The Largest Radio Mail Order House In The World

## Lafayette

 RADIOS
## cataloc 56...

1935

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Serking the South and Southwest 430 W. PEACHTREE ST.,N.W. - ATLANTA, GA

Serving New Jerser
219 CENTRAL AVE.. - NEWARK,N.J.


cof brand new exciting Christmas Gifts. A special 9 page section is devoled exclusively to the LIONEL line of Electric Trains and in addition there are new, lively, animated toys for the kiddies in beautiful bright colors and sturdily built - useful electrical gifts for the kitchen - dependable electric clocks for any room - health giving sun ray lamps - efficient curling irons - and many more items too numerous to mention here.

## POPULAR NATIONALLY KNOWN LINES

$A^{G}$GAIN LIONEL leads the field with newer, finer, more realistic Electric Trains than ever before. New modern types such as the STREAMLINE model pictured here-steam trains that actually chug-chug like a real train as they speed along-and many new accessories to make your railway system complete and up-to-date are included. As Authorized Agents, Whole sale Radio Service carries the complete line in slock and can supply any LIONEL product at typical "Wholesale" prices. Our new Christmas Catalog contains a 9 page section on LIONEL alone! Be sure to write for your FREE copy.

## Usist our mooern Showrooms! <br> F you live in or within driving distance of

New York, Atlanta or Newark, be sure to visit our great modern salesrooms-for a cordial welcome awaits you in each city.
You'll be thrilled by the beauty and spar ciousness of our quarters, our busy sales coun. ters, our Great Bargain Counters and by the hundred and one litlle details which go to make each Branch a marvel of perfection in Modern Merchandising.

In each salesroom you'll find a great and varied stock representing the products of hundreds of manufacturers. You'll find a complete array of Broadcast and Short Wave sets, kits and equipment which may be heard in special booths under conditions approximating those of the home.

You'll find a Permonent Display of Public Address Equipment, too! Our engineers have assembled every type of sound equipment ... thousands of dollars worth... and have designed a special hook-up to enable you to
actually compare, before installation, the volume, tone and fidelity characteristics of any Lafayette Amplifier with any make of speaker or combination of speakers. It removes the guesswork in selecting the right P. A. System for the right iob.

In each city a trained technical staff is always available to aid you in solving some parricularly knotty problem without cost or obligation while our Bureau of Standards in New York will insure the high quality of everything you buy in New York, Allanta or Newark.
Each salesroom is centrally located in each city. Here Servicemen, Amateurs and Short Wave Enthusiasts will find that despite the extra service and the added benefits to be derived from personal buying-there is no extra charge. Here, over the counter, as when you buy by mail you'll find everything at lowest wholesale prices-for, as always, "We Will Not Be Undersold!"


ATLANTA, GA., Phone Walnut 5140 If it's not convenient to buy in person send your orders by mail. Prompt shipment within 24 hours assured.

NEWARK, N. J., Phone Market 2.1661 Customers in New Jersey may phone or moil in their orders ond hove quick delivery ossured. This is an innovation of this oreat bronch.


## SERVICE CO estublishes




0NCE agoin Lafayotte proves its leadershipl A three band receiver with all of the features you could desire in a radio receiver at only $\$ 23.251$ Covers all frequencies between 18 and 50 mefers-and between 75 and 550 meters Will get European Short Wove Broadcasts-American Short Wave Broadcasts-Ama-leurs-Police Calls-Airplanes-Ship to Shore-and the myriads of other interesting short wave pragrams that are constantly on the air-in addition la the regular American Broadcasts.

It offers the oconomy of a five sube receiver with results that are equal to and even better thon many seven and eight lube selsi it has oll of the features you have come to expect in a highly efficient superhelerodyne receiver such as-pre-selