline finished metal meters in 5 steps. Receiver a
cabinets. Shps. wt. 70 lbs.
XN13910 "Super Pro" complete with power ST ? List $\$ 280.00$. Your Cost


## HAMMARLUND LItz

6. W. Plug-in Colls


Constructed using "XP-53", the newly developed low loss material. Unaffected by moisture or temperature changes. Precision wound on Size $812^{\circ}$ long, 12 m $^{\circ}$ diam. Shpg. St. 11 lb .

Short Wave Colls 4-Prong
Cover from 16 to 217 meters. Four colls to set. Fult instructions in colls to
cluded.

## cluded.

XM978 - Set of Four
Your Cost
1.76

Similar to the above,
prongs, three windings
YH978-Set of Four \$2.20
Broadcast Coll--Prons
Covers from 190 to 550 meter, XH9790-
Your Cost
Similar to the above, but with six prongs and three windings. $88^{c}$ Coll Forms
Unwound forms of "XP-53"

| Stock No. |  | Your Cost Each |
| :---: | :---: | :---: |
| XH9970 | 4-Frong | - ${ }^{\text {c }}$ |
| XH9971 | 5 -Proag |  |
| XH9972 | 6-Prong | 24 |

## HAMMARLUND

Isolantite Coil Porms


## Venier Dials



## TYPE "A"

This type "A" with its smooth matchless mechanism, gives perfect control for highly selective circuits. The gearlens transmission used permita a motion that is even and regular throughout. No backlash exists;

## positive even drive. Ratio 5 to 1.

XN1437S $-4^{n \prime}$ dia. clockwise; 200 to $0 ; 360^{\circ}$ XN1437, $4^{\circ}$ dia, clock wise; 150 to $0 ; 270^{\circ}$. XN14373-35 0 to $100 ; 180^{\circ}$.
TYPE "B" and "BN
Variable ratio of 6 to 1 and 20 to 1. Black bakelite shell. 4" diameter. Type "B" is without light or bracket. XN14367-Clockwise; 200 to 0; $360^{\circ}$.
XN14368-Dual; 0 to 100
to $0 ; 180^{\circ}$. Your
Ench.

blal illuminator and


XN14352-
Your Cost
Type "8nion- Diai
Similar to Type $\mathrm{B}^{\prime \prime}$. Diameter $3^{\circ}$. No variable ratio feature, and is not illuminated. XN14371-Dual range; 0 to 100 to 0 . XN14372-Clockwise; 200 to 0. \$T. 50
Your Cost Each.

## Wire Wound I. F. Transformers

## Air Tuned

Hetain their original Specially designed settings to within 1-10 for experimental of $1 \%$. Designed for and replacement use with 68 or 35 type purposes. 465 Kc . tubes. Shield can is Liltz wound. De$2!2 \times 5^{n}$. Oscillator signed for use with equipped with tuning 58 or 35 type lever to vary beat tubes. Have iso-
note. Shpg. wt. 1 lb . lantite base trim-
XH8542-465 K. C., I. F.
XH8495-465 K. C., c.t.
XM8543-465 K. C., beat oscil-
lator.
XH8544-175 K. C., I. F.
XH8493-17
Your Cost,
Any Type.
2.65 lantite base trim-
mers. Wax impregnation turdy construction provide ex cellent stability. Shleld is $19 \mathrm{hn}^{\prime \prime}$ square by $3 y^{\circ}$ high.
XH8539-Peaked at 175 K. C XH8540-Peaked at 46 K K. C Your
Cost,
Eithe
 Either Type

## Air Padding Condensers

| Jmolantite mounted air pad- | Stock No | Capacity Mmid. | Your Cost |
| :---: | :---: | :---: | :---: |
| ding condensers | XH8623 | 25 | 50.76 |
| that will fit 13" |  |  |  |
| diameter cans. | XH8624 | 50 | . 88 |
| Have .015" air | XH8625 | 75 | 1.00 |
| ver adjustment. | XM8626 | 100 | 1.12 |

## Mica Trimmers

| Isolantite | Stock | Capacity Mmid. | Your Cost |
| :---: | :---: | :---: | :---: |
| base. Size 1x | X H 9952 | 10-70 | \$0.30 |
| 19\%" mitg. cen- | $\times \mathrm{H} 9953$ | 70-140 | . 35 |
| ters $14{ }^{\prime \prime}$. Hold | XH9954 | 140-220 | . 41 |
| adjustments. | XH9955 | 500-1000 | . 59 |


| HAMMARLUND Midget Condensers |
| :---: | :---: |

## NATIONAL

Alr-Tuned I. F. Transformers All adjust ments to top of the shield. Double bearing precision condensers. Self-locking rotors; Isolantite insulation. Adjustable coupling. Litz wire wound. Beat oscillator coil equipped with knob for varylng beat. Shps. wt. 2 lbs. List $\$ 5.00$. XN14442-465 K. C., I. F.
XN14443-465 K. C., Beat One.
XN14444-175 K. C., I. F.
Your Cost
Each,
53.11

## NATIONAI Isolantite Sockets

Reduce losses to a minimum. Suitable for either standard sub-panel or breadboard mounting, Prongs are self-
cleaning type and grip prongs securely. List $\$ 0.60$
XN14425-4-Pron XN14427 XN14426-5-Prong XN14428-Special 6-Prong type for Nationg coils.
Your Cost Each,
Any Type.
Wo can supply any National product that Is not ilsted on this page at a regular discount of $40 \%$ trom list price.


Y

Star Midget Condensers
For use in short wave transmitters, receivers, ote. strong and compact. Smooth in operation. Low loss bakelite Insulation. Single hole mount, $1 / 4 "$ shaft. Size $1^{\circ} \%^{\prime \prime}$ wide, 1\%" high. 1" bakelite knob. Shpg. Wt. 1 lb .

| Stock No. | Cap'y Mmid. | Depth | Your Cost |
| :---: | :---: | :---: | :---: |
| X H 8482 | 15 | 11/0 | \$0.50 |
| XH8483 | 25 | 110 | . 50 |
| XH8484 | 50 | 1\%" | . 53 |
| XHR485 | 100 | $1{ }^{1 / 8}$ | . 59 |
| XH8186 | 140 | 11/** | . 73 |
| XH8187* | 35 | 11/3" | 5 |

*Double Spaced Transmitting Condenser.

## A more complete Ilst- ing of Hammarlund Products wIll be found on pages 53,64 and 65 of Catalog No. 56 . Any Item not Ilsted can be obtained for you at a discount of 40 and $2 \%$.

## Double Spaced Midget Condensers



Especially designed for use in transmitters. Aír g н p be-
tween rotor and stator is $.0715^{\circ}$. Mid-line plater. Isolantite insulation. Shpg wt. 1 lb .


## ExperImenters

Condenser

A low priced midget condenser for experimental purposes. Non-corrosive plates. Six rotor and six stator platea. Capacity $100 \mathrm{~mm} / \mathrm{d}$. Shpy. wt. 1 lb .
Your Cost Each
Shielded Air Dielectric Padding Condensers


A completely shielded air-
dielectric padding condenser. Isolantite iasulation. 114" in diameter and 114 " high lor the $75 \mathrm{~mm} / \mathrm{m}^{\prime}$, and $11 \mathrm{~m}^{\prime \prime}$ for the 100 mmid . Shpg. wt. 1 lb Stock Capy Your
KM9745 75
$\times H 9746 \quad 100$
$\$ 1.35$
1.50
Neutralizlng Condenser Suitable for neutralizing 45, 47, 10 and similar tubes in amplifier, buffer or doubler stage. Isolantite insulation, polished plates. Maximum capacity 18 mmid . Sbpg. wt. 1 lb .
XN14299-List $\$ 2.00$
Your Cost.


${ }^{5} 1.20$

# Browing 35 

## Only 7 Connections and the Antenna

## R. F., Detector and Oscillator Colls for All Four Bands are Connected!

Now the most difflcult part of all-wave receiver conatruction has been overcome by the introduction of the TOBE Tuner-a simplified highly efficient coil and condenver catacomb that eliminates all of the critical aligning adjustmateliminates incorporstes within a single unit the ments. It incorporstes within a single unit the three gang tuniag condenser, the band changeover switch and ALL colls lor the R. Fi" De-
tector and Oncillator Btages together with their tector and Oncillator stages together with their
padding and trimming condensers. Only se ven connections are made to this unit, and the mcst difficult part of all-wave receiver construction is completed.

## Four Bands

The frequencics covered are from 22.6 M.C. to $540 \mathrm{~K} . \mathrm{C}$. ( 13.3 to 550 meters). Band one from 8.5 to 22.6 M.C.: Bend two 3.4 to 9.1 : Band three, 1.12 to 3.92: Band lour, .54 to 1.52 . All bands are clearly marked on the large full vision dial and extra dial scales are furnished for logging purposes and for special calibration.

## Mechanical Band Spread

A unique method of band spreading makes use of an auxiliary dial that revolves over 360 degrees for each main dial division thus permitting the accurate logging of all stations at any part of the frequency range.


## Tuned "R. F." Stage

Unllke most short wave receiver kits this one includes a stage of tuned radio frequency amplification ahead of the first detector. This provides a tremendous Improvement in both sensitivity and selectivity on all bands.

## Band Pass I. F. Transformers

 Another unusual feature of this remarkable receiver is the incorporation of a link coil in the I. F. transformers which gives a "band pass effect with the nose of the curve approximately 5 K. C. wide.
## Simplified Construction

Despite the high efficiency of thls receiver it is extremely simple to build because of the unique TOBE Tuner and the very clear instructions furnished with the kit. A complete series of targe full seale drawings are supplied showing the progressive steps in wiring the receiveryou can't go wrong. All necessary parts are supplled including, nuts, bolts, washers, Jugs, $\mathrm{e}^{\text {tc. }}$ The only items not inciuded are the tubes, ${ }_{\text {s }}{ }^{\text {peaker, cabinet und antenna. }}$

## No Plug-In Colls! Continuous Mechanical Band Spread! "Band Pass" I.F. Transformers! "R. F." Ampllificatlon!

The "Browning " 35 " is the answer to the custom set builders demand for a truly fine all-wave receiver that could be successfully built at home.
It is a 7 tube recelver that not only competas with factory-built eets but that actually outperforms many of them. It has all of the fine pet features such as: a sensitivity of less then 1 microvolt and a selectivity of 10 K .C. on all 1 micro
bands.
Complete Kit of parts for Browning 35 including all neceskary parts and diagrams but lesa tubes, speaker and cabinet. Shpg. wt. 25 lbs. List $\$ 66.50$
XY22182
Your Cost.
Browning Tuner Comple Shpo Wt 5 lba only. Complete with dial XYziziss. Your Cote
Black Metal Cabinet. Shpg. wt. 10 lbs. XY22133-Your Cost …............. 53.60 Special matched 10'Dynamic Speaker. Shpg. wt. 10 lbs .
XY22184-Your Cost
XY2.18-Your Cost .......... 5.59
Special mitched 61/2" Dynamic Speaker. Shpg wt. 6 lbs .
XY2218- Your Cost ........ 3.53 Extru set of blue printa, diagrams and instruc Lions. XY22186-Your Cost.


Encouraged by the remarkable success of the orisinal ALL-STAR SENIOR Receiver and realizing that a much greater need exists for an all-wave super-capable of dependable foreign reception at a atill lower price, the eight sponsor manufacturers of the ALL-STAR SENIOR, aided by three additional
set. the ALL STAR JUNIOR. While not posseasing quite the power and range of the original Ale
STAR SENIOR, this new JUNIOR set gives practically equivalent pefiormance at only about two thirds the cost. Here'is a set that is deally auited for the amateur or the short wave fan-a set that anyone can afford and anyone can build.

## Important Features

It has all of the Important features of the Senior model such as: continnous band apread, pre-adjusted colls, beat frequency oscillator, etc. Only a total of 5 tubes are used-yet all of the important features are tional parts or tubes.

## Simple Construction

It is easy to build. The instructions furnished are thorough and clearpractically anyone can build this receiver in a lew hours time. All the holes are already punched in the chassis and panel, no drilling is necessary. Only a screwdriver, a soldering iron and a puir of pliers are needed.
Xeeded. Complete Kit of ALL parts required to complete the recelver with the exception of tubes, speuker,
cabinet and aerial. Shpg. wt. 20 Ibs. Your Cost

XW19287-Special Mutched Speaker
Kit of Matched Tubes.............. $\mathbf{2 2 7}$ Kit of Matched Tubes fyroat-...Special Metal Cabinet. Cracke finish
XY22479-Special Etched Metal Panel. Your
Cost

## All-wave Receiver Kit



"Band Spread"

+ 10 to 500 Metert
+ 6 Tube Super. heterodyne
* Simple Construction

This excellent all-wave receiver has now become famous amongst short wave enthusiast for its amazingly fine performance. Sponsored by eight of the leading parts manufacturers it includes in its construction only the finest of components. Transformers by Thordarson, Colls by Melssner. Condensers (variable) by Hammarlund, Condensers (fixed) by Cornell-Dubilier, Volume Controls by Electrád, Dials by Crowe, Resistors by Ohmite, and Wire by Belden. All of the latest ideas in short wave receiver design from the laboratories of these eight manufacturers were gathered together and incorporated in the design of this receiver-a set that assures unequalled WORLD-WIDE RECEPTION.
Continuous Band Spread, Sulted for Amateur Use True "band spreading" is accomplished by the use of neparate "tank and tuning condensers. Band spread tuning is possible at any frequency in any band covered by the receiver.

## Seven Tube Superheterodyne Clrcuit

Seven of the latest type tubes are used in the highly efficient circuit. A 2A7 tube is used us the combined mixer and oscillator, two type $58^{\prime}$. as intermediate frequency amplifiers, a type 66 as second detector, a Ane 2As pentode power tube and a type borectifer in the power ipply included in the esential kit.
XY22199-Complete Ensential Kit of Parts
Your Cost
XM12e66 Chassis with all cut-outs
2.50 complete receiver.
$\left\lvert\, \begin{aligned} & \text { complete receiver. } \\ & X 19292 \text { Special Matched Speaker. Your Cost }\end{aligned}\right.$


## Write for FREE hookups, parts,

lists, etc., of the ALL-STAR Kits.

Complete Kit of Matched Tubes XY2 278 - Special Metal Cabinet. Your Cost
83.95

XY22100-Special Etched panel.

| Your |
| :--- |
| Cos |

2.06

# EXPERIMENTERS build your own SHORT WAYE SETS and SADE MONEY 

"TROPHY WINNER" 3 S. W. KIT 3 Tube-A. C.-For the D. X. Fan

A complete, easy to assemble Short Wave Receiver Kit for operation on 110 volts, 60 cycle A. C. Uses 3 tubes (not including rectifier) in a highly efficient circuit as follows: a 58 is used in a atage of R. F. amplification; a 57 as a regenerative super-sensitive pentode detector and a 2A5 pentode power amplifier. An output of almost 3 watts is afforded. Panel and chassis are of metal finished in black crystallized lacquer. Tuning is accomplished by means of a vernier dial having a fairly high ratio. Unique circuit arrangement permits use of either "band spread" or standard circuit. Power supply kit includes all necessary parts. Receiver chassis is easily connected to power supply by means of a cable and plug. Shpg. wt., Receiver Kit 5 lbs, ; Power Pack Kit 8 lbs , XN13905-Complete kit of parts, with wiring diagram
and instructions for assembly, less coils, tubes and power supply. Your Cost.

XN13906-Power Supply Kit, less tube. Your Cost
34.95


XN13907-Special Coils covering from 16 to 200 meters. Your Cost, Per Set.
XN13908-Kit of matched tubes for receiver and power supply. Your Cost
$\$ 2.15$
XN13985-Complete kit of parts with coils, power supply kit and tubes. Your Cost
$\$ 17.25$
Set wired in our laboratory
$\$ 2.50$ additional.

## The "Band Spread" Portable



A combined short wa ve receiver and monitor. Everything-receiver, batteries and coils housed inside the steel case. Two type 30 tubes are used as detector and audio amplifier. Regeneration is smooth and noispless. Special "band spread" coils used are for the following amateur bands: 20, 40, 80 and 160 meters; for the following broadcast bands: $19,25,31$ and 49 meters. In portable steel carrying case, size $83.4 \times 61 / 2 \mathrm{x}$ $51_{8}{ }^{n}$. Shpg. wt. 12 lbs.
Complete Kit of parts, less tubes, coils and batterles.
XN13960-Your Cost.
${ }^{\text {s }} 7.95$ XN13962-One Burgess 5308 "B" and one 2370 " $A$ " batteries. Your Cost.
XN13961-Set of tubes ( $2-80^{\prime} \mathrm{s}$ ). Your Cost
XN13963-Four Special Coils, Broadcast Bands. XN13964-Four Special Coils, Ham Bands. Your Cost, per Set of Four (Either Type) Set wired in our laboratory.
51.95 additio

## Automatic Transceiver Set



A single button carbon mike ( 200 ohms) and a high impedance head phone in a bakelite hand set. Comparable with Ideal for Transceivers. Shpg wr. 41 bs .
XM13480

## New: Lafayette Transceivers

## Types 19 and 30 for 56 to 60 Megacycles

Announced only a few short months ago the new and workmanship used in their construction and Lafayette Transceivers are acknowledged leaders in their outstandingly fine performance have won for the fleld today. The fine quality of the materials

## Model " 19 "

 Your Cost Your Cost Your Cost.The model "19" provides an exceptionally high output -approximately 2 watts-which is almost ten times that of the ordinary transceiver using the type 30 tube as oscillator.
The circuit consists of a type 19 tube used as a unity-coupled push-pull oscillator which is modulated by"another type 19 as a class " B " audio amplifier which is driven by a type 30 . As a receiver one type 19 is uged as a push-pull super-regenerative detector with the type 30 and the other type 19 as the first and second stage audio amplifiers respectively. More than enough output is obtained for speaker operation. Hiss level on reception is especially low and the frequency stability on transmission of a particularly high order.
The transceiver is equipped with two aerial terminals so that a transmission line can be used. Jacks for both mike and headphones are provided on the face of the front panel.
The case is of steel finished in black crystallized lacquer and is equipped with a leather carrying handle. Dimensions: $15^{\prime \prime}$ high, 7\%" wide and $61 / 2$ " deep. Batteries required are 135 volt " $B$ ", 7.6 volt "C", one 4.5 volt battery and two No. 6 dry cells.

XN13997-Lafayette Type "19" Transceiver less $S$
tubes, batteries and accessories. Shpg. wt. 18 lbs.
Complete set of Burgess Batteries 3-5308, 1-2370, 1-5540, 2-6A.
Kit of matched Tubes. 1-30, 2-19's. Your Cost XM13482-AMERICAN Single Button Hand Mike

The model 30 Lafayette Transceiver has same external appearance as the model 19 shown at side. It is extremely economical to operateand will provideexceptionally long battery life. It uses the popular 30-33 tube combination in a circuit that is an exclusive Lafayette development. For transmission the 30 is used as an osc!llator and the 33 as modulator-for reception the 30 becomes a very sensitive super-regenerative detector and the 33 is used as a high gain audio loudspeaker pperation Inductances for wound with hard drawn copper and are rigidly mounted in place. Jacks for mike rigidy mounted in place. Jack for mike and headphones are provid. The entire back of the case is removcrystallized lacquer B, $4^{\prime}$. wide and $61 / /^{\prime \prime}$ deep. Finished in black " C " and two 1 L volt B dry cells The only accesserit of " B ", $131 / 2$ volt of the case are the antenna, mike and headphones. Complete intside tions furnished
XN13986 Lafayette Type "30" Transceiver less tubes, $S$ batteries and accessories. Shpg. wt. 15 lbs. Your Cost
$\$ 3.77$
51.73
s3.75
Despite the low power used in Transceivers a license is required for their operation.

Cafayette

## 5 Meter Antennas



This doublett type antenna permits the tuning of the aerial to any desired frequency. justable quarter wave rods with $12^{\prime \prime}$ insulating bracket. Length variable
 XR17080-Your Cost Each

## Matched Impedance Type

The matched impedence type of antenna is composed of one aluminum half-wave rod which is adjustable up to 110 inches. A brass collar is used to hold the feeders in place. This antenna is similiar in appearance to the doublett type antenna, except the two arms are not insulated from each other. Complete with mounting base. Shpg. wt. 2 lbs.
XR17079-Your Cost Each
$\$ 1.95$

## "Half Wave" <br> Type

The half-wave type antenna may easily be mounted on an automobile, boat, etc. Composed of an adjustable hall wave rod of aluminum Threaded at bottom and equipped with insulated mounting. Ad justable



Glass Enclosed Crystal Detector
 Dust-proof. Supersensitive crystal and easily adjusted catsits position. XN13916Your Cost

Mounted Galena Crystal Carefully tested and nounted crystals XN13900-

Super-Sensitive Crystal Gets more stations because it's extra-sensitive. XN13901
Your
Cost.
$14^{\text {e }}$
Fixed Crystal
A sensitive crystal with a permanently fixed con Kact. Caref
Your Cost.
 Your Cost. ................44 $4^{c}$


Crystal Detector Ball and socket Bwir
XN13917 Your I2c
"Blackbird" Crystal Set


Has super sensitive crystal enclosed in dust-prooi glass shell, ngknob aerial-ground and phone binding posts mounted on
ront panel. Front panel is mod ernistic gold finish and cabinet black leatherette. Shpg. XN13887

## Ear Phone Cushions

These cushions made of soft rubber protect the ears from the pressure of headphones.
XN13940
Your Cost, Pair
$23^{\circ}$

## RADIO SETS for the beginner



## PHILMORE 1, 2, and 3 Tube Sets

These compact little battery operated re ceivers have been especially designed for he beginner and for use as an extra se for use in the playroom, etc. Simplified single dial tuning permits operation by even the most inexperienced person. New type tubes keep the current consumption extremely low and make them economical to operate.

1-TUBE SET
XN13880--Requires one dry "A" battery, one 22 曾-volt "B" bat tery and one Type 230 tube; headphones and aerial Less accessories, Your
 XN13882-Requires two dry "A" batteries, one 45 -volt "B" battery, two Type 230 tubes; headphones and aerial. Shpg. wt. 9 ibs. Less access
$\$ 3025$ 3-TUBE SET
XN13884-Requires two dry "A" batteries, two 45-volt "B" batteries, one $224 / 2$-volt "C" battery, two type 230 and one type 231 tubes. Headphones or magnetic speaker and aerial. Shpg. Wt. 33 Ibs. Your Cost, Less Accessories
\$7.45

## "tiittle Wonder" Crystal Sets



Using no batteries or power of any kind; clear reception can be had within 10 to 25 miles of the had within 10 to 25 miles of the local conditions. Shpg. wt. 1 lb . XN13889-
Your Cost Each

## E Munduminhlut

## Extension Cords

Tinsel Centers ing braid. Not auitable for cerrying heavy current. Pin tios both ends. Stock No. Length Your Cost
XN13945
S0.18 $\times \mathrm{N} 13945$

10
20
30
40
50
100
0.18
.24
.35

XN13947
XN13948
XN13949
$\times N 13950$
XN13950

## Stranded Copper Wire Center

 Designed for heavier usage than the tinsel type. Rubber insulation with outside covering of cotton braid. Pin tip ends| Stock No. | Length Your Cos |  |
| :--- | :---: | :---: |
| XN13951 | 10 | $\$ 0.2$ |
| XN13952 | 20 | .3 |
| XN13953 | 30 | .4 |
| XN13954 | 50 | .9 |

Bakelite Extension Cord Connector
Has two openings at either end for inserting two pin tips. Made
XM13051-
Each.......
Per dozen.
80
Phone and Speaker Cords Five-foot double cord. Spade tips braid cover. XN13955-List $\mathbf{5 0 . 5 5}$
Your Cost Each



For Single Output Tubes Or Single Output Tubes

$53^{c}$

## I. C. A. Headphone Adapters

For use with any set. 3 ft . of cable connected to box having a toggle switch Switch connects phones in grid circuit and
cuts off speaker. Shpg. wt. 3 lbs.

Crystal set has a tapped inductance and a variable condenser. Enclosed crystal detector and terminals for two pairs of phones. Shpg. wt. 5 lbs S? 23

For P. P. Output Tubes Stock No. Prongs Your Cost $\left.\begin{array}{ll}\text { Stock No. } \\ \times K 11723 & 4 \\ \times K 11724 & 5 \\ \times K 11725 & 6\end{array}\right\} \$ 3$

D D A D D D D D D A E B
ends. ${ }^{\text {KN1355 }}$
Your Cost Each
$19^{\circ}$
Five-foot single cord with straight tips both ends.
XN139S7-
List 50.35
List $\$ 0.35$

## Double Phone Plug



Will take one or two, phone or speaker cords or a combination of both. Colored Amerlay cap. Red, Blue, Green, Black. Metal nickeled. XP14886-Specify color. $22^{\circ}$ Your Cost Each 22


FROST DX Special Phones $20,0000 \mathrm{hms}$ Impedance These phones fully These phones fully meet the requirements of amateurs
and DX fans. Are and DX fans. Are extremely sensijustable; can be worn for hours without the slightest discomfort. Magnets are of a special steel; diaphragms of finest gauge metal. black composition caps. Equipped with a five-foot flexible cord. Impedance of 20000 ohms. $\times{ }^{\times} 13931$
\$2.50

FROST Standard
Long a big favorite with the radio man because of their all-round high quality, lightness of welght, and ease of adjustment for perfect comfort. Carefully and scientifically made. Shpg. wt. 2 lbs. XN13932-
Per Pair, 2000 hms
SIS . 8 XN13933-
Per Pair, 3000
Ohms

CANNON BALL Phones


A high grade, extremely sensitive pair of headphones at a price that defies competition. Aluminum shells. Adjustable web covered headbands. Molded hard rubber caps. Total resistance 2000 ohms. Complete with cords. Shpg. wt. 2 lhs XN13930-Your Cost $\$ 2,25$


TRIMM Featherweight Phones Wt. only 4 ozs.

## One of the


cluding the
headband and the cord! Bakelite shell and cap. Forged cobalt steel magnet. Adjustable spring stee headband. Impedance 24000 ohms per pair. Shpg. wt. 1 lb .
XN13919-List $\$ 10.00$
Your Cost.

## BRANDES PHONES

They are full-size yet are unusually comfortable to wear. Shells are of polished aluminum. Resistance 2000 ohms. Adjustable. Web covered flexible steel head band. Complete with cord. Shpg. head band
wt. 2 lbs. XN13925
$\$ 1.49$
Super-Sensitive Cat Whiskers Finest wire correct tension-sensitive. XN13921-Envelope of 3 .
Your Cost

## ПAYRA口precision ECUTFSTET

## English Reading Tube Checkers

## Portable Model

Constructed using the finest quality parts, these instruments incorporate all the most modern circuit developments. All of the present type tubes can be checked, and in addition, provislons have been made for testing tubes to be released in the future. The entire modified emission circuit is bullt around the new Dayrad 4" awitchboard type meter of the square face, full vision type. Meter scale marked Good and Poor for instant selection. A small neon lamp is used to indicate noisy or leaky tubes. Leakages up to $2,000,000$ ohms will show on the neon indicator. Shorts test
 complets between all elements, and due to the sensitivity of the circult, will show minute shorts. All tests of leaky, noisy or shorted tubes made after tube has heated. Complete line control, using a tapped transformer, is included. Only three adjust-
ments necessary for thorough check. Scale is also calibrated in ohms; ments necessary for thorough check. Scale is also calibrated in ohms;
jacks on panel allow measurements of from $0-40,000$ ohms. Jacks are also provided to allow voltage measurements from $0-400$ volts A. C. Instrument operates on 105-130 volts, 60 cycles A. C. Contained in fine walnut case with rubbed finish. Size $12 \times 11 \times 51 / 2$

Shpg. wt. 14 lbs.
 $\underset{\substack{\text { XJ10870- } \\ \text { PortableModel } \\ \text { Your Cost.... }}}{ } \mathbf{3}$

## Counter Model

Essentially the same as the above, but housed in a distinctive two color metal cabinet. Meter in position to allow full vision to the customer. A real aid to the service man in satisfying his customers tube requirements. Size $16 \times 15 \times 5$ ". Shpg wt. 19 lbs.
XJ10871
Counter Model
Your Cost Each..
S33.75

## Portable Set Tester Model 54

A complete set tester incorporating every modern development. The heart of the instrument is the new Dayrad $4^{\prime \prime}$ square type switchboard meter having a sensitivity of 1000 ohms per volt; full scale deflection at only 55 millivolts. Meter is arranged to be connected in any of the current, voltage tube or leakage circuits thru a special circuit selector switch. The following ranges are a vailable: 0-5-25-$125-500-1250$ volts A. C. and D.C. and millia mperes D.C.; 0-3000-30,000-$300,000-3,000,000$ ohms; Condenser leakage in four ranges up to 30 megohms. Self-contained power supply (80 rectifier must be used) supplies D. C. potentials up to 500 volts in order that condensers may be tested under full rated load. All readings shown directly on meter. All readings thru-analyzer plug and cable; may be taken externally. Contains $41 / 2$ volt battery for ohmeter measurements. Comes complete with all necessary plugs, leads, cables and adapters which are carried in rear panel compartment
In walnut carrying case $12 \times 11 \times 55 / 3$. Shpg. wt. 14 lbs. In walnu
$\times 110879$
Dayrad 54 Series Set Tester
${ }^{4} 49.50$

## Special 4" Square Type

## Meter 0-1 Mils. D. C.

This new type 4* square switchboard meter has been adjusted to 1 milliampere at 55 millivolts. been adjusted to 1 miliampere at 55 millivolts. all types of test instruments. Polished bakelite case, full vision scale and knife edge pointer. Shpg. wt. 2 lbs.
X. 10481 - Your Cost Each
5.75

## N0TE: We can supply on special

ment that is not listed. Send for the literature on the complete Dayrad line which gives complete information and specifications on ali their test instruments.

## All Wave Signal Generator Model 36 <br> A. C. Operated-Built-in Output Indicator

 110 volts $50-60$ cycles A.C. 400 cy as desired. Low and high output connections on panel. Buitt-in neon tube output indicator with variable control. All circults completely shielded. In metal case finished in black crystalline. Size $10 \times 7 \times 43 / 2^{\mathrm{m}}$. Shpg. wt. 14 lbs. A newly designed signal generator designed for of radio recelver. Covers a range of frequencies from 60 K . C. to 60,000.K. C. (5000 to 5 meters), taking in the now popular 5 meter band. Six separate bands, using tundamental frequencies only, are used to cover this range. Individual colls; no tapped colls. Each band individually calibrated on the lull vision scale, and selected by means of a range selector switch. Vernier dial makes critical adjustments easy. AbsoVernier dial makes critical adjustments easy. Absolute attenuation from lowest to highest frequency Circuit uses 1-6C6 R. F. Electron Coupled Oscillator, New Cofasfetce Universal Bridge


This new Lafayette bridge contains five resistance and three capacity standards. With these internal standards it is possible to measure resistance from . 01 to $1,000.000$ ohms and capacities from .0001 to 100 mlds , providing the proper voltage supply and indicating instrument is used. Provision is also made (External Standard) to increase these ranges by using external standards. By using an inductance standard it is possible to use the Lafayette bridge for inductance measurements. For A. C. measurements the 60 -cycle line, a telephone buzzer or a employed. For $\mathbf{D}$. C., a battery of from 1.5 to 9 volts is used in conjunction with a galvanometer or a volt-milliameter. The resistance and tion with a galvanometer or a volit-miliameter. The resistance and capacity scales are accurately calibrated directly on the aluminum panel. Unit housed in steel case $9 \times 41 / 2 \times 31 / 3^{7}$. Shpg. wt. 6 lls .
XP15969-Lafayette Universal Bridge, completely $\$ \mathbf{\$ 3 . 4 5}$
wired and tested. Your Cost..................... $5 \mathbf{5}$
Same as above, in kit form. All parts and full S
instructions included. Shpg. wit. 5 lbs .

## PESE Photo-Electric Cell and

 Supersensitive Relay

A photo-conductive type cell that varies is resistance from dark to bright light at a ratio of approximately 18 to 1 . Will pass 150 micrommperes at 90 volts. This is sufficient current to operate moving coil type relays withoutamplification. Better results on. Although suitable for many small indust of amplification. Alcrene tions, these units are deh Relay is sensitive enough to operate with as little as 1 millampere. Secondary contacts will handle up to 1 ampere. 3000 ohms D. C. resistance. Valuable booklet giving complete instructions for using this cell is included with each unit. Shpg. wt. 2 lbs. each. XN14187-Pese Photo-Electric Cell Your Cost. XN14188-Pese Supersensitive Relay Your Cost.

## WESTON Photronic Cell

Delivers an electric current when exposed to light. Current varies with light intensity from 1 microampere on 1 foot candle to approximately 5 mills. in daylight. Bakelite case 2 1 " in diameter, 1 " thick. The two prongs at the base of the cell fit in the filament and plate position in a standard UX socket. Shpg. wt. 1 lb . XN14139-
Your Cost Each.


## NEW: Model 720 Tester

This point-to-point tester is designed for last and efficient service work. Requires minimum manipulation and is extremely flexible. So arranged that oltage and current can be measured in any tube circuit. Resistance, continuities, and capacities are also quickly measured. Point-to-point tests are made through an 8 wire cable and pluz connected to the set socket. Tester socket terminals are arran ted according to R.M.A. standards. With this method
it is unnecessary to remove All ranges available by conAll ranges available through the single pair necting through the single pair of jacks. Regardless of future elements this tester will make all tests with the same ease as it does with present day tubes. It contains one A.C. and one D.C. meter. The D.C. scales are $0,15,160,300$ and 600 volts, $0-15$ and 150 milliamperes. The
A.C. scales List $\$ 25,00$ Your Cost
s 14.70
MODEL 730 TESTER
Sarne as above but with a Triplett 1000 -ohm per volt D.C. voltmeter. Shpg. w't. 111 bs . List $\$ 31.00$ Shpg. wit. ${ }^{11}$ lbs. List
$\mathbf{X K 1 1 0 3 7 - Y o u r ~ C o s t ~}$

Model 710 Analyzer and Tube Tester
This model is similar to the 720 Tester except that it has three meters The following scales are available: $0,20,60,300,600$ volts D.C.; $0,1 \mathrm{C}$ 140,700 volts A.C.; $0,16,150$ M.A. Shpg. wt. 7 Ibs. $\mathbf{X K 1 1 0 2 6 - L i s t ~} \$ 27.50$

## Your Cost.




## Meter Model 501

 Same meter as used in the No. 500 instrument. Flange Tor panel mounting. Requires cells. Extreme diameter,XK11006 List $\$ 2.75$ Your Cost Each ${ }^{s} 1.62$ 503 Resistor. 1150 ohms, with jack terminals. For use with 22.5 volt battery to increase reading of No.
500 Ohmmeter to 60,000 ohms. XK11165 List Price $\$ 1.75$ Your Cost
s 1.03


## Air Cell Tester Model 777

This new tester is a scientifically designed Readrite instrument. It is made for the checkReadrite instrument. It is made for the checking of air-cell type or 2 volt batteries. It gives
a true picture of the condition of the bata true picture of the condition of the batteries. A very simple meter to operate as
there are but only two leads in making conthere are but only two leads in making connections. The meter is furnished complete with full instructions and mounted in an attractive Model 85 black为 Your Cost

We can supply any Readrite or Triplett instruments not whown in this Catalog Readrite instruments supplied 5 hown in this Catalog. Readrite instruments supplied at at a discount of $331 / 5$ and $2 \%$ from list
\$16.17

## MODEL 712 TESTER

Similar to above except using a Triplett 1000 -ohm per volt D.C. voltmeter. A 300,000 direct scale reading ohmmeter when used with a $41 / 2$-volt battery. The volt-
meter scales are $0-15-60-300-600$ volts. Shpg. wit. 11 llbs. $\$ 37.00 \$ 2\}$ Your Cost

Capacity Meter Model 800
Used for
testing pasers only. The A. C meter reads directly in microfarads 008 to 10. Two scales upper, . 008
 . 1 to $10 \mathrm{~m} / \mathrm{d}$. Contains rheostat, switch, test leads
and plug for A. C. 60 eycle connecand plug for A. Instruction turnished for testing from 10 to 400 henrys, and resistances from 40 to 100,000 ohms.


Tube Tester Model 410


## Output Meters



For aligning receivers Contains copper-oxide rectifier. fwo ranges: $0-50$ volts for plate. Mounted on metal panel with jacks and test leads.
Shpr. Wt. 41 lbs.
XKR1038
Your Cost. 4.26 Your Cost,
Model 575 , similar to above except in round metal case as illustrated.
$\times K 11039$ XK11039
Your Cost.
cest procedure for all rectifler tubube. Same gives complete operating instructions and is fastened in removable cover. A selector switch provides filament voltages: $1.5,2,2.5,3.3,5$, $6.3,7.5,12.6$ and 25 volts. In a leatherette carrying case. Shpg. wt. 11 lbs.

## Your Cost

\$16.17

## TUBE TESTER MODEL 416

Same as Mudel 410, except using a Triplett. Same with a non-illuminated dial. Shps 11 lbs . List $\$ 35.75$ illumated $\$ 2$ I. 122

## A. C. Line Voltage Regulator

In metal case, similar to the above. Very desirable for uge a head of A. C. radio sets where line voltage fuctuates. Saves tubes and condensers. Has dial and rheostat by means of which voltage may be adjusted to exactly 110 volts. Baked enarnel finish. Shpg. wt. 3 lbs . $\$$ Your Cost Each


## All Wave OSCILLATOR

MODELS 553-554-556 An entirely new ALL-WAVE Oscillator that covers ALL frequencies from 110 K.C. to 18,000 K.C. Four distinet bands are covered, viz: $110-500 \mathrm{~K} . \mathrm{C}$. 2nd 300 K. $2000-6000 \mathrm{~K}$. C and $4000-18,000 \mathrm{~K}$.C. All ranges charts. Completely shielded Self modulated. Comes com plete with shielded connecting leads, 30 type tube, $221 / 2$ volt B Bat tery and two unit cells. Size $6 \times 12 \times 5^{\prime \prime}$. Model 554 is less output meter Model 553 is equipped with Readrite Output Meter and Model 556 with a Triplett Output Meter. Shpg. wt. 111 hs XK11028-Model 564 Oscillator. List $\$ 24.00$ Your Cost
XK11027-M odel 553 Oscillator. List $\$ 29.00$

XK11034-Model 556 Oscillator. List $\$ 32.00$ Your Cost.
${ }^{5} 14.10$
$\$ 17.05$
\$18.82


All Purpose Tester Model 1000


This test-
er is popular with many men. The moving volt-ohm-milliammeter has move-
ment. The ranges are: $0,30,300,600$ volts D. C. $0,30,300 \mathrm{M}$. A., and $0,500,50,000$, $3,000,000$ ohms. Resistances up to 6 megohms can be read with external battery. A 110 -volt, 60 -cycle A. C. meter is calibrated for capacities from 008 to 10 mids . Two $221 / \frac{1}{2}$-volt batteries and one flashlight cell are contained in the battery compartment. Complete in strong portable carrying case with removable lid covered in black serviceable fabrikoid, and provided with carrying handle. Shpg. wt. 13 lbs. XK11015-List $\$ 34.00$ Your Cost
\$19.99

## Direct Reading Tube Testers

No. 421
These models are designed to test quickly and accurately all tubes. There are two models, a portable and a counter type. These new Readrite testers have incorporated two instruments. One large $31 / 2^{2}$ Triplett moving coil instrument with a shaded twocolor scale reading directly (GOODPOOR) as to the worth of the tube. The other is a Readrite A.C. meter used with a rheostat for adjusting the line voltage. Cathode and grid shorts are tested with separate push buttons. These tests never fail to show the slightest short or leakage. Two selector
switches are used for the different tubes and the required filament switches are used for the
voltages. Shpg. wt. 12 lbs
voltages. Shpg. wt. 12 lbs. 421 List $\$ 34.00$ Your Cost.
519.99

The portable type has an oak cover, with a substantial handle. Has double snap fasteners on sides of case. Shpg. wt. 14 lbs. XK11047-Portable Model 422. List 536.25
Your Cost.
$\$ 21.32$

## RI $\oint$ ET Quality Instruments at BARGAIN PRICES

## Model 1205

 Master Test Set This Master Unit Test Set i:s a complete portable laboratory for the ser vicing engineer. Contains the four Master Units in a portable carrying case. The units are: No. 1200 Volt-OhmMilliameter; No. 1210 Tube Teater; No. 1220 Free Point Tester; No. 1230 All-Wave Signal Generator. Each signal Generator reprents the last wordunit in its respective servicing application.
Shpg. wt. 28 lbs
$\times 10461-2$



## Model 1210 Tube

## Tester

This model is supplied in a separate metal case with a bakelite panel. An emission type tester, having only four sockets for all tubes. A $31 /{ }^{\prime \prime} \mathrm{d}^{\prime}$ Arsonval meter is used having a scale reading directly GOOD or BAD values of the tubes. Short and leakage tests of all tube elements. Testsanytype of tube made many new may be developed in the future. Complete easily understood instructions furnished. Shpg. wt. 18 1bs. Y Y 10448 Your Cost
Oak case for
Your Cost
X Jour
${ }^{\text {s }} 19.60$
$\$ 3.92$
$\$ 8$

## Model 1220 Tester

This tester unit can be used with the Triplett Model 1200 or any other suitable unit, the Model 1220 enables the making of voltage tests between any tube elements including chassis, current tests in series with any tube ele ments or soc
The jacks are so arranged that the source of external voltage may be applied to any tube element, this permits testing of the characterisitcs of the latest tubes. Complete with 6 prong plug, 4, 5 , large? prong, and small 7 prong ada ptors.
 X 510478 -Model 1220 Tester Complete with all adapters and full operating instruc- $\$ 8$. I 6
tions.
Your Cost Your Cost

## Model 1230 Signal

## Generator

The Model 1230 is a stabilized all-wave continuously variable signal generator, furnishing frequencies from 100 Kc . to 18,000 Kc., either modulated or unmodulated. The clear 400 cycle

## MASTER UNIT CASES

Available for carrying 1,2,3 or 4 units. Separate compartment is provided for accessories. Black grained leatherette covering.

| Stock | For | No | Shpg. | You |
| :---: | :---: | :---: | :---: | :---: |
|  | Model | Units |  | Co |
| XJ10456 | 1201 | 1 | 7 | 3.9 |
| XJ10457 | 1202 |  | 10 | 4.5 |
| XJ10458 | 1203 | 3 | 14 | 5.2 |
| XJ10459 | 1204 | 4 | 16 | 5.8 |

note is
generated
by a type by a type Second
 tube is used in the special frequency sta bilized tube is used in the special frequency stabilized
circuit to generate theradio frequency oscillacircuit to generate theradio frequency oscilla-
tion. A $221 / 2$ volt and three flashlight batteries tion. A 22 voly and three fiashlight batterres
furnish the very small amount of power required to operate the tubes. Through the use of three output jacks and the attenuator the variation of output is obtained. Shpg. wt. 15 lbs . X」10469-Your Cost...... STS.02?

## Portable Laboratory Model 1181

A complete test laboratory. Contains Volt-Ohm-Milliametor, Tube Tester and All-WaveOscillator. Has a universal A.C.-D.C. meter having sensitivity of 500 microamperes. Either A.C. or D.C. readings selected by panel switch. The following meter ranges are available: 0-15-150-750 volts A.C. or D.C.; 0-1.5-15-150 D.C. milliamperes; $0-15-150$ A.C. milli$3,000,000$ ohms. All latest tubes may be checked on Free-Point Tester. All-Wave Oscillator, model 1151 , continuously variable from $110-500 \mathrm{Kc}$., $600-3000$ Kc., $2000-6000 \mathrm{Kc}$, and 4000
 18000 Kc . Accurate hand-drawn curves supplied for each range. Positive attenuator permits accurate control of output at all times. Battery operated. All units mounted in oak case $16 \frac{1}{2} \times 71 / 6 \times 51 / 2^{\prime \prime}$. Shpg. Wt. 191 bs .
XJ11035 Model 1181 Tester
Your Cost
$537 \cdot 24$
Model 1180: Same as model 1181, but without Free-Point Auxiliary Set Tester. List $\$ 45.00$
$\$ 29.40$ X 1 10479-Your Cost
Model 1179: Same as Model 1181, but with Model 1150 ing range from 110 to 1500 Kc . List $\$ 52.00$ XJ10470-Your Cost
Model 1178: Same as 1180, but with Model 1150 $\$ 40.00$
XJ10480-Your Cost.
Model 1151: All-Wave Oscillator. List $\$ 35.00$ XJ10474-Your Cost.
Mode! 1150: Broadcast Oscillator, 110 to 1500 Kc
XJ10476 Your Cost.
Model 1125: Universal Volt-Ohm-Milliameter only XJ10473-Your Cost
Model 1166: Free-Point Auxiliary Set Tester only. X $\mathbf{1 0 4 7 7}$ - Your Cost.
Model 1167: Combination of Models 1166 and 1125. XJ10999 - Your Cost.
XJ10492-15 Ampere Shunt for Auto Radio work
X 10493 - 30 Ampere Shunt for Auto Radio work.
X $10493-30$ Ampere Shunt for
Your Cost Each, Either Type

## Model 1200 in Kit Form

For those desiring to build their own test instruments. The mostimportant part is the new Triplett Twin Meter illustrated at the right. A separate meter for A.C. measurements and a separate meter for D.C. measurements assures the highest accuracy.


Your Cost Each
XJ10483-Triplett Twin Instrument XJ10484-Special Selector Switch
XJ10485-Special Selector Switch
X $\mathbf{1 0 4 8 5}$-Shunt Board for $1-10-50-250$ milliampere readings; Resistor Board for 10-50-250-500-1000 D.C. volts; and 50-250-500-1000 A.C. volts and current limiting resistors for 1500 ohms and 1.5 and 3 megohms.

| $\mathrm{X} J 10487-.5$ | Mfd . Condenser for Output Measurement. ......... | 4.73 |
| :--- | :--- | :--- | :--- |

XJ10488-Rheostat Assembly consisting of 65-6000-9000 ohm
XJ10489 - Set of Blue Prints and Instructions
XJ10490-Hook-up Wire.
XJ10491-Test Leads
Your Cost, Complete Kit of allabove parts. List $\$ 25.00 \$ 16.34$
Model 1200 Dual-Meter Universal Tester
A new Dual-Meter Universal Test Instrument providing separate meters for both A.C. and D.C. measurements. The D.C. meter has a 500 microampere movement having an accuracy of $2 \%$ D. C. scales: $0-10-100-250-500$ and 1000 V ., 0-1-10, 100 , 250 , mills. $0-1500$ ohms- $11 / 4$ meg., and 3
megohms. A. C. scales: $0-10-100-250-500$ and 1000 V . Only three jacks are used. measuring all D. C. voltages. D. C. milli-
 amperes.
D. C. resistances, A. C. voltages and capacity. Third jack used when measuring output voltages, contains a blocking condenser. Shpg.wt. 14 lbs. Your Cost
$\$ 21.24$

## SUPREME Standard Analyzer



## Model 333

Featuring Supreme＇s latest 5＂fan type meter this new instrument with sell contained battery is a combination point－to－point tester and analyzer providing complete resistance，voltage and current analysis，and tube testing from the radio socket．All meter ranges including resistance and output measurements are applied through the analyzer cable making it un－ ecessary to remove the chasis from the cabinet．Ranges are from the cabinet．Ranges are witch．Meter ranges are；2000 200，000 ohms，5－125 D．C．Mills．，5－125－500－1250 Volts A．C．or D．C． Large figures on the ohms range provide easy readibility．As low as 1 ohm may be read on the low scale of 2000 ohms．A variable shunt adjustment is provided so that the ohmmeter remains very accurate $\times 10875$
Model 333 Standard Analyzer．
Your Cost．
s29．35

## SUPREME DeLume Analyzer <br> Model 333

The new DeLuxe model uses the new 5＂meter in a patented circuit that compensates for temperature variations．The analyzer plug in addition to the top cap is equipped with a＂ground＂connection which is to be clipped to the chassis of the receiver so that all tests can be made with reference to ground．The following ranges are available at the turn of a selector switch；0－5－25－125－250－500－1250 D．C．Mills $0-1000-10000-100000-1000000$ ohms； $0-5-25-125-250-500-1250$ D．C． or A．C．Volts；0－0．125－1．25－12．5 microfarads．Lowest resistance reading 1 ohm，lowest capacity 0.0025 mfd ．A self contained battery permits checking of tubes by the grid shift method in a receiver． Shpg．wt． 14 lbs．
Shpg wt． 14 Mos． 333 DeLuxe Analyzer
KJ10876－Model
s39．15

## CLOUGH－BRENGLE Oscillator

## 50 K．C．to $\mathbf{3 0}$ M．C． Signal Generator

Has six bands each working on the funda－ mental and covered by a dial 25 inches long，divided into 400 divisions，each division $1 / 10^{\prime \prime}$ wide．Readings to $1 / 10 \%$ accuracy．Hand calibrated with crystal oscillators．Each instrument supplied with an 11x17＂hand drawn calibration chart．Continuously variable in fre－ quency 50 kilocycles to 30 megacycles （ 6000 to 10 meters）．Continuously vari－ able in output $1 / 2$ microvolt to 2 volts． 400 crackle finished case．Shpg．Wt． 15 Ibs． XJ10883－List $\$ 54.85$ Your Cost


## ycle audio test note．Externa C．or D．C．operation．Black

 s32．25
## Battery Operated Model

This model is exactly the same as the model described above but uses self－contained batteries．Exclusive Clough－Brengle circuit eliminates frequency shift with change in battery voltage．
XJ10884 Complete with tubes but less batteries． Your Cost
532.25

Set of batte

## TRIUMPH Signal Generator



An A．C．operated Signal Generator covering irequencies from 100 K ．C．to $30,000 \mathrm{~K} .40$. either modulated or unmodulated．A 400 cycle audio frequency is also available separ
ately．A four step＂ladder＂attenuator pro－ vides positive attenuation．Continuously variable output from practically zero to 50,000 microvolts．Low harmonics of the fifth frequency band permit accurate opera tion to 50,000 K．C．Electron coupled oscil－ lator－six bahd wave switch．Each band cali－ brated and charts provided．Full vision Aero－
piane dial．Black crystalline metal cabinet with frosted aluminum cali－ brated scales．Measures $113 \times 10 \times 91 / 2$ ．Shpg．wt． 12 lbs．

> XJ10885
> For 110 volt， 60 cycle A．C．
> Your Cost

s29．94

Space limitations prevent listing of all the test equipment available．A more complete represen－ tation will be found in Catalog 56，pages 93 to 101.

## WESTON Model 682 Tube Checker

This new Weston Tube Tester will check all types of tubes in use today and in addi－ tion spare sockets are provided to take care of new types that may be developed．The meter scale is of the direct reading type so that your customer is readily convinced that his tubes require replacing because he can actually read the test himself and does not have to depend upon the word of a clerk．All of the modern checks are made－ short tests for shorts between elements－ cathode leakage tests，etc．When you check a tube in this tester you know
 finished in two shades of fawn with silver edging．Type－1 portable is in a leatherette carrying case and Type－2 is a counter model in a walnut case． Instructions furnished．Shpg．wt． 141 bs ． X」10867－Type 1．X」10864－Type－2
Your Cost Either Type

## Dependable Tube Checker Model 304

Will test all tubes brought our to date and has provisions for testing many new types that may be developed in the future．Non－a bsolescence assured－spare present number of tubes．Two meters on the panel one Fnglish reading $D^{\prime}$ Arsonal moving coil meter for tube Arsonal moving coil meter for tube readings；one line voltage meter．No adapters of any kind necessary．Charts
giving the correct readirgs for all giving the correct readirgs for all present type tubes are furnished．Regu－ larly equipped with counter case．Can
also be obtained in a combination Port－ able and counter case．Counter case dimensions $9 \times 12 \times 5^{\prime \prime}$ ．Shpg，wt． 20 lbs． X．J10505－In
counter model case．
Your Cost
XJ10529 The above checker is available in a combination carrying case．It may be used as a portable checker or as a counter model with the cover removed．Available at an additional cost of $\$ 2.25$ ．

## RGA Cathode Ray Oscillograph



Designed to permit the service engineer to analyze receivers，a mplifiers，etc．more thoroughly，this new oscillograph makes use of the type 906 cathode ray tube．The instrument is indispensable for such pur－ poses as：measuring frequency and mag－ nitude of hum；checking percentage of modulation；examining wave forms；align－ ing the multitude of circuits used in the newer types of receivers．This oseillo－ graph incorporates many new features． A single stage amplifier with uniform frequency characteristica from 20 cycles to 90 kilocycles is used to increase sensi－ civity in the vertical direction．A similar amplifier is also used to increase sensi－ civity in the horizontal direction．A
switching arrangement is provided so that the amplifiers may be thrown in or out of the circuit．The timing axis has a frequency range from 20 cycles to 15,000 cycles，and is controlled from the front panel． The amplifier feeding the horizontal axis may also be used to a mplify the timing oscillator．Provision is made for both internal and external synchronization and both vertical and horizontal beam shift，so as to obtain a standing image with proper framing．Unit is housed in a metal cabinet finished in black crackle and provided with a carrying handle．Amplifiers use 1－879，1－885，1－80，2－57＇s， Operates on 110 volts A．C．power consumption 85 watts．Size $103 / 2 \times 6 \times 16^{\prime \prime}$ ．Shpg．wt． 25 ibs．
XN13943－RCA Cathode Ray Oscillograph，type TM V－122B．Com－ plete with all tubes and 906 Cathode Ray Tube． Your Cost


## RCA Frequency Modulator

For aligning receivers with the RCA Oscil－ lograph．Provides the necessary frequency variation and the A．C．synchronizing volt－ age．Combined motor－driven A．C．genera－ tor and variable capacitor．Two ranges 15 and 30 mmid ． 25 sweeps per second． $14^{\prime \prime}$ low capacity cable supplied．The generator frequency is two cycles per revolution per－ mitting positive synchronizing for double mitting positive synchronizator voltage is sweep alignment．The generator voltage is
1.5 volts minimum．Current consumption is 25 watts． $8^{1}$ 万 $\times 91 / 4 \times 41^{2}{ }^{\prime \prime}$ deep．Shpg．wt． 81 bs ．


${ }^{5} 27.50$

## Panel MEPR WESTON Type M

## 

Model 301
D. C. Instruments Permanent magnet moving coil type Accurate within $2 \%$. They are supplied as Voltmeters, Volt-Ohmmeters. Ammeters, Miliammeters and Micranmmeters. Weight approxi mately 8 ounces.


| Stock | Ohms | Res. |
| :---: | :---: | :---: |
|  |  | per V |
| XJ10627 | 0-100,000 | 1000 |
| XJ10628 | 0-500,000 | 1000 |
|  | Models |  | Movable iron type for A. C. only They are accurate within

Stock
Approx. Ohms


## Micro-Ammeters

A two inch meter having the same accuracy, fine workmanship, etc., as the Model 301.
D. C. Milliameters

| Stock No. | A | List | Net |
| :---: | :---: | :---: | :---: |
| XJ10827 | 1 | \$8.50 | \$6.24 |
| $\times 110820$ | 5 | 7.50 |  |
| XJ10821 | 10 | 7.50 |  |
| XJ10822 | 15 | 7.50 |  |
| X J 10824 | 50 | 7.60 |  |
| X 10825 | 100 | 7.50 |  |
| XJ10826 | 150 | 7.50 |  |


| XJ10776 | 1.5 | . 082 |
| :---: | :---: | :---: |
| $\times 110778$ | 3 | . 024 |
| XJ10779 | 5 | . 010 |
| XJ10780 | 10 | . 0058 |
| XJ10781 | 15 | . 00219 |
| X 120782 | 20 | . 00162 |
| X 110783 | 30 | . 00070 |
| X110784 | 50 | . 00057 |

## RRMRETGMER



Model 331-31/2"

##  <br> $\times K 1221 \quad 30-0-30]$ D. C. Voltmeters <br> (125 ohms per Volt <br>  $\mathbf{X K 1 1 2}$ $\times K 1123$ $\mathbf{x}$

 $\times K 1232$$\times K 1123$


| Stock No. | Range |  |
| :---: | :---: | :---: |
| XK11255 | $0-1$ |  |
| XK11256 | 0-3 |  |
| XK11257 | 0-5 |  |
| XK11258 | 0-10 |  |
| XK11259 | 0-25 |  |
| A. C. Milliameters |  |  |
| XK11265 | 0-15 |  |
| XK11267 | 0-50 |  |

$\times k 11240$ 0-10
$\begin{array}{lll}\times K 11242 & 0-500 & 7.39\end{array}$


Model 223-2" $\left.\begin{array}{ll}\times K 11212 & 0-50 \\ \times K 11213 & 0-100\end{array}\right\} ? 94$ $\times \mathrm{X} 11214$

## XK11215 <br> Model 233-2" <br> $\times \times 11260^{\text {A. C. Ammeters }}$

XK11260
$\times K 11261$
X
$\mathbf{X K 1 1 2 6 2}$
$\times K 11263$
$\times 11263$
$\times K 11264$ XK11280.
XK11281
$\times \mathrm{X} 11282$
$\times K 11281$
$\times K 11283$
$\times K 11284$
$\times K 1128$
XK11284
$\times K 11286$

| 0-1 |  |
| :---: | :---: |
| $0-5 \quad 21$ |  |
|  |  |
| 0-10 |  |
| 0-25 | 3.75 |
| Voltmeters |  |
| 0-10 |  |
| 0-15 | $\square 1$ |
| 0-25 |  |
| 0-50 | - |
| 0-150 | 3.75 |




## Wig Geloratory Test Prods and Accessories

Pencil Type Test Prods


Spring prongs at the end of prods allow changing from spade lugs to phone tips or
to spring clips. Handles $6^{* \prime}$ to spring clips. Handies $6^{* \prime}$
long, ${ }^{\prime \prime}$ in diam. Needle long, $\mathrm{y}^{*}$ in diam. Needle ing through insulated wire. Five foot biack and red fiexible wire, Complete with two Alligator Clips,
two needle point Phone two needle point Phone
Tips, and two tapered lugs XM12971
Your Cost
Per Pr., Complete 75
Similar to the above prods but without the interchangeable feature. Two Types-with permanently fastened Alligator Clips and with
permanently fastened Phone Tips. XM12882 Alligator Clips Your Cost
XM12883-Phone Tips Your Cost

Four-in-One Neutralizer Compensator and
$\qquad$ Com Kit" Combines in a founcain pen size com-
pact tool $1 / 4$ and
mut wrenche miniature blade screw driver for neutralizing and a full size insulated hander
strength fiber strength fiber.
XP15082- Your Cost
$65^{c}$

ICA Neutralizing and Aligning Tool Kit


For any adjustment on all types of receivers. Contains alligator side wrench, $6^{\prime \prime}$ insulated screw driver, metal
 1/4" square nut insulated wrench, $1 / 4$ " hexagon metal side wrench and $21 / 2^{\prime \prime}$ insulated screwdriver, metal nib. $/ 4$ " hexagon slotted insulated wrench; metal screwdriver; 3/1s" hexagon insulated nut wrench, 5 "insulated screwdriver, metal nib. $6^{\circ}$ insulated screwdriver. Shpg. wt. 11 lb.
XP15089
Your Cost.


## Test Lead Bargain!

37 inch test leads equipped with inch insulated Prods at the other end. Sharp pointed prod other end. Sharp pointed prod ends. Flexible wire. A real bar-
gain priee for this excellent pair of test leads. Buy a few pair of test leads. Buy a few pairs
and keep them on hand. Ends securely soldered. For use with analyzers, ohmmeters and various type
of testing equipment. The prods are colored red and black for distinguishing polarity. Shpg. wt. $\mathbf{1} \mathrm{lb}$ X XM12989-Your Cost. ......


## Neutralizing Tool



Carried in the pocketlike a fountain pen-has clip for pocket. $1 / 4^{\prime \prime}$ nut wrench with key slot and neutralizing screwdriver on removable inside rod; sis" nut wrenchin one end of outside barrel. Made of durable non-conductive material that will stand hard usage. Shpg. wt. 8 oz . XP14915
Your Cost Each.
$29^{\circ}$
Attachments for Above Neutralizing Tools

# BRACH NEON 

Test-O-Lite
$\Longrightarrow 060$ 亚

With this new Test-O-Lite you can find blownout fuses immediately Will check any voltage between 110 and 550 volts either A. C. or D.
C. Will also check spark plugs C. Will also check spark plugs, radio sets, household appliances, etc. Neon lamp protected by
moulded bakelite case. Handy mourded bakelite case, Handy pocket
lated leads.
${ }^{\text {lated leads. }} \times$ M12983-Your Cost ${ }^{\$ 1 . I 0}$

Phono-Needle Test


## Prods

## Sturdy handles with

 churck handles with graph needle. $50^{-1}$ leads, needie. sed, one leads, one red, one XM12975 - S Ends. XM12976. Ends. XM12976. Pin Tip Ends.Your Cost
$27^{\circ}$ X M12977-Alligator Clip Ends. Your Cost Your Cost

RCA Tuning Wand
$\qquad$
or determining correct alignment. One end contains a hollow copper tube which lowers the inductance verized iron which increases inductance of coil. By noting whether volume increases or decreases when valume increases or decreases when wand is inserted, serviceman can ell immediately if trimmer needs adjustment. Proper adjustment can therefore be made by reducing the output with either end of the
37 c $\begin{aligned} & \text { wand. } \\ & \times P 15024-Y o u r ~ c o s t . . ~\end{aligned}$
 For Crosiley Sets Extends tool 11/8". Has socket in end Your Cost.

$$
\begin{aligned}
& \text { For Majestic Sets } \\
& \text { Similar to Crosley in appearance b }
\end{aligned}
$$

$$
1 \text { socket. }
$$

$\star$ socket.

## NA-ALD PLUGS.ADAPTERS TESTERS

Bring Your Set Up-ToDate By Substituting New Type Tubes

XK11593-927 replaces Kellog overhead heater type tubes with 27 type. List 75c
Your Cost
$\times \quad \times 11594$ $\times K 11594-419 \mathrm{X}$ to use new 2 volt tubes in UV sockets.
Your
Cost
XK1161 -9751 use 59 instead of 47 tubes. List 75c
Your Cost
XK11628-944R2 to use 82 instead of 80 Rectifier tube.
Lube. 75 c
List 75 c
Your Cost.
Kour Cost. use 59 instead of 45 type tube.
List 75 c
Your Cost
Your Cost.
$\times K 11641-96 G K R$ use 2A5 instead of 47 type tube.
List 75c
$44^{c}$ XK11642-964KSPR to use 2A5 instead of 45 type tube. Your Cost

New! NA-ALD Small 7-Prong Analyzer Plug and Associated Adapters 907WLCAP


A complete cable, plug and adapter assembly that will bring your analyzer up to date. Cable has small 7prong latch-lock plug at one end, and an 8 contact plug at the other. Eight prong plug fits into an 8 -prong"eartype"socket, designed to mount on analyzer panel. All adapters marked with adapters marked with patented color rings Which instantly locate heater prongs, Cable providel is flve feet long and contains eight wires (one extra
lead). Shpg. wt. 1 lb .
No. 907 WLCAP-Small 7 -prong latch-lock analyzer plug with 8wire cable, Yiug and socket as illustrated. List $\$ 3.50$. \$ . . . . . . . . . . . . . . . . . . . . . .
XK11691-. No. 907 WLCA-Small 7 -prong latch-lock analyzer plug with 8wire cable, without plug and socket. List $\$ 2.50$
$\times K 11645-Y$ Your Cost ................................. $\$$ T XK11645-Your Cost.
XK11614-No. 974 DSA-Adapts plug to 4 -prong socket.
XK11613-No. 975 DSA-Adapts plug to 5-prong socket.
XK11612-No. 976 DSA-Adapts plug to 6 -prong socket.
XK11646-No. 977 DSA-Adapts plug to large 7-prong socket
List 7Sc
Any type, Each.

Tube Leakage and Short Tester No. 9SC


Tests 4, 5, 6.
 large 7 prons tubes. Checks inter-element leakages up tos 1 megohmand also dead
Neon tube glows to show defective tube Jacks provided for using tester as continuity meter. Comes completa with neon lamp, cord and plug, and grid lead. For use on 110 volts, A. C or D. C. Shpg, wt. 2 lbs KK11308-List $53.50 \$$
2.06

950 TR
Now you can test $2525,43,48$ tubes, etc., and all others with 10 -12.6-14-15-25-30 volt flaments in the 24 socket of your old type tube checker. Has built-in transformer to supply filament current. Shpg. wt.
31 bs.
XK11616-950TR
$\frac{\text { our Cost........... 25. } 24}{\text { Output Meter Adanter }}$
Used for connecting Output Meter to plate prong of any tube. 5 foot lead. Fully insulated. Tip jack one end, prong other.
end,prong other.
$21^{\circ}$

## "Van" A. C. and D. C.

Shunts and Multipliers
Accuracy Limits 2\%

These multipliers are of a pig-tail type, very light in weight, have no metal end caps, well insulated and may be mounted very close together. They are very cose $\times 13$ inches. exclusive of pig-tails, measure $4 \times 1 / 2$ inches


Special VAN Multipliers for 1000 Ohm Copper Oxide

## Rectifiers

Measurements are calibrated at half scale on a 1 Mit .50 M . V. Weston 301 meter. 50 -volt and over ranges are read on the regular $\mathbf{D} . \mathbf{C}$. seale. Ranges of 5 and 10 volts require the correction markings as used on the A. C. scale of the No. 4 VAN Dial.


Multiple Shunts


$$
\begin{aligned}
& \text { For } 1 \text { Mil., } \\
& \text { Meters } \\
& \text { Your Cost } \\
& \text { Stock } \\
& \text { No. } \\
& \mathbf{X K 1 0 9 1 3} \\
& \mathbf{X K 1 0 9 1 4} \\
& \mathbf{X K 1 0 9 1 5}
\end{aligned}
$$

Stock Mill NK10910 $\times \times 10911$ $\times K 10911$
$\times K 10912$
$88^{c}$
Milli-
amps 60
100 500

For 30 M. V. Meters
Each,

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Milli- } \\ & \text { amps. } \end{aligned}$ | $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ |
| :---: | :---: | :---: |
| XK10960 | 5 | $\times \mathrm{K} 10963$ |
| $\times \times 10961$ | 10 | $\times \mathrm{K10964}$ |
| XK10962 | 25 | XK10965 |

For 50 M. V. Meters
Each
Your Cost

| Stock | Milli- | Stock |
| :---: | :---: | :---: |
| No. | amps. | No. |
| $\mathbf{\times M 1 0 9 1 8 ~}$ | 5 | $\times \times 10922$ |
| $\mathbf{X M 1 0 9 1 9}$ | 10 | $\times \times 10922$ |
| $\mathbf{\times M 1 0 9 2 0}$ | 25 | $\times \times 10923$ |

## Copper Oxide Meter Rectifier

Converts D. C. millia-
meters of 15 meters of 15 M. A. or less to A. C. milliameters. With proper
 resistors can measure up to 1000 volts. Only
$1 / 1 \times 3 / 6^{\prime \prime}$. Full instructions included. Shpg. wt 116

Metal and Plyboard Metal Dials


Heavily silver plated metal dials with etched Heavily silver plated metal dials with etched Jewell (88-54), Weston (301) and Triplett (321) meters. Plyboard dials in Types 1,2 and 4 for Beede ( 701 ) meters. Type $3 X$ dial in metal for Weston 301 and Jewell 88 fifty millivolt meters. XK10946-Dial No. $1 \times$ X10940-Dial No. 3X XK10947-Dial No. 2 XK10949-Dial No. 4 List Price, Each 75c
Your Cost
Each.


WESTON Rectifier Type
A.C.-D.C. Meter Model 301
Designed for use with external resistances and shunts for measuring D. C. voltages and current and $A$. $C$.
voltages. Of the permanent magnet mov ing coil type with a self-contained copper oxide rectiffer for A.C.
measurements, measurements. Sell and 1 mill. A. C., and 60 millivolts and 1 mill. $\begin{array}{ll}\text { D. C. Accurate to within } 2 \% & \text { D. C. }-5 \% \text { A. C. } \\ \text { Your Cost List } \$ 19.00 . & \$ \text { T }\end{array}$

WESTON O-1 MILL, D. C. METER
Type 301. Same construction as the above meter. List $\$ 10.00 .1 . .$.
TRIPLETT A. C.-D. C. Meter $\begin{gathered}3^{\prime \prime} \text { Universal }\end{gathered}$
Uses a copper oxide rectifier in an advanced circuit that minimizes losses due to rectifica-
tion. With multipliers scate readings are 0-15-$150-750$ volis $A$. C. or D. C. at 1000 ohms per volt. resistance. D. C . milliampere readings milliampere readings are 15-150. Ohms scale $0-1500$ and $0-1.5$ megs. Comes complete with D. P. D. T. switch for changing from A. C. to List $\$ 15.00$. XK11291
Your Cost.

## Copper Fuse Clips

Punched out of copper and nickel plated. Has many uses.
Your Cost Each.
12 for.

P. D. T. switch for



Littelfuses for Test

## Instruments

Designed toinsure and protect meters and
 other expensi ve equip-
ment. Are dependable
and accurate. Has many laboratory uses. Breaks circuitimmediately on reaching maximum milliampere load. Length 1 ", diameter $1 / 4$ ".
Stock Max. Resist. Your Your Stock Rating Load on 5 Mil. Cost Cost



 \begin{tabular}{lllll|ll}
XL12391 \& $1 / 8$ \& 300 \& 3.0 \& 1 \& $\$ 0.09$ \& $\$ 1.05$ <br>
XL12392 \& $1 / 2$ \& 400 \& 2.5 \& \multicolumn{1}{l}{} \& \&

 $\left.\begin{array}{|rrrr}\text { XL12393 } & \text { 多 } & 600 & 1.0 \\ \mathbf{X L} 12394 & 1 & 1000 & 36\end{array}\right)$ 

$\mathbf{X L}$ <br>
$\mathbf{X L} 12395$ \& 2 \& 1000 \& $.36 " ،$ \& $\mathbf{2}$ <br>
\hline
\end{tabular}

## Littelfuse Mountings

These attractive mountings have a base of moulded bakelite. Are urnished with plated fuse clips, slotted to hold fuse rigid. Has cerminals of tinned


Similar to a bove but for standard fuses. XL12324-Each

## Littelfuse Panel Type Mounting

For sub-panel use. Studs are 1" ong and have 6-32 thread. For ${ }^{1 "}$ fuses only. Base of fine bakelite.

Same but for standard size fuses.
$9^{\circ}$
Fuses for Sets and Amplifiers Designed for protection of radio receivers. Used in

Approved. Size $1 / 4 \times 13 / \mathbf{N}^{\prime \prime}$.
Stock
No. Amps.
$\times 12378$ A
XL12378
XL12379 XL12380 XL12381
$\mathrm{XLL12396}$
XL 12397
XL 12397
XL 12398 power supply line.

XL12399
$\left.\begin{array}{c}\text { V. } \\ 250 \\ 250 \\ 250 \\ 250\end{array}\right\}$ $5^{c} \quad 55^{c}$

## Fuse Retainer

A special fuse holder auto radio sets. Two
piece connector of heavy metal, with fibre inside insulation. Heavy spring contact assures perfect connection at all times. $2 \mathrm{LF}_{2}{ }^{\prime \prime}$ long.
XL12372-Your Cost Each

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For auto radio sets. Twopiece metal container, fibre inside insulation.
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Your Cost Each

## Auto Fuses

A vailable in $1,2,3,4,5,6,8$, $10,15,20,25,30$ a mp. sizes. XM13189 - Tin of 5 (any one size).
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$14^{c}$

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## Radiocraft Library

## These books are

 all new and up-to date; written by men who are au-thorities on the thorities on the subject. The volumes are all uniform size $6 \times 9^{\prime \prime}$ and contain 50 to 120 illustrations. XY19905-Radio Set Analyzers. XY19906-Mod-
ern
X Y 19907-The Superhet Book. X Y19908-Modern Radio HookXY19909 Hps.

Service Man.
XY19910--Bringing Ele.
XY19911 Up-to-Oate.
XY19912-Wrinkles. Radio Qu
XY19913-Auto Radio and Servicing.
XY19914-Home Recording and XY19915* All About It.

How to Build and Operate Short Wave

XY19923*-How to Become An Amateur Radio Operator.
XY19934—Point to Point Resist-
XY19961-P.A. Installationand Servicing.

List Each, Soc.
Your Cost
35

How to Get Best Short Wave Reception
 Get the most out of short wave reception by reading this very instructive book. Tells how and when to tune for the various short wave stations. Tells get verifications them, ${ }^{72}$ Pages.

## $50^{c}$

## 101 S. V. Hookups

 101 of the most popular short wave hookups including from 1 to 10 tube receivers. $\times$ Your Cost .... $50^{c}$

# Service over 90\% of all Standard Receivers with mutest Power rans formers 



Trutest Power Transformers, engineered by experts and constructed of the finest materials, truly deserve the popularity accorded them in the service field. Each unit is designed to provide ample safety factor under any normal conditions of use. As a result, Trutest Power Transformers are fully guaranteed, under R.M.A. standards, for a period of 90 days, against mechanical or electrical defects. This is your assurance that Trutest Transformers will live up to the claims made of them. To simplify installation, and to preclude possibility of error in wiring, each unit is furnished with a schematic diagram showing each terminal connection.


Furnished in both flush and horizontal mountings in the large variety of sizes given below, these transformers should prove applicable to most any receiver on the market. The flush type of mounting is recommended as furnishing the more finished sppearance. For replacement work the horizontal type of mounting will be found to be more practical Experimenters and set builders will find in Trutest Power Transformers
a solution to their long-felt wants. Compactness, ease of wiring and general appearance will go far to eliminate that "home made" look. On Flush Mounting Types, soldering lugs terminate on an insulated strip and protrude through the sub-panel. The Upright Horizontal Types have wire lead terminals and leet are provided on bases; the slight elevation permitting air circulation under cores.

## For the New 6.3 <br> Volt Tubes

5 and 6 Tube Sets
Up to Four Heater Type Tubes, One Power Tube and One 80 Rectifier MOUNTING AREA: 3x24: MOUNTING DIMENSIONS: $24 \times 2$ ". PRIMARY: 115 volts, $50-60$ cycles. SECONDARIES: $300 / 300$ volts- $50 \mathrm{M} . \mathrm{A}$ 6.3 volts C.T., 2 amps. (for two or three heaters and one power tube)
5 volts, 2 amps. ( 80 filament). Flush mounting type. XC1518-Shpg. wt. 3 lbs
Your Cost, Special

## 7 and 8 Tube Receivere

 Four or Five Heaters and Two Power Tubes ( 6.3 Heaters) or Seven Heaters (6.3) and Two Power Tubes (2.5), One 80 or 523 RectifierMOUNTING AREA: $31 / 63{ }^{\circ} \mathbf{g}^{\prime \prime}$.
MOUNTING DIMENSIONS: $21 / 2 \times 31 / 8^{\prime \prime}$ PRIMARY: 115 volts, $50-60$ cycles. SECONDARIES: $\mathbf{3 5 0} / 350$ volts- 90 M.A 6.3 volts C.T., 3 a mpa. (for 3 or 4 heaters and 2 power tubes).
2.5 volts C.T., 4 amps. (for two power tubes). 5 volts, 3 amps. (for 80 or $5 Z 3$ rectifier). Flush mounting type. Xlush mounting type. X ibs.

52,24

9 and IO Tube Receiver: Up to Seven Heater Type Tubes and Two Power Tubes (all 6.3 to Ten Heaters (6.3) and Two Power Tubes (2.5), Dne 80 or 523 Rectifier
MOUNTING AREA: $41 / 3 \times 3 \% /$.
MOUNTING DIMENSIONS: $31 / \mathrm{E}^{2} 21 /{ }^{\prime \prime}$ PRIMARY: 115 volts, 50-60 cycles. SECONDARIES: $350 / 350$ volts- 100 M.A 6.3 volts C.T., 4 amps. (for 7 heaters and 2 power tubes).
2.5 volts C.T., 4 amps. (for 2 power tubes) 5 volts, 3 amps . (for 80 or $5 \mathrm{Z3}$ rectifier). Flush mounting type. XC1520 Shpg. wt. 9 lbs Your Cost, Special

5203

## For use with the New Type Tubes

Up to 8 Heater Type Tubes 2 of the New 2 A3 Power Tubes 1-83 Rectifier
Suitable both for Class A and Class A1 (a modified Class 8 amplification).
MOUNTING AREA: 4 $^{1 / 5 \times 3}{ }^{3 / 4}$. MOUNTING DIMENSIONS: $8 \times 3 \frac{2}{4}$. PRIMARY: 115 volt, $50-60$ cycle SECONDARIES: $400 / 400$ at 150 M.A. $21 /{ }^{2}$ volts C.T. 5 amp. 212 volts C.T. 12 amp .
5 volts 5 volts
Flush mounting type
XC1517-Shpg. wt. 101 bs
Your Cost, Special.

## Additional TRUTEST Power Transformer Specifications

 As a further aid to the serviceman in selecting proper parts to fill his requirements, Trutest engineers offer the following information: A verage temperature rise on all transformers isted tested at 1500 volts; Primary tested at double the rated voltage.
## 5 and 6 Tube Receivers

For Three or Four $21 / 2$ Volt Heater Tubes, One 2 $1 / 2$ Volt Power Tube and One 280 or 282 Rectifier
MOUNTING AREA: 31/×33" MOUNTING DIMENSIONS: $31 / 8 \times 21 /{ }^{\prime \prime}$ ". PRIMARY: 115 volts, 50 -60 cycles.
SECONDARIES: (1) 700 volts C.T.- 70 M.A. (2) 5 volts, 2 amps. (one 280 filament), or (3) 2.5 volts, 8.75 amps . ( 3 or 4 heaters and 1 power tube).
Shipping weight 6 lbs .
Flush Mounting Type XC1492-Using 280 Rectifier. $5 \rightarrow 3$
XC1498_Using 82 Rectifier.
Your Cost Each

## 



For 4 Tube Midget For 2 Heater Tubes 1 Power Tube and 1-80 Rectifler

MOUNTING AREA: $3 \times 21 / 2 "$ MOUNTING DIMENSIONS: 21/2x2" PRIMARY: 115 volts, $50-60$ cycles. SECONDARIES: 650 volts C.T. -40 M.A. 2.5 volts C.T., 3.75 amps. For 2 heaters and 1 power tube. 5 volts, 2 amps. for 80 filament. Flush mounting. Your Cost Each


## Special Midget Transformer

 For 5 Tube SetsFor Three Heater Tubes, One Power Tube and One 80 Rectifier
MOUNTING AREA: $3 \times 21 /{ }^{\prime \prime}$ ".
MOUNTING DIMENSIONS: $21 / 2 \times 2$ ". PRIMARY: 115 volts, 60 cycles.
SECONDARIES: 680 volts, C.T. -50 M.A. 2.5 volts C.T., 7 amps. (for 3 heaters and 1 power tube).
5 volts, 2 amps. (for 80 rectifier).

## Flush mounting type.

XC2431-shpg. wt. 4 lbe.
bs
Your Cost, Special.
©

6 and 7 Tribe Receiver:

## Push-Pull Power Tubes.

For Three $21 / 2$ Volt Heater Tubes, Two 21/2 Volt Power Twbes and One 280 Rectifier MOUNTING AREA: $31 / 23 /{ }^{\prime \prime}$ "
MOUNTING DIMENSIONS: $21 / 2 \times 31 / \mathrm{s}^{\prime \prime}$.
PRIMARY: 115 volts, 50-60 cycles.
SECONDARIES: (1) 700 volts C.T.- 70 M.A.
(2) 5 volts, 3 amps. ( 280 filament).
(3) 2.5 volts C.T., 3.5 amps . (2 power tubes).
(4) 2.5 volts, 7 amps. (3 or 4 heaters).

Shpg. wt. 8 lbs.
Flush Mounting Type $\times \mathrm{C} 1505$
Your Cost Each


Horizontal Mounting Type
Same tube characteristics as ab centers $31 / 8 \times 15 / 6$
Your Cos

s 1.69

## 8 and 9 Tube Recelvers

For Four or Five 21/y Volt Heater Tubes, Two $21 / 3$ Volt Power Tubes and One 280 or 282 Rectifier MOUNTING AREA: 35/844/3" MOUNTING DIMENSIONS: $2^{7 / 8 \times 31 / 16^{\prime \prime}}$ PRIMARY: 115 volts, $50-60$ cycles. SECONDARIES: (1) 700 volts C.T.- 90 M.A. (plate).
(2) 5 volts, 3 amps . (one 280 filament), or
2.5 volts, 3 amps. (one 282 filament).
(3) 2.5 volts C.T., 3.5 amps . (2 power tubes).
(4) 2.5 volts, 10.5 amps. (5 or 6 heater tubes). Shpg. wt. 8 lbs.

Flush Mounting Type
XC1507-Using 280 Rectifier. $S$ Ret
XC1499—Using 82 XC1499-Using 82 Rectifier.
Your Cost Each..........

Horizontal Mounting Type Same tube characteristics as above. Mounting
centers $31 / 1 / 2^{2 "}$ centers $\times$ C1508-Using 280 Rectifier Your Cost Each

## 10 and 12 Tube Receivers

MOUNTING AREA: 31 $\times 4 y^{\prime \prime}$ "
MOUNTING DIMENSIONS: $3 \times 3 \% "$
PRIMARY: 115 volts, 50-60 cycle.
PRIMARY: 115 volts, $50-60$ cycle. 110 M.A.
SECONDARIES: (1) 700 volts C.T. -110.
(2) 5 volts at 3 amps. (280).

3 3.5 volts at 3.5 gmps .
(4) 2.5 volts at 15.25 amps .

Shpg. wt. 9 lbs.
Flush Mounting Type

## XC1509.

$\$ 2.30$
Horizontal Mounting Type Same tube characteristics as above. Mounting centers 2 多 $\mathrm{g}^{37}$ 化".
$\$ 2.45$

[^3]

## Frirbco POWER TRANSFDRMERS



## Guaranteed

## Replacements

 Designed for Philco Replacements, Guaranteed to be equal to the original General purpose replacement. The usual method of installing these transformers makes possible a very neat arrangement with all wiring out of sight under the base panel Aver. Shpg. wt. 8 ibs Hook-up furnished with each transformer. All have 100 -volt, 60 -cycle primary.

## MORDARSN Power transiorwers

## Half-Shell

 Types- Made for general replacement purposes and for use in new equip ment. All terminals col or coded for easy identi fication. Both 2.5 and 6.3 volt types.
2.5 Volt ( 5 to 9 tubes)

T-4900-Primary 110 volts. Secondaries 5 volts at 2 amps., 2.5 volts at $81 / 2$ amps. and 700 volts C. T. at 70 M . A. Dimensions $37 / 8 \mathrm{x}$
 XA424-Your Cost.
2.5 Volt ( 8 to 12 tubes)

T-6363-Primary 110 volts. Secondaries 5 volts at 2 amps., 2.5 volts at 3 amps., 2.5 volts at 9 amps . and 700 volts C. T. at 80 M . A. Dimensions $37 / 8 x$
Shyg. wt. 8 lbs
Your Cost
s2.35
6.3 Volt

T-7021-Primary 110 volts. Secondaries 6.3 volts at 3 amps., 2.5 volts at 4 amps ., 5 volts at 2 amps. and 700 volts C. T. at 70 M . A. Dimensions $37 / 1 \times 314^{\circ}$. Chassis hole $17 / 8 \times 2^{7} / 6^{\prime \prime}$ Shpg. wt. 8 lbs.
$\times 4459$
Your Cost


Fully Shielded

## Type

## 7 to 11 Tubes

T-5602-Primary 110 volts, 50-60 cycle. Secondaries 2.5 volts at $9 \mathrm{amps} ., 2.5$ volts at 1.5 amps ., 5 volts at 2 amps . and 700 volts C. T. at 70 M . A. Dimensions $8^{11} / 2 \times 8 \% / 4 \times 48 y^{n}$ high. Color coded leads. Shpg. wt. 10 lbs . XA261-Your Cost.

s2.50


## TRANSFORMERS

 Brand New! VICTOR ModelsR-32, R-52, RE-45 and RE-75
Exact duplicate of the original. No changes neessary to install. 110 voit, $50-60$ cycles. Shpg wt. 13 lbs.

${ }^{s} 2.65$
RADIOLA Models 17, 18, 33, 50, 51; VICTOR 7-11, 7-25 and 7-26;

## GRAYBAR 311.

Part No. 8287-8335. Genuine replacement. 50 to 60 cycles. Shpg. wt. 9 lbs. $\underset{\substack{\text { Your } \\ \text { Yost }}}{\substack{\text { Cous }}}$


RCA 44, 46, 47 GRAYBAR 500, 550 Part No. 8472. Exact duplicate of the original Shpg. wt. 10 lhs.
XC2152 Your Cost.
${ }^{2} 2.60$
RCA 60, 62 GRAYBAR Model 340 BRUNSWICK 3NC8, SNC-8 Part No. 8344. Exact duplicate of the original


RADIOLA 66 GRAYBAR 600 Part No. 8483 - Exact duplicate of the original. 50-60 cycles. Shpg. wt. $13 \mathrm{lbs} . \quad \$ 2.95$
$\times C 2154$ Your Cost............. 5.


RCA-VICTOR Models R-50, R-55, RE-20, RAE-59 and RAE-79.
G. E. H-32, H-72; GRAYBAR GB-100. Original replacement. Shpg. XC2190-Your Cost.
${ }^{2} 2.95$
RADIOLA Models 80, 82, 86 GRA YBAR Models 700, 770, 900 GENERAL ELECTRIC H31, 51, 71 WESTINGHOUSE MODELS WR5, 6, 7, 8
Part No. 8556. Genuine replacement. 50 to 60
 VICTOR Models 35, 39, RE 57, RE 73 Part No. 10917. Genuine replacement. 50 to 60 cycle Shpy. ut. 15 lbs.
$\mathbf{X C 2 1 9 5 - Y o u r ~ C o s t . ~}$
${ }^{1} 1.88$
Radiola Models 42 and 48
Victor 14, 15, 17; G. E. Model T-41
Graybar Models 678, RC-3
Genuine Part No. 8609.110 volt, 5060 cycle. Shpy. wt. 8 libs.
${ }^{5} 1.90$
RCA-Victor Models R11, 18, 18A, RAE-26, R-21
Westinghouse WR-15
G. E. K-62; Graybar GB-9 Exact duplicate of Part No. 7272. 110 volt, 50 60 cycle. Shpg. wt. 9 lbs.
XC2189- Vour Cost.
${ }^{5} 3.25$

## RCA-Victor R-7 "Superette"

G. E. S-22; Graybar 8 Midget Genuine Part No. 8679 . Shpg. wt. 7 lbs. $\times \mathrm{Genuine}$ Your Cost

## Stewart-Warner

## Model R-119 Part No. 83442

The genuine StewartWarner power transformer for the above model set. Set uses 2-78's, 1-6A7, 1-85, $1-42$ and $1-80$. Has one 6.3 volt winding at 2 amps.; one High voltage $350-350$ amps. High voltage 350-350 at 80 M.A. Primary for 110 volts.
$50-60$ cycles. 50-60 cycles. Upright mounting. Shpg. wt. 5 lbs. $\underset{\text { Your Cost }}{\mathbf{X}}$

. 1.59

Models 102A, B, E
Exact duplicate of Part No. 67556 . Set uses 2-24A's, 1-35, 1-27, 1-47 and 1-80. Color coded leads. Open type. Shpg. wt. 9 lbs. $\$ 2.95$
$\times \mathbf{C 2 2 1 4}$ Your Cost.

## Atwater Kent

 Power TransformerModels 70, 72, 75, L-1, L-2, H-1, H-2
An exact duplicate of the original AtwaterKent Power transformer used in the above models. Has the special high Voltage secondary winding as used on the original. Extra heavy
 ing. No changes necessary to install this unit. Shpg wt. 6 lbs.
Xe2440 Your Cost............ 3.15

## Atwaterientoweroures

These units have been built to the original manufacturers' specifimanufacturers specifianteed to give lasting anteed to give lasting and satisfactory service.
All are color coded All are color coded exactly hike the original
Complete diagrams supplied with each unit.

For Modeis $\mathbf{4 0}, 56$ and 57
Shpp, wt. 17 lbw.
XB1376-Your Cost
\$4.95
For Model 41 D. C.
Comes complete with resistors. Shpg. wt. ${ }^{17 \mathrm{lbs} .} \mathbf{~ B 1 3 8 3}$ your Cost.......... $\mathbf{\$ 1} .95$

For Models 42, 44, 45 and 52
Shpg. wt. 17 lbs .
$\times \mathrm{Bl} 376$ - Your Cost.
54.95

For Models 43, 46, 47 and 53
Shpg, wt. 19 lbs.
XB1375- Your Cost
56.90

Models 37 and 38


Guaranteed to be equal or superior in performapce to the original units. They contain the filter condenser block and three chokes; two high voltage filter
chokes and one speaker chokes and one speaker
choke. Constructed using the highest grade of materials. Leads color nished. Shpg. wt. 7 lbs. XB1378-Your Cost.
5.71

## POWER TRANSFORMER

For models 36, 37 and 38. Exact duplicate of the original. Shpg. Wt. 9 lbs. $\$ 2 . I 5$
XC225s Your Cost. ......... $\$ 3.15$

Trutest "Bottom Shell"
Power Transformers


A completely shielded transUnderwriters.

For 5 to 6 Tubes
Secondaries: 5 volts at 3 memp., 2.5 volts at $51 / 3$ amps., 2.5 volts C.T. at $13 / 4$ mps, 650 volts C. T. at 50 M. A.; primary 115 volts $50-60$ cycles. Dimen Sions: $\mathrm{XC1450}$ Your
Cost


For 6 and 7 Tubes
Secondaries: 2.5 volts at 7 amps., 2.6 V. C. T. at 3 amps., 5 volts at $3 \mathrm{amps} ., 700$ volts C. T. at 70 M . A. Dimensions: $3 \frac{1}{3} \times 33 / 4 \times 3 \frac{3}{6}{ }^{\prime \prime}$. Primaries 115 volts $50-60$ cycles. Shpg. wt. 6 Your Cost

## For 8 and 9 Tubes

Secondaries: 2.5 volts at $10.5 \mathrm{amps} ., 2.5$ volts C. T. at $3 \mathrm{amps} ., 5$ volts at $3 \mathrm{amps} ., 700$ volts C. T. at 90 M . A. Primary 115 volts $50-60$ cycles. Dimensions: $35 / 8 \times 41 / 4 \times 31 / 2^{\prime \prime}$ high. Shpg. wt. 7 lbs .
XC1452-Your Cost $\qquad$ ${ }^{1} .95$

## For 6.3 Volt Tubes

For 4 and 5 Tubes
Secondaries: 6.3 volts C. T. at 1.6 amps., 5 volts at 2 amps ., 650 volts C. T. at 50 M . A. Dimensions $236 \times 3 \times 31^{\prime \prime}$ high. Primary 115 XE5492Your
s 1.15
For 6 and 7 Tubes
Secondaries: 6.3 volts C. T. at 2.8 amps ., 8 volts at $3 \mathrm{amps} ., 650$ volts C. T. at 70 M . A
 volts $50-60$ cycles. Shpg. wt. 8 lbs . $\$$ I. 45
$\times E 5493$ - Your Cost.............

## THORARDSON High Power Transformer

For Two Type 50 or 10 Power Tubes Upright mounting transformer, fully shielded Has long color coded leads for direct connections. Supplies all necessary plate and filament voltages for high powered radio receivers. Also ideal for use with low power transmitters. Has following windings: High voltage delivers 1200 volts C. T. T. at $10 \mathrm{amps}. \cdot 7.5$ volts
 C. T. at 3 amps.; 5 volts at 3 amps . (for rectifler). Primary for 115 volts, 60 cycles A. C High voltage insulation used throughout. Size $5 \times 4 \times 4 \%$ "; mountiog centers $3 \times 38 /$

## Shyp wt

## XA226-

## THORDARSON T-3740

Similar to above. Has lugs and leads. Has following secondaries: No. $1-2.5$ volts C. T. at 9 amps . ( 5 heaters); No. $2-2.5$ volts C. T. at 3 amps. ( $2-45^{\prime} \mathrm{s}$ ); No. 3 - 750 volts C. T. at 110 M. A. (high voltage); No. 4-5 volts at 2 amps ( 80 rectifier) Dimensions Shpg. wt. 10 lbs . XA223

GENERAL MOTORS Power Transformers


## Model S1A

For chassis numbers: 216, 217, 219 and 250. Original Part No. 1204245. For $3-35^{\prime}$ 's, 1-24, $2-$ 27's, 1-47 and 1-80. Shpp. wt. 8 lbs.

## Your $\$ 2.75$ Cost

For Model S3A
Chassis No. 252, 253, 254, 255, 256, 257 and 58. Original Part No. 1204179. For 3-35s, $1-24,3-27 \mathrm{~s}, 2-45 \mathrm{~s}$ and 1-80. Shpg. wt. 10 lbs.
X $2520-5$


pow$\square$

Name of Radio and Model ALL AMERICAN MOHAWK Lyric 90
$D$ and
$H$
AMRAD
81 Bel Canto Series. APEX

## Gloritone 26-A <br> Gloritone $26-1$ <br> Gloritone 36 and 37 . <br> 36 and $37 . . .$. $28-A, 29$ and 31 <br> 46,47 and 48 <br> Case 80 <br> 8-B. <br> $7{ }^{7} 1$

ATWATER KENT
36, 37 and 38
$40,56,57,42,44,45,52$ Com-
43, 46, 47, 53 Complete Pack 41 D. C. Complete Pack. 55 and 55-C, Early Type
55 and $55-\mathrm{C}$, Late Types 60 and $60-\mathrm{C}$
66 Plate Transformer
80, 85, $60-\mathrm{C}, 25$ cycle
80 and 83
$80-\mathrm{F}$ and $83-\mathrm{F}, 25$ cycle
84.

84-F, 25 cycle.
87,89 and $89-\mathrm{P}$
$89-\mathrm{F}, 25$ cycle.
70, 72, 75, L-1, L-2, Hi-1, H-2
310..
28.
48.
58.
68.
133.

Model 20.
BRANDES
B-10 and B-11
B-15 and B-16
BRUNSWICk
2-KRO, 3-KRO, 3-KR6,
6-KR, 5-KRO, 5-KR6
-NC8 and $5-\mathrm{NC} 8$.
S-14, S-21, S-81, S-82.
11.
$1,12,16,33$
CLARION
51,53 and 55
$60 \ldots . . . . .$.
$90 . . . . . .$.
OLONIAL
COLONIAL
31.

33,34 and 35
36-114, 38-117, 39-125 47.

COLUMBIA-KOLSTER
930-300
931
COLUMBIA RADIO
Screen Grid 8.
Screen Grid 9
CROSLEY
Power Converters, 104-105106 Bandbox.
AC-7
608, 25 cycle
704 -
706 Showbox and $704-$ B.
$40-\mathrm{S}, 41-\mathrm{S}, 42-\mathrm{S}$ and $82-\mathrm{S}$
32,40 and 41
41 -A and 42-A

## EARL

21 and 22
21, 31 ............
24, 31, 32, 33 and 41 .
4, $31,32,33$ and 41,

XC2200 $\$ 3.40$ XC2201 3.69

XC2281 3.85 X 22.95 $\begin{array}{ll}\mathrm{XC2484} & 2.95 \\ \mathrm{XC} 2895 & 2.35\end{array}$ $\begin{array}{ll}\mathrm{XC} 2485 & 2.45 \\ \mathrm{XC2206} & 3.35 \\ \times C 2212 & 3.75\end{array}$
XC2212 3.75
$\times C 22083.75$
XC2208 3.75

## $\times C 2209$ $\times \mathrm{C} 210$

$\mathrm{XC2210}$
$\times \mathrm{C} 2211$
$\times \mathrm{XC} 248$

| $\mathbf{X C 2 4 8 0}$ |
| :--- |
| $\mathbf{3 . 3 0}$ |

XC2481 4.40
XC2482 2.45
$\times \mathrm{X} 2483$
XC2255
X
$\times \mathrm{XB1376}$
$\begin{array}{ll}\mathrm{XB} 1375 & 6.90 \\ \mathrm{XB} 1383 & 1.95\end{array}$
$\begin{array}{r}\mathrm{XC2449} 3.95 \\ \times \mathrm{C} 2246 \\ \hline .45\end{array}$
$\mathrm{XC2446} 3.95$
$\times 2.9246$
XC2246 4.45
$\mathrm{XC2444}^{2.85}$
$\times \mathrm{XC2447} 3.45$
$\begin{array}{ll}\mathrm{XC2471} & 4.95 \\ \mathrm{XC2472} & 3.40 \\ \mathbf{X C 2 4 7 3} & \end{array}$
$\begin{array}{ll}\mathrm{XC2472} & 3.40 \\ \times C 2473 & 3.95 \\ \mathrm{XC247} & \end{array}$
$\times C 2474$
$\times 2.45$
$\times$

| XC2475 | 3.95 |
| :--- | :--- |
| $\mathbf{X C 2}$ |  |

$\begin{array}{ll}\text { XC2475 } & 3.75 \\ \text { XC2477 } & 5.75 \\ \text { XC2470 } & 3.15\end{array}$
$\begin{array}{rr}\mathrm{XC2477} & 5.90 \\ \times C 2440 & 3.15 \\ \times\end{array}$

| $\times C 23783.75$ |
| :--- |

$\times 2254 \quad 2.45$
XC 2336
$\mathbf{4 . 1 0}$
$\times C 2250$
3.25
$\begin{array}{ll}\mathrm{XC2260} & 3.25 \\ \times \mathrm{C} 2261 & 3.25 \\ \mathbf{X C 2 2 0}\end{array}$

\section*{| $\times C 2262$ |
| :--- |}

$\begin{array}{rr}\mathrm{XC2202} & 3.20 \\ \mathrm{XC2432} & 3.15 \\ \mathbf{X}\end{array}$
$\begin{array}{lr} \\ \times C 2432 & 3.15 \\ \times C 2433 & 4.45\end{array}$

XC2050 2.75
C2051 4.50

| $\mathrm{XC} 2150 \quad 135$ |
| :--- | :--- |
| $\times C 2153$ |

XC2153 2.60
$\times \mathrm{C} 2355$
$\begin{array}{ll}\text { XC2082 } & 3.25 \\ \text { XC2083 }\end{array}$
$\begin{array}{ll}\times 2083 & 3.50 \\ \times C 2085\end{array}$
XC2084 4.25

XC2233 3.95
$\mathrm{XC2232} 3.95$
$\times 2.95$
XC2236 3.55
$\times \mathrm{C} 2363 \quad 3.70$
$\times \mathrm{C} 22793.40$
$\mathrm{XC2280}$
$\mathbf{4 . 0 5}$
$\mathbf{C 2 2 5}$
$\mathbf{3} .40$
$\begin{array}{rr}\mathbf{X C 2 2 5} & 3.40 \\ \times C 2227 & 2.75\end{array}$

## $\times \mathrm{C} 2057 \quad 6.00$

$\times 20586.00$
$\times \mathrm{C} 2305 \quad 3.40$
$\times \mathrm{X} 24343.95$
$\times$ C1882
XC1890
XC1885
$\times C 1887$
$\times C 1886$
$\times C 1886$
$\times C 1850$
XC1851
XC1852

XC2286
XC2287 2.90
XC2288 1.95

Name of Radio and Model EDISON
R-4, R-5 and C-4
R-6 and R-7
R-1, R-2 and C-2 (Plate
Transformer
R-1, R-2 and C-2 (Filament Transformer)
EVEREADY


## FADA

$10,11,16,17,20,30,81$ and 32 25.

35 and 35-B
$41,42,44,46$ and 47 43.

50, 70, 711,72 for E-420
75 and 77
45 (KU).
RA
RC
$\mathrm{KO}_{\mathrm{KX}}$ and KOC; $51,53,57$
FREED
55 and 56
$65,78,79,90$ and 95 .
$65,78,79,90$ and 95 , coil only
FREED-EISEMANN NR-57 and NR-60.

## FRESHMAN

"Q" 60 cycle
$\mathrm{G}-60-\mathrm{S}$ Plate Transformer
$\mathrm{N}, 2-\mathrm{N}, \mathrm{N}-11, \mathrm{~N}-12, \mathrm{~N}-17$ -60S
GENERAL ELECTRIC
$\mathrm{H}-31, \mathrm{H}-51$ and $\mathrm{H}-71,60$
T-41, 60 cycle
T-41, 25 cycle
$\mathrm{S}-22, \mathrm{~S}-42,60$ cycle
$\mathrm{S}-22, \mathrm{~S}-42,25$ cycle
S-22, S-42, 220 volt
T-12, 60 cycle
K-62, 60 cycle
K-62, 220 volt
H-32, H-72, 60 cycle. J-72.
J-80 Serie
J-83 and J-87
$\mathrm{J}-80$ and $\mathrm{J}-85$
J-70-75. J-85
J-100, J-107
GENERAL MOTORS
" $A$ "' Chassis, 120, 130, 140,
MA and MB Chassis for 110 ,
180, 190.
$253,254,255,256,257,258$
GRAYBAR
GRAYBAR
311,60 cycle. 60 cycle
500 and 550,60
340, 60 cycle.
678, RC-3, 60 cycle
678, RC-3, 25 cycle.
600, 60 cycle.
$700770,900,60$ cycle
Midget 8,60 cycle
Universal Replacement For 8 and 9-Tube Receivers


For 6 Heater Tubes,
-35s or '47s and
1-'80 Rectifier
Ideal for general replacement. Has following windings: High voltage delivers 750 volts C. T. at 100 M . A.; 2.5 volts C. T. at 9 amps.; 2.5 volts at 8 amps.; 5 volts at 2 amps. Primary ior cycles. Size $4 \frac{1}{2} \times 31 / 2 x$


## 7 Tube Pöwer Transformer

Flush mounting transformer, used to service a vast number of receivers. Has the following
windings: Primary for windings: Primary for
110 volts, 60 cycles A.C. high voltage secondary 650 volts C. T. at 80 M. A.; 2.5 voits C. T. at


Name of Radio and
Graybarette No. 4,60 cycle
GB-9, 60 cycle
GB-100, 60 cycle . . . . . . . . . $\mathrm{XC2188} \$ 1.95$ $\begin{array}{r}\mathrm{XC2189} \\ \mathbf{X C} \\ \hline .25\end{array}$ $X C 2190 \quad 2.95$

## GREBE

AC-6.
AC-6.
412 A mplifier

## GULBRANSEN

## KENNEDY

10 and 20

## KOLSTER

K-20, K-21, K-22, K-23, K-20, K-21, K-22, K-23, K-25, 25 cycl K-24
$\mathrm{K}-43$ and $\mathrm{K}-48$
K-J4.
Internationa
International $\mathrm{K}-60, \mathrm{~K}-70$. International K-80, K-90. NAESTIC Filament 7-BP6, Plate$90,91,92$. 180, 8-BP6, Plate Trans 70 Series, Filament Trans former 7-BP6 $90-\mathrm{B}$ and $100-\mathrm{B}$,
Chassis $15: 151,154$ Chassis 20: 21, 22, 23
Chassis 50: 52
Chassis 130: 130, 131, 132. 200 Series
$90 \mathrm{~B}, 100 \mathrm{~B}, 25$ cycle
50,25 cycle 35,351
210,211, 214, $21 \overline{6}$ 2300 A.
$310 \mathrm{~A}, 311$
$310 \mathrm{~A}, 311$,
$310 \mathrm{~B}, 314,31$
$330,331,336,77$
$380,381, \ldots .$. 800.

## PHILCO

20 and 2 $21 .$.
50. 65.....
70
76 and 7
$86 . .$. 86.
87.

90 (2-45s). 90 (1-'47) $90(2-47 \mathrm{~s})$ 91 -121 95 and 96 111 and 211 500 Serles (5ii)

## RCA-RADIOLA

17, 18, 33, 80,51 ; 60 cycle 44, 46, 47; 60 cycle 60 and 62; 60 cycle 66; 60 cycle.
$66 ; 25$ cycle
Field Exciter Transformers


Open type with long color coded leads. Have primary, high voltage and rectifier filament windings. Deiiver full rated voltages and current. Primaries for 105-120 volts, $50-60$ cycles.
A veragesize $3 \times 21 / 2 \times 2^{\prime \prime}$. Shpg.
wt. each 4 lbs
XC2291-Delivers 250 volts at
50 M. A. with 80 rectifier.
Your Cost Each...........
XE5506-Delivers 100 volts at 110 M. A. with 80 rectifier
Your Cost Each.
$\$ 2.25$
XE5507-Delivers 160 volts at 160 M. A. with 83 rectifier. Each.

Name of Radio and Model RCA-RADIOLA-(Cont.) 64 and $67 ; 60$ cycle
42 and $48 ; 60$ cycle 42 and $48 ; 60$ cycle
42 and $48 ; 25$ cycle 80, 82, 86; 60 cycle Superette ( 8 tube), 60 cycl Superette (8 tube), 25 cycle Superette ( 8 tube), 220 volt Radiolette ( 4 tube), 60 cycle R-11, 18 and $18-\mathrm{A}$; 60 cycle R-50, R-55 and RE-20, 60 cycle.
R-8, R-10, R-12, 60 cycle. R-8, R-10, R-12, 220 volt R-71, R-72 R-4, R-6
R37, R38 R37, R38, R37P, R38P, 120 R28, R28P, R28BW, RE40, 210, 810 $140,141,141 \mathrm{E}, 240$. R90, R90P, 260 R-100, R-101 330, 331

## SONORA

A-31...


$\times 215758.35$ $\times C 2155 \quad 1.90$ XC2143 3.25 $\begin{array}{ll}\mathrm{XC} 2156 & 1.88\end{array}$ $\begin{array}{ll}\mathrm{XC2187} & 1.65 \\ \times C 2145 & 3.65\end{array}$ $\begin{array}{rr}\mathrm{XC2187} & 1.65 \\ \times C 2145 & 3.95\end{array}$ | $\times C 2145$ | 3.95 |
| ---: | ---: |
| $\times C 2146$ | 3.95 | $\begin{array}{r}\mathrm{XC2146} \\ \times \mathrm{B} 2188 \\ \mathbf{1 . 7 0} \\ \hline\end{array}$ $\begin{array}{r}1.70 \\ \times C 2189 \\ \hline\end{array}$

$\times \mathrm{C} 2190 \quad 2.95$
$\times 2.9112$

| $\mathrm{XC2114} 3.95$ |
| :--- |
| $\times \mathrm{C} 2117$ |

2.95
$\times C 2117$
$\times 2454$
$\begin{array}{r}\mathrm{XC} 2454 \\ \times \mathrm{C} 2009 \\ \hline\end{array}$
$\times \mathrm{C} 2008 \quad 2.56$ XC2010 4.10 XC2014 5.10
1.20
$\times C 2011$
$\times 2.92$

| XC 2015 |
| :--- |
| $\mathbf{X C 2}$ |

$\times C 22752.95$
$\times 2229 \quad 2.25$
XA22
XA 231
$\times 233$
$\times A 234$
3.53
$\times A 235 \quad 5.50$
$\times A 236$
$\times A 236$
$\times 1.45$
2.94
$\times A 250$
$\times A 251$

| $\times A 251$ |
| :--- |
| $\times C 1834$ |

$\times C 2276 \quad 3.30$
$\mathrm{XC2217} 2.90$
$\begin{array}{ll}\mathrm{XC} 2494 & 7.25\end{array}$
$\times C 18093.85$
$\times \mathrm{C} 22723.55$
$\mathrm{XC2242} 3.65$
$\times C 2204 \quad 3.40$
$\times C 22142.95$
$\times \mathrm{C} 22164.95$


WESTINGHOUSE
WR-4, wR-6 and wR-7 WR-10A
WR-10A
WR-14.
WR-14.

## ZENITH

50-60 and 70 Series: ZE-50. ZE-60, 2E-70 Power Unit 35PX, 35APX, 37A: ZE-18
Plate Transformer Super-Het, 10,11 and 12 60 cycle.
50,60, 70 Series, 25 cycle ZE240
ZE-7 Plate Transformer.
ZE-11 Plate Transformer for
34-P, 35-P, 37A
410,411
$\times 2155 \quad 1.90$
$\times \mathrm{X} 21561.88$
$\times C 2187$
$\times 1.65$
$\times(2188$

| $\times C 2188$ |
| :--- | :--- |
| 1.70 |

$\times \mathrm{C} 2189 \quad 3.15$
$\times \mathrm{C} 1980 \quad 3.50$
XC1983 3.20
XC1981 3.20
XC1988 4.95
$\mathrm{XC2} 978$
$\times C 2955$
x 1985
XC 1976
$\times 1.25$
XC1977 3.65
and 2 power tubes; 6 volts at 2 amps for 80 rectifier. Size $4 x 31 / 8 "$; mounting centers $31 / 2 x$ $25 / 8^{\circ}$. Sprayed silver finish. Shpo. wt. 7 bs $x$ 2603prayed silver finish. Shpg. wt. 7 lbs.
Xc2039
Your Cost . . . . . . . . . . . . . . . . . . . . . . .

Step-Down Transformer
220 Volt to 110 Volt


Fully shielded with 6 loot heavy lamp cord for 220 volt line, and flush receptacle for 110 volt side. Size 31/4 $\times 4 \times 5 \frac{1}{4}$ "high, $3 \%_{4}^{\prime \prime}$. For Receivers and Appliances drawing up to 160 watts. Shpg. wt. 9 lbs .
Your
s. 80

Same as above, but for appliances drawing up to 80 watts, Shpg. wt 6 lbs S. S.

## RADIART 160 Watt

Variable Step-Down Transformer 200-2.50 V. 10 110-120 V. This transformer has a variable primary. Will handle 160 watts continuousty lamp cord with fe male receptacle for $110-120$ volt out let, and 5 ft. lamp
 cord with male plug
for $200-250$ volt Input. Size $3 \frac{3}{4} \times 31 / 2 \times 4$ ". Mounting centers $17 / 8 \times 31 / /^{\prime \prime}$. Shpg. wt. 9 lbs. XC1970-List $\$ 7.50$
Your Cost.


7 to 9 Tubes

## 

## The Most Comprehensive Line of DELUXE AUDIO EQUIPMENT AVAILABLE



The excellent performance of Trutest DeLuxe Audio Equipment is due to intelligent design unusual care in manufacture and selection of high quality material. Special high quality steel is used in the core laminations and a coil structure is employed which provides low distributed capacity, low capacity coupling and a high coupling factor. In all cases where a tap is brought out, it is done between sections and never from within the winding. Coils are due to coil defects are almost unheard of.

Core steel is treated for maximum magnetic value. Dimensional accuracy of laminations and assembly Insures complete freedom from the perplexing hum caused by even a slight irregularity in these respects. Maintenance of such high standards of material and workmanship is possible through our policy of laboratory controlled production. Our engineers are responsible for factory production as well as design. Shielded in a heavy gauge steel case, with a pleasing black shrivel finish. due to coil defects are almost unheard of. Size $21 / 4 \times 21 / 2 \times 31 / 2^{\prime \prime}$. Average shpg. wt. 3 lbs .


## Inter-Stage Audios



Tube-to-Line Transformers
XC1591-Two 43, 171A, 250 or 245 type tubes to 500 oh
monitor.
Xour cost....2.75 tubes to 500 ohm line, 15 ohm
coil or monitor. coil or monito Your Cost. XC1593-O to 500 and 200
Your Cost...... $\mathrm{XC1943}$-Two
1000 ohm line. Your Cost.
s. 75

2 A3 type tubee to 2.75
52.75
5

## Mixer Transformers

XC1587-Input, two button microphone, 200 ohm to grid of tube. Your Cost.
XC1590-1npu...............2.2. XC1590-Input, two button microphone, 200 ohm to 500 ohm line.
Your Cost
XC1598-Input, two button micropho XC1598-Input, two button microphone, 200
ohms to a 50 ohm output. For using four microphones with four of these transformers; with secondaries in series feeding into a 200 ohm line.
Your Cost. XC1944-Velocity ribbon microphone to 25 and 500 ohm line.
Your Cost
XC1936-50,200,500 ohm line to
ohm line.
X C1937
Yous7-Universal line to grid of
Cost.
ne to a 200
2.75

## DeLuxe Screen Grid Audio Coupler

Used to couple a screen grid detector to an audio tube. Gives three times the amplification of resistance coupling. Size $31 /=21 / 2 \times 21 / 3^{n}$. Shpg. wt. 3 lbs.
XC1594-Your Cost
$\$ 2.45$

## Output Coupling Transformers

 XC1930 - Single 171 A-245-43-50 output to a dynamic speaker 2-8-15 ohm voice coil.\$2.40XC1584-Push-pull 45-71A-43-50 output to a dynamic speaker 2-8-15 ohm voice conl.
Your
Cost
s2.50
XC1931-Single 18-20-33-41-42-47-59-2A5 output to a high impedance magnetic speaker. Your
Cost.
s2.40
XC1933-Single 18-20-33-41-42-47-59-2A5 output to a dynamic speaker $2-8-15 \mathrm{ohm}$ voice coil
Your Cost.
52.95

XC1585-Push-pull 10-18-20-33-41-42-46-47 2A5-59 (Class B) output to a $2-8-15$ ohm voice coil of a dynamic speaker.
Your Cost.
s2.45
XC1934-Push-pull 2A3-48 output to a dynamic

XC1947-Push-pull Class B 49s (53-79-89) Class A 38s) to a dynamic speaker 2-8-15 ohm V. C.

Your Cost.
$\$ 2.25$


## Outputs

XC1553-Output, Single '45 type tube to a
 XC1554 Output Push-puli 45 s type tubes to a Your Cost............................. $75^{c}$ XC1555-Output, Single Pentode ' 47 to a $5-15$ Ohm voice coil of dynamic speaker. M $75^{\text {c }}$ Y C1556

## Trutest Standard Replacement Audios and Chokes

This line of Trutest audio components is exceptionally complete. They are not to be confused with inferior ypes which are built to a price rather than a quality standard. All Trutest audio transformers are constructed using the finest grade of silicon steel for core material Coils are wound with brand new copper wire of the proper gauge for each particular application. Insulation is tested at 1250 volts A. C. A verage size of units is $31 / 421 / 4 \times 13 \mathrm{~h}^{\prime \prime}$ mounting centers $27 / 8^{\prime \prime}$. Average shpg. wt. 3 lbs . $5-15 \mathrm{ohm}$ voice coil of dynamic speaker. $7 \leq$ C XC1564-Output, Push-puli, 49 's Class B, to A $5-15$ ohm voice coil of $\mathrm{dy}-\$ \square$
namic speaker.
XC1566-0

## Audios

XC1550--Audio, either stage of straight audio amplification. Radio 3:1.
Your Cost
$75^{\text {c }}$
XC155i-Push-puil Input, from single plate to 2 grids. Ratio 2.5:1.
Your plates and 2 grids Ratio stage, Your Cost.
xC1562 Puch pull inpul XC1S62 Push-pull input, Split Secondaries (isolated), between 1 plate and 2 grids. Ratio Your Cost
$\$ 1.08$

## Special Line Transformer

A special transformer with coil wound on $11 / 8^{\prime \prime}$ core of special high permeability iron.
Frequency characteristics exceptionally fine. Low loss factor.
XC1565-500 to 250 ohm lire to $1 / 3 \mathbf{x}^{-2} 4-1.5-2$ 2.5-4-6-8-10-15 ohm voice coil. $\$ 4,4$
Your Cost. Special.

## Double Button Mike Transformers

XE5448-Double Button Microphone transformer, 200 ohins each side of centertap.

## Trutest

Midget Transformers and Chokes


## An extremely compict,

 yet highly efficient series of transformers und chokes particularly suited for use in auto radio receivers and A. C.-D. C. compact radios. They can, however. be used in any type of receiver or amplifier. Unsh ing type with rust resisting frame. Dimensions

## Transformers

XC1619-Interstage audio, ratio $31 / 2: 1$
XC1620--Push-pull Input, ratio 13/4:1.
XC1607-Single Output: $45,48,71 \mathrm{~A}, 43$, etc to $\mathbf{~ K - 1 5 0 9}$ ohm volce coil: $47,59,33,2 \mathrm{A5}, 89$ $31,27,42,18$, ete., to $5-15 \mathrm{ohm}$ voice coil. XC1614-Push-pull Output: 45, 48, 71A, 43, XCi615-Push-pull Output: 47, 59, 33, 2A5, $89,31,20,42,18$, etc., to $5-15$ ohm voice coil. Your
Cost Any
Type

## Type

## Chokes

XC1601-10 Henry Choke. Resistance 200 ohms, 50 M. A. maximum D. C. Your
XC1602-11 Hi............ ohms, 65 M. A. maximum D. C. $35^{c}$ Your Cost.
XC1603-13 Henry Choke. Resis hms, 50 M. A. maximum D. C. Ohms, 50 M
$\times \mathrm{C1} 04-20$ Henry Choke. Resi...35 ${ }^{\text {c }}$
XC1604-20 Henry Choke. Resistance 500
hhms, 35 M. A. maximum D. C.
Your
Cost

# standaroh:UDDO Transomers 

## Cafayetce "P.A <br> Employ the finest grade of high perme

 ability core material. Each unit individually checked for frequency characteristics and overall performance. Uniform response low wave-form dis CLASS B OUTPUTS P. P. 49, 53, 79, 89 plates to 500 , 200, 16, 8, 5, 3 and 1.5 ohms. Type A mounting. XD5430- Your Cost $\quad \$ 4.20$ P. P. 46 or 59 plates to $500,200,16$, $8,5,3$, and 1.5 ohms. Type A mounting.XE5431-Your Cost …. $\$ 4.20$ Tube to Line Transformers From a low level triode plate to mounting your cost. \$3.90

## $250,15,8.5,3$ and 1.5 ohms

3000 phate 5000 ohms will plate to plate. For 2A3's. Sincle 59 triode 71 A , or 2B6. For 3000 ohms will mateh P. P. 2A $3^{\circ}$ s fixed bias. Type B mounting.
XC2563 Your Cost. 4.24 Primary 2500 ohma plate to plate or 1500 ohms plate to plate. For 2500 ohms will match four self blased 2A3's in push-pull parallel circuit. For 1500 ohms will match four 2A3's in push-pull parallel circuit fixed bias. Type $C$ mounting. XC2564 Your Cost.

## Class A Output Transformers

保
Primary 8000 ohms plate to plate. Will match P. P. $50^{\prime} \mathrm{s}, 45^{\prime} \mathrm{s}, 43^{\circ} \mathrm{s}$. Single 211, 843, 842, 205D, 48. Type B mounting.
XC2562-Your Cost . ..... 54.20 Primary 4000 ohms plate to plate. parallel parallel. Type C mtg. $\$ 5.95$
$\times \mathbf{C 2 5 7 9}$ Your cost Primary 10000 ohms or 6000 ohms plate to plate. For 10000 ohms will match P. P. 59 triodes, 71A's, 2B6's, Single $10.41,268 \mathrm{~A}, 2 \mathrm{~A} 3$. For 6000 ohms will match P.'P. 52A's, or single 31, 46, 59 pentode. Type B mty.
XC2592- Your Cost

## "Transformers

tortion, high efficiency, thorough shielding and dependability are assured. Only more popular numbers are listed below: more popular numbers are listed below; Cor complete
Overall Dimensions
 Type B
 Driver CLASS EINPUTS
Driver plate to $49,53,79$, or 89 grids. Type A mounting. Xe5429-
Your Cost.........3.253 Driver 46 or plate to 46 or 59 ${ }^{\text {grids. Type A mounting. }} \times$ $\mathbf{X C 2 5 5 -}$ \$ 3.45 $\mathbf{5 5 . 9 5}$ XC2592-Your Cosi …..s. 20

Your Cost

## Trutest

## Filament

## Trans- <br> formers

2
$101 / 2 \mathrm{Amperes}$ Guaranteed to
deliver rated voltages and load without heating. 110 volts primary. 1000 volts insulation. Size $3 \times 2 \times 2 \mathrm{~V}{ }^{\prime \prime}$. Shpg. wt. 3 lbs $\times \mathrm{C} 2383$
$\$ 1.2 .5$
From one iss A INPUTS $3: 1$. Type A mtg. S
XC2569
Your Cost ...... From one plate to two grids. Ratio 2:1 each side. Split secondaries. TypeA mounting. $\$ 2.95$ From 2 plates to 2 grids. 1:75 ratio each side. Both primary and sec ondary in two sections. Type A XC2571-Your Cost. 300 or 50 ohm line to single grid. Type A mounting. $\$$ XC2572-Your Cost.
500,200 or 50 ohm line to push-pull 500,200 or 50 ohm line to push-pull ${ }^{\text {grids. Type A mounting. }}$
${ }^{5} 4.45$

## Mixing and Matching

Transformers
Mixing 500, 200 or 50 ohm line to 500,200 or 50 ohm line. Type A mounting. Your cost. \$3.25

Your Cost
Same as above but uncased. $21 / 1$ volts at $103 / \sqrt{2}$ amps. Semi-open XC2387
\$I.IO Your Cost $21 / 2$ volts at Same as above except $21 / 2$ volts at
51 amps. Uncased. 51 Amps. Uncased.
$\mathbf{X C} \mathbf{C 2 3 8 8}$ - Your Cost $95^{c}$ Two separate windings of $21 / 9$ volts at $51 / 2 \mathrm{amps}$., each. Uncased. $\times$ C2443-
$\$ 1.29$ Your Cost
5 volts 4 amps. Uncased $\times C 2441$ -
Your Cost
$95^{c}$
6.3 volts at 3 amps . Uncased type, strap mounting with leads.
XES492 Your Cost

S1.3 7.5 volts at $31 / 2 \mathrm{amps}$. Uncamed type, strap mounting with leads. XE5i96

## JEFFERSON Transformers

## UNIVERSAL OUTPUTS



XE5432-Type 467-170
Your Cost Each
Identical with the above, core. Size $2 \times 23$ \% $\times 2^{\text {² }}$. Type $467-176$. XE5433-Your Cost Each

NOTE:We can supply Jefferson products not listed here at a discount of 40 and $2 \%$ from the list price.

## SPECIAL AUDIO



## Transformer

This compact audio unit can be used in any set, either A.C. or D.C. using straight audio height makes it especially suited for sub-bace installations. Two sets of brackets are provided for horizontal or vertical mounting Turn ratio $3: 1$. Core of high grade silicon steel. Units afford exceptionally fine frequency response. Supplied with long insulated leads for direct connections in chassis Size $13 夕^{\prime \prime}$ high, 23/8" wide and 2k" deep. Shpg.wt. 2 lbs.
XE5461-Type 467-164.
eciat.
$73^{\circ}$

## AUDIO UNITS

Type 467-403-Straight audio, ratio 1:3. Strap mounting. Size $2 \times 31 / \mathrm{x}$ $\times 85443^{-}$
Your Cost Ea.
$76^{\circ}$
Type 467-404-Push-
pull, input transformer Ratio 1:3. Strap mounting. Size $2 \times 31 / 4 \times 17 / \mathrm{s}^{\prime \prime}$. Shpg. wt. 2 lbs XE5444
Your Cost Each
Microphone Transformers
Type 467-413-Single button mike transformer. Turn ratio 1:64. Flat from 30 to 7000 cycles. Size $2 \times 3 \frac{1}{4} \times 1 / / \mathrm{s}^{\prime \prime}$. Shpg. wt. 27 hs. XE5447
Your Cost Each Type 467-414. Similar to........... button mike. Size $2 \times 31 / 4 \times 17{ }^{n}$ XE5448-
Yeur Cost Each.


$\underbrace{4}_{0}$
Shipping weight 3 lbs.
Single or
P. P. Input


A high qualtransformer for replaceard tube testers. Voltages for all type ing battery tubes and new auto tubes. Very compact in size, no Color than an audio transiormer Color-coded flexible leads. Primary tapped at 105 , 115 and 125 volt, 60-60 cycle. Secondary is single winding with the correct voltages tapped. Shpg. wt. 31bs. XC1967-
Your
Cost..................
(1)

## H-4 ATE 92

## Dract Duplicate

 Replacements\begin{tabular}{|c|c|c|c|}
\hline Philco Models \& $$
\| \begin{aligned}
& \text { Part } \\
& \text { No. }
\end{aligned}
$$ \& Stock No. \& $$
\begin{aligned}
& \text { Your } \\
& \text { Cost }
\end{aligned}
$$ <br>
\hline 20-220 \& 4232 \& $\times \mathrm{C1738}$ \& 30.95 <br>
\hline 65 \& 3537 \& $\times \mathrm{C} 1932$ \& . 89 <br>
\hline 70-270 \& x \& x \& <br>
\hline 76-77 \& 3872 \& $\times \mathrm{C1741}$ \& $83^{\circ}$ <br>
\hline 86-87 \& 3242 \& $\times \mathrm{C1740}$ \& 03 <br>
\hline 90-90A (2-45. ${ }^{\text {a }}$ ) \& 4952 \& XC1742 \& 1.25 <br>
\hline 90-90A (1-47)
$95-96-296$ \& x \& x \& <br>
\hline 95-96-296
$111-112$

(45) \& 3587 \& $\times \mathrm{C1932}$ \& $89^{\circ}$ <br>
\hline 111-112 (45) \& ${ }^{3537}$ \& $\times$ C1932 \& 09 <br>
\hline 500 Series
41-42 D. C. \& ${ }_{3872}$ \& $\times \mathrm{C} 1741$ \& ${ }^{\times} .83$ <br>
\hline
\end{tabular}

Single or P. P. Output

Straight Audio

## Replacement Audio Transformers

Thordarson Audio Replacement Transformers have established an enviable reputation for dependabillty and service, especially so in warm and humid climates. Three sizes are shown, each available in various mountings so as to meet almost any space requirement.

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Type | Mount | Ratio | Size | List | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XA.13 | R100 | Fig. 1 | $1-3$ | 28/614/2x ${ }^{\prime \prime}$ | \$1.75 | \$1.03 |
| XA240 | R103 | Fig. 3 | $1-3$ | 17/192 $\times 2$ " ${ }^{\text {" }}$ | 2.00 | 1.18 |
| XA265 | T2999 | Fig. 2 | $1-3$ | $17 / 8 \times 2 \times 21 /$ | 1.75 | 1.03 |
| XA266 | T5736 | Fig. 4 | $1-3$ | $2 \times 2 \times 2$ \%" | 2.00 | 1.18 |
| XA267 | T6737 | Fig. 2 | $1-3$ | 21/4 $\times 21 / \times{ }^{\text {" }}$ | 3.00 | 1.75 |
| XA268 | T5738 | Fig. 4 | $1-3$ | $21 / 2 \times 21 / 2 \times 3$ " | 8.25 | 1.90 |

## Output Coupling Transformers

The Thordarson line of Output Coupling Transformers is designed to cover practically all tube and speaker combinations in general use. The Types R107 and T5701 Transformers are of special interest since it is possible to properly match a wide variety of tubes to any voice coll ranging from 29 ohms to iractions of an ohm, depending of five secondaries.
$\begin{array}{rrrrrr}\text { Stock } & & & & & \\ \text { No. } & \text { Type } & \text { Mount } & \text { Characteristics } & \text { List } & \text { Cost } \\ \text { XA275 } & \text { R107 } & \text { Fig. } & \text { Universal* } & \$ 2.25 & \$ 1.32 \\ \text { XA276 } & \text { T3399 } & \text { Fig. } & \text { P. P. } 45 \text { or } 71 \text { to V. } & \$ 2.1 .75 & 1.03\end{array}$ $\begin{array}{llll}\mathrm{XA} 277 & \text { T5744 } & \text { Fig. } 4 & \text { P.P. } 45 \text { or } 71 \text { to V.C. } 2.00 \\ \mathbf{X A 2 7 8} & \text { T5701 } & \text { Fig. } 28 & \text { Universal }\end{array}$


- Typee R107 and T5701 are tapped output Transformera which can be used on either P. P. or single tubes and have a multiplicity of impedance ratios such that they can be used on most dynamic speakers.
XA279 T5745 Fig. $2 \quad \underset{P}{P} \cdot \mathbf{P} \cdot 50$ or 45 to V. C. $\$ 3.00 \quad \$ 1.75$ XA280 T5746 Fig. $4 \quad$ P.P. 50 or 45 to V.C. $\mathbf{3 . 2 5} \quad 1.90$ Sizes of above: $21 / 2 \times 21 / 2 \times 3^{\prime \prime}$. Shpg. W.t. 3 lbs.
V. C. means voice coil of dynamic speaker.


Fig. 1


Fig. 2


Fig. 3


Fig. 4

## Push-Pull Input Transformers

Thordarson Pushpull Input Transformers are produced with the same skill and care characteristlc of all Thordarson equipment. The Power Detector Transformers are particularly desirable for receivers having high selectivity to compensate for the loss of high notes due to side band cutting as well as high plate impedance of power detectors. Stock Type Mount Ratio Sire Your No. XA216




 $\begin{array}{lll} & \mathbf{3 . 7 5} & \mathbf{2 . 2 0}\end{array}$

Specially designed primary to couple to power detector. Average shipping weight 3 lbs.

## Filter Chokes

The standardization of design of radio receivers makes it possible to meet all service requirements by this line of Filter Chokes. All are carefully insulated and are designed to secure the maximum inductance possible for the specified perating conditions.


## Push-Pull Output Chokes

Pushpull Output Chokes were widely used in older receivert using either high impedance speakers or speakers incorporating coupling transformers.


## THORDARSON

## Type R-300 Audio Transformer

The amplification range has been extended so that even the deepest tones now may be reproduced with amazing fidelity.
Shpg. wt. 3 lbs .
Yourcost
\$2.35


## Type R-400 Audio

Amplification curve is practically a straight line from 30 to 8000 cycles. Suitable for first stage or input stage. Ratio 3 to 1 . Size, $24 \times 24 \times 3^{\prime \prime}$ high. Shpg. wt. $41 \mathrm{lbs} . \$ 2.35$

## T-4304 P.-P. Input

Ratio of 2 to 1. May be used following a screen grid power detector having parallel plate feed. Built for use with $210,245,247$ and 250 types of power tubes in the push-pull stage. Size


T-2408 P.-P. Inpet
Designed to couple a stage of straight audio amplification into a stage of power push-pull using any of the existing types of power ampli-
 $\times 227$-List $\$ 4.00$.Your Cost
Type R-196 Choke

## 15 H .85 MA

A fully shielded and finished product by Thordarson. D. C. resistance of 360 ohms. For filter circuits and speaker output coupling. Size



## THORDABSON

## Audio Transformers and Chokes

 for the New Type Tubes T5870 Interstage 56 P. P. to 2A3 P. P. List $\$ 3.75$ XA272-Your Cost 2 5872 Output 2A3 P. P. to $8-4$ ohms. , ist $\$ 3.50$ Xa273-Your Cost.5873 Output 2A3 P. P. to 500 ohms List $\$ 3.50$ XA274-Your Cost. List $\$ 4.50$ XA269-Your Cos Choke, Class B XA2S9-Your Cost 2.94 List $\$ 5.00$ XA296-Your Cost
mer, 46 to $46^{\prime}$ s, in Class B. 32.94 List $\$ 5.00$
XA297-Your Cost
T5339 Output A6's List $\$ 5.00$ XA298-Your Cos X $\mathbf{3} 2981$-Your Cost. ............ \$2. 94 5381 Line Transiormer 500 ohm line to 4.50 XA299-Your Cost.
2.65

T-2357 Microphone Transformer

## Single Button

For Single Button Microphones primary 200 ohms. Ratio 64 to 1. Size $21 / 4 x$ 21/4x21/2". Shpg. wt. 2 lbs. XA257-
Your Cost.
${ }^{s} 1.47$
T-3020 Mierophone Transformer Double Button
Designed for use with 2 Button Microphones. Primary impedance: 200 ohms each side of C. T. Ratio 2000 to 1. Size $21 / 2 \times 21 / 2 \times 3{ }^{\prime \prime}$. Shpg. wt. 3 Ibs.
XA258 - Your Cost.
$\$ 2.35$

## THORDABSON

Type T-4252 P. P. Input

n
A fully shielded transformer attractively finished in black enamel. Extra heavy core. For use with 27 into 45,47 42, 71 A , etc., tubes. Úsed n Philco models 65, 95,96 , 111, 112. Shpg. wt. 3 Ibs. $\times C 1755$
Your Cost
5 T.7
Type T-3855 P. P. Input
Similar in appearance to the above. Ratio 1:4. For use with 27 into a 26 tube (by omitting the center tap) or 26 into P. P. 45, 71A, 31, 50, etc. Used in Philco 86 and 87 . Shpg. wt. 3 lbs. Your Cost
\$1.34

## T-2927 Screen Grid Coupler

For coupling a screen grid tube to an audiostage. Will provide approximately 3 times the gain of resistance coupling. Inductance 800 henries at 5 milliamperes. Fully shielded. Lugs at high. Shpg. wt. 3 lbs.
XE5497-Screen Grid Coupler
Your Cost.

## Grid Modulation Coupling Transformers

T-6773-For coupling a single 46 or 59 modulator tube to grid of R. F. amplifier. Shielded and equipped with lugs. Size $212 \times 21 / 2 \times 3$ ". Shpg. wt. 2 lbs.

## XA255 Your Cost Each

2.36

T-6774 is for coupling push-pull 45 or 2 A3 moduator tubes to the grid of the R.F. amplifier. Transformer is equipped with soldering lugs and is totally shieided. Size $31 / 2 \times 3 \times 38 /$ " Shpg. wit. 316 lbs .
$\times 256^{\circ}$ - Your Cost Each

## 

JEFFERSON P. P. Imput Transformer


## UNIVERSAL Output



## Trans-

 former Has a combination of taps making it possible to feed from feed fromsingle or $P$. single or P.
P. output stage to any
sout voice coil
from 2 to 30 ohms, in 2 ohm steps. Unit may be mounted on end or sides. Slots in base allow wide mounting range. Some of the more popular output tubes with which unit can be used are, single or P. P..

## 112A

71 A
45
50
47
10
41
42
43
46
48
59
Diagrams showing connections for all tubes included. Size $2 \times 21 / 3 \times 15 / 3^{\prime \prime}$. Shpg. wt. 3 lbs.
XC1708-
78

## Universal Input

Has the same physical specifications as the above transformer double P. P. audio tubes. Shpy double P. P. audio tubes. Shpg. wt. ${ }^{4} 17 \mathrm{bs}$. Your Cost

E

## Truteat

High Impedance Primary P. P. Input

Especially designed to couple a screen grid or
pentode detector such as the 24 and 57 to a pair of 45 s or
$47^{\prime} \mathrm{s}, 2 \mathrm{~A} 5$ 's, etc. in push-pull. Extra fine core iron. Strap mounting type with long insulated leads for direct connections. Has 1000 volt insulation. A real quality Iransformer. Use it instead of resistance coupling to increase gain Size $31 / 6 \times 21 / 6 \times 13 / 4^{n}$. Shpg. wt. 3 lbs XE5493-
\$1.85

i
By using a tube coline trans-
former on the receiver or amplifier and one of these lines to V.C.transform-

## Truteat special

Line to Voice Coil Transformer speaker, a per-
fect match can be obtained resulting in maximum power output and tone quality. The correct way to add an additional speaker to a radio set Matches 2, 4, 8 , or 15 ohm V. C. to 250 or 500 ohm line. Shpg. wt. 2 lbs

## XE5494

Your Cost Special...ST.55
The Sales Sensation for 1935 $\star$ Audio Transformer Selection $\star$
 Your Choice Any Type $45^{\circ}$.ach


In this instance, only a "lucky" buy of these standard audio components enables us to offer them at these exceptionally low prices. All are of high quallty, affording fine results. Units listed are of the popular strap mounting type, approximately $3 \times 21 / 2 \times 21 /{ }^{\prime \prime}$. Quantities limited, get yours now. Shpg. wt. 2 lbs .
XE5500-Straight Audio. Ratio ${ }^{5-15}$ ohm voice coil.
X:1. ${ }^{\text {S1843-P. P. Input Trans- }}$ former. Ratio 3:1.
XE5502-Output Transformer To match single 45 or 71 A to a $5-15$ ohm voice coil. XES503-Output Transformer. To match P. P. 45's or 71A's to a

XE5504-Output Tr To match single 47 or 2 ormer $5-15 \mathrm{ohm}$ voice coil.
XE5505-Output Transformer To match P. P. 47's or 2A5's to 5-15 ohm voice coil Your Cost Each.
Any Type. $\qquad$
Audio and P. P. Input Trans.
Well made, fully shielded transformers with excellent frequency response. Especially suited for use as replacement transformers. Primaries and secondaries are wound on heavy high grade material. Shpg. wt. 2 lbs
XC1912-Push-Pull Imput. Your Cost Your Cost.

## Truteat

## Transceiver Audio

 TransformerA popular priced combination audio and microphone transformer for use in the new five metertransceiving single plate and double button mike to one grid. Shpg. wt. 2 lhs.



## BARGAINS!

In Oversize Audios

oversize fine quality audios at exceptionallylow prices. Manyold type receivers can be greatly im proved by installing these large transformers. Size
 high. Shpg.

## $\times \mathrm{C} 1932$.

Push-Pull Inpu Your Cost Special
 XC1913 Straight Audio similar to above ratio $3: 1$.
Base mounting type with screw terminals. Thistype is excellent for use in experimental breadboard mounting on top of This is an

former with
former with a large core and provides excellent frequency response. Shpg. wt. 2 lbs.
Push Pull Input
Push Pull Input.

- $0^{c}$

XC1841-Straight Audio as above
ratio 3:1.
ratio 3:1.
$70^{\circ}$

## EnamosDupucite aUDIOS for STANDARD RADIO RECEIVERS

## Manulacturer

Atwater-Kent
Atwater-Kent Crosley
Crosiey
Crosley
General Motors
Majestic
Majestic RCA-Victor RCA-Victor RCA-Victor RCA-Victor RCA-Victor

RCA-Victor

Model and Type
65, $55 \mathrm{C}, 60,60 \mathrm{C}-$ P. P. Input 67-Audio and P. P. Input $30 \mathrm{~S}, 31 \mathrm{~S}, 33 \mathrm{~S}, 34 \mathrm{~S}, 40 \mathrm{~S}, 41 \mathrm{~S}$. 60S, $61 \mathrm{~S}, 62 \mathrm{~S}, 63 \mathrm{~S}-\mathrm{P}$. P. In put 32, $40,41,41 \mathrm{~A}, 42,704,706-$ 1st Audio and P. P. Input.
$20,130,140,150,160-P . ~$ Input
70,90-ist Audio.
70, 90, 180-P.P. Input. R32, RE45, R52, RE75-P.P. Input-Output............. 82 P.P. Input-Output. © R50, R55, RE20, RAE59
RAE79-P.P. Iaput-Output 60,62 -Single Audio.......... $16,17,18,33,41,50,51$ R11, 18, 18A, 21, 26 -P.P. R11, 18 ,
Input.

$\times \mathrm{C} 2492$ $\times \mathrm{C} 2243$ XC1849 $\times \mathrm{C1848}$ $\times \mathrm{C1892}$
XC2298 $\times \mathrm{C} 2490$ XC2109

XC1965
$\times \mathrm{C1998}$
$\times \mathrm{C} 2001$ $\times \mathrm{C} 2173$

XC2005
$\times \mathrm{C1999}$

## nufacturers

 Types

Model and Type


| Stock | Your |
| :---: | ---: |
| No. | Cost |
| XC1994 | 52.00 |
| XC2098 | 2.00 |
| XC2455 | 1.18 |
| XC2456 | 1.18 |
| XC2466 | 2.35 |
| XC2467 | 2.06 |
| XC2468 | 1.62 |
| XC2469 | 1.18 |
| XC2486 | 1.18 |
| XC2487 | 1.47 |
| XC2488 | 1.03 |
| XC2331 | 1.30 |
| XC2375 | 3.75 |
| XC1813 | 1.40 |
| XC1814 | 2.15 |
| XC2259 | 2.15 |



## Genuine Victor Filter

Condenser Block Replacement for Models R-32, RE-45, R-52, RE-75 Contains: One ${ }^{5}$ mid. 2.5 mid 3 mid.. one 2.5 mfd . and .5 mid. sections at 600 working voltage. These are all brand new condenser blocks, never been used or installed beore. Housed in a metal container, $5 \times / / 2 \times 5 \times 4^{\prime \prime}$. Shes. wt. 8 lbs .
Your Cost, Special.

Genuine Victor Replacement for Late Models R-32, RE.45, R-52, RE-75
Contains: One 5 mid . one 3 mfd . and one $2.5 \mathrm{mfd} ., 600$ working voltage. This is for the late Victor models, equipped with 4 taps. but can be used for but can be used for the early models by denser in place of the denser in place of the
$\mathbf{X B 8 9 3}$ - Your Cost.


Filter and By-Pass
 Condenser Assembly ModelsR-7A,RE-16A The genuine Replacement Part No. 7256. Contains 1$.005 \mathrm{mfd} ., 5-.5 \mathrm{mfd} ., 1-.1 \mathrm{~m} / \mathrm{d}$. and $1-1.0 \mathrm{mid}$. condensers. In metal container with crimping lugs for mounting. Ideal for use as a general replacement part. Shpg. wt. 6 lbs . $\times C 1001$
Your Cost Each

## Trutest MAJESTIC Condenser Blocks

Exact duplicates of the original in every respect. No changes necessary to install. Diagram supplied. For Majestic 7PG, 7BPG (Sets Using "71 Tubes) Size 88/4 $\times 21 / 2 \times 41 / 2{ }^{\prime \prime}$. Shpg wt. 6 lbs.
XB1071-7P6 Early. XB1070-7BPG Late Your Cost Either Type


For Majestic 9PG
(Sets with 245 Type Tubes)
Size $88 / 6 \times 21 / 2 \times 4142^{n}$. Shpg. Wt. 4 lbs .
SB1067
$\times 10$
Your Cost Each
s 1.85
EVEREADY 50 By-Pass


Exact duplicate of the original Eveready Part No. 2822. Contains three .5 mid .400 volt condensers. Can negative. Can be used as a general replacement part. Shpg. wt.
1lb.
$\times 851-Y o u r$ Cost

## SPARTON By-Pass Condenser

 Models 9 A, 410 and 420An exact duplicate re placement for the origina Sparton Part No. A6456. Contains four sections mfd.each.
XB548-Each



## Genuine

RCA-RADIOLA Condensers
Radiola 17-50 Brunswick PR-17-8 Victor 7-25
Part No. 8289
Genuine replacement filter condenser for the above sets. Contalns: Two 3.5 mfd . one 3 mid., one 2 mid., two 1 mid. Brand new and guaranteed. Shpg. wt. 6 lbs. XB1020-List 519.20
s. 20

## Your Cost

RCA Models 44-46-47
Graybar 500-550 Part No. 8476
The original replacement filter condenser for the above models. Contains: Three 2 mid., one 1.25 mfd ., one 1 mfd ., one .5 mfd and one .25 mid., also output choke. Shpg. wt. 6 lbs XB1016-List $\$ 19.00$ Your Cost.
5.75

## Radiola Model 60 Graybar Model 300 <br> Brunswick Model 5NO <br> Part No. 8346

The original Radiola filter condenser. Contains: Three 2 mid ., four .5 mfd . and output choke. Shpg. wt. 6 lbs. Your Cost

## RCA Model 42 and 48

Transformer and Ca pacitor Block
For Victor Models 14, 15 and 17 G. E. T-41; Graybar 678; RC-3; and Westinghouse No. 8608. Consists of filter condensers and coupling reactor in metal container. Shpg. wt. 5 lbs .
XB1021-List $\$ 12.00$
Your
Cost


RCA.Victor
By-Pass Assemblies
Models 17-50-60-62-64
Genuine RCA Part No. 5681. Contains two .5 condensers. $\mathbf{X B 4 8 1 - Y o u r ~ C o s t ~ E a c h ~}$


For Models 44-46-47
Genuine Part No. 6002. Contains one 25 mid . and one .75 mfl . condensers.
X8485-Your Cost Each
For Models 18 and 51
Part No. 2241. Contains four .5 mfd . Part
$\times 8483$
XB483 Your Cost Each.

## For Model 41 A.C.

Genuine Part No. 5664. Contains one .5 mfd . XB484-Your Cost Each.

Shipping weight 1 ib .


Models R-32, RI.45, R-52 and RE-75
Part No. 60074. Contains two 1 mfd. and one .125 mid. condensers. $\times 13478$ Your Cost Each

## By-Pass Condensers R-80, 82 and 86

Part No. 7058. Contains three. 1 mid., one .5 mfd and one 1 . mid. condensers. Also used in G. E. H-31, H-51 and H-71. Shpg. wt. 21 bs.
$\times 853$


## Radiola 18-33-51

Brunswick, 2Kro, 3Kro, 3Kr6,
5Kr, 5Kro, 5Kr6, Victor 7-11, 7-26
Graybar Model 311 (Part No. 8333)
Original fllter condenser or above sets. Contains: Two 1 mfd., one. 5 mid. and output choke. Guaranteed brand new. Shpg. wt. 4 lbs .
XB1019-
List $\$ 7.4035 C$

## Radiola Model 64

 Victor 9.18 and 9.54 Part No. 8368 Filter Capacitor

The Genuine Radiola Filter Condenser Bank. Cons tains: Four 4 mid., one 2 mid. and two 1 mid the 1 mid . These capacitors ar all brand new.
using 1000 volt condenvolt condenvery best foil and paper. Do not confuse this block with the so-called replacements on the market. Shpg. wt. 13 lbs. XB1011-List Price $\$ 30.00$ Your Cost.

Filter Condenser Models R-50, R-55, RE-20, RAE-59 and RAE-79
The genuine RCA replacement condenser block part No. 8712-64905, comprising. one 2 mfd ., one 3 mfd. two $.5 \mathrm{~m} / \mathrm{d}$. and one .1 mid . Shpg. wt. 5 lhs
XB531-Your Cost.

## SPARTON Models 69, 79, 89



These are brand new condenser blocks made especially for replacement in Sparton models. Only the highest grade of paper and foil used in the construction of these units. The original speciflcations have been strictly adhered to. For guaranteed satisfaction, use these for Sparton replacements. Shpg. wt. 5 lbs
Xe975-
s2.75

## SPARTON Model 930

## Condenser Block

Comprises five sections totalling 6.1 mids . Color code is: red lead is 2 mid ., 1000 volts; three blue leads are 1 mid., 400 volt sections; brown lead is 1.1 mid., 600 volt section. In $21 /{ }^{\prime \prime}$. Shpg. wt. 5 ibs . Xe973-Cost... SI. 75


STROMBERG.CARLSON Filter


Single Unit By-Pass


Universal mounting types, and compactness purpose work. Hermetically sealed in drawn aluminum cans. Each condenser unit teated at 1000 volts D.C. Assuring you of a quality replicement.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Cap. |  | Your Cost |
| XD3260 |  | 200 | \$0.16 |
| XD3261 | 25 | 200 | . 20 |
| XD3262 | . 6 | 200 | . 24 |
| XD3263 | 1.0 | 200 | . 31 |
| XD3264 | 2.0 | 200 | . 51 |
| $\times \mathrm{XD3265}$ | . 1 | 300 | . 20 |
| X ${ }^{3} 3266$ | . 25 | 300 | . 28 |
| X103267 | . 5 | 300 | . 32 |
| $\times 03268$ | 1.0 | 300 | . 43 |
| XD3269 |  | 400 | . 22 |
| X03270 | . 25 | 400 | . 26 |
| XD3271 | . 5 | 400 | . 33 |
| $\times 103272$ | 1.0 | 400 | . 49 |

## Multi-Unit By-Pass

 S - ckx
XD 1274 x 18275 $\times[.3276$ $\times 01281$ X[51282 $\times \mathrm{D} 1283$ $\times \mathrm{P} 1283$ $x=277$ $\times \mathrm{C}=278$ $\times D 3279$ $x \square 280$


## Trutest Midget Cartridge Condensers

These condensers are very compact, half the size of average cartridge condensers. Especially adaptable to AC.-D.C. sets, or where space is a factor. Sealed at ends, leads cannot pull out.

| Stock | Cap. | Work. Your | Stock | Cap. | Work. Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Mfd. | Volt. Cost | No. | Mid. | Volt. Cost |
| XD3173 | . 01 | 200 \$0.06 | XD3185 | . 002 | 600 S0.07 |
| X03175 | . 05 | 200 - | XD3186 | . 006 | 600 \$0.07 |
| XD3176 | . 1 | 200 | XD3187 | . 01 | 600 - |
| $\times$ D3177 | . 25 | 200 | XD3188 | . 02 | 600 |
| $\times$ D3178 | . 5 | 200.14 | $\times$ ( 3189 | . 06 | 600.09 |
| XD3179 | . 01 | 400.06 | XD3190 | . 1 | $600-10$ |
| $\times 03180$ | . 02 | 400 - | $\times$ X3191 | . 25 | 600.16 |
| XD3181 | . 05 | 400 | XD3192 | .05-.05 | $20014^{c}$ |
| XD3182 | . 1 | 400.08 | XD3193 | .1-. 1 | 200 - 14 |
| XD3183 | . 25 | 400.12 | XD3194 | .25-.25 | 200.17 |
| XD3174 | . 5 | $400-17$ | XD3195 | . $05-.05$ | $400 \quad .15$ |
| XD3184 | . 001 | 600.07 | XD3196 | .1-. 1 | 400.16 |

## Trutest Assorted <br> By-Pass Condensere



## Handy Cartridge Condenser Assortment

Complete assortments of the most popular sizes used in average service work. It is the most convenient way of always being certain to have the correct size on hand. The handy card can be hung over the service bench and refilled as used up. This eliminates searching through a box for a needed size. Contains one of each of the following condensers:
Strip "A"


Your Cose.


## Trutest Cartridge Condenser Lit

Contains twenty-five of the most popular capacities used to service every make and type of receiver. Every serviceman should have this kit in his shop. The following are the capacities and voltage ratings: Units Cap. Volts Units Cap. Volts

| 4 | .01 | 400 | 2 | .05 | 400 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | .02 | 600 | 2 | $.05-.05$ | 400 |
| 4 | -1 | 200 | 2 | .25 | 400 |
| 3 | 1 | 600 | 2 | .5 | 200 |
| 2 | .006 | 600 |  |  |  |

Shpg. wt. 41 los.
XD3199-Complete kit of 25.
Your
Cost.
$\$ 2.59$


| Stock No. | Capacity | Your Cost |
| :---: | :---: | :---: |
| $\times \mathrm{X} 3454$ | . 0002 |  |
| $\times \mathrm{D} 3455$ | . 00025 |  |
| $\times$ X 3458 | . 0005 |  |
| XD3463 | . 001 | . 10 |
| $\times \mathrm{D} 365$ | . 002 | . 13 |
| $\times \mathrm{D} 467$ | . 003 | 16 |
| XD3468 | .004 | c |
| XD3469 | . 005 | - |
| XD3470 | . 006 | . 22 |
| XD3474 | . 01 | . 37 |

## = Condensers

and high powered $c$ of the finest $i^{\text {ing }}$ nour


| Leads | Lugs |  |  |
| :---: | :---: | :---: | :---: |
| Stock | Stock |  |  |
| No. | No. | Cap'y | Cost |
| $\times$ D3403 | XD3429 | .00005 |  |
| $\times \mathrm{D} 3405$ | XD3431 | . 0001 |  |
| XD3407 | XD3433 | . 0002 |  |
| XD3408 | XD3434 | . 00025 |  |
| $\times \mathrm{C} 3409$ | XD3435 | . 0003 |  |
| $\times$ D3410 | XD3436 | . 0004 |  |
| XD3411 | XD3437 | . 0005 |  |
| XD3416 | XD3442 | . 001 | . 10 |
| XD3418 | XD3444 | . 002 | . 12 |
| XD3419 | XD3445 | . 0025 | . 14 |

## NEW! Truteat NEW! <br> TRANSMITTING <br> CONDENSERS-At New Low Prices

Designed especially for amateurs, "hams" and ex-
mimenters who require high voltage condensers at

- within reason, yet without ascrifice of quality.
transmitters and other equipment where temperatures are enimpregnated.
lad, and
nned



# CDRNFIT DUBMTER  

## Cardboard Cased Filter and By-Pass Units

Cornell-Dubilier dry electrolytic condensers embody the latest improvements in condenser design. Capacity is constant over a widefrequency range, with low power factor under ordinary conditions of use. Solder lug terminals are securely riveted to the containers and will not pull out. Entire condenser is heavily waxed and thoroughly moisture-proofed.

525 Volts Peak

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Cap'y } \\ & \text { Mid. } \end{aligned}$ | $\underline{L}{ }_{\text {Dimensions }}^{\text {W }}$ |  |  | Your Cost Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| XD3618 | 2 | 41/8" | 13/0" | $11 / 1{ }^{1}$ | \$0.38 |
| $\times \mathrm{C} 3619$ | 4 | $418{ }^{\prime \prime}$ | $11 \%$ | $11 /$ | . 44 |
| XD3620 | 6 | 41\%* | $13 / 8{ }^{\prime \prime}$ | 15/9" | . 53 |
| XD3621 | 8 | 418 " | 13 * | 15\%" | . 56 |
| XD3622 | 10 | 41/8* | 1\% ${ }^{\circ}$ | 11/8* | . 68 |
| $\times{ }^{\text {P }} 3623$ | 12 | 4\%* | 11\% | 13/8" | . 76 |
| XD3699 | 16 | 41** | 110" | 110" | . 85 |
| $\times{ }^{\text {X }} 3686$ | 4-4 | 41\% | 11\% | 11/0 | . 71 |
| $\times \mathrm{X} 3687$ | 4-6 | 4\%" |  | $11 /{ }^{\prime \prime}$ |  |
| $\times \mathrm{X} 3688$ | 4-8 | 43 \% |  | 1\%" |  |
| $\times \mathrm{X} 3689$ | 4-12 | 436 |  | 17\%" | 18 |
| XD3690 | 6-6 | $41 / 8$ | 1\%" | $13{ }^{\prime \prime}$ |  |
| $\times{ }^{\mathbf{X P 3 6 9 1}}$ | 6-8 | 41/8* |  |  |  |
| X03692 | 8-8 | $41 \%$ " |  | $11 /$ | . 88 |
| X03693 | 4-4-4 |  |  |  | 1.06 |
| XD3694 $\times \mathrm{XD} 3695$ | ${ }_{8-8-8-8}^{8-8}$ | $41 /{ }^{41}$ | 2" | 2 | 1.30 137 |

## With Mounting Flanges



Mounting holes are strengthenedwith eyelets. Individual soldering lugs brought out from-case on all dual units. Peak volsage 525 volts; Working voltage $450 \mathrm{D} . \mathrm{C}$.


## Special Compact Filters

525 V. Peak 450 V. Working
These new small sized units were designed primarily to be used in the "cigar-box" midgets. Provided with stiff wire leads so that the units are self-supporting, They are only $21 / \mathbf{/}^{\prime \prime}$ long and will fit in the smullest sets.


## New! Oil Treated Paper

Many prefer a paper di-electric bypass or filter condenser. This new line has been especially designed to replace the ordinary electrolytic. Capacities indicated are capacities of electrolytic condensers they replace. Non-polarized. Practically no leakage. All leads brought out -no common. Compact in sizereasonably priced. Oil treated dielectric but not oil filled. Can be mounted in any position.

## CARDBOARD TYPE


 - 1 (f ${ }^{0}$ Inverted Can

Slmilar to the above but contained in round metal cans for inverted mounting. Separate leads-no common.

600 V. Working-800 V. Peak

| Stock | Cap. | Size |  | Your |
| :---: | :---: | :---: | :---: | :---: |
| No. | Mid. | H. | D. |  |
| D3650 | 4 | $43 \%$ | 13/8 | \$0.79 |
| XD3651 | 8-8 | 43," | 1\%" | 1.03 |
| XD3652 | 8-8 | 4\%" | 11/4" | 1.65 |

## "Hi-Mike" Cartridge Type Electrolytics

Self-supporting with wire leads that cannot pull out. Very compact. Her-
 metically sealed.
Stock Cap'y.

| Stock | Cap'y | Work. | Size | Cost |
| :---: | :---: | :---: | :---: | :---: |
| No. | Md. | Volts |  |  |
| $\times{ }^{\text {X }} 3600$ | 5 | 25 | 2\% ${ }^{7}$ |  |
| XD3601 | 10 | 25 | $23{ }^{\prime \prime}{ }^{\prime \prime}$ |  |
| $\times{ }^{\times 13602}$ | 20 | 25 | 2\%"x | 35 |
| XD3603 | 25 | 25 |  | 8 |
| $\times$ X 3604 | 50 | 25 | 21/8"x14.8" | \% .56 |
| XD3605 | 5 | 50 | 2\%**** | " 29 |
| XD3606 | 10 | 60 | $21 /{ }^{\text {"x }}$ 棌" | " 38 |
| XD3607 | 25 | 50 | 2\%/8x110 | " 47 |
| XD3608 | 5 | 100 | 23/8"x ${ }^{\text {/ }}$ " | . 32 |
| XD3609 | 10 | 100 | 2\%/81" | . 41 |
| XD3610 | 25 | 100 | 2\%"x14" | . 51 |
| XD3611 | 1 | 450 | 2\%"x \%" | " 32 |
| $\times \mathrm{P} 3612$ | 2 | 450 | $23 / 8{ }^{*} \times 1$ " | . 38 |
| XD3613 | 4 | 450 | 23/8"211/8" | . 44 |

## "Hil-Mike" Round Metal Can Condensers Type EA

For use in amplifiers, power units and other equipment where sturdy, neat appearing single section units are required. Can is negatlve. 525 volts peak; 450 volts D. C. working.


## Inverted Can Type with Leads

Provided with positive and negative leads, both insulated fromenn.

| Stock | Cap'y |  | Size |  | Your | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | L |  | D |  |  |
| XD3683 | 2 | $21 /$ |  | 13/8 |  | \$0.4 |
| XD3646 | 4 | $21 / 2$ |  | $13{ }^{\prime \prime}$ |  | . 50 |
| XD3647 | 6 | 43 |  | 13 " |  | . 59 |
| XD3648 | 8 | $4 \%$ |  | $13 \%$ |  | . 62 |
| XD3649 | 10 | $43 \%$ |  | 13 |  | 73 |
| $\times \mathrm{D} 3653$ | -8 | 4\%/3 |  | $115{ }^{\circ}$ |  | 4 |

Cornell "Cub" condensers have become the most universally used condensers in radio set design. Used extensively by over 135 radio set manufacturers. Units are wound on a wooden core, thoroughly impregnated, and cased in cardboard containers. Stiff wire leads are fast r to metal caps which are -
the core so that the".



Soldering Jug or wire lead . minals. Used extensive?
manufacturers. $1^{n n}$

Designed for the average low
transmitters and receivers. Dielectr.
ruby mica. Cased in moulded bakelite.
2500 V. D. C. Test- 1000 V. D. C. Work.

| Stock Cap. Cap. Your\| Stock Cap. Capr Con |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| XD3050 | . 00004 | 40 | \$0.15 | XD3063 | . 0015 | 1500 |  |  |
| XD3051 | . 00005 | 50 | . 23 | XD3064 | . 002 | 2000 |  |  |
| XD3053 | . 0001 | 100 | 16 | XD3066 | . 003 | 3000 |  | c |
| XD3054 | . 00015 | 150 | . 23 | XD3068 | . 004 | 4000 |  |  |
| XD3055 | . 0002 | 200 |  | XD3069 | . 005 | 5000 |  | .41 |
| XD3056 | . 00025 | 250 | C | XD3070 | . 006 | 6000 |  | . 50 |
| XD3058 | . 00035 | 350 |  | XD3072 | . 008 | 8000 |  | . 59 |
| XD3060 | . 0005 | 500 |  | XD3073 | . 01 | 1000 |  | . 67 |
| XD3048 | . 0007 | 700 | . 15 | XD3075 | . 015 | 1500 |  | . 72 |
| XD3061 | . 001 | 1000 | . 20 | XD3049 | Resis | Clip |  | . 06 |
| XD3074 | 5000 V. D. C. Test-2500 V. D. C. Working |  |  |  |  |  |  |  |
| Stock | C | 'y | Your | Stock |  | 'y |  | Our |
| No. |  |  | Cost | No. |  |  |  | Cost |
| XD3085 |  | 005 | \$0.39 | $\times$ X 3080 |  |  |  | 0.62 |
| $\times \mathrm{D} 3076$ |  |  | . 73 | XD3081 |  |  |  | 1.32 |
| $\times \mathrm{C} 3077$ |  |  | . 53 | XD3082 |  |  |  | . 88 |
| XD3078 |  | 15 | . 59 | XD3084 |  |  |  | 1.15 |
| XD3079 |  | 25 | . 62 |  |  |  |  |  |



For use in
high voltages ana ope....
countered. All units are consum
foil obtainable; paper dielectric is on
Housed in heavy metal container, wax hus
sealed so as to be moisture proof. Black Japain...
finish Termin be moisture prool. Black Japaz...
and provided wis are mounted on porcelain insulators
provided with solder lugs. Size $5 \times 2 \times 1$ to $2 \%$, $\operatorname{lP}_{5}$
ccording to capscity. Average shipping wt. 3 lbs .
XE3234-1 Mid., 1000 volts. XE3237-2 Mid., 1500 volta.
Your Cost ST. I
XE3235-2 Mfd., 1000 volts.
Your Cost St. So
XE3236-1 Mfd., 1500 volts.
Your Cost
$\$$ volts.
. 404
10 - Though designed primarily for amatewr use, the tions. All accurately rated as to voltage and capacity


## CAPACITY INDICATOR

## "It Chirps on Overloads" <br> The new patented Sprague Surge Arrester built into this new Capacity 475 voltsare applied. Indicator ove 475 volts are applied. Indica tor chec cs two ranges; from .00025 to . 0 and from 1 to 16 mids. Capacities selected by means of two rotary switches of the self-cleaning wiping contact type. Entire unit housed in fine bakelite case $771 / 4 \times 4^{3}$, $6 \times 31 / 4$ ". Terminals marked for easy connections. Complete with test leads and instructions. <br> Shpg. wt. 7 lbs. XWio4si Your Cost............



## SPRACO 450 Volt Condensers with "Extra |Safety Factor"

These condensers have a special filler which makes it possible to get higher capacity in smaller space. Have extra safety factor voltage rating. low power factor extremely low leakage, and are absolutely impervious to moisture. Extremely small size allows them to be mounted anywhere. They are light weight, and selfsupporting. Provided with insulated leads, push-pack Stock

| Stock | Cap'y | Dimensions | List | Your Cost |
| :---: | :---: | :---: | :---: | :---: |
|  | Mfd. | L Diam. | Price | Each |
| $\times \mathrm{X} 2916$ | 1 | 21/2" 11恠" | \$0.55 | \$0.33 |
| XD2917 | 2 | 21\%" 11/ | . 65 | . 39 |
| $\times$ X2918 | 4 | 215* ${ }^{\circ}{ }^{\circ}$ | . 75 | . 45 |
| $\times \mathrm{XD2919}$ | 6 | $21 / 2{ }^{\circ} 1510^{\circ}$ | . 90 | . 53 |
| $\times \mathrm{CD2920}$ | 8 | $24^{\prime \prime} 1{ }^{\circ}$ | . 95 | . 56 |
| XD2921 | 4-4 | 2多" 1* | 1.20 | . 71 |
| $\times$ D2922 | 8-8 | 21/3* 13\% | 1.50 | . 88 |




An entirely new line of fine quality volume controls at prices that are truly phenomenal. Extra hard carbon composition elements used in conjunction with a new multi-point wiping contact arm assure long and aatisfactory service. Each and every unit, as the name "TruTaper" implies, is correctly tapered for the circuit for which it was designed. Shafts extend $13 / 4 "$ from control. Provided with $\$ / /^{\prime \prime}$ bushings. Frames are of bakelite with metal dust covers. One of the eleven types shown in the listing will take care of any volume or tone control requirement.

| With | Without | Resist. | Circuit |
| :---: | :---: | :---: | :---: |
| Switch | Switch | in Ohms |  |
| XH9070 | XH9081 | 1000 | Antenna Shunt |
| XH9071 | XH9082 | 2000 | Antenna Shunt, "C' Bias |
| XH9072 | XH9083 | 5000 | Antenna Shunt |
| XH9073 | XH9084 | 10000 | Antenna Shunt, "C'" Bias and Ant. |
| XH9074 | XH9085 | 25000 | Antenna Shunt, "C" Bias and Ant. |
| XH9075 | XH9086 | 50000 | Screen Voltage or Tone Control |
| XH9076 | XH9087 | 75000 | "C" Bias Control |
| XH9077 | XH9088 | 100000 | Screen Voltage or Tone Control |
| XH9078 | XH9089 | 250000 | Audio Shunt or Tone Control |
| XH9079 | XH9090 | 500000 | Audio Shunt or Tone Control |
| XH9080 | XH9091 | 1 Megohm | Audio Shunt or Tone Control |

## Trutent Exact Duplicate Controls

For VICTOR Models


Your Cost Each.

For ZENITH Models
70 Series-Late Type


Used in models 50 $60,70,71$,
$72,73,77$, 712,722 723 and 772 . Latertypes,
dual control. Complete with switch. Resistance of
and 110,000
sections XH9095
Your Cost Each \$1.29

## For ZENITH 50 Series

 Single control with switch. Used in models 52, 53, 522, 532, 54, 55, 57, 62, 60, 61, 64 and 67. Fits the chassis exactly; no changes necessary to install. XH9096 Your Cost Each
## XH9092

## CLAROSTAT

AD-A-SWITCH WIRE WOUND VOLUME CONTROLS


Standard controls to which switch cover may be easily added. Diameter $15 / \mathrm{m}^{\prime \prime}$, mounts in $7 / \mathbf{a}^{"}$ hole. Shaft insulated, and extends $11 / 2^{\prime \prime}$. Letters following resistance value indicate taper as follows: L-Untuned Ant.; N-Ant. or R. F. Coil; U-Combined Ant. and "C" Bias; V-"C" Bias; W-Screen Grid. Units with no letters following resistance are standard controls, uniform taper.

| Stock | Res. | Your | Stock | Res. |  | Stock | Res. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Ohms | Cost |  | Ohms | Cos |  | Ohms | Cost |
| XF7099 | 50 | \$0.40 | XF7087 | 3000 | \$0.46 | $\times$ F7075 | 10000 V | 0.51 |
| XF7098 | 100 | . 40 | XF7086 | 3000 U | . 46 | XF7074 | 10000W | . 51 |
| XF7097 | 200 | . 40 | XF7085 | 3000 V | . 46 | XF7073 | 15000 | . 51 |
| XF7096 | 300 | . 40 | XF7084 | 5000 | . 46 | XF7072 | 15000 U | . 51 |
| XF7095 | 400 | . 40 | XF7083 | 5000U | . 46 | XF7071 | 15000 W | . 51 |
| XF7094 | 500 | . 40 | XF7082 | 5000 V | . 46 | XF7070 | 20000 | . 56 |
| XF7093 | 750 | . 46 | XF7081 | 7500 | . 46 | XF7069 | 20000 V | . 56 |
| XF7092 | 1000 | . 46 | XF7080 | 7500 U | . 46 | XF7068 | 25000 | . 62 |
| XF7091 | 1000L | . 46 | XF7079 | 7500 V | . 46 | XF7067 | 30000 | . 62 |
| XF7090 | 2000 | . 46 | $\times \mathrm{C} 7078$ | 10000 | . 51 | XF7066 | 40000 | 62 |
| XF7089 | 2000L | . 46 | XF7077 | 10000 N | . 51 | XF7065 | 50000 | 62 |
| XF7088 2000 V |  | . 46 | XF7076 | 10000U | . 51 |  |  |  |
|  |  | overpla |  |  |  |  |  | \$0.24 |

YAXLEY Jr. Rheostats and Potentiometers


YAXLEYEXT. Shafts


For use on volume controls and switches where longer shafts are required. All are 4 long.
 XF6562-1/" diam., 脌" flat XF6563-1/io" diam., $1 / 4_{4}$ f1at Your Cost Each, Any Size.
$15^{c}$


Volume Control Switches
Single Pole, Single Throw
Fits all Yaxley controls.
XF6564
Your Cost Each
$21^{\circ}$
Single Pole, Double Throw
Makes another circuit when switch is in "off" position. Fits all controls.
XM12853-List 50c
$20^{\circ}$

## YAXLEY



Features ( $A$ ) Minimum bias adjustment on all C Bias controls. (B) 4-inch shaft of special nickel alloy. To shorten, Just notch with cutters and break off.
(C) Power Switch, approved by Underwriters, easily attached to any control.
(D) Knob adapter. Allows use with set screw, spring or Philco type knobs.
(E) Extension bushing. Extends through $8 / /^{\prime \prime}$ panel.


Name of Radio
and Model

## APEX

 Model 36. Model 41 .Models 46 and 46 -A
Models 46 and 46-A

## ATWATER KENT

86 Condenser Block (Serial below 260,000 ). ... (Seria) a bove 260,000). .... 37-38 Condenser and Choke Assembly
45 Condenser Assembly 46, 47 and 53 Condenser Assembly
$55,55 \mathrm{C}, 60,60 \mathrm{C}: 7$ Taps. $55 \mathrm{E}, \mathrm{FF}$, 3rd Type 60C,
L-1 Chassis 5 Taps, 1 A5... 72 Series 89.

BOSCH
Model 28.
Model 29-825
Model 48
Models 5 and $\mathbf{~}-\mathbf{A}$
Models 20J, 20 K and 20 L
Model 133
Models 73 and 74

## brandes

Models B-15 and B-16.

## BRUNSWICK

Models PR-17-8
Models $2 \mathrm{KRO}, 3 \mathrm{KRO}$, 2 KR R , $5 \mathrm{KRO}, 5 \mathrm{KR} 6$
Model 5NO Power Unit ..... Models 15 and 22 .
Models 14, 21, 31 Red Spot
Models S14, S21, S31 Green Spot.
Models Si4, S21, S31 Blue
Spot. Models S14, S21, s3i Black Models
Spot.
columbia radio
Model Screen Grid 8
COLUMBIA-KOLSTER
Models C-1, C-3
Models C-5
Model 950.
Model 980. Part 4350 for Tuner B supply.
EARL, C. A.
Models 21 and 22.
Models 31, 31S, $32,32 \mathrm{~S}$, 33 33 S and 41

## EDISON

Models R-1, R-2, C-2
Models R-4, R-5, C-4
Models R-6, R-7.
EVEREADY
Models 30, 40 and 50 Series . . XB1210 2.75
Models 1, 2 and 3.

## FADA

Models 25, No. 1780X Models 35, 35Z, No. 1790 X .
Model 25 and 35 (Late) No. 1801 X.
Models $42,44,46,47, \mathrm{No}$ 1830X.

Stock
No.

## Cost

 XB1409 $\$ 3.10$ $\times 8140833.10$ $\times 81407 \quad 3.85$$\times 18$ XB1406 1.70 XB1405
1.70
$\times 81382$
< 81378 $\times 81370 \quad 1.48$ $\times 81369 \quad 2.70$ $\times 81368 \quad 2.40$

XB1367 1.48 $\times 813651.48$ XB1364 2.80

K81349 1.95
$\times 813483.45$
$\begin{array}{r}2.65 \\ \times 81347 \\ \hline 2.15\end{array}$
$\begin{array}{r}\mathrm{XB1345} 2.15 \\ \times 81343 \\ \hline\end{array}$
2.95
$\times 81342$
2.65
$\begin{array}{ll}\times 81341 & 2.65\end{array}$

XB1334 1.95
$\times 81020 \quad 1.20$
$\times 81019.35$
$\begin{array}{ll}\times 81015 & 1.75\end{array}$
$\begin{array}{ll} \\ \times 81309 & 2.45\end{array}$
$\times 81312$
XB1314 48 XB1313 . 48
$\times 81290 \quad 2.50$
$\times \mathrm{B1280} .95$ $\times 81278 \quad 2.75$ $\times 81278 \quad 2.75$
$\times B 1271 \quad 3.35$
$\times 81272 \quad 3.75$
$\times 81245 \quad 2.25$
$\begin{array}{ll}\times 81244 & 2.10\end{array}$
$\times 81220 \quad 3.30$
XB1219 2.65
$\begin{array}{ll}\times B 1218 & 2.65\end{array}$

| We maintain a rapid repair service on all blocks. If the unit you want is not shown in the listing, send in the old block and we will quote on its repair, at the lowest prices. All units are fully guaranteed to be equal to the original. |  |  |
| :---: | :---: | :---: |
|  |  |  |
| Name of Radio and Model | $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ |  |
| FADA-Cont. |  |  |
|  |  |  |
| - | X81196 |  |
| Model 4 | 8120 |  |
| Freed |  |  |
| Models 55 and 56 | X81 |  |
| Models 65, 78, 79, | B1 |  |
| freshman |  |  |
| Model "Q |  |  |
| Model N (all mode | B1 |  |
| GENERAL MOTORS |  |  |
| Models 120, 130, 140, 15 160. "A" Chassis. | XB69 |  |
| Ma |  |  |
|  |  |  |
| Models 500 |  |  |
| del 340 Conden | X81015 |  |
| odel 340. Conden | X81014 | 1.70 <br> 2.25 |
| odel 6 |  |  |
| Models 700, 770, 900 | 8100 |  |
| HAMMARLUND |  |  |
|  |  |  |
| , | B11 |  |
| KOLSTER-COLUMBIA |  |  |
| ode | XB1090 |  |
| Models |  | 50 |
| Models K-20, 22, 25 and | $\times 81280$ |  |
| Models K-21 and K-23... |  |  |
| 1 K | X 81 |  |
| 1 K-43 | X81 | 8 |
| el |  |  |

## MAJESTIC

Model 70 Series, 7P6 Power
Model 70 Series, 7BPG Power Unit, Late Models
Model 80-180, 8PB6 Power Unit.
Model 90
Unit Series, 9 PB6 Power Unit.
Models $90-\mathrm{B}$ and $100-\mathrm{B}$
Models 50, 52.
Model 20 Condenser and In put Transformer Models 30 and 31 Condenser ${ }_{60-61-62-160-153}^{\text {and }}$ 60-61-62-160-163
SPARTON By Pass Condensers


A new and A new and improved type of condenser boused in a metal shell. Has threaded insert for connecting
$1928-31$
sets.
${ }^{\mathbf{X B 5 4 5}} \mathrm{-25} \mathrm{M} / \mathrm{d}$
Your Cost Each XB546-5 Mid. Your Cost Each XBE47-1.0 Mid SPARTON 410 BY-PASS Genuine Part No. A-6456. Contalins four . 3 mid. sections
XB548-Your Cost Each

## CROSLEY Exact Duplicate

 By-Pass Condensers> Stuck
> No.
$\times 8705$ $\times 8705$
$\times 8707$
$\times 8$.
> $\times 8712$
> $\times 8718$
$\times B 718$
$\times B 720$

Part No. 1728-SA. Detector by-pass for the above sets. Contains: .1-.1-.25-.1 mid. XB691-
Your Cost Each

| Crosley <br> Part No. | Capy. |
| :--- | :---: |
| W4968. | .5 |
| W5863 | .5 .5 |
| W7753-B | $.1-.5-.1$ |
| W20186 | $.3-.25-.25$ |
| W22412 | $.1-.1-1-1$ |
| W23736 | $.5-.25-.25$ |

W23736

Your
Cost
Each
30.26
.59
.29
.29
.65
.75

Name of Radio
and Model


## PEERLESS

Model 65.................... $\times$ X1045 $\quad 1.45$
Model 70..................... XB1044 2.65

## PHILCO

Model 20
XB1030 2.75
Model 65
Model 82
Model 87
X 10291.75
Model $511 \ldots \ldots . . . . . . \times 81206 \quad 1.90$
Models 95, 96, 296, 111, 211, XB1025 1.75 112,212................. XB1031 4.50

## rCA-RADIOLA

| Models 17 and 50. | XB1020 | 1.20 |
| :---: | :---: | :---: |
| Models 18, 33 and 51 | XB1019 |  |
| Model 30-A Filt | XB1018 | 2.75 |
| Models 42. | XB1021 | 2.40 |
| Models 44, 46 a | $\times \mathrm{B1016}$ | 1.75 |
| Models 33, 44, | $\times \mathrm{B1002}$ | . 75 |
| Model 60 | XB1015 | 1.75 |
| Model 62 Filt | $\times 81014$ | 1.70 |
| Model 64 Filter Block | XB1011 | 4.75 |
| Model 66 Filter Bloch | XB1010 | 2.25 |
| Model 67 Filter Block | $\times 81007$ | 5.35 |
| Models 80, 82 and | XB1005 | 1.95 |
| R7A, RE16A | $\times 81001$ | . 89 |
| 8, 10, 12, RE19 | XB1023 | 3.65 |
| R55, RAE59 | XB531 |  |

## SPARTON

| Models AC-7, 62 and 63 | XB979 | 3.30 |
| :---: | :---: | :---: |
| Model 89-A | X8976 | 3.85 |
| Models 69, 79 | XB975 | 2.75 |
| Model 301-A | XB974 | 3.95 |
| Model 930 | XB973 | 1.75 |
| STEINITE |  |  |
| Models 40-A and | X8940 | 2.95 |
| Models 40-C, 60-C and 10 | XB941 | 2.95 |
| Models 50-A and 102-A | X8939 | 2.95 |
| Models 70, 80 and 95 | $\times 8938$ | 2.95 |
| Models 261 and 262. | XB937 | 2.9 |

## STEWART-WARNER

Models using Majestic Powe
Unit. 2.65
Model 900 A. C. Series No.
$61303 . . .2929$
Model 900-950 A. C. Series.
Condenser and Choke As
sembly.
$\times 8928 \quad 3.40$
100 A-B-E
$\begin{array}{ll}\mathbf{X B 9 3 1} & 1.35\end{array}$

## STROMBERG-CARLSON

Models 10 and 11
XB920
Models 12 and 14
Models 635 and 636
Model 638
$\times 8919$
Models 641, 642,652 and $654 \times 8917$
Models 641, 642, 652 and 654 . XB916
Models 846 and $848 \ldots . . . . \times 8915$

## VICTOR

Models 9-18 and 9-54......... $\times 810114.75$
Model R-15 ........... $\times$ B1021 2.40
Models R-32, RE-45, R-52,
RE-75...............
Models R-32, RE-45, R-52
$\begin{array}{llll}\text { Models R-32, RE-45, R-52, } \\ \text { RE-75; } 4 \text { Taps. } \\ \text { Models } 35,39 \text { and } 57 \ldots \ldots & \\ \times 8893 & \mathbf{1 . 1 5}\end{array}$

$\begin{aligned} & \text { Models } \\ & \text { Models } 7-11,7-26 . . . . . . . . . . . . . . . . . ~\end{aligned} \times 81019$
ATWATER KENT Condensers


Guaranteed to be equal to or superior to the original condensers. Capacity 5 mid. No changes necessary to install Shpg, wt. 4 oz. $\times 63961$ -
Your Cost Each. . 5
R. F. By-Pass Condenser Same models as above. Con densers.


Trutest Dry Electrolytics are manufactured to the highest quality standards，and easily conform with RMA ratings．Do not be misled by inferior merchan－ dise which is so often offered as being＂up to standard．＂ All Trutest Dry Electrolytics are GUARANTEED to
have a power factor from 4 to $8 \%$ ；leakage better than ． 1 mils．per microfarad；full rated capacity within tolerance of $-10 \%$ and $+20 \%$ ．For best results and for definite assurance of Maximum filter action，use Trutest Dry Electrolytic Condensers．

## Dry Electrolytic Cartridge Condensers

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| In waxed cardboard containers with |  |  |  |
| metal ends and $15 / 6^{\prime \prime}$ wire leads． Hermetically sealed．Especially sulted for use in＂cigar－box＂A．C．－ |  |  |  |
|  |  |  |  |
|  |  |  |  |
| D．C．日ets． |  |  |  |
| Stock | Cap＇y | Wkg． | Your Cost |
| No． | Mid． | Volts | Each |
| XD3380 | 5 | 25 | S0．23 |
| XD3381 | 10 | 25 | ． 23 |
| XD3382 | 25 | 25 | ． 22 |
| XD3383 | 50 | 25 | ． 42 |
| XD3296 | Dual 5 | 35 | ． 39 |
| XD3384 | 5 | 50 | ． 22 |
| XD3295 | 10 | 50 | ． 28 |
| $\times \mathrm{C} 3297$ | 25 | 50 | ． 36 |
| $\times$ D3387 | 5 | 100 | ． 26 |
| XD3388 | 10 | 100 | ． 33 |
| XD3392 | 2 | 150 | ． 24 |
| XD3393 | 4 | 150 | ． 29 |
| XD3394 | 8 | 150 | ． 36 |
| XD3395 | Dual 4 | 150 | ． 40 |
| XD3389 | 1 | 200 | ． 24 |
| XD3390 | 2 | 200 | ． 24 |
| XD3391 | 4 | 200 | ． 30 |
| $\times$ C3291 | 1 | 450 | ． 25 |
| $\times$ X3292 | 2 | 450 | ． 28 |
| $\times$ X3293 | 4 | 450 | ． 35 |
| XD3256 | 8 | 450 | ． 39 |

Special Compact Filters


These units occupy less space than similar capacity low voltage sections and give ample voltage protection． Working voltage 200 volts D ．C． long．Have stiff leads for con－ nections．


## ＂Wet＂Electrolytics

| $118$ | A new line of condensers |  |  |
| :---: | :---: | :---: | :---: |
| 2010． | that possesses many ad－ |  |  |
|  | vantages such as； |  |  |
|  | stand voltage overloads |  |  |
|  | without harm，selif－ |  |  |
|  |  |  |  |
|  | tics，etc．Full and well |  |  |
|  | excellent power factor and long life are guar－ |  |  |
|  | All in tubular metal co |  |  |
| tainers |  |  |  |
|  |  |  |  |
| 500 volts $43 \times 13 \times 16^{\prime \prime}$ ； 600 volts |  |  |  |
|  |  |  |  |
| Stock | Cap ${ }^{\text {M }}$（ds． | Peak | Your |
| No． |  | Volts |  |
| XB488 |  | 200 | $\operatorname{Cos} t$ |
| XB489 |  | 200 | ． 36 |
| XB490 |  | 350 | ． 43 |
| XB491 | 8 4 4 | 450 | ． 36 |
| XB492 | 10 | 500 | ． 45 |
| XB493 |  | 500 | ． 50 |
| XB494 | ${ }_{8}^{12}$ | 600 | 54 |
| X8495 |  | 600 | － 70 |



Stock
No．

 | No． |
| :--- |
| D3161 |
| D3153 |
|  | D3154 D3164 D3165

D3166 D3167
D3169 D3148 D3149
D3150
D3157 D3152
D 3170
$D 3172$ D3172
D3155
D3156 D3156
D3157
D 3159 D3159 4－16－8 SP Com．Term．Ney．SP．Com．Term．Spec．

Special＂ 600 ＇Volt Peak

## Dry Electrolytics



Similar in construction and work－ manship to the standard line of Trutest electrolytics but the peak voltage has been raised to 600 volts D．C．and the working volt－ age to 475 volts D．C．Especially recommended for use in sets or amplifiers where surges of more than 500 volts occur．Sealed in compact cardboard boxes $118^{\prime \prime}$ wide by $2^{7} / \mathrm{hs}^{\prime \prime}$ long．


Multiple Sections Can
Type Dry Electro－ lytics
Each section is a separate elec－ trolytic，of the genuine self－ They feature excellent power factor characteristics，low leakage and full rated capacity．All 500 volt peak． Stock Cap＇y Mid．No．Your

| XD3316 | 8－8 | $21 /{ }^{\prime \prime}$ \＄ 0.82 |
| :---: | :---: | :---: |
| XD3317 | 5－16 | 21／2＂ 1.05 |
| XD3325 | 8－18 | $3 * 1.35$ |
| XD3327 | 18－18 | 3 － 1.60 |
| XD3331 | 4－4－4 | $21 / 2 * 1.00$ |
| XD3318 | 8－8－8 | $3-1.15$ |
| XD3320 | 9－9－18 | $3^{\prime \prime} 1.70$ |
| XD3319 | 8－8－8－8 | $31 / 4 \times 1.55$ |
| XD3321 | 8－8－18－18 | 31／4 2.40 |

## Inverted Type

 Com．Term．Pos．|  |  |  |
| :---: | :---: | :---: |
| Stock No． | $\begin{aligned} & \text { Capor } \\ & \text { Mad } \end{aligned}$ | Your Cost Each |
| XD3323 | 4 | \＄0．38 |
| XD3324 | 8 | ． 42 |
| X03326 | 4－4 | ． 70 |
| XD3335 | 4 －8 | ． 79 |
| XD3398 | 8－8 | ． 82 |
| Compact Dry Electrolytic |  |  |
|  |  | Filter Units 525 V ． Peak |

Extremely compact filter condenser conservatively rated at 525 volt peak and 450 volt working voltage． All are in cardboard cases $11 /{ }^{\prime \prime}$ wide． but vary in length and thickness． Stock Cap＇y Size Your
No．Mids．T．L．Cost $\begin{array}{llllll}\times D 3223 & 1 & 9 \% \\ 29 & 50.25\end{array}$ XD3219
$\times D 3220$ XD3220
$\times \mathbf{~}$
$\times 2221$
XD3222

| Stock | Cap＇y | Inches | Your |
| :---: | :---: | :---: | :---: |
| No． | Mfds． | Thick | Cost |
| XD3205 | 1 | $8 / 16$ | $\mathbf{5 0 . 3 5}$ |
| XD3206 | 2 | $1 / 16$ | .40 |
| XD3207 | 4 | $11 / 1$ | .45 |
| XD3208 | 6 | $11 / 8$ | .50 |
| XD3209 | 8 | 186 | .55 |

Dry Electrolytic Condensers
for Compact A．C．－D．C．Sets Filter and By－Pass Units Flange Type Mounting wor

| Working |  | Your |
| :---: | :---: | :---: |
| Volts | Dimensions | Cost |
| 25 | 11自x11／623／6 | \＄0．36 |
| 25 | $21 / 4 \times 78$ | .35 |
| 25 | 21／4x $78 \times 7 / 8$ | ． 36 |
| 200 | $118 \times 1916 \times 41$ | ． 74 |
| 200 | 136195041\％ | .79 |
| 200 | 1319x190641／8 | ． 85 |
| 150 | 11／4×198825\％ | ． 58 |
| 200 | 13 \％$\times 13 \% \times 4$ \％ | ． 56 |
| 150 | 114×13／823\％ | ． 39 |
| 150 | $27 / 3 \times 1 \times 1$ | ． 38 |
| 150 | $1 \times 114 \times 3$ | ． 58 |
| 150 | $1 \times 11 / 2 \times 3$ | ． 58 |
| 150 | 23／6123尔趐16 | ． 92 |
| 200 | 1）$\times 18$ \％ $2 \%$ | ． 44 |
| 200 | 114×19\％825\％ | ． 58 |
| 200 | 11年x1964 | ． 58 |
| 200 | $176 \times 1 \%$ \％${ }^{1 / 1}$ | ． 78 |
| 150 | $13 / 8 \times 19$ 价 41 | ． 78 |
| 200 | 11／4×15852\％ | .39 |
| Com．Term．Spec．$\dagger$ Com． |  | Pos． |

condenser is used in new installations condenser is used in new instaliations and repacemeats． num studs．Can is insulated from the condenser sections and is grounded． Guaranteed．Sbpg．wt． 1 lb ． x03324
Your Cost Each．
Single 8 Mfd．Cardboard The most popular size in this very popular line of condensers at an ex－
ceptionally LOW PRICE．This 8 ceptionally LOW PRICE．This 8
mid．condenser has a heavily waxed mid．condenser has a hea vily wa xed cardboard container and a peak voit－ ${ }^{2 / 8}{ }^{\circ} \mathrm{F}$ Shpg．wt． 1 lb ． XD3348－
Your Cost．


## Plain Cardboard Fitter and General By． Pass Units

Suitable for use in the manufae ture of radio sets or for replace－ ment work to substitute for wax paper condenser blocks．They are light and compact and can be mounted in any position．Trouble free at unusually high temperatures． Used for filter sec－ ＂cions，cathode，and condensers．by－pass

## Stock <br> 



| Stock No． | Cap＇y | Size |  | Peak | Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ches | Volt． | Cost |
| XD3351 | 2 | 25／8x | ／6x11／6 | 500 | \＄0．29 |
| XD3346 | 4 | 11／6x | $11.16 \times 41$ | 500 | ． 34 |
| XD3347 | 6 | 136x | $1610 \times 41$ | 500 | 38 |
| XD3348 | 8 | $1{ }^{18} x^{1}$ | ${ }^{13}$ kx41／8 | 500 | ． 40 |
| $\times$ 13349 | 10 | 1318 x | $9 \times 41$ | 500 | ． 53 |
| XD3350 | 12 | 118x | $916 \times 41 /$ | 500 | 62 |
| Stoc | Cap＇y | Work． | Size | Yo |  |
| No | Mid． | Volts | Inches |  | Each |
| XD3353 | 10 | 50 | 11／16x11／10x |  | 50.38 |
| XD3354 | 25 | 25 | 11／6x11／6x | 293 | ． 32 |



## Centsalab

## Improved Radiohms



Centralab Radiohms carry ample current for any ordinary volume control circuit if the proper taper is selected, regardless of whether the original control was wire wound or carbon. Radiohms employ the patented nonrubbing contact that always turns smooth without wear. Case diameter of all units 13/7": extend $1 /$ " behind $^{\prime \prime}$ bel. panel. Shaft 2 " long milled flat. Listing is coded to indicate taper as follows: U-Voltage Divider (Uniform); S-Antenna Shunt: A-Antenna Shunt and CBias: A1-Antenna Shuni and C Bias, 1 Tube;A2-Antenna Shunt and C Bias, 2 Tubes;C-C Bias; T-Tone Control: GT Audio Grid or Tone Control; P-Series in R. F. Plate. Stock No. CRL No. Res. Ohms
 Each.

## ( $\mathrm{Cu} \mathrm{Cl}^{\prime}$

Employ newly perfected graphite element which is baked at high temperature to the flat outer surface of a molded bakeIte ring. Element cannot flex or warp, and is highly resistant to humidity. Al ELECTRAD

UNIVERSAL Volume Controls controls housed in moulded
 bakelite cases, with metal end covers and aluminum -aafts. Extead only $1 / /^{\prime \prime}$ inside panel. Approved type switch may be easily added in a ew moments to any control. Letters following resistance indicate taper, as follows: U-Unitorm; A-Antenna Shunt or C Bias; C-C Bias; ? Audio plate Control: GT-Audio Grid or Tone Conirol. Resistances from 10 to 5000 ohms employ wire wound elements.

| Stock No. | Mirs. No. | Res. Ohms | Stock No. | Mfrs. No. | Res. Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| XG7905 | 204* | 10 U | XG8083 | 660 | 75004 |
| XG8072 | 269 | 20 U | XG7924 | 288 | 10000 U |
| XG8128 | 270 | 30 U | XG7912 | 240 | 10000A |
| XG8129 | 271 | 50 U | XG8091 | 673 | 12000 C |
| XG8068 | 272 | 100 U | XG7902 | 201 | 15000A |
| XG7915 | 273 | 200 U | XG7921 | 279 | 25000 U |
| XG7916 | 274 | 400 U | XG7922 | 280 | 25000 P |
| XG7923 | 282 | 600 U | XG7913 | 241 | 30000 P |
| $\times \mathrm{C7917}$ | 275 | 800 U | XG7906 | 205 | 50000 U |
| XG7918 | 276 | 1000 U | XG7903 | 202 | 75000 C |
| XG7909 | 282 | 2000 U | $\times \mathrm{C} 7914$ | 242 | 100000GT |
| XG7910 | 233 | 8000 U | XG8125 | 281 | 200000 U |
| XG7919 | 277 | 4000U | XG7908 | 208 | 250000 GT |
| XG7911 | 234 | 5000 U | XG7904 | 203 | 500000GT |
| XG7920 | 278 | 5000A | XG7907 | 206 | 1 Meg. GI |

* Indicates Rheostat Type Control.
Your Cost.
Any Type.........
Switch only.
Fits all Types.
Your Cost......................
anms 10000A 12000 C 5000U 25000 P 50000 U 100000 GT 200000 U 50000 GT Meg. GT


## CENTRALAB

 Power RheostatsIdeal for use as motor speed controls, charging rate regu lators, etc. All metal frame and core insulated with treated asbestos. All $2^{\prime \prime}$ in diameter.

## 25-Watt Units

Stock Res. Your Stock Res. Your No. Ohms Cost No. Ohms Cost XH8977 ${ }^{\times} \mathbf{X H 8 9 7 8}$
 $\mathbf{X H}$
$\mathbf{X H 9 8 0}$

##  <br> 50 XH8984

 50-Watt UnitsStock Res. Your Stock Res. Your No. Ohms Cost No. Ohms Cost
 $\left.\begin{array}{lr}\mathbf{X H 8 9 8 8} & 60 \\ \mathbf{X H 8 9 8 9} & 150\end{array}\right) \$ 1.22 \mathbf{X H 8 9 9 1} \begin{array}{lll}\mathbf{X H 8 9 9 2} & 1000 & 5000 \\ \mathbf{X H} & \$ 1.35\end{array}$ 75-Watt Units
\(\left.\begin{array}{lr}\mathbf{X H 8 9 9 5} \& 50 <br>
\mathbf{X H H 8 9 6} \& 150 <br>

\mathbf{X H 8 9 9 7} \& 300\end{array}\right\} \$ 1.47\)| $\mathbf{X H 8 9 9 8}$ |
| :--- |
| $\mathbf{X H 8 9 9 9}$ | XH8997

 ,

Mfgr. and Resistance
Ohms
BELMONT BELMONT RADIO
R-258 350 ........... XE5317 $\$ 0.20$

R261
R261
R-266 $6000-6000$
R-278 7500-200
$105510000-7000-2000 \cdots \times$. $\times 55039$ 1056 12000-6000-9000 ........ XE5041

RROSLEY RADIO
20176 B 10-10-10-10-860....... XE5320 20452B 320-225-2000-1750.. $22574 \quad 3000-2150-1220-45 \times \mathbf{X E 5 3 0 3}$ 22574A $1790-2150-1220-45 \ldots .$. . $\times$ X 5304

$\begin{array}{ll}\text { HR-36 } & 310 \\ \mathrm{HR}-38 & 1500\end{array}$

## EMERSON RADIO

XE5326
XE5322

## GRIGSBY-GRUNOW

7818 2000-140-500 8292 2000-350-500 $9232 \quad 7000-4500-3000-300$ XE5323 7000-400-3000-300 .... XE5324 $100-100$ - $\times 5042$ $10145 \quad 408-134-1800-360-9000$ 10000 ............. XE5043 300-1500-600 . . . . . . . . XE5044 11953 63-51...............
6700 2000-500-300-200 ..... XE5046 6701 5000-500-1000-600 ..... XE5047 INTERNATIONAL RADIO
R-302 1500.
XE5327 R-303 310.

XE5326

## RCA VICTOR CO

59855 60-130-250 . . . . . . . . . XE5048


## ELECTRAD T Pad Attenuator

 A network of three resistances housed in a large moistureTwo sections fwo sections offer constant resistance to action patput circuits while a tapered section provides smooth attenuation of the volume level.

| Stock No. | Resist. Ohms | Stock No. | Resist. Ohms |
| :---: | :---: | :---: | :---: |
| XG7705 | 15 | XG7707 | 500 |
| XG7712 | 50 | XG7708 | 3000 |
| XG7706 | 200 | XG7709 | 5000 |
| Your Cost, |  |  |  |

ELECTRAD L Pad Attenuator
Similar to the above, but two elements which provide constant resistance to the line. For individual control of speakers.

| Stock No. | Resist. Ohms | Stock No. | Resist. Ohms |
| :---: | :---: | :---: | :---: |
| XG7700 | 15 | XG7702 | 500 |
| $\times \mathrm{C7713}$ | 50 | XG7703 | 8000 |
| XG7701 | 200 | XG7704 | 5000 |
| Your Cost, |  |  |  |

## e.

Volume Control Strips
XG7670-For Models 18, 33 and 51. 2000
XG7671-For Models 44, 46 and 47. 3000
XG7672-For Models 60 and 62. 450 ohms.
XG7673-For Model 66. 550 ohms.



# ELECTR 

 Atwater-Kent$37,38,40,42,43,44,46,62$, etc., Volume Control Strip 60, 66 Strip.
$55,55 \mathrm{C}, 60,60 \mathrm{C}, 61,61 \mathrm{C}, 66$ $\mathrm{KG7992}$
$\times G 7993$ XG7993
$\times G 7920$ $5,55 \mathrm{C}$ Iate Models XG 076 $82,82 \mathrm{~F}, 85,86 \mathrm{~F}$
P, L1, L. 2.
$80,80 \mathrm{~F}, 83,83 \mathrm{~F}$.
$84,84 \mathrm{~F}$
82 DC .
82 Q .
$89,89 \mathrm{~F}, 85 \mathrm{Q}, 42,627$. 217. 84 , Early Models. 10 i $217,427,667, ~ 510, ~ 310-1$,
$310-\mathrm{J}, ~ 275, ~ 165, ~ 711-\mathrm{T}$, 711-R, 711-J, 708, 808-A, 217-D, 427-D, 667-D $636,756,756-\mathrm{B}$.

## Belmont Radio

| 420. | XG8130 |
| :---: | :---: |
| 540. | XG8131 |
| 575. | XG8132 |
| 650 | XG8133 |

## Bosch Radio



## Brunswick

$\mathrm{B}-17,17-8$, PR
$2 \mathrm{KR}, 5 \mathrm{KR}, 2 \mathrm{KR} \dot{\mathrm{O}}, \dot{5} \mathrm{~K} \mathrm{R} \dot{\mathrm{O}}$, 3KR8, 5KR6
3NC8, 3NW8, 5 NC8.
17, 24, 25, 4PA, D11, D12, D16, D18, D33. S14, S21, S31, S81, S82 10, DC14, DC21, DC31
$11,12,16,33$ $14,21,31$.
Panatrope, Phono-Volume Control.

## Colonial Radio

## 47, 48, 50 <br> 32. 33, 32DC

 150164
164, 182, 240

## Columbia Radio

 Screen Grid 8
## Crosley



## Manufacturer <br> Stock

 Edison RadioSC, C1, C2, E-175, R1, R2. XG7964
$\times G 7987$

## Eveready

1,2,3............................. 7995
40, 60 Series XG7990
.92
2.12

## Fada

41, 42, 44, 46, 47.
XG7907* - 59
Model 45, KU.
XG7920*
472UA, CA, $45-72,10,11$.
31, 102, 112, 302, 312, 50 . 262, $265 \mathrm{UA}, \mathrm{CA}, \mathrm{RP} 65 \mathrm{UA}$, $16,17,32,16 \mathrm{Z}, 32 \mathrm{Z}, 18 \mathrm{DC}$, and 1653-AB. $20,20 \mathrm{Z}, 25,25 \mathrm{Z}, 15 \mathrm{M}$ $15 \mathrm{Mz}, 35$
KY Chassis used in 66 Re ceiver, RE Chassis used in 73, 85 Receivers; RA Chassis used in 14, 76, 83, 87, 88, 89 KW Chassis used in $48,49 \mathrm{R}$ ceivers (Neon Tube Control
KO, KOC, $51,53,57,45$. 43.

## Freed-Eisemann

NR-80AC, NR-80DC, NR85AC, and NR-85DC (Strip). XG8098

## General Electric

| H-71, H-51, H-31. | XG7943 |
| :---: | :---: |
| H-32. | XG8014 |
| T-12 | XG7933 |
| S-22 | XG7943 |
|  | CG7934 |

## General Motors

"A" Chassis; Models 120, $130,140,150$ and $160 \ldots$
Chassis S1A, S1B; 216,217, 219, 250
Chassis S2A, S2B, S3A, S3B; 251, 252, 253, 254, 255, 256, 257 and 258
Chassis S2A, S2B Tone
Chassis S4A, S4B
Chassis S4A, S4B; Tone
Chassis S9A, S9B, 211.
Chassis S10A, S10B, 220
Chassis MA-MB Tone

## Graybar Electric

Mid
311
600
340
500, 550
678, RC-3
700, 770,900
XG8021
XG8057
XG8058
XG8085
XG8059
$\mathbf{X G 8 1 0 2}$
$\times G 8056$
XG8103

XG7944
XG7937
XG7942
XG7939
XG7938
XG8054
XG7943
XG7933
Grebe, A. H.
AK-1.....

## , 2, <br> Models 1, $2,3,4$, SK- 4 DC

XG7918*
XG8086
XG8086
Kolster-Columbia
K-70, 72, 80, 82, 90, 92. .... XG7902*
K-43. . . ..................... . . XG8108
Majestic
70 and 70B
$90,91,92,100 \mathrm{~B}$
$25{ }^{\circ} \mathrm{B}, 35$.
$15,15 \mathrm{~B}, 150$.
60 Chassis.
25 Chassls
$90,91,92,180,181,90 \mathrm{~B}$, 100B; Equalizer 30 Chassis. 100 Chassis 100 Chassis 210 Chassis
$\qquad$

Philco

$$
\begin{aligned}
& \text { 71H, 71L, 71B............. } \\
& 710,70 \mathrm{~A}, 90,90 \mathrm{~A} . . . \\
& \text { 70, 70A; Serial Numbers } \\
& \text { above B-22000. . . . . . . . }
\end{aligned}
$$

## Manufacturer

## Philco, Cont.



## RCA-Victor

Radiola 16.
XG7935
Radiola 17, $00,41,7-25,7-54$ Radiola 18, 33, 51, 7-11, 7-26
Radiola 44, 46, 47, Radiola 44, 46, 47
Radiola 60, 62.
Radiola 64 Sensitivity Control.
Radiola 66
Superette R-7, 7A
R8, R10, R11, RE18, R21,
 Control.
R50, R55, RAE59, RAE79. R.AE26, R-11: Tone Control RC-3, 42, 48, 13, 15, 17 35, 39, 57.
R-32, RE-45, R-52, RE-75. 124
262.

## Sparton



$110,301,101,103,109,589$, 930. 931, 79A, 69, 591, 598. 620, 737, 574, 870, 111A, $89 \mathrm{~A}, 420,600 \mathrm{~A}, 610 \mathrm{~A}, 620 \mathrm{~A}$. A.

Stewart-Warner
$950 \mathrm{DC}, 970, \mathrm{R} 100 \mathrm{C}$ DC. $900,811,500,620,525,806$. R100E, R101A, R101M. . R100E, R101A
R110A, R110E

Stromberg-Carlson


## Westinghouse Electric

WR-4.
XG7991 1.95
XG7943
.79

## Zenith Radio

52, 53, 54, 60,61, 62, 64, 67.
. XG7945
.92
Hyper-Merton, 82, 89, 822,
5-Tube Zenette, LH, WH.
M-Tube Zenette, LH, WH,
MH


## A complete listing of Electrad Volume

 139 cons wil be fownd on pages 236 and copy of the Electrad Volume Control Guide which contains data on all standard radio receivers.

## Philco, Cont.

|  |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
| 51, 52,551 | XH9017 |
| 71, 91, 121. | XH8772 |
| 80-Midget. | XH8773 |
|  | X ${ }^{9016}$ |

## $\$ 1.22$ <br> 59

 30, 96, 96A, 11, 11A, 211 211A, 296, 296A, 111, 112 ..44
.49
.49
.79

## R. C. A. Victor

| 42, 48, R14, R15, RE-17... | 5 |  |
| :---: | :---: | :---: |
|  |  | 1.22 |
| RE35, RE39, RE57, RE73 | XH8904 | 1.22 |
| R7, R7A | XH8867 | 59 |
| R7, Tone | XH8744 | 73 |
| R7A, R11, RE18, Tone Con- |  |  |
|  |  | . 59 |
| 50, R55 | XH8861 |  |
| R50, R55, Tone C | XH8863 | . 59 |
| R57, 82, 86, Tone Control | XH8875 | . 59 |
| 80, 82, 86, ......... | X 48867 | . 59 |
| R74, R76, R77, R72, RE20. | XH8875 | . 59 |
| R4, R 6 | X ${ }^{8868}$ | . 59 |
| R8, R12 | XH8693 | . 73 |
| R11, R18, RE18A, RE19 | XH8693 | 73 |
| Tone R11, R26 | XH8824 | 83 |
| R-26 | XH8693 |  |
| R-17M | XH8691 | . 83 |
|  | XH8691 | . 83 |
| R22 | XH8813 | . 83 |
| R27 | XH8691 | . 83 |
| R28P | XH8811 | 粏 |
| Tone R37, R38, Tone R70.: | X ${ }^{\text {P8808 }}$ | . 83 |
| R37, R38, | XH8690 | 85 |
| RE40P | XH8811 | . 83 |
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Sparks Withington Co. (Sparton)
62, 63, 110,110 De Luxe,


## Stewart-Warner Corp.

| "Special" . . . . . . . . . . . . $\times$. $\times \mathbf{H 8 7 2 7}$ | .73 1.22 |
| :---: | :---: |
| R-104-A, B, E, 106, 108, |  |
| 108X, 111 AC and DC ... XH8808 | . 83 |
| 105 Volume. . . . . . . . . . . . . . $\times$ H8875 | . 59 |
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| 106 Sent. 108, 108X Sent. . . XH8816 | : 83 |
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Stromberg-Carlson Tel. Mig. Co. 635, $636,601,602,633,634$.
Long Shat.
601, 602 , $633,634,635,636$.
638, Double Sbait...... XH8885 . 73 638, Double sbatt........ $\times$
$10,11, \ldots, \ldots, \ldots, \ldots$
$12,14 . \ldots 2,652,654,846-848, \times$
641,642, XH8886 $\times H 886$
$\times H 8865$ XH8863 Long Shaft...654, XH8883 641, $642,652,654$, Double
Shatt.................... XH8884 12., $24 .$. XH 8687 ${ }_{29}$ Tone and Volume.......... $\times{ }^{\times 4888086}$ ${ }^{48} 5$ $\mathbf{X H 8 8 0 8}$
$\times H 8685$
U. S. Radio \& Television (Apex)


## Zenith Radio Corp.

52, 522, 53, 532, 54, 542, 57,
10, 11, 12 Special, 122..... $\times$ H 8802
. 98
70 Series, $50,60,70,71,72$,
73, 77, 712, 722, 732, 772
(ILater types) Speclal (Dual) XH8924
1.47 "Zenette AH, CH, RH.
No. 30 . No. 30..
$10,11,12,102,112,212,70$. $\times$ स 8802 2009..

## TOLT:TAE DIV

 dividers are shown. We can supply any divider not listed at the very lowest prices. Write giving name and model number of set, and we will quote immediately.


## Handy

## Resistance Kits

With R.M.A. Color

## Coded Resistors

These kits are just the thing for shop or tool kit. They consist of a selection of TRUTEST R. M. A. Color Coded Resistors. nently mounted on a pair of strijs. Have hole at one end for hanging on a nail or hook. By hanging on a nail or hook. regular Trutest stock as they regular Trutest stock as they
are used, you are equipped with a complete range of resistances at all times. R. M. A. COLOR CODE CHART SENT WITH EACH STRIP.

## $1 / 2$ Watt Kits

Two Strips [20 Resistors toakit] XE4435-One each of the following resistances (20 in alk) $200,400,500,600,700,800,1250$, $1500,2000,2500,3000,3500$. 4000, 5000 , $6000,7500,8000,10000,12500$ and 15000 ohms.
XE4436-One each of the following resistances ( 20 in all), $17500,20000,25000,30000,40000$, 60000, $600000,70000,75000,100000,125000$ $150000,200000,250000,1300000,{ }^{2} 500000$ 1 Meg., $11 / 2 \mathrm{Meg}$, 2 Meg., $21 / 2 \mathrm{Meg}$.

1-Watt Kits
Two Strips [20 Resistorstoakit] XE4430-One each of the following resistances (20 in all), 200, 400, 600, $600.800,1000,1500$, 2000, 2500, 3000, 4000 , 5000, $6000,{ }^{\prime} 8000$ 10000, 12500, 15000, 17500, 20000,' $25000^{\prime}$ ohms.
XE4431-One each of the following resistances (20in ail), 30000, 40000,50000, 60000, 75000, 100000, $125000250000,500000,750000$ ohrms; 1, 1.5, 2, 3, 4, 5, 6, 7, 8 and 10 Meg.

## 2-Watt Kits

Two Strips [12 Resistorstoakit] XE4443-One each of the following resistances (12 in all), 200, $500,1000,1500,2000,2500$, $3000,4000,5000,6000,8000,10000$ ohms. XE4444-One each of the following resistances (12 in all), $15000,20000,25000,30000,40000$, $50000,60000,75000,100000,125000,250000$, 500000 ohms. Any a bove kit,
Your Cost Each
s1.30
WITH EACH PURCHASE OF 3 OR MORE THUBLOSE RESISTORS. A SERVICEABLE POGFET SIZE R.M.Á
COLOR COQE GMART

## GENERAL REPLACEMENT RESISTORS



Resistance $1 / 2$-Watt 1 -Watt 2 -Watt

Represent years of research to develop a resistor that is absolutely moisture proof and will stay permanent regardless of atmospheric conditions. That is why Trutest Resistors are best.
TRUTEST RESISTORS are R. M. A. Color Coded for easy identification and are made of the finest material and workmanship. Guaranteed accuracy, $10 \%$ plus or minus. The average are within $5 \%$. Resistance valuea read approximately the same at any normal voltage most important for resistance service work. No moisture can possibly penetrate, so age cannot chance the resistance value. Great mechanical strength eliminates any chance of accidental breakage.
PRECISION MANUFACTURING-Carefully calibrated resistance material is moulded in a solid form and fired at a high temperature so that no ordinary service or overload temperature can damage the resistor wier. Tinned eads are forced onto the metal sprayed ends under great pressure to insure a perfect,

| Resintance Ohms | 1/2-Watt Stock No. | 1-Watt Stock No. | 2-Watt Stock No. |
| :---: | :---: | :---: | :---: |
| 20000 | XE4273 | XE4323 | XE4473 |
| 25000 | XE4274 | XE4324 | XE4474 |
| 30000 | XE4275 | X-E4325 | XE4475 |
| 40000 | $\times \mathrm{X} 4276$ | XE4326 | XE4476 |
| 50000 | XE4277 | XE4327 | $\times E 4477$ |
| 60000 | XE4278 | XE4328 | XE4478 |
| 70000 | XE4279 | XE4329 | XE4479 |
| 75000 | XE4280 | XE4330 | XE4480 |
| 100000 | XE4281 | XE4331 | XE4481 |
| 125000 | XE4282 | XE4332 | XE4482 |
| 150000 | XE4283 | XE4333 | XE4483 |
| 200000 | XE4284 | XE4334 | XE4484 |
| 250000 | XE4285 | XE4335 | XE4485 |
| 300000 | $\times E 4286$ | XE4336 | XE4486 |
| 400000 | $\times E 4247$ | XE4350 |  |
| 500000 | XE4287 | XE4337 | XE4487 |
| 750000 | XE4298 | XE4353 |  |
| Megohms XE4288 4338 |  |  |  |
| 1 | XE4288 | XE4338 |  |
| 1.5 | XE4248 | XE4351 |  |
| 2 | XE4289 | XE4339 |  |
| 2.5 | XE4249 | XE4352 |  |
| 8 | XE4290 | XE4340 |  |
| 4 | XE4291 | XE4341 |  |
| 5 | XE4292 | XE4342 |  |
| 6 | XE2293 | XE4343 |  |
| 7 | XE4294 | XE4344 |  |
| 8 | XE4295 | XE4345 |  |
| 9 | XE4296 | XE4346 |  |
| 10 | XE4297 | XE4347 |  | 2-Watt

Your
Cost
Each
Per Dozen $\$ 1.20$
50 For 55.15
s 1.98
Net
R. $\mathbf{M}$. . Color Color Resistors Resistors Sturdy
Metal sox with Box with $\underset{\text { Cover }}{ }$

Free!
Color
Code
Chart

## Truteat Carbon Resistor Kits

## For the Serviceman's Tool Kit or Workbench

Twenty-five Certified Trutest R. M. A. Forty-eight Certified Trutest R. M. A. color coded 1 -watt resistors in a neat and color coded resistors of the most popular sizes durable finished metal case measuring 43/ax in a substantial metal case. Size $101 / 4 \times 41 / 1 \times$ $61 / 4 x^{3} /$ " deep. The handiest arrargement $3 / /^{"}$ deep. Contains one each of the followever devised for the serviceman. Over a thousand ranges possible by different combinations of these units. Kit contains one each of the following high grade resistors:

| Ohms | Ohms | Ohms | Ohms | Ohms |
| :--- | :--- | :--- | :--- | :--- |
| 200 | 1000 | 10000 | 30000 | 100000 |
| 400 | 2000 | 12500 | 40000 | 250000 |
| 500 | 3000 | 15000 | 50000 | 500000 |
| 700 | 4000 | 20000 | 60000 | 1 Meg. |
| 800 | 6000 | 35000 | 75000 | 2 Meg. |

Xe4432-Shpg. Wit. $11 / 4 \mathrm{lbs}$. ST.
Your Cost per Kit............

Ohms Ohms Ohms Ohms

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: |
| 1-200 | 1-3000 | 1-20000 | 1-125000 |
| 2-400 | 2-4000 | 2-25000 | 1-250000 |
| 2- 500 | 2-5000 | 1-30000 | 2-500000 |
| 1-600 | 1-6000 | 1-40000 | 1-750000 |
| 1-800 | 1-8000 | 2-50000 | 2-1 Meg. |
| 2-1000 | 2-10000 | 1-60000 | 1-11/2 Meg. |
| 1-1500 | 1-12500 | 1-75000 | 2-2 Meg. |
| 2-2000 | 1-17500 | 3-100000 | 1-3 |
| 1-2500 | 1-15000 |  |  |
| XE4433-Shipping weight 2 3/3 \$ |  |  |  |

# Thutest Vitreous RESISTORS 



## 

Thutest 5 Watt Pigtail Resistors

## Tolerance Within $2 \%$

These Trutest resistors are wound with genuine nichrome wire on fine porcelain tubes. connections are solidly anchored.

## Thutest Universal Vitreous


Enameled Voltage Dividers
Can be used in 90\% of Receirers

Wound with the finest kind of resistance wire on porcelain tubes coated with vitreous enamel except for a narrow strip along the side where he sliders make contact. Come complete with easily attached mount ing brackets. Shpg. wt. 1 Ib.
Equipped with 4 Variable Equipped with 5 Variable Taps, 50 watts- $3 / 4 \times 4$ " long Taps, 75 watts-3/4x6"long $\times \times 2072813000$ ohms $\times \times 20729-15000$ ohms $\times \times 20732$ $\times \times 20730 \quad 18000$ ohms $\times \times 2073125000$ ohms

## Mr Houry

| 10 Watts $13 / 4 \times 3 / 8^{\prime \prime}$ |  |  |  |  |  |  | 20 Watts $2^{\prime \prime} \times 1 / 2^{\prime \prime}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Res. | Cur. | Stock | Res. |  |  |  |  |  | shos |  |  |
| No. | Ohms | M.A. | No. | Ohms | M.A | $1 \rightarrow 0$ - |  | If speci |  | nace va | es are de | esired |
| XES051 |  | 3,150 | XE5065 | 1.000 |  |  |  | - glad |  | it pric | and deli | ivery |
| XE5052 | 2 | 2,280 | XE5066 | 1.500 | 81 | placement resistor | dates up | n requ |  | hen wri | ng state | per- |
| XE5053 | 5 | 1,410 | XE5067 | 1.750 | 75 | placement resistors They sre the only units | missible | variation |  |  |  |  |
| XE5054 | 10 | 1.000 | XE5068 | 2,000 2,600 | 70 | They are the only units | Stock | Res. |  | Stock | Res. | Cur. |
| ( | 15 | 815 | XES069 $\times \mathbf{X E 5 0 7 0}$ | 2,500 3,000 | 53 | capable of Test in which | No. | Ohms |  | No. | Ohms | A.A. |
| Pe5056 $\times \mathbf{X E 5 0 5 7}$ | 20 | 707 630 | $\begin{aligned} & \text { XE5070 } \\ & \text { XES071 } \end{aligned}$ | 3,000 4,000 | 57 50 | a ten watt unit dissi- | XE5078 | 30,000 | 25 | XE5086 | 70,000 |  |
| XE5058 | 50 | 447 | XE5072 | 5,000 | 44 | pates FIFTY watts. Red Devils are wire | XE5079 | 35,000 | 23 | XE5087 | 75,000 | - 16 |
| XE5059 | 100 | 315 | XE5073 | 7.500 | 36 | wound, over a porcelain core, and covered with | XE5080 | 40.000 | 22 | ( | 80,000 85,000 | $\begin{aligned} & 15 \\ & 15 \end{aligned}$ |
| XE5060 | 200 | 223 | XE5074 | 10,000 | 31 | a special high temperature refractory cement | XE5081 <br> $\times \mathbf{X E 5 0 8 2}$ | 65,000 50,000 | 10 | ( | 85,000 90,000 | $15$ |
| XE5061 | 250 | 200 | +E5075 | 15,000 | 25 | which protects the wire from injury. All have | + | 55,000 | 19 | XE5091 | 95,000 | $14$ |
| XE5062 | 400 500 | 158 | XE5076 $\mathbf{X E 5 0 7 7}$ | 20,000 25,000 | 22 | lugs and $11 / 2^{\prime \prime}$ timned leads. | + | 55,000 60,000 | 18 | XE5092 | 100,000 | $\begin{aligned} & 17 \\ & 14 \end{aligned}$ |
| XE5063 | 500 | 141 | XE5077 | 25,000 | 20 | Red Devis are made in two size3-ten watt, from 1 ohm to $25,000 \mathrm{ohms}$, and twenty watt, | XE5085 | 65.000 | 17 |  |  |  |
| XE5064 | 750 | 115 |  |  |  | from 30,000 to 100,000 ohms. | Your Cos | t Each |  |  |  |  |



## IRC

Power Wire Wound Resistors


Tolerance 5\%
Power Wire Wound Resistors coninue their leadership with thes new high wattage units. They are mall in size, conservatively rated (at $250^{\circ} \mathrm{C}$.) and moderate in price. All machine-wound on non-hygroscopic cores. Ha ve molded end contacts. Select desired size from listlng. Prices of various types given in columns below.

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: |
| 1 | 500 | 4000 | 15000 |
| 5 | 750 | 4500 | 20000 |
| 10 | 1000 | 5000 | 25000 |
| 25 | 1250 | 6000 | 30000 |
| 50 | 1500 | 7000 | 35000 |
| 75 | 2000 | 7200 | 40000 |
| 100 | 2250 | 7500 | 50000 |
| 150 | 2500 | 10000 | 60000 |
| 200 | 3000 | 12000 | 77000 |
| 250 | 3500 | 12500 | 100000 |

## Type "PB"

10-Watt Rating (Max.) $1 \% /{ }^{\prime \prime}$ long by $8 / 4$ " diameter. Range up to $25,000 \mathrm{ohms}$ (see list) XE5210-Tist $\$ 0.35$ Your Cost Each Type "PPC"
20-Watt Rating (Max.) $2^{*}$ long by "(4" diam. Range up to 50,000 ohms (see list).

| No. | From | To | Each |
| :---: | ---: | :---: | ---: |
| XE5211 | 1 | 9000 | S0.30 |
| XE5212 | 10,000 | 50,000 | .39 |

## Type "PD"

30-Watt Rating (Max.)

## 3 " long by "6," diam. Range up to 100,000 ohms (see list) 100,000 ohms (see list).

 $\begin{array}{cccc}\text { Stock } & \text { IRange } & \text { Ohms } & \text { Cost } \\ \text { No. } & \text { From } & \text { To } & \text { Each } \\ \text { XE5213 } & 1 & 4,500 & \text { S0.39 }\end{array}$$\begin{array}{lrrr}\text { XE5223 } & 1 & 4,500 & \mathbf{5 0 . 3 9} \\ \text { XE5214 } & 5,000 & 15,000 & .45\end{array}$
$\begin{array}{lll}\text { XE5215 } & 20,000 \quad 75,000\end{array}$
XE5216
100,000

## Precision Wire Wound Resistors



WW3
Stock Res. Your Stuck Res. Your Stock Res. Your No. Ohms Cost No. Uhns Cost No. Ohms Cost

 $\times E 51271,000$ ( $9^{c} \times E 51,3315,000$
XE5128 2,500 XE5134 20,000
$\times E 51295,000 \times \mathbf{X E 5 1 3 5} 25,000$
$\mathrm{XE} 51295,000$
$\mathbf{X E 5 1 3 0} 7,500$
.72


Res.
Ohms XE513

$81^{c}$ XE51 | $\times E 5$ |
| :--- |
| $\times E 5$ |

## NEW:IRC

Fused Dual Resistor Indicator


A compact indicator having a range covering from 100 to 100,000 ohms. Two scales used: Iow scale from 100 to 10,000 ohms, high scale from 10,000 to 100,000 ohms. Winding protected from accidental overloads and consequent burnouts by a Littelfuse mounted on the assembly. Contact is made, at a constant even pressure, by a ballbearing sider. Comes complete with new type narrow-jaw alligator tegt leads. Size $7 \times 13 \times 23$. Shpg. wt. 2 Ibs. Your Cost............................................

## 1/RC Metallized Resistor Kit

The original I.R.C. Kit that proved so popular with Service Men Contains twenty 1 -watt Metalized Units ranging from 500 ohms to 3 megohms. The certified seal insures factory guarantee and factorytested units. Shpg. wt. 2 lbs
XE5272-List $\$ 4.00$
Your Cost

## ELECTRAD RUVOL RESISTORS



## TRUVOLT Adjustable Resistors

Now, beside the incorporation of a new 10 -watt line, many new improvements and still greater advantages are to be gained through the use of this time-tested product. The adjustable clip has been redesigned to afford more effective C, and D type resistor. A new protective insulating sleeve is supplied with each resistor. There is now greater insulation ( 1000 -volt insulation) to heat conducting copper core. Selftapping screws are supplied to fit inside diameter of tube.

TYPE A-10 WATTS


| Stock No. | Resistance in Ohms | Current M.A. |  |
| :---: | :---: | :---: | :---: |
| XG7150 | 1 | 8150 |  |
| XG7151 | 2 | 2200 | 11 |
| XG7153 | 8 | 1800 |  |
| $\times \mathrm{C} 7155$ | 7.6 | 1150 | Cost |
| XG7156 | 10 | 1000 |  |
| XG7157 | 15 | 815 |  |
| XG7159 | 25 | 630 |  |
| XG7160 | 80 | 670 |  |
| XG7161 | 50 | 460 |  |
| XG7162 | 75 | 860 |  |
| XG7163 | 100 | 815 |  |
| XG7164 | 200 | 220 |  |
| XG7165 | 300 | 180 |  |
| XG7166 | 400 | 158 |  |
| XG7167 | 500 | 141 | 1 |
| XG7168 | 800 | 112 |  |
| XG7169 | 1000 | 100 |  |
| XG7170 | 1250 | 89 |  |
| XG7171 | 1500 | 81 |  |
| $\times 67172$ | 2000 | 70 |  |
| XG7173 | 2500 | 63 |  |
| XG7174 | 8000 | 56 |  |
| $\times 67175$ | 4000 | 50 |  |
| XG7176 | 5000 | 45 |  |
| XG7177 | 7500 | 86 |  |
| XG7178 | 10000 | 81 |  |
| XG7179 | 15000 | 26 |  |
| $\times \mathrm{C7180}$ | 20000 | 20 |  |
| XG7181 | 25000 | 16 |  |

## ELECTRAD

VarlabieVoltage Dividers


13,000 Ohms-50 Watts Has 4 sliding taps.
XG7318-Your $\operatorname{Cost} . . . .7\}^{c}$

25,000 Ohms-50 Watts Also has 4 variable taps. $\mathbf{X G 7 3 1 9 - Y o u r ~ C o s t . . . . ~} 6^{c}$
C. T. Resistors


Small, compact
and covered by a coating of moisture-proot racy $1 \%$. Sizes: $10,15,20,30,50$,
75, 100 and 200 ohms. 7322 Your Cost Each $5^{\text {c }}$

## Line Cord Resistors

XE52A1-2 tube sets. 360 ohms. XE5242-4 tube sets using 6 volt rectifier. 310 ohms.
Xe5329-4 tube sets using a 12 volt rectifier. 280 ohms.
XE5330-4 tube sets using a 25 volt rectifier. 200 ohms.
XE5331-5 tube sets. 160 ohms
XE5332-6 tube sets. 150 ohms .
Your Cost Each.
Any Type

## ELECTRAD

Precision Wire Wound 1 Watt Resistors One wratt precision wire wound resistor accurate to within plus or minus $1 \%$ Particuiarly suited for use as multipliers
with voltmeters and other laboratory teat instruments. Highest quality enameled wire insures against shorted turns and contributes to lower distributed capacity because of heavier Insulation between turns. Non-inductive winding impregnated with moisture proof compound. Resistors supplied less ferrules for pigtail mounting, ferrules, extra, as priced below.
 Ferrules only XE5001-
Your Cost, Per Palr
Stock Res. Current Your $\begin{array}{llll}\text { Stock Res. Current Your } \\ \text { No. Ohms M.A. Cost }\end{array}$ No. Ohms M.A.

| XE5002 | 1 | 1225 |  |
| :---: | :---: | :---: | :---: |
| XE5003 | 5 | 648 |  |
| XE5004 | 10 | 387 |  |
| XE5005 | 25 | 245 |  |
| XE5006 | 50 | 178 |  |
| X 55007 | 100 | 122 |  |
| XE5003 | 150 | 100 |  |
| XE5009 | 200 | 86 |  |
| XE5010 | 600 | 55 |  |
| XE5011 | 1000 | 88 | 47c |
| X E5012 | 2500 | 24 | ..50c |
| XE5013 | 4500 | 18 |  |
| XE5014 | 5000 | 17 |  |
| XE5015 | 7500 | 14 |  |
| $\times$ X 5016 | 10000 | 12 |  |
| XE5017 | 12500 | 11. |  |
| XE5018 | 15000 | 10 |  |
| XE5019 | 20000 | 8.6 | .73c |

Ferrule Type
Convert the above to screw terminals. $15^{\circ}$

| XE5020 | 25000 | 7.7) |  |
| :---: | :---: | :---: | :---: |
| XE5021 | 30000 | 7 |  |
| XE5022 | 35000 | 6.5 |  |
| XE5023 | 40000 | 6.1 |  |
| XE5024 | 50000 | 5.5 |  |
| XE5025 | 60000 | 5 |  |
| XE5026 | 75000 | 4.4 |  |
| XE5027 | 100000 | 3.8 | 03 |
| XE5028 | 125000 | 3.4 |  |
| XE5029 | 150000 | 3.1 |  |
| XE5030 | 175000 | 2.9 |  |
| XE5031 | 200000 | 2.7) |  |
| XE5032 | 225000 | 2.5 |  |
| XE5033 | 250000 | 2.4 |  |
| XE5034 | 300000 | 2.2 |  |
| XE5035 | 400000 | 2.2 |  |
| XE5036 | 500000 | 1.5 | 1.91 |
| XE5037 | 750000 | 1.0 | 2.35 |
| XE5038 | 1 Meg. |  | 2.94 |



Center Tap Resistances Wire wound elements; dependable construction. Ratings a ccurate in all cases. Tapped at the electrical center. A vailable in the following sizes: $10,20,30,40$, $50,60,100$ and 200 ohms. When ordering, state resistance desired. XD3999-
Your Cost
Each

## TRUTEST Filament

## Resistances

(No Center Tap)
Similar to the above, but have no tap. Supplied in the following resistance values: $1,2,3,4,6,6,7,8$. sistance values: $1,2,8,4,6,6,7,8$.
$9,10,15,25,30,40,50$, and 60 ohms. State size desired when ordering.
$\times 03997-1$
Your Cost Each.
Resistance values of $100,200,300$, $400,500,600,700,800,900,1,000$ and 1,600 ohnos.
$\times 03998$
rour Cost Each


Rigid construction. Fully shielded between sections. Trimmers are rigid and maintain their settings after adjustment. Heavy aluminum plates. Ball bearing rotor. Shaft and frame of scee, cadmium plated. All units have low end plates and measure $17 / r \times 38$, MountSingle section units have $1 / 4 \mathrm{sear}$ shafts; multiple units have $3 / 8^{\prime \prime}$ shafts. Mounting ceaters spaced $1^{13}$ " " Bakelite insulation. Capacities increase with clockwise rotation. Average shpg. wt. 2 lbs
Short Wave Compact Condensers (TRF)


## Truteat

Midget Condensers


Light weight, strong smooth in opera tion. Low minimum capacity, low loss. Non-corrosive aluminum plates with bakelite insulation. For single hole mounting,
shaft. Each unit
and with bakelite knob. Shpg. wt. 1 ib complete

Shaft Couplings and Shaft Extenders


For mounting two or more condensers, rheostats, switches, etc. in tandem. Extenders for lengthening shafts of same. All accurately machined to the exact size as specified. 6-32 machine screws used on all couplers and extenders. Shafting both fibre and brass, are full length and are straight.
XP15000- $1 / 4{ }^{\text {" }}$ shaft coupling
$\times P 15001-3 /{ }^{\prime \prime}$ shaft coupling
XP15002-1/4 $\times^{3 / 8 "}$ shaft coupling.
XP15003-1/4 $x^{3 / 6}$ shaft extender. XP15003-1/4 $x^{3 / 8}$ " shaft extender. XP15004-1/x $\times 1 / 4$ shaft extender. XP15005 $2 / 8 \times 1 / 4$ " shaft extender (not illustrated). Cost Each 10 for.
XP15010 $6^{\prime \prime}$ gth. brass shafting. XP15011 $6^{\circ}$ lgth. fibre shafting. Your Cost.
XP15012-12" Igth. brass shafting. Your Cost.
XP15013-12" $\lg t h$. fibre-shafting.
Your Cost
$10^{c}$
$10^{c}$
$17^{c}$
$17^{c}$
$24^{c}$

Stock
No.
XH9728 K
K 9729
XH 9731 XH
$\mathbf{X H 9 7 2 7}$ XH9714

## Stock <br> No. $\times H 9762$ <br> $\times \mathrm{N} 9762$ <br> XH 9763 XH 9764 <br> XH 9764 XH 9765 <br> $\mathbf{X H 9 7 6 5}$ <br> Cap'y <br> .00014 <br> .00025 <br> .000365 <br> Compact Junior Condensers for S. W. and Broadcast Exceptionally compact yet highly efficient. Ball /4" diameter, 114 "long. Aluminum plates, brass  units 1 is $\times 2$ gial three gang con denser for either TRF or superhet short wa sets $3^{3} / 16 \times 24,4 \times 15 / 8^{\prime \prime}$. XH9766

## NATIONAL

Short Wave R. F. Choke F-n For use in receivers and low power trans-
mitters. Wound in four sections, on Isolantite
ance $21 / 2 \mathrm{M}$. H.: D. C. resistance 50 ohms; distributed capacity 1 mm m. $\underset{\text { rating }}{ } \mathbf{1 2 5}$ M. A.
Your Cost.
$45^{\circ}$

## Midget Trimmers

Extremely compact trimmers mounted on bakelite strips. Ideal for use in hort wave sets.
 fave solderlug lerminals. Capacity range from 3 to 30 mmid . $\mathbf{I C}^{c}$

## Dual Trimmers

Similar to the above, but two trimmers mounted on single bakelite strip. Range 3-30 mmid. each trimmer.
Your Cost Each
$17^{\circ}$

## Isolantite "Padders"

 Highly efficient due to their extremely low Moss characteristics. Minimum capacities range wide. Mounted on isolantite vases.
Stock Nos. Range Your Cost Single Dual Mmfd. Single Dual $\begin{array}{llllll}\text { XH9767 } & \text { XH9771 } & 7-80 & \$ 0.16 & \$ 0.38\end{array}$ $\begin{array}{llll}\text { XH9768 } & \text { XH9772 } & 27-180 & .25 \\ \text { XH9769 } & \text { XH9773 } & 58-325 & .27\end{array}$ XH9770 XH9774 $94-\$ 19$

COLUMBIA R. F. Choke
 Especially designed for the Screen Grid 8 receiver.
XH10145 Each.

## Priter



## Cushion Mounts

For mounting variable condensera and power transformers to give "floating" effect. XP15261 Per Set of 4. $15^{\circ}$
XP15014-1/4" shaft coupling. XP15017-1/4-1/" reducer. XP15018- $/ 8-1 /{ }^{\prime \prime}$ " reducer. Your Cost Each.
Your
10 for

FEDERAL Midget


For use as vernier or regeneration controls, antenna couplings, etc. Bakelite frames and brass plates. Depth behind panel $1^{\prime \prime}$ to $11 /{ }^{\prime \prime}$.
depending on capacity. $1 / 4{ }^{\prime \prime}$ shaft. depending on capacity. $1 / 2 "$ shaft.
Stock Cap. Your Cost

| Stock No. | Cap. <br> Mmid. | Your Cost Each |
| :---: | :---: | :---: |
| XH10204 | 15 | c |
| XH10205 | 25 | . |
| XH10206 | 50 | 54 |
| XH10207 | 100 | . 59 |
| XH10229 | 150 | . 65 |

## HAMMARLUND

## Isolantite <br> Radio

Frequency Choke


Designed for receivers and low power transmitters. Inductance 8 power transmitters. Inductance 8
millihenries; D. Cesistance 70
 Maximum current 125 mils. Size $13 x^{7 / 5}$
$\times H 852$
XH8524-Your Cost.
$65^{c}$

## Shielded

## R. F. Choke

In aluminum shell, size $14 / 2 \times 1{ }^{3} 8^{\prime \prime}$. Connections on side. Inductance $10 \mathrm{M} . \mathrm{H}$. ; D. C. resistance 65 ohms; XH8523-Your Cost $\ldots 59^{\circ}$

## Cafayette Radio

BEFORE ORDERING SEE CATALOGUE COMPLETE SHIPOR COMPLETE SHIPPING INFORMATION TERNS: DOHESTIC-20\% Deposit wIth porder. Balance Co. D Renittance by Banik or Flrm Check. We prafer that you DO NOT SEND CASH. But If necessary bens: by registered mall only. We sugocst payment in full filts dostrgo to seve c. C. D. and Minmey Orter fees.

FOREIGN-Paymrnt in Now Yark by ir evocable and carfirmed fetter of credit order, halance slaht draft anainit with All Quotatlens F.OB. 102 Gith Ave, with slight adifitlonal charge for orpert pask. Ing. Orilers un to $\$ 25.00$ payable In full in advanee, Ineluding postace. Remittance hy draft on New York bank in U. S. Currancy.

TRARSPORTATION: AII shinments F.OF, nur warehouse, If desired by Include sufilclent moncy for prepaid carrying eharges. (Wo refund any aroount not nefually used.)
OH ORDERS FOn $\$ 50.00$ or more. de duct $2 \%$ from the totill as a tranapirta C.O.D. silamients to mot Foreton Coun trles aro not aecepted by the Post Offtes RETURNS-Mus? be authorized by us and sent "Prepald."

| IMPORTANT: To avold neLay in shinmont and to get promnt response, use a meonsat atheet for a! I Inquifies and correspondence having no Immedate cennection with this order. |
| :---: |
| Final prices in our eatalogue are net. W alve customers the beqneft of all reductions aking place after the calalocue is printed. | taking place after the cataloguc is printed. $\downarrow$ DO NOT USE

RUSH ORDER


To insure prompt delivery of your order and avaid error by the Post Office, please make certain that our full name Wholesale Radia SERVICE Ca., Inc. appcars on the envelope.
 $\left.\begin{array}{c}\text { Mork on } X \operatorname{in} \\ \text { Correct Square }\end{array}\right)$ $\square$ Express $\square$ Freight $\square$ Boat $\square$ Best Way $\square$ Porcel Post

| Sthipped | Quantity Renulfed | PAGE NO. | OUR sTOCK NO. | DESCRIPTION |
| :---: | :---: | :---: | :---: | :---: |

(AOTALS


# PARCEL POST RATES FOR VARIOUS ZONES <br> SEE CATALOGUE FOR PARCEL POST ZONE IN WHICH YOU ARE LOCATED 

Parcels up to 8 oz . may be shipped anywhere in U. S. A. for $11 / 2 \mathrm{c}$ for each 2 oz .
RATES FOR PARCELS OVER 8 OUNCES AS FOLLOWS:- NOTE ZONE NUMBERS

| Zone Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost for 9 to 16 oz. | 8 c | 8 c | 9 c | 10c | 11c | 12c | 14c | 15c |
| Each addit'l \%. or fraction | 1.1 c | 1.15 | 2 c | 3.5c | 5.3c | 7 c | 9 c | 11 c |

## RATES SUBJECT TO CHANGE EY U. S. POSTAL. AUTHORITIES

## INSURANCE

All parcel post packages are covered against damage or loss insurance costs and postoge should be added to the amount sent Chorges ore as follows -
When volue of porcel is up to $\$ 500$ " Charge is 5 cents
between
5 00 G \$25.00
" " 115 "
After $\$ 100.00$ value the charge for each $\$ 50.00$ additional is 5 cents extra
If you are doubtful as to the correct omount do mot hesitate to send us sufficient postage. We GUARANTEE to refund ony excess remittance.

Parcel post shipments to all zones must not exceed 70 pounds. The limit af size on all parcel post pockages is one hundred inches in length and girth combined. Example: a pockoge 35 inches long 10 inches wide and 5 inches high, measures 65 inches in length and girth combined. (Length 35 inches, plus $2 \times 10$ inches width, plus $2 \times 5$ inches height, equals 65 inches)

## C. O. D. SHIPMENTS

Transpartation charges on C. O. D. parcels are slightly higher than those fully prepaid. C O. D. charges in oddition to the regular postage costs outlined ore as follows theluding insurance:-
When value of parcel is up to $\qquad$ the extra charge is 12 C (incl. ins)
When value of parcel is between

$$
\begin{aligned}
& \text { of parcel is oerween } \\
& \text { the extra charge is } 17 \mathrm{c} \text { (incl. ins.) }
\end{aligned}
$$

When value of parcel is between
the extra charge is 22c (incl. ins
When value of parcel is between
the extra charge is 32 c (incl. ins.)
When value of parcel is between
When value the extro charge is 40
the extro charge is 40 e lincl. ins.)
of parcel is between
the extra charge is 45 c lincl. ins.)
For eoch $\$ 5000$ value obove $\$ 20000$ the charge is 5 c more (including insurance.) The Post Office also charges an extra small money order fee on each C. O. D. parcel.

\&

 Therinita



## 

## Small Eared Coils and Forms

New small short wa ve coils wound
on bakelite forms on bakelite forms equipped with
ears for handling. Three H. F. coils are spaced wound, two being wound with enameled wire. Each coil individually color coded.
Ranges: $10-21 ; 20-41 ; 40-81$; and 80-200 meters with . 00014 mfd. condenser. 4 coils to set
XH10040-Set of 4 coils.
Your Cost
Two broadcast coile- 185 to 565 meters
XH10041-Your Cost
Ultra short-wave coil- 9.5 to 21 meters. XH10039 - Your Cost

$87^{c}$ $55^{c}$ $35^{c}$ 4 coils similar to above bu XH10042-Set of four. Your Cost
$\$ 1.35$
Two broadcast coils, similar to XH10041, but having three windings ike above. XH10043-Set of two. Your Cost
Ultra short-wave coil- 9.5 to 21 meters, similar to XH10039, three windings.
XH10044-Your Cost, Each.
Coll Forms only, similar to above, but no winding-XH10060-4 prong XH10061-5 prong $\mathbf{X H 1 0 0 6 2 - 6 ~ p r o n g ~}$ XH10062-6 prong Your Cost
Any Type

## T. R. F. Coil Kits

Litz Wire Bank Wound


Litz wire coils on 13/6" "diameter forms 21/4"long. Mounted in shields ${ }^{n}$ in diameter, $25_{2}^{\prime \prime}$ long Havemounting lugg. Designed for use with .00036 mfd print furnished with each kit
2 Coils: 1-Antenna,
1-R.F. 1-R.F.
ur Cost
XH10045-Your Cost. 3 Coils: Y Y 1004 Cos Cos 4 Coils: 1-A
XH10047-
\$T. 41

XH10089
XM10090 Antenna Coil onl
Your Cost Each,
Either Type.
"UItra Righ Gain" I. F.

## Transformer

Primary and secondary wound in four sections Selectivity rated
10000 times $80 \mathrm{~K} . \mathrm{C}$. Employs 2 in 1 isolantite base trimmer, top tuning. In round alum-

Shpg. wt. 1 lb.
XH9969-\$
Your Cost .75


NATIONAL 5 Meter Coil


Heavy copper air spaced winding, Steatite base. For meter transmitters and
ers.
XN14449-XR-9 complet Your Cost $.27^{c}$

5 Meter Interruptor Frequency Coil
For all 5 meter sets.
XN14321-
Your Cost, Each Trutest coils are all precision wound with the highest degree
of accuracy. They are used extensively by set builders and
experimenters in constructing all types of broadcast, short-
wave and long wave receivers.

Bakelite Ribbed Coils and Forms
At lowest prices ever oftered. forms which have extended ribs orms wich have extended ribs noulded on them, making the windngs about $90 \%$ air core, and greatly ncreasing their efficiency. High requency coils space wound to permit better tuning. Wave range printed on card and protected
 y $:$ orm celiuloid cover fits into patented feature on top of coil Four coils, 4 -prong base, 15 to 200 meters XH9982-Your Cost, Set of Four
\$1.05
Two coils, like above, to cover the broadeast range 185 to 565 meters on .00015 condenser

1 Two.......................... $\int_{0}^{c}$
Uitra short-wave coil, 9.5 to 21 meters. 4-prong.
XH9984 Your Cost. Each. . . . . . . . .
XH9984-Your Cost, Each
secondary and tickler windings. XH9985 - Your Cost, Set of Four.
$\$ 1.50$
Two broadcast coils, similar to XH9983, but having th
${ }^{5}$ I. 10 XH9986-Your Cost, Set of Two $\qquad$ Ultra short-wave coll, 9.5 to 21 meters, similar to XH9984, but with three windings. $6-$ prong base
XH9987-Your Cost, Each.

## Thutest <br> Thuteat

Band Spread Coils


Provided with adjustable band setting condensers mounted on top with 140 or 150 mmid tuaing condengid. Forms have condenser. bases. Available for ${ }^{5}$ 40,80 and 160 meter for 20 , bands and for 19, 25, 31 and 49 meter B.C. bands.

Stock Meter Stock Meter No. Band ${ }_{19} \times \mathrm{NO}$. Band Band $\begin{array}{llll}\text { XH9974 } & 19 & \times 19 & \times 19977 \\ \times H 9978 & 49\end{array}$ | XH9975 | 25 | XH9979 | 49 |
| :--- | :--- | :--- | :--- |
| $\mathbf{X H}$ |  |  |  | $\begin{array}{lllll}\mathbf{X H} & 3976 & 31 & \text { XH9980 } & 160\end{array}$ Your Cost Each Any Type

## Thutes Tube Base

S. W. Coils Although midget in
size, they are efficient size, they are efficient
in operation. Have 4prong bases. Shpg Wt. ${ }^{1} \mathrm{lb}$ b. XH9981-Set of four coils, 15 to 200 meters. Your Cost, Special.
Truteat High Gain

## Midget Coils

 175 K. C. units single silk enameled wir wound: 456 K . C.
units Litz wire wound. Employs 2-in-1 isol antite base trimmer Two bronze springs hold entire unit in the shield. Can size $11 / 2 x$ $23^{\prime \prime}$ high. Shpg. wt

XH10021- 175 K. C.
XH10022-456 K.C.

## Your Cost,

Either Type


Similar to the above but with tapped secondary for Wunderlich $55,75,6 B 7,2 B 7$, etc. tubes. $\mathbf{X H 1 0 0 2 3 - 1 7 5 ~ K . C . ~}$
Your Cost,
Either Type

## Shielded R.F. Coils



These coils are used as standard equipment by a large number of high gain is provided. Very sensitive, . 00035 condenser. Ant. coil: primary 14 turns No. 28 D.C.C. Secondary 130 turns No. 30 enamel. R.F. coil: primary 33 turns No. 31 D.C.C.; secondary 130 in ed in shield cans $21 / 2 \times 23^{\prime \prime}$ " high.
XH10087—S

## Your Cost.

$85^{c}$
XH10088-Set of 3 R.F. and 1 Ant.
-
\$. I1
XH10019-Ant. Coil only
XH10020-R.F. Coll only
Either Type

I.F.Transformers
"Square Can" Units
175 K . C. units $\sin$ gle silk enameled wire wound; 456 K . C. units Litz wire wound. Has 2 -in-1 isolantite base trimmer. Housed in square aluminum can, 2 " square, 3
high. Long leads for direct wir${ }^{\text {ing. }} \mathbf{~ S h} 1007 \mathrm{~s}$. wt. 8 oz .
XH9709-456 K
Your Cost, Either Type $8 \mathbf{1}^{\mathbf{c}}$ Similar to the above, but with Wunderlich 55,75 secondary for Wunderlich $55,75,6 \mathrm{B7}, 2 \mathrm{~B} 7$, etc. XH101
XH10114-175 K. C.
XH9713-456 K. XH9713-456 K. C.
Your Cost, Either Type $85 c$

\section*{| 15 |
| :---: |
| $\substack{16 \\ \hline \\ \hline}$ |}

above, but no winding


## Oscillator Coil for 2 A7

or 6 A7 Tubes A precision wound os-
cillator coil, thoroughly impregnated and housed in a metal shield. For $175 \mathrm{~K} . \mathrm{C}$. I. F. Made to track with a 1000 mmfd. padding condenser
and .000365 variable condenser. Size $1^{16} \mathrm{~m}^{7 x}$
 XH10029
Your Cost, Each
$59^{c}$ Similar to the above, but for 456 K. C. I. F. Made to track with a 500 mmid . padding condenser and .000365 variable condenser. Shpg. Your Cost, Each.....S:

Shielded Pre-Selector Coil

A high-gain band-pass unit shielded in aluminum can 2 Litz wound secLitz wound secondary. On
special treated special Extremely base. Extremely
sensitive. Sol-

der lug contacts
at base. Shpg. wt. 8 oz XH10072
Your Cost


Composite Oscillator Detector I.F.-175 K. C.
High grade com-
posite coil used as the first detector, oscillator and former. Eliminates the use of one tube. Top tuning. Factory
peaked at 175 K. C. No padding necessary as it is
made for the spemade for the spe-
 cial tracking cillator section of variable condensers of .00036 mfd . in square aluminum can $3^{\prime \prime} \times 2^{\prime \prime}$ square. Shpg. wt. 3 lbs.
xH9997-
Your Cost, Each
51.23

## Bwitcher Sockets

## NA-ALD Bakelite Tube Sockets

## BASE MOUNT TYPES

Designed fo
breadboard mounting and for Laboratory use. lite, with Na Ald special

springs. Fitted with binding posts at the terminals of the socket. All connections marked. Makes a neat appearing job.


XF6252
XF6253
XF6254
XF6256
XF6257
XF6258
$\times F 6259$
$\begin{array}{lll}\text { XF6260 } & \text { XF6276 } & \text { 4 Circuit. } 1 \text { to } 6 \text { points each } \\ \text { XF6261 } & \text { XF6277 } & \text { 4 Circuit. } 1 \text { to } 11 \text { points each } \\ \text { XF66262 } & \text { XF6278 } & 8 \text { Circuit. } 1 \text { to } 5 \text { points each }\end{array}$

Your
Cost
Each
.68
.73
.79
.91
1.03
1.18
1
1.23
1.32
1.30
1.30
1.38 1.47
1.62
1.76
2.06

## COMPOSITE SOCKETS <br>  <br> Moulded bakelite Earedtype. $1^{19}$ In $^{\prime \prime}$. Mounting centers.

XK11619-No. 456 . For 4,5 and 6 -prong tubes. Filament circuits
Common. -No. 477. For small and large 7 -prong tubes. For 5 and
$\times K 11635-N o . ~ 457 . ~ F o r ~$ large 7 -prong tubes. Eight contacts.
XK11523-No. 567A. For 5, 6 and small 7 -prong tubes.


For sub-panel mounting. Made of laminated bakelite, with one-piece contact springs, cadmium plated, to prevent oxidation. Soldering terminals are provided with two holes, and shaped to concentrate heat of iron, to speed up soldering and insure perfect contact. State marking desired.
X M13070-4-prong, plain or 2A3, 5Z3, 230, 231, 232, 245, 250, 171A. 280, 281, 82, 83 .
Your Cost Each.
$5^{50}$
In lots of 12 for.............. S0.50 224, 227, 233, 235, 236, 237, 238, 239, 43, 46, 247, 56.
Your Cost Each
In lots of 12 for .................. $\$ 0.50$
2A5, 2A6, $2525,41,42,48,55,57$, 58, $75,77,78,79,85,89 . \ldots .{ }^{\text {C }}$ XM13069-7-prong, smaii and large, in plain or 2A7, 2B7, 6A7,
$6 \mathrm{~B} 7,6 \mathrm{~F} 7,53,59$.
Your Cost Each....... .5
.50 .55

## MUTER Midget

## Knife Throw Switches

insulated han- Single pole types $11 /{ }^{\prime \prime}$ long and $1 /{ }^{\text {" }}$ "wide; double pole $11 / \mathbf{4}^{\text {" }}$ long
 Single PoleTriple Throw Exposed type. Dead center position. $34^{\prime \prime}$ shaft. Each.
Per Doz
..... $\$ 6.00$ Similar to above. $1 / 2^{\prime \prime}$ Shaft XM12832
Your Cost Each
Per Doz. $\$ 2.75$

In lots of 12 for

In lots of 12 for Adapted for either base or
Have black
bakelite bases.
Highly nickeled
brass parts with
and 1 "wide. XR 16842 S.T.
Your Cost Each
XR16843 S.P.D.T
YR15843 S.P.D.
XR16844 D.P.D.T
Rotary Switch


Your Cost Each

XM12818-Per Doz. 20 c Your Cost


# A Ser Builders Accessories, ${ }^{3}$, 

The insulation on the varions items listed below is available in the following aftractive colors: Red, Black, Blwe, Green, Purple or Yellow. When ordering state color desired.

## Laboratory Test Prods

 Solderless needlepoin test prods. Colored insulation Two handle lengths-4 XM12881-4"
Your Cost Each
XM12884-7"
Your Cost Each
Insulated Bamana Plugs and Jacks


Insulated shoulders and screw ends for solderless connections. Heavy brass nickel plated springs. Jacks have insulated caps and are provided with washer, soldering lug and nut. Fit 1/6" hole. Specily color desired.
XM12915-Insulated Banana Plugs
XM12916-Insulated Banana Jacks
Your Cost Each,
Either Type
Per 10.
Insulated Tip Jacks
Have new type springs
which provide sure grip contact. Tip nests al in 1 /s hole. Caps lessen danger of shorting. All colors. Per Dozen, $\$ 0.55$ XM12879-
Your Cost Each

## Combination Jack New type, takes both phone tips and banana plugs. Fully insulated. Colors a vailable as above. $114^{\prime \prime}$ long. Insulated washer furnished. XM12925 <br> Your Cost Each

## Lug Terminal Strips

For use on radio set chassis, dynamic speakers age divider re istors, bias resistors and grid eaks. Lugs mounted on bake lite strips, and are tinned.

| Stock | No. of | You | C |
| :---: | :---: | :---: | :---: |
|  | Lugs | Each | 10 For |
| XM13133 | 2 | \$0.04 | \$0.35 |
| XM13134 | 3 | . 04 | . 35 |
| XM13135 | 4 | . 06 | 55 |
| XM13136 | 5 | . 06 | 55 |
| XM13137 | 6 | . 08 | . 70 |

## Insulated Grommets



For insulating holes in chassis, etc., for power line cords, grid leads XP14887 Red or Black d, $3 / 8=1$.
Your Cost
XP14888
Your Cost
5
 Your Cost, Either Size

## Regular

Type
Nickel Plated Brass
XP14881-Your Cost,
Per Dozen.
Per 100...

## Test Instrument



These fine quality fittings add immeasurably to the attractiveness of your test instruments, etc. The bright colors provide an easy meana of terminal identification. 1. 4"Test Prod with badana plug

XM12910-Your Cost $S 5^{c}$ 2. Insulated Alligator Clip to fit test prod or any banana plu
XM12911
3. Short Test Prod, $21 / /^{\prime \prime}$ lon XM12912
Your Cost Each
4. Insulated needle poin tipplug to ft test prods. XM12913 Your Cost 5. Insulated Plug with tapered XM12914-Your Cost.

Sr. Insulated Plug A positive contact plugofthe solderless type fits all stand-
 sed for test leads ard tip jacks. Used for test ead. on meters, analyzers, ete. Specisy
color desired. $1 / 8^{*}$ L. Per Dz. 55c. XM12973
$5^{\text {c }}$
Jr. Insulated Plug
Similar to the above but only $11 /{ }^{\prime \prime}$ long. All colors. Per Dozen, $\$ 0.55$ XM12974
Your Cost Each
5.

## EBY Twin Jacks

Bakelite moulded standard phone tips. Mounting hole centers
 1114
XM13030-Phono.


Your Cost Each.
Either Type
Per Dozen


Triple Tip Jacks


Three brass shellis mounted on "后" high grade bakelite plate. The cord tipslocatecenter of opening naturally. Shells have two contact springs. Supplied plain, no marking.
XM13036-Your Cost Each $8^{\text {c }}$

-     - (事)


## Senior

 Tip Plug All metal tip lug for tip jack use Solderless connection. XM12943-Per Doz. $\mathbf{5 0 . 4 2}$ Your Cost EachJunior Tip Plug
As above, but only 1 " long. XM1294i
YourCost Each

## Alligator Test Clips

 Head of clip is long thin design. Round to fit plug in prongs. Has firm to fit plug in prongs. Has firmspring grip. Ideal for meters, test spring grip. Ideal for meters, test
boxes, etc. Size $1 / 4 "^{\prime \prime}$ wide, $2^{" 1}$ long. XM12955-Per Doz. 40 c Your Cost Each XM12956-Same style as abo 23 " Iong, " " wide.
Per Dozen


## Banana Jacks

Brass nickel plated Used with banana plugs. 1 " long. XM12923
Your Cost Each
Per Dozen $\quad \mathbf{5 0 . 4 0}$

## AMERICAN

Testing Kit


Combines a complete line of solder less and interchangeable parts for all types of testing. Two long and short insulated test prod handles, two plug-in prongs, two plug-in jacks, two insulated tapered type jacks, two insulated tapered type
lugs, two insulated needle point phone tips, two insulated alligator phone tips, two insulated alligator
clips. Made up in red parts for clips. Made up in red parts for
positive and black parts for negapositive and black parts for nega-
tive identification. Shpg. wt. 1 lb . XP12972
Your Cost, Special \$T. 13
Flush Type Tip Jacks

Tip Jacks
Nickel plated. Powerful bronze spring. $1 / 6^{\prime \prime} \mathrm{mtg}$. hole.
XM12918-
Your Cost Each.
Per Dozen.......

Heavy contact spring. Will take both plain and solderless tips. Mount in $/ 4^{\prime \prime}$ holes. Nick eled. XM12948-


Triple Post Units


Similar to the above, but with three posts marked "L.Ant," S.Ant" and "Gnd." XM13063- Cost $18^{\circ}$

Spring Clamp Binding Post Assembly


Two automatic spring clamp binding posts with insulated tops. Posts mounted on bakelite strip $2^{\prime \prime}$ long, ${ }^{11} / \mathrm{sc}^{\prime \prime}$ wide. Mounting hole centers $1^{11} / \mathrm{st}^{\prime \prime}$. Equipped with soldering lugs, one grounded to chassis. Posts marked "Ant" and "Gnd.
XM13049
Your Cost Each. $\quad$,

## Screw Binding Post

Two knurled head screws mounted on $2^{\prime \prime}$ bakelite plate. Non-removable. Solder lugs are tinned. Mounting centers $111 /{ }^{11}$. Plain.
$\times M 13006-$ Your Cost Each

## - Set Builders Accessories

Color Coding Enamel
 For color coding colls, terminais etc. Green, low, red and thinner. 4 brushes in cluded. Very convenient for color coding resistors and condensers ac cording to the R.M.A. standards. The enamel is water proof and wil not fade.

315
XP15258-
Your Cost
Etched Dial Plates
 Made of fine aluminum smooth finish: smooth finish.
Hole in center Hole in center
designed to fit designed to fit
over $1 / 8 "$ bushover $1 /$ B " $^{\prime \prime}$ bush-
ing. Numbers etched on face Plates with "OFF" position are designed especially for use with Yaxley gang switches listed on page 119. Other plates may be used with any selector switch, with step type controls, etc.

Your Each

\section*{Bakelite Tubing <br> Will not shrink at $125^{\circ}$ F.! This is genuine bakelite tubing. Wall 1 "" thick. <br> | Stock No. | Dis. | Your Cost <br> per Inch |
| :--- | :--- | ---: |
| XM13150 | $1^{\prime \prime}$ | So.04 |
| XM13151 | $112^{\prime \prime}$ | .05 |
| XM13152 | $2^{\prime \prime}$ | .06 |
| XM13153 | $2 \frac{1 / 2^{\prime \prime}}{}$ | .07 |
| XM13154 | $3^{n}$ | .08 |}

 Size Panels at $11 / 2$ cents per square inch for Rubber or Bakelite. Specal panels will not be shipped C.O.D.

BAKELITE PANELS

| Stock No. | Size | Your Cost | Stock No. | Size | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| XW19600 | $3 / 80 \times 7 \times 10^{\prime \prime}$ | \$0.70 | XW19608 | 3/10 $7 \times 30^{\prime \prime}$ | \$2.10 |
| XW19601 | ${ }^{3} 10 \times 7 \times 12^{\prime \prime}$ | . 84 | XW19000 | $316 \times 10 \times 10^{\prime \prime}$ | 1.00 |
| XW19602 | 2 $16 \times 7 \times 14^{\prime \prime}$ | . 98 | XW19001 | $3 / 10 \times 10 \times 12^{\prime \prime}$ | 1.20 |
| XW19603 | 2 1何 $\times 7 \times 18^{\prime \prime}$ | 1.25 | XW19002 | 3/6x $10 \times 14^{\prime \prime}$ | 1.40 |
| XW19604 | 3 867x21" | 1.45 | XW19003 | 3/6x $10 \times 18^{\prime \prime}$ | 1.80 |
| XW19605 | 210x7x24" | 1.65 | XW19004 | 1) $\times 10 \times 21$ " | 2.10 |
| XW19606 | 3/157x26" | 1.80 | XW19005 | 3/10x10x24" | 2.40 |
|  | HARD | RUBBER PANELS |  |  |  |
| XW19630 | 2/6×7×10" | \$0.54 | XW19635 | 3 fox $7 \times 24$ " | \$1.18 |
| XW19631 | ${ }^{2} 16 \times 7 \times 12^{\prime \prime}$ | . 58 | XW19636 | 3) $\times 7 \times 26$ " | 1.40 |
| XW19632 | 210x7 $\times 14^{\prime \prime}$ | . 68 | XW19637 | 31077x28 | 1.60 |
| XW19633 | 317x7x18" | . 95 | XW19638 | 310x7x30" | 1.75 |
| XW19634 | 3/1597×21" | 1.03 |  |  |  |

## Blank Chassis Cadmium Plated <br> 

## Cadmium Plated

These chassis are made of stiff metal that is easy to drill and work and have spot-welded corwors that will not loosen. Strongly ners that willnot wobsen. Excellent built-wil not wobble. Excellent
for use in building receivers or amplifiers. Average shpg. wt. 6 1bs.
XM12810-10×17×3
Your Cost
XM12811-10x23×3
XM12809
XM12809-12×6×21/2"
$\times \mathrm{M12812}$
XM12812
Your Cost 10×12×3"


Aluminum Panels Best grade $1 /$ /n $^{\prime \prime}$ thick. Specially magnetic

## Stock No

XW19660
$\times W 19661$
$\times W 19662$
$\times W 19663$
$\times W 19663$
$\times W 19664$
$\mathrm{X} W 19664$
$\times W 19665$
XW19665
XW1966s $\quad 7 \times 24$
1.10 per Square Foot

Hard Rubber and Bakelite Panels
Madeespecially for Radio Panels. Color, black Thickness $1 /{ }^{\prime \prime}$ ". First quality guaranteed. If size required is not listed we can cut Special


Friction
Tape
The best quality tape with plenty of live Equally wel
suited to Radio, automobile, electrical or household use. Kept fresh by wrapping of tin foil.
XP14829 2 oz, roll
Yos Cost Each
10 Rolls for
XP14842-4 oz. roli
Your Cost Each
10 Rolls for
XP14843-8 oz. roll
Your Cost Each
10 Rolls for

## Rubber Tape

Live rubber. Used to properly insulate electrical splices under a layer of friction tape. Wrapped in tin foil and boxed.
XP15040- $/ 4 \mathrm{lb}$. r
$\mathbf{Y o u r ~ C o s t ~ E a c h . ~}$
10 Rolls for
roll
XP15041-i, ib. rol
10 Rolls for
$15^{\circ}$ The famous Victron H. F. insulation in
liquid form for coating R.F. coils. Dries quickXP15260 21c
Your Cost ....2

## Black Crystallizating

 LacquerFor touching up and for completely finishing panels, chassis, etc., in the attractive crystallized black professional finish. Same size can as above. XP15259
"ST" Type Tube Shields
 For 56, 57, 68, etc., type tubes. Three pieces: cap, barrel and base. Both long (covering the whole (leaving the cap projecting) ty pes. BarHard drawn alumi num natural bright
finish. Shpg. wt. 1 lb.
XM13265-Long type IT $C ~$
$4^{3} \%^{\prime \prime}$ high.
Your Cost Each Lots of 10 Each XM13266-Short type I
$35 / /^{\prime \prime}$ high. Your Cost Each
Lots of 10 Each

## Jacket Shields <br> This shield represents a new departure in tube shielding. They can be used with regular tubes to replace pray shield tubes

 and will function here perfectly. Made in three types ST12 to fit the 56, 57, 58 type tubes: ST14 to fit the 24,35,61 old type tubes and ST14 CT to fit 24, 35,51 new type dome tubes. Shpg.XM13262-ST12 Type
XM13253-ST14 Type
XM13263-ST14CYpe
XM13264-ST14CT Type
Your Cost Any Type.......
Heavy Gauge Shield



Drill Press At last a rea drill press at a price that
you can afford o pay! Bas able an headstock o solid cast iron. Column of hot 15 " diameter cold rolled stee running in accurate baringe. All pulleys machined beast iron Spindle machine cast iron. Spinde travel $1 / 2$ istan " sion adjustment. Chuck takes ion adjustment. Chuck takes drills "up to "/3s". Height overall ${ }^{165{ }^{2}}{ }^{\prime \prime}$ Shpg. Wt. 151 lbs .
XPi5242-Wit
swinging table
Your
Cost
XP15243-
XP15244-Drili Chuck
Your Cost

## "AMERICAN JUNIOR <br> Woodturning Lathe



Pulley, headstock, tailstock and fittings cast-iron. Accurately fitted $12^{\prime \prime}$ spindle and bed of cold rolled steel. Will handre work up to 6 diameter, $9^{\prime \prime}$ long in standard length; extra bed lengths available. Tailstock travels entire length of bed, spindle 1". Furnished with pulley and "T" rest. Centers extra. Shpg. wt. 15 lbs.

Your
Cost $\rightarrow 0$
XP15246-Spur live center and tail center.
Your Cost for Both XP15247-5" Face plate with 4 clampingstuds.
Your Cost
XP15248-Saw for use with $4^{\prime \prime}$ saw ${ }^{\text {attachmen }}$ for use with
Your Cost

## "AMERICAN JUNIOR"

 Sabre SawWill cut wood up to तlा 15 $1^{\prime \prime}$, bakelite, alumnum, copper, com- $\int$ sind to $1 / 8^{\text {m }}$. Stiff saw blade rigidly supported will take curven below $1 / 3$ " radius without binding. Entire base and legs one solid piece cast iron. Cold rolled spindle and $\mathrm{s} / \mathrm{a}^{\prime \prime}$ steel blade holder. Saw blade
 Your Cost
$\$ 1.96$ XP15250 Cost Each


## Disc

Sander
Table tilts $45^{\circ}$ up or down. Used for sanding, buffing, grinding, etc. $6^{\prime \prime}$ disc. Will take all lathe and drill press attachments. Shpp. wt. 11 lbs .
XP15251
Your Cost
$\$ 1.98$

#  

## Eveready "Air Cell

Battery"
For operating 2 -volt tubes, does not require recharging merely replenish water once a month Ordinary drinking water is used, no distilled water is necessary. Approximate life when used with an approved air-cell battery receiver is 1000 hours. Dimensions of battery $105 /{ }^{\prime \prime}$ " high, $131 / /^{\prime \prime}$ long, and $63 / 4$ "wide.
X Y 19973 Shpg. ${ }^{2}$ t. 29 lbs.
Your Cost....................


## ceptacle to your ammeter leads from the re leads from the re-

 plug your charger into the recept night simply give your battery the necessary boost to keep it up to its full capacity. Charging rate 3 amperes tapering off as battery becomes charged. Shpg. wt. 7 lbs .$\mathbf{X N 1 4 2 0 0}$ Your Cost

## Trutest

Automobile Battery

Charger

Attach the clamp-
on receptacle to the dashboard of your car and the two XN14200 - Your Cost.


## Tungar 5 Amp.

## Charger

For charging any volt batteryat home. Delivers ful! 5 ampere rate and tapers off as battery becomes charged. thus preventing overcharging. Complete with receptacle for attaching to car and ammeter so that battery can be charged without removing be charged without removing it from the
car. Complete with tube and all attachments. For 110 volt. 60 cycle A.
XP15699-S. XP15699-S
Your Cost.

s9.48

 $\times 221900$
$\times 221901$ $\times 221901$ $\times 2219022 \mathrm{amp}$. nev $\times 2219035 \mathrm{amp}$.


## Tungar Type Bulbs

Guaranteed new and perfect merchandise. Each bulb is individually tested before shipment and carefully packed. Shpg. wt. 1 lb .


## MALLORY Charger

No installation necessary - simply attach clamp-on receptacle to dash and attach wires to ammeter and ground. Output XP15698-List $\$ 11.50 \quad \$ 1 / 2 \mathrm{lbs}$. Your Cost

\$6.75


48 Battery
Clips

## BURGESS "A" "B"and C"Batteries

 Uniform quality insures equal current drain and low internal resistance. These batteries are exceptionally long lived. All terminals clearly marked.


## BURGESS BEN HUR

 dRy batteries and priced Low!A lower priced battery made by Burgess and built to the high standards that have always been kepe by this manufacturer. Navy specifications, which are very strict, have been very closely adhered to, both as
XY19730--Standard 45 Volt $B^{\prime \prime} \mid \mathbf{X Y 1 9 7 3 1 - H e a v y ~ D u t y ~}$ tapped at $221 / 2$ volts. Shpg. wt. 11 lbs. Quantities less than six. Your Cost Each. .
Standard package of
six.
Your Cost Each....
Your Cost Each.....
XY19733-No. 6 Dry Cell. Shpg. wt. 3 lbs.

Your Cost Each. | Sheg. | $\begin{array}{l}\text { XY19729-22 } \\ \text { "Y" Battery. }\end{array}$ |
| ---: | :--- |
| Your Cost... |  | "B" tapped at 2216 volts. Shpg.

wt. 5 lbs. Quantities less than sis. Your Cost Each. Standard pack- S
age of six. age of six.

St Each 3 , 1 XY19728-41/2 Volt "C" Battery. Your Cost XY19729-224/2 voit "B" and
.61e
BUnGess 3 V. "A" Pack
For use with 2 Volt Tubes
Scientifically designed for 2 -volt tubes. There is no recharging: no servicing: no filling with water. Ready for immediate use. $100 \%$ dry. 400 hours service based upon $1 / 3$ ampere discharge 3 hours per day. Dimensions; $115 / 8 \times 4 \times 65 / \mathrm{g}^{\prime \prime}$ high.


Shpg. wt. 15 lbs .


## Eydrometer

Live red rubber bulb and nozzle; beaded float. Shps. wt. 3 lbs. XP15694-
Each.


Flashlight Batteries
Uni-Cells made by Burgess. Also used in Testers, Analyzers, etc. Two sizes available.
XV18200--No. 1 small size.
XV18201-No. 2 Large.
Your Cost Each........ $1 / 2{ }^{\text {c }}$
Two for.


Designed for use with the All-Wave receivers A special receiver transformer supplled with the kit allows the use of a transposed lead-in without the necessity for making any changes to the in put circuit of the receiver. The kit contains the following paris: Two 40 foot lengths of heavy enameled wire for the doublets; 50 feet of special weather-proof transmission line; one special receiver matching transformer; one aerial spreader; two antenna insulators; one 6 * porcelain screw eye; two nail-knobs; two leadin strips and one ground clamp. Wt. 5 lbs. $\times$ Q16474
List $\$ 3.95$
Your Cost

## LYNCH All-Wave Kit



Efficient on both short wa ve and broadcast bands. Special coupling device permits use of transposed transmission line without need for making changes in input circuit of receiver. Kit includes the following parts: 15 Lynch transposi-
tion blocks; 8 Lynch comtion blocks; 8 Lynch commercial type insulators; 1 Lynch special universalset coupler (line impedance matching device); 100 feet Hi -Mho light wire and 50 feet Hi -Mho heavy wlre for antenna und lead-in. Instruc
"Double-Doublet"
ALL-WAVE AERIAL KIT


This new RCA All Wave "double-doublet" Antenna System is perhaps the greatest single step forward in antenna design since the introduction of all wave receivers. The complete installation consists of an interconnected pair of doublet antennas-one of which is tuned to approximately 16 meters-the other to approximately 49 meters, a special transmission line, a receiver matching transformer to match the antenna to the set, and all necessary wire, insulators, cambric tubing, ground clamp, etc. to complete the installation. Lightning arresters not supplied.
Shifiot.
XR17090 List $\$ 6.00$
Your Cost doublets, one roll ( 80 (eet) of special transmission line, one antenna transformer, one improved receiver coupling transformer, one crossover insulator, two nail-it-knobs, one feed through lead-in tube, one ground clamp, two links for coupling transformer, instruction sheet. Shpg. wt. 6 Ibs. XR17083 List $\$ 7.75$
Your Cost
s4.65
M』 E: Other RCAKits (Dealers, Experimenters Kits, etc.) available at lowest

## RGA DeLuxe

## "(Double-Doublet'"

Contains two $461 / 2$ foot lengths of wire for the

TOBE All-Wave Aerial


Can be used with either "L" or "doub let" antennas. Specialanten na and receive transformers rate accu tate imped

Switches on receiver transformer adjust fo broadcast or s. w. reception. Power line filterette prevents noise from the power line reachIng the set. Shpg. wt. 7 lbs.
XR17157-Model 34 Kit. Inciudes everything necessary-aerial wire, insulators, filterized transmission line, ground clamp, ground wire power line filter and antenna $\$$ and set transformers. Your Cost.
XR17158-Model 35 Kit. Same as above but without line filter and serial and ground equipment. (Coupling Kit.)
Your Cost
52.90

## LYNCH Hi-Fi All-Wave

 "Duplex" Coupling System This Lynch "Duplex" Coupling System is especially suited for use where the area covered by the antenna is limited. It will improve the efficiency of any doublet antenna now in use; is efficient from 3 to 600 meters. Duplex Antenna Coupler made of polished molded bakelite; one Hi-Fi Receiver Coupler and one 50 foot length of Lynch Giant Killer Cable. Instructions included. Shpg. wt. 4 Ibs. List $\$ 6.75$
XR17160-Complete Kit
Your Cost

A more complete listing of Lynch products will be found on page 162 of catalog number 56 . We can supply any equipment not listed at a

XR17117-List $\$ 6.50$ Your Cost
 lator especially designed for use where space and XR17175Your Cost Each. Per dozen
s3.82

## QUALITM WIRE ${ }^{2}-$ Priced EOH/

Transmission Cable


Especially designed for use with doublet antenna systems. Used extensively as the transmission line for Pbilco and other receivers. Consists of two rubber covered
conductors covered by a weatherconductors covered by a weatherproof cotton outer braid. Shpg.
wt. ( 100 ft. ) 4 lbs . wt. ( 100 ft. ) $\left.{ }^{4} \mathrm{lbs} . \quad:\right)^{e}$
$\times R 17152-100 \mathrm{ft}$ coil. Your Cost.
XR17184-500 ft. coil $\$ 3.45$
Your Cost.......

## Special

Transmission Line
This fixed type receiver coupler is especially permit the use of an
ungrounded transmission line with any receiver, without sacrificing stability. unit of this type is necessary if full efficiency of a doublet antenna is desired. Easy to attach and mounts near set. Shpg. wt. 11 lb

## Thutest 'Low Ohm'

 Wire
For Aerials and Transposed Lead-ins Especially designed to have a low resistance at high frequencies. Hard enough to prevent undue stretching yet soft enough to be easily worked. Intended for the aerial proper and transmission lines, Shpg. wt. 3 lbs . , Heavy Bare, $/ / 20$. Per 100 Ft. Coil.
$75^{\circ}$ $\times$ Q16265. Heavy Enameled, 100 Fi. Coil Cost ST. 25 XQ16266-Light Enameled, $107 / 25$
100 Ft. Your Cost $\ldots . . . . . . . .35$ LYNCB "Giant Killer" Cable
A new type of transmission cable for use with doublet aerials. Heavy rubber outer Hevering High volt covering. ingulation.
Shpg. wt. 50 ft .2 lbs .
Shpg. wt. 50 ft .2 lbs.
$\times R 17177-50 \mathrm{ft} . \mathrm{coil}$ XR17177- 50 ft coil
$\times R 17178-100 \mathrm{ft}$. coil Your Cost
Per Foot. .
'Doublet' Arrester


An arrester for a doublet type of of the must $t y p$ the air gap carefully insulated from ground. Made of fine quality porcelain smoothly glazed. Shpg. wt. 1 lb . $\times$ R16950 Your
Cost
$25^{\circ}$

## All-Wave Coupler



This coupler provide correct match at al wave-lengths. A doubtwisted pair of trana osed leadin must be correctly matched to the receiver. Comes complete with instructions. Shpg, wt. 1 ib.
XR17172-Your Cost

## LYNCH

## "Hi-Mho" Wire

Weighs only hall as much as solld copper wire. Has extremely low resistance and high conductivity at radio frequencies. For use with all short wave and all-wave receivers. XR17189-100 Ft. Light $59^{c}$ Your Cost
XR17190-50 Ft. Heavy
Your Cost. . . . . . . . . XR17191-100 Ft. Heavy
Your Cost . . . . . ......... $8^{c}$

## IAerial Kits \&Accessories

## A Special Value: <br> 

Dealers especially will appreciate this item. A thoroughly reliable protector that can be retailed at a low figure without sacrificing their margin of profit. Porcelain body Xhpg. wt. per doz. 3/2lbs. 12 for...70c 100 for... 56.50

## PARKSON Arrester



All bakelite. Non-airgap type. Approved by the Underwriters. Shpg, wt. 11 lb .
Your Cost Each


Vis-O-Glow is entirely different than ordinary arresters. It makes use of a NEON TUBE. By far the most sensitive arrester made, the alightest induction is readily shunted to ground. When in operation yon can see it work. Shpg. wt. 21 lbs . $\times R 16700$ List $\$ 1.00$ Your Cost Each


## Antenna Wire

We Guarantee our wire to be First Quality, Full Length and Standard Gauge as specified. It has been called to our attention that sonie houses are cutting short lengths and selling under size wire in order to quote a low prlce. Our prices are the very lowest, consistent with standard size, length and quality

Bare Copper Wire 7/27 STRANDED Shpg. Wt., 100 ft . $1 / 1 \mathrm{lb}$.

 | Lota Each | 25 Each | 50 Each |
| :---: | :---: | :---: |
| 15 c | ${ }_{14 \mathrm{c}}$ | 13 c |

## 7/26 STRANDED

$\times$ Q16113
Single
Lots of
Lt. coils. Lots of Single
Lots Each of
25
Each
50 Eath 18 c

7/24 STRANDED x $016114-100$ ft. coils. Single Lots of Lots of $\begin{array}{ccc}\text { Lots Each } & 25 \text { Each } & 50 \text { Each } \\ 220 & 20 \mathrm{c} & 19 \mathrm{c}\end{array}$ 7/22 STRANDED XQ16115-100 ft. coils. Lots of
Single
 $29 \mathrm{c} \frac{28 \mathrm{c}}{27 \mathrm{c}}$ No. 10 SOLID ENAMELED $\times{ }^{16129}$ Xer Ft.
PR Per 100 Ft

Enameled Copper Wire The very best crade enamel; will not chip or crack. Guaranteed full measure and size.

7/24 STRANDED

## $\times 016116-100 \mathrm{ft}$. coils.



## 7/22 STRANDED

 X $016117-100 \mathrm{ft}$. coils.Single Lots of Lots of Lots Each 10 Each 25 Each

No. 14 SOLID
$\times$ Q16118- 100 ft coils.


No. 12 SOLID
$\times 91611 \mathrm{~s}-100 \mathrm{ft}$. coils.
Single
Lots Each
10 Each of
10

## Lead-in Wire



Very good quality with pure Single Lots $\quad 15 \mathrm{Ft}$.

50 Ft . 18 c
17 c

## Pipe Strips

A atrip of pure copper with holes at short intervals so that clamp is adjustable to fit any size pipe up
to $2^{n}$ in diam-
XR17102-Your Cost Each 3c 10 for.... so. 25 50 for.... 52.20

## I $\begin{gathered}\text { Our Special } \\ \text { Ground Clamp }\end{gathered}$

Makes a vise grip on pipe. Has sharp pointed screw that penetrates surfacing and makes perfect contact. Has serew for connecting ground wire.
$\times$ R17105
Your Cost Each
12 for .... $\$ 0.42$


Shpg. wt. 2 lbs .

 | XR17187 | 4 | 28 c | $\$ 2.65$ |
| :--- | :--- | :--- | :--- |
| $\times R 17188$ | 6 | $\mathbf{4 0 c}$ | $\mathbf{4 . 5 0}$ |

## Lead-in Strips

Waterproof lacquered webbing. Langth $12^{\prime \prime}$. Screw terminals. XR17100- 100 for $\$ 4.50$ Your Cost Each. Your Cost Each.............. 5 Asp17101 100 for $\$ 290$ terminals XR17101- 100 for $\$ 2.90$
Your Cost Each............ ${ }^{\text {C }}$.

## INSTALLATION ACCESSORIES

## Cafayette Aerial Kits

Everything necessary for an efficient aerial installation. All items are of the very best quality. Ideal for the dealer furnishing a standard antenna kit with radio set sales. Shpg. wt. 4 lbs. Contains the following: 100 ft. 7-24 Copper Wire, 50 ft. No. 17 Rubber Covered Lead-In Wire, 25 It. Rubber Covered Ground Wire, 1 Approved Arrester,
1 Copper Ground Clamp, 1 Lead-in Strip,
 1 Copper Ground Clamp, 1 Lead-in Strip, 2 Porcelain Insulators, 2 Nail Knobs.
$\mathbf{X Q 1 6 4 7 6 - L i s t ~} \mathbf{\$ 1 . 5 0}$
Your Cost.

## Standard Aerial Sit

A low price kit containing all es Aentials for a dependable and efficient aerial system. A very good dealer item. Shpg. wt. 2 lbs. Contains: 90 ft . $7 / 25$ Copper Wire, 25 ft . Lead-in, 25 ft . Ground Wire, 2 Porcelain Insulators, Strip 2 Nail Knobs.
 Your cost.
$40^{\circ}$

| Best Grade Lead-in |  |
| :---: | :---: |
| A heavier and |  |
|  |  |
| lead-in wire. |  |
| No. 14 tinnedcopper covered with |  |
|  |  |
| rubber compound and a layer of |  |
| weatherproof braid. Strips clean. XQ16203- 25 Ft. 50 Ft. 100 Ft . |  |
|  |  |
| Single Lots. . 24 c | 45 c 78e |
| Lots of 10 Ea .23 c | 43 c 75 |
| Lots of 25 Ea .22 c | 40 c 70 c |
| Shpg. wt.llbe. 1/2 |  |

## Economy Aerial Kit

 Especially designed for Mldget Sets. The lowest price kit on the market made up of first quality merchandise. Shpg. wt. 2 Lbs. Wire, 25 ft. Rubber Covered Lead-in, 1 Lead-in Strip, 1 Ground Clamp, 2 Nail Knobs, 2 Porcelain Insulators. K Q16478-List 75 c our Cost.
## Shielded Lead-in



A fine quality shielded lead-in wire for broadcast antennas. Has a layer of cotton over which is a layer of pure live rubber and a tinned copper braid over-all. Skins easily and wire is tinned for easy soldering.
XQ16212 -
50 Ft.
48 c

## AERIAL,LEAD-IN INSULATORS

## Brown Porcelain



## Porcelain Insulators

 Porcelain Insulators of thebetter quality. Heavy and strong. $33 / 4$ " long. $9 / a^{\prime \prime}$ hole XR16803-
Your Cost Each
Per 100.
Wall Insulator For supporting wiring on instruments or may be used for supporting lead-in or ground wires.
 hpg. wt. 8 oz
for $\$ 3.25$
Each $21 /{ }^{n}$ high. Shpg. wt. 8
X 16735 for $\$ 3.25$ Your Cost Each

## Nail-it Knobs

 Heavy white porcelain nail knob. Leather washer under nail headprevents breaking lmob prevents breaking knob when fastening. Heigh $1^{3}{ }^{4 \prime}$. Diameter 1 多
$21 / 2^{c}$
Your Cost
Each.
50 for $\$ 1.10$

Glass Insulators



Screw-in Knobs For attaching lead-in or ground wires to posts or bulldings. Wire passes through center of porceXR16972 Net Each
12 for $27 c$ Net Each
$10021 / 2^{c}$
XR16986-6" long. Net Each.

100 s ${ }^{c}$
12 for 42c
100 for $\$ 2.75$

## Nail-it Knobs

Heavy rectangular knob with extrastrong nail. Has leather washer under nail age when fastening Makes a neat looking job. Easy to use.
XR16978

| 200 for $\$ 2.95$ | $\begin{array}{l}\text { Your Cost } \\ 50 \text { for 60c }\end{array}$ |
| :--- | :--- |



| 100 for $\$ 1.95$ | 50 for 60c Each |
| :--- | :--- |

$1 / 2^{c}$
0 for $85 c$ <br> \title{
SPECIAL WIRE OFFER
} <br> \title{
SPECIAL WIRE OFFER
}


## Fivery spool is one

 continuous length of length.
## COTTON

XY20875-200 Fit. No. 18, $1 /$ Single Conductor, for Aerial, Ground and general use. XY20862-150 Ft. No. 22, Twisted Pair. For drop cords, extensions, etc. XY20863-100 Ft. No. 18, $1 / 2$ Parallel with cotton overbraid. For lamp cords, etc.

X Y20864- 150 Ft . No. 20 , $1 / 4$ Parallel. For instailations, appliance wiring, etc. XY20865-200 Ft. No. 18, $1 / 4$ Single. For portable work, house wiring, etc.
Your Cost. Your Cost.
$85^{\circ}$ Assortment of 6 Coils. Assortment

## Service Wire Kit



A real money saver. This assortment contains practically every type of wire useful for Radio Service. Contents total approximately 200 feet in lengths varying from $4^{"}$ to 24". Assortment includes push-back r.c., shielded, twisted, parallel and other wire. Shpg. wt. 5 lbs. $\rightarrow$ e Your Cost

## Cotton Twisted Pair



18 Gauge 1/4 R. C. wire with a fine cotton covering. Two colorswhite or yellow and green mixture. Specify which.
XY20902-Your Cost:
Per Ft.
100 Ft
95 c
250 Ft


## Hook-up Wire

Rubber insulated cotton braid Lacquered braid which prevents the wire from fraying as easily as ordinary wire. Put up in coils of 250 feet. Shpg. wt. 5 lbs . XR16345-Your Cose $\$ 3.15$

## CORNISH Wire Co. WIRE SPOOL ASSORTMENT

Just the thing for the serviceman. These popular types of wire are put up on metal spools. Manufactured by the most reputable wire manufacturer in the business. Guaranteed to be of
the finest quality, full length and exact gauge as specified. Don't fail to take advantage of these remarkably low prices.

## Solid Push-Back (Braidite)

| Stock No. | Gauge | Color | Length |
| :---: | :---: | :---: | :---: |
| $\times$ Q16184 | *22 | Red | 100 Ft . |
| X Q16185 | *22 | Black | 100 Ft . |
| XQ16186 | *22 | Green | 100 Ft . |
| $\times$ Q16187 | *22 | Yellow | 100 Ft . |
| $\times$ O16188 | *18 | Red | 50 Ft . |
| $\times$ Q16189 | *18 | Black | 50 Ft . |
| $\times$ Q16190 | W18 | Green | 50 Ft . |
| $\times$ Q16191 | *18 | Yellow | 50 Ft . |

## Stranded Push-Back (Braidite)

| Stock No. | Gauge | Color | Length |
| :---: | :---: | :---: | :---: |
| XQ16192 | *20 | Red | 85 Ft . |
| $\times \mathrm{XQ16193}$ | *20 | Black | 85 Ft . |
| XQ16194 | \$20 | Green | 85 Ft . |
| $\times$ O16195 | *20 | Yellow | 85 Ft |
| $\times$ Q16196 | *18 | Red | 50 Ft |
| X Q16197 | *18 | Black | 50 Ft . |
| $\times \mathrm{CQ16198}$ | *18 | Green | 50 Ft . |
| XQ16199 | \$18 | Yellow | 50 Ft . |


$\$ 2.25$

## $39^{\circ}$ <br> Per <br> Spool

## Colored Rubber Wire-Stranded

| Stock No. | Gauge | Wall | Color | Length |
| :---: | :---: | :---: | :---: | :---: |
| XQ16070 | W18 | $1 / 4$ | Red | 100 Ft . |
| XQ16071 | \% 18 | $1 / 4$ | Black | $100 \mathrm{F't}$. |
| XQ16072 | *18 | 14 | Green | 100 Ft . |
| XQ16073 | *18 | $1 / 4$ | Yellow | 100 Ft . |
| $\times 016074$ | \% 16 | 1/20 | Red | 50 Ft . |
| X016075 | *16 | 1/8 | Black | 50 Ft . |
| $\times 016076$ | *16 | $1 / 4$ | Green | 50 Ft . |
| XQ16077 | *16 | 1/80 | White | 50 Ft . |

## Cor-Lac Push-Back Wire

 (Special Lacquered Inner Braid)| Stock No. | Gauge | Color | Length |
| :---: | :---: | :---: | :---: |
| XQ16052 | * 20 Solid | Red | 100 Ft . |
| $\times \mathbf{1 6 0 5 3}$ | * 20 Solid | Black | 100 Ft . |
| $\times \mathbf{1 6 0 5 4}$ | -20 Solid | Green | 100 Ft . |
| $\times 016055$ | * 18 Stranded | Red | 75 Ft . |
| $\times \mathrm{C} 16056$ | * 18 Stranded | Black | 75 Ft . |
| XQ16057 | * 18 Stranded | Green | 75 Ft . |

Any size in 5 Ib . quantities at soecial prices. Shpg. wt. 1 lb . each.

|  | Double Si |  | Silk |
| :---: | :---: | :---: | :---: |
| Stock |  |  |  |
| No. | Size | Y Lb. | 1/2 Lb. |
| $\times \times 20962$ | 18 | 50.23 | 50.45 |
| $\times \times 20963$ | 20 | . 26 | . 47 |
| $\times \times 20964$ | 22 | . 29 | . 55 |
| $\times \times 20965$ | 24 | . 34 | . 63 |
| $\times \times 20966$ | 26 | . 38 | . 72 |
| $\times \times 20967$ | 28 | . 47 | . 81 |
| $\times \times 20968$ | 30 | . 54 | . 97 |
| $\times 20969$ | 32 | . 70 | 1.26 |
| X $\times 20970$ | 34 | . 92 | 1.74 |
| X $\times 20971$ | 36 | 1.25 | 2.15 |



Enamel

| Stock |  |  |
| :---: | :---: | :---: |
|  |  |  |
| $\times \times 20950$ | 16 S0.15 | 30.19 |
| $\times 20951$ | 18.16 | . 20 |
| $\times 20952$ | 20.16 | . 21 |
| $\times \times 20953$ | 22.17 | . 21 |
| $\times \times 20954$ | 24.19 | . 26 |
| $\times \times 20955$ | $26 \quad .20$ | . 21 |
| $\times \times 20956$ | 28 . 21 | 11 |
| $\times \times 20957$ | 30 . 23 | . 34 |
| $\times \times 20958$ | 32.26 | . 37 |
| X×20959 | 34 . 31 | . 45 |
| X $\times 20960$ | 36.38 | . 58 |
| $\times \times 20961$ | 38.49 | . 73 |

Double Cotton

| Stock |  |  |  |
| :---: | :---: | :---: | :---: |
| ${ }^{\text {No. }}$ | Size | Lb. |  |
| $\times \times 20973$ |  | \$0.18 | \$0.24 |
| X20974 | 18 | . 20 | 27 |
| $\times \times 20975$ | 20 | . 22 | 29 |
| $\times \times 20976$ | 22 | . 24 | 32 |
| $\times \times 20977$ | 24 | . 26 | 37 |
| $\times \times 20978$ | ¢ | . 31 | 48 |
| X $\times 20979$ | 28 | . 36 | . 61 |
| $\times 20980$ | 30 | . 42 | . 73 |
| $\times \times 20981$ | 32 | . 51 | 90 |
| X $\times 20982$ | ${ }^{34}$ | 63 | 1.14 |
| XX20983 | 36 | . 81 |  | Table Showing Feet Per Pound of Above Magnet Wire Gauge D.C.C. Eled $\begin{array}{lll}16 & 122 & 125 \\ 18 & 192 & 202 \\ 20 & 298 & 319\end{array}$

## Parallel Lamp Cord



Consists of two rubber cov- (3) (3) ered conductors enclosed in by the Underwriters. In black, green by the Underwriters. In black, green
ivory or brown. Specify color when ordering. Shpg. wt. 3 lbs. per 100 ft . XY20920-18 gauge. Your Cost: PerFt.

100 Ft .
500 Ft .

## $2^{c}{ }^{5} 1.35$ \$6.75

## Colored Rubber Wire

No. 18 stranded and tinned copper wire covered with colored rubber compound. Solders instantly. 25 feet to coil. Colors black, red or green; state color wanted. Shpg. Yaik275-Per Coil 25 it. I2 ${ }^{\text {c }}$ 10 Coils.

510
$\$ 1.10$

## Spagletti

The best quality. High grade cambric tubing impregnated with transparent varnish of great insulating properties. Colors: ed, yellow, green, or ed. 30 lengths. Shpg wt 30 lengths. Shpg. $\times$ Q15960
Pq15960
12 Lengths
$6^{c}$

## Bus Wire

Hard drawn tinned copper wire in 2 foot lengths. Round. All clean and guaranteed full length. Indispensable for wiring amplifiers, pensable for wiring amp power packs, receivers, etc.


X015966 SIZE 12
Your Cost ${ }^{10}{ }_{26 \mathrm{c}}$
100 Lg ths.
Shpg. wt., lbs. 1
$26 c$
1
$\$ 2.05$
Wresh Back WIRE

## Stranded

Push Back Wire

- 4 Putern

19 gauge tinned copper hook-up wire. Very flexible. Green, red or black. Specify color. Shpg, wt. for 100 ft ., 2 lbs .
$\underset{\text { Your Cost }}{\text { XR16321 }} 100$ Ft. Coil $3 \mathbf{8}^{\text {c }}$ 500 Ft . Spools 1000 Ft . Spools

Solid Push Back Wire
This 19 gauge solid wire has the popular push back insulation. Black, green or red. Specify color. Shpg. wt. 2 lbs.
XR16320 100 Frt. Coil
Your Cost..............$~$
C
500 Ft . Spool Your Cost $\$ 1.50$

# G. M. Co. Electric 

## Radio Tool Set



Contains ten practical tools for radio servicing- $3^{n}$ screwdriver $5^{\prime \prime}$ screwdriver, scriber, reamer countersink, pliers, center-punch, socket wrench set for hex and knurled nuts, and 3 wrenches for hex nuts. Shpg. wt. 2 lbs XP14908
s2.25

## 6 Foot Folding Rule



Made of boxwood, finished in white enamel. Metal bound. Length 6 ft. Shpp, wt. 8 oz . XP14975
Your Cost

15


## Wire Stripper

Strips wire easily and cleanly. Saves time. Cutting edge of tempered steel that will retain its hardnes XP15044-

## Carbon Twist Drills

ASSORTMENT 9
Drills; sizes /s $^{\prime \prime}$ to ${ }^{3}$ m $^{\prime \prime}$. Good steel; fast cutting. Correctly ground and will hold their edge. In wood box. Handy for the serviceman's tool $\times \times 1470^{\circ} 5^{\circ}$
Sour cost assortment; paper wrapped.
XP14710

## Radio Reamer

Length of blade $4^{\prime \prime}$. Will ream
holes from $1 / \mathrm{s}^{\prime \prime}$ to $\mathrm{is}^{\prime \prime}$. Shpg. wt.
8 oz.
XP1506s
Your Cost Each.......

Your Cost
$17^{\circ}$

## Hack Saws

Adjustableframe or 8 to 10 in. blades. Frame ed of nickel plate.
B lack B pack
hardwood XP14994-Your Cost

$32^{\text {c }}$


## Offset Steel Scriber

This handy item is constructed of the finest grade of tempered tool steel. Tapers to a finely ground temper. Body of tool is knurled for easy grip. One end offset for close work. sip. diameter. work. ${ }^{6}$ " diameter.

Hand Drill
A Sturdy $1 /$-in. hand drill with GENERAL ELECTRIC A.C D.C. MOTOR and BALL THRUST BEARING in spindie. Special anti-friction bearing on armature shaft. Genuine Almond 3-jaw geared chuck Has toggle switch on top of
pistol grip, easily operated with thumb. Complete with 9 feet of heavy rubber-covered cable and plug. This tool will stand the "gaff" of heavy use and should not be confused with cheap, light hand drills. Shpg. wt. 10 lbs . handu726-List, s25.00.
Your Cost, Each.
${ }^{\text {s }} 14.85$
Diagonal Cutting Pliers
Long Nose Pliers


A very popular plier with all serv icemen. Sharp cutters. $5 \% /{ }^{\prime \prime}$ long Shpg. Wt. 3 lbs. XP15127 Your Cost

## $\frac{\text { Pocket Level }}{\text { Pa }}$

Guarnnteed accurate. Non-freezing liquid. Nickel plated. Length

$10^{\circ}$

## Caliper Rule

xaticro
Measures inside and outside diameters up to 3 inches, callbrated in If and lop part of an inch. Has $\mathbf{I O}^{\text {k }}$
Metal File

## Handle

Ja panned. Will fit all sives of files Will take any type of tool with a shank less than sf. Set screw
 Your Cost Each ....... IO $\mathbf{I C}^{\text {c }}$

## Cold Chisel



XP15179
2 lbs.
Each

## Handy Sprayer

Air pressure supplied by any automobile tire. Complete with glass jar, 6 it. of hose, and adjustable spray tip. Will spray approximately four jars lrom one thre
lbs. pressure. Shpg. wt. 6 lbs . libs. pressure
$\mathbf{X P 1 4 7 0 5}$
Your Cost
$69^{\circ}$
 handle of next largest and the two together in the largest. Steel blades with brass handles. 41/4" long. Shpg. wt. 1 lb . XP15220
Your Cost


## Service Screw Driver



A low priced and very popular Screw Driver, with polished blade and attractively finished red handle fastened with bead lock. Blade of forged steel. Shpg, wt. 1 lb .
 Price, Either Type

1

> Thuteast

Wrench Set and Screw

## Driver

A combina-
tion screw driverand wrench set. Consists of a serew driv-
 er with $3^{\prime \prime}$ straight and a $5^{\prime \prime}$ EII shaped extension. A coupling and the following sockets-i/t", $1 / \mathbf{1}^{\prime \prime}$. , 6 knurled socket to fit any 12 pt . or
round nut- 8 " to round nut-3/4" to $1 / 8{ }^{\circ}$. Shpg. wt.

4 lbs . | 4 lbs. |
| :--- |
| $\times \mathrm{XP15}$ |

XP15159-
Your Cost
End Wrench Set


A handy pocket set for repair men, auto and radio mechanics, electricians, etc. Ideal for adjusting nuts in small spaces. Set consists of 3 double end wrenches and genuine leather case. Sizes are $H^{\prime \prime}$ " $3 / 0^{\prime \prime}, 3 / 8^{n}, 9 / 6^{\prime \prime}, 1 / 2 "$ and odd sizes. Shpg. wt. 8 oz .
XP15081-

## GOODELL-PRATT <br> Radio Screw Driver

Long slender blade especially suitable for radio work. Small end so as to fit set screws in radio knobs. Hammer forged blade, nickel ferrule. Hardwood handle. $3^{\prime \prime}$ blade. Shpg wt. 8 ozs.
Your Cost Each

## Shockless Screw Driver

126

Have tempered steel blades set in grooved wood handles. For shaping holes in panels of wood, bakelite, fibre, etc. A handy tool for the serviceman.
XP14950
Your $\operatorname{Cost} \ldots$ I

Rivet-O-Punch


Punches holes-fastens rivets, in leather, fibre, paper or canvas Can be used to make solderless lugs, etc. Complete with box of brass eyelets. Shpg. wt. 1 lb . XP15046-List $\$ 2.00$
$59^{\circ}$

# MECHANICS SERVICEMEN EA 

## INDESTRO

Socket Wrench Set


Strongly made with steel shank finished in cadmium plate．Black wood handle．Complete with five bexagon sockets，one round nut socket and one screw driver socket． Shpg．wt． 1 lb．
XP15111
Your Cost
$55^{\circ}$

## All Steel Wrench Set

Comprises five interchangeable sockets $1 / 4$＂${ }^{3} / \mathrm{K}^{\prime \prime}$＂ $8 / 8^{\prime \prime}, 7 / \mathrm{I}^{\prime \prime}$ and screw driver bit．Cadmium plated．Knurl handle．Shpg，wigt． 1 lb．
$\times P 14749$ Yout Cost．．．．．

##  <br> 000


$6^{\prime \prime}$ Straight

## XP15203－For ${ }^{3 / 6 "}$ hex．nuts

 XP15051－For $\%$＂hex．nuts XP15052－For 9 ，hex．nuts XP15053 For 复＂hex．nuts XP15054－For＂in＂，hez．nuts XP15204－For $1 /{ }^{\prime \prime}$＂hex．nutsYour Cost，
Any Size．
XP15205－For set of 6 Your Cost，
Any Size．．．．．．．．．．．．．． 65c XP15211－For set of 6．．．．．．85c

Ribbed wooden handle and cadmium plated shank．Has deep hole in end of socket and will take a long screw up to No．10．Two sizes in straight type， $6^{\prime \prime}$ and $9^{\prime \prime}$ ．Shpg．wt． 1 lb ．

## 9＂Straight

XP15209－For ${ }^{1 / 1 t^{\prime \prime}}$ hex．nuts XP15107－For $3 \%$＂hex．nuts XP15109－For ${ }^{\prime} /{ }_{10}{ }^{\prime \prime}$ hex．nut XP15108－For \％＂hex．nuts XP15110－For 5 ＂hex．nuts ＂Offset Type


## KESTER Radio Solder



Preferred by radio men everywhere．Will not spatter．Makes clean joints．Servicemen and other large users will find it more economical to buy their solder this way．

ROSIN CORE


ESICO＂Special＂Iron


Feating element is of nichrome wire．Handle is of black wood．Steel shank and brass ferrule． is of back wood．Steel shank and brass ferrule．
55 watts．Shpg．Wt． 3 lbs．
XP14849．Your Cost， with Extra Tip

79


Wound with Grade A nichrome wire．Have heavy steel cases and heat proof handles． Shpg．wt． 3 lbs．

MIDGET MODEL


XP15206－For $3 /{ }^{\prime \prime}$ hex．nuts
XP15207－For $1 /{ }^{\prime \prime}$ hex．nuts XP15208－For ${ }^{\circ}$ 价＂hex．nuts
Your Cost，
Any Size．

पи⿸厂⿱二⿺卜丿口

## ＂Utility＂Tool Boxes


mechanic＇s tool box，fishing tackle box，valuable paper box，for household tools and a dozen other purposes．Has loose tray with mov－ able partitions．Heavy steel，finished in olive green．Matched hardware． Size $14 \times 6 \% / 2 \times 6^{\prime \prime}$ ．Shpg．wt． 6 lbs ． XP14870－
Your Cost $\ldots . . . . . . . . .$.

## Circle Cutters



For cutting holes in wond，bakelite，hard rubber， tin，sheet metal，etc．May be used in hand drili or brace．No． 1 has extra beading cutter；No． 5 is for heavy duty work and comes with square or round shank（specify type）；No． 2 is standard． Ideal cutting tools for all Radio and Automobile Mechanics，Carpenters，Electricians，Plumbers and Engineers．All cutting bits are of high speed steel．Shpg．wt． 2 lbs.
XP14717－No． 1 Cuts 1 to 4＂diam，holes XP14734－No． 5 Cuts 1 to $5^{\prime \prime}$ diam，holes． Your Cost Each， Either Type．
\＄1．88
XP14718－No． 2 Cuts 1 to $4^{\prime \prime}$ diam．holes． Your Cost，
Each．
\＄1．15
XP14716－Extra Blades
$24^{c}$
core-mica insu
wound on steel
core－mica insu－
barrel－spring core and between element and and rubber plug－fibre terminal with cord tied to terminal（not knotted or taped）．Shpg． wt． 3 lbs ．
XP15180－75 watt， 110 volt Your Cost．
XP15197－Same for 220 volt． XP15182－ 100 watt， 110 volt $\times$ X15198－Same for 220 volt XP15184－ 150 watt， 110 volt Your Cost $\times$ Same for 220 volt

Jackson Soldering Iron

## Heavy

## Duty Irons

Extra heavy irons designed especially for in－ dustrial or shop use．Heating element and all parts are renewable．Tip removable．Metal parts nickel plated．Extra large handle．Shpg． Wt． 2 lbs．

| Stock No．Watts List Price Your Cost |  |  |  |
| :--- | :---: | :---: | :---: |
| $\times \mathbf{X P 1 4 8 7 4}$ | 75 | $\$ 2.75$ | $\$ 1.45$ |


|  | 100 | 3.75 | 2.85 |
| :--- | :--- | :--- | :--- |

ICA Soldering Iron Holderand Stand

## All metal con

struction．
bestos．Also
acts as stand wt． 31 hs ．


This is a full size
 handleand nickel plated metal case．Removable tip ${ }^{7}$＂${ }^{\circ}$ in diameter． 50 watt iron．Shipping weight
2 lbs．
$\times 14850$－List $\$ 1.25$
Your Cost

## High Quality Soldering Iron Tips




## Radio Hardware

Nickel Plated Brass

|  |  | Wood Screws, <br> Round, Flat and Oval Blead <br> Round Head |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | Size | Length |  | oz. |  |
| XP14780 | 4 |  | 4 c |  | 40c |
| XP14781 | 5 | 16" | 5 C |  | 50c |
| XP14782 | 5 | 4 |  |  |  |
| $\times$ P14783 | 5 | 1 1" |  |  |  |
|  | Ova | al Head |  |  |  |
| XP14790 | 4 | $1 / 8{ }^{\prime \prime}$ | ${ }^{4} \mathrm{c}$ |  | 40 c |
| XP14791 | 5 | $17^{\prime \prime}$ | 5 Sc |  | 50 c |
| XP14792 | 5 |  |  |  |  |
| XP14793 | 5 |  |  |  |  |
|  | Flat | t Head |  |  |  |
| XP14796 | 4 | 1/8" | 4 c |  | 40c |
| XP14797 | 5 | . | 5 c |  | 50 c |
| XP14798 | 5 | " |  |  |  |
| XP14799 | 5 |  |  |  |  |

## 筧 <br>  <br> Nickeled <br> Brass Machine

## 6-32 Round Head

Stock No. Length Doz. Gross XP14750
XP14751
$\times P 14752$
$\times P 14752$
$\times(14753$
$\times P 14753$
$\times(P 14754$

## 8-32 Round Head

$\times P 14755$
$\times P 14756$

$$
\mathbf{c}
$$

c
$50^{c}$ 6-32 Flat Head Machine Screws


## XP14763

XP14764

XP14804-6-32x1/6" Hez
Nuts. Envelope of 20; Net. XP14805-8-32xi/4 Hex Nuts. Envelope of 20 ; Net. Per 100
XP14806-6-32x 伯 Hex $^{\prime}$
Nuts. Envelope of 15 ; Net.

## Per 100

XP14807-8-32xs/n" Hex Nuts. Envelope of 15 ; Net. Per 100.
XP14808-6-32x ${ }^{2}$ " Knurled Nuts Envelope of 6 ; Net Per 100
XP14809-No. 6 Washers
Envelope of 25; Net.

XP14810-No. 8 Washers
Envelope o
25; Net.
ers.

## Self Tapping Screw

Assortment
Box of 40 assorted self tapping screws. These screws are used in many modern receivers. Require no nut. XP14687-Your Cost..... $^{c}$

## OP Fancy Head Bronze Finish Screws <br> For Mounting Speakers, etc.

Stock No. Size Length Doz. Gross $\left.\begin{array}{lllll}\times P 14680 & 6-32 & 3 / 4 & 9 c \\ \times P 14681 & 6-32 & 1 & 9 c\end{array}\right) \quad 5 c$ $\left.\begin{array}{llll}\text { XP14682 } & 6-32 & 11 / "^{\prime \prime} & 10 c \\ \times P 14683 & 8-32 & 10 c \\ \times 10 c \\ \times 14684 & 8-32 & 10 c\end{array} \right\rvert\,$ $\begin{array}{lll}\text { XP14684 } & 8-32 & 1 \\ \text { XP14685 } & 8-32 & 14 y^{\prime \prime} \\ \text { 14c }\end{array}$


Extruded Washer, Fibre Stock No. O. D. I. D. Thick XP15020 $\times P 15021$ XP15022 XP1S023 Yithe

## Cost

Flat Washer, Bakelite
Stock No. O. D. I. D. Thick
$\times P 15030$
$\times P 15031$
XP15031
$\times P 15032$ Either typ


All have No. 8 hole which will fit either No. 6 or 8 screws. Shpg. wt. 6 oz
XP14812-Style No. 1 Your $\times$ P14813 XP14813-Style No. 2 Cost XP14814-Style No. 3 Per 100 Solderless.
XP14816-Style No. 4 5/8"long. XP14828
/8" long

Shakeproof Washers
XP14758-To pass No 6 screw. XP14759-To pass No. 8 screw.
Either Type
Envelope of 25 (1) Net.

Mounting Lugs



## Complete

 Hardware for
## Shortwave

## and Radio

## Receivers

Tbis assortment is composed of machine screws, wood screws, hez nuts, brass washers, fibre washers, rubber grommets, terminal lugs screen grid caps, fibre pieces and fibre bushings. Approximately 225 pieces to the box. Shpg. wit. 1 lb . $\underset{\text { Each }}{\text { XP14803-Your Cost }}$

100-Piece Screw Assortment Contains 100 assorted round head machine serews, nuts and washers,
size $6-32$
$\times P 14847$-Your Cost... $.25^{c}$
Angle Bracket Assortment
Contains
28 of the
most pop-
ular an
gles and
brackets
used on
the aver-
set. Solid
brass neatly aickel plated. A'very handy assortment that no serviceman should be without. Shpg. wt. 1
$\times 1 \mathrm{lb}$
$\times 14838-Y o u r ~ C o s t ~ E a c h ? ~$

Switch Points and Stops


Handy Hardware
Assortment

A big assortment for the serviceman, of assorted serews, nuts, washers, eyelets, lugs, brackets, washers, eyetets, ( ${ }^{3}$, pounds, hrackets, everything in the way of small parts everything in the way of small parts
used in radio receivers. Shpg. wt. used in radio receivers. Shpg. wt. 5 Ibs.
XP14834-Your Cost.
$70^{\circ}$ Same as above, but contains 21 bh . of hard ware. Shpg. wt. 3 lbs XP14844
Your Cost
$45^{\circ}$
Fibre Washers


A handy ment for the servContaing various
sizes of b o t
shoul dered and plain fibre washers in cardboard box. 100 pieces. Shpg. wt. 8 oz . XP14832
Your Cost Per Boy
$24^{\circ}$
NATIONAL S. G. Clip


Makes a positive grip on tube cap.
XN14434-3
Each $\ldots . .3$

## Easy Solder

$\qquad$ Type
Insert wire, drop
 Brass, Nickel Plated. Shipping weight 6 ozs . XP14882
$8^{c}$

# IN YOUR OWN HOME! 

## That's The Place To Select your Padio!



## Wholesale Rado Service © 100 SIXTH AVENUE • NEW YORK, N.Y.


[^0]:    XY22084

[^1]:    The explanatlon of the abave curves are confalned at the left. which illestrale that inls amplifior is truly a "high fidelity" unli.

[^2]:    $\star$ IOKC. Selectivity $\star$ Dual-Reading Dial $\star$ Diode Detection $\downarrow$ Automatic Volume Control

    A Superheterodyne Public Address Tuner in-
    corporating every modern feature found in
    60 whth amplifers having a gain of over corporating every modern feature found in 60 db . is without this stage. superhetorodyne receivers today. Highly selective- 10 K . C. aeparation. Sensltive31/2 microvolt per meter. Thoroughly shielded. Automatic volume control. Diode detection. Pre-selection with four gang condenser. Self contained filament supply Compact in size-easily mounted.

    NEW TUBES-NEW CURRENT
    The circuit incorporating many exelusive selector stage is followed by a tuned R. F . stage uning a 58 pentode, then a type 2A7 peatagrid converter tube verves as nacillator and mixer or first detertor, which in turn is followed by a 2B7 pentagrid used an intermediate frequency amplifier and diode demedtor end $A$ V $C$ tube. Two models are tectar ane ar with low win amplifiere made, one for having a gain of fags than ${ }^{60} \mathrm{db}$. and for line tranamission work. thia has an extra
    audin stage using a 56 tube. The other, for

    ## STURDILY CONSTRUCTED

    Only the highest quality components used throughout. Compart-71/" high. 10 K " deep and $94_{4}$ " wide. Comer complete with instructions. Shpg. wt. 14 lbs
    Model 354-P Three tube Jafayette Su per-Het Tuner for high gain
    amplifiers, lexs tubes. I int
    s 5 S.00. Code petros. Your Code Petros.

    Kit of matrher tubes for nhoves Your Cos
    $\$ 1.95$
    Model 355-P Four tube I Afayette superHet Tuner for low rain (under 60 db .) Podia.
    Your Cost
    324.50

    Kit of match
    32.39
    

    The Lafayette "B" Eliminator, Cat. No. XP15701 listed under the Remote Control Tuner can be used on any of the Lafayette Public Address Tuners Ilsted on this page. Delivers 250 V . at 50 M.A. in humless form.

[^3]:    -nemmenner
    For a complete listing of exact dupli-
    cate power transformers refer to pages 110, 111, 112 and 113 in Catalog 56.

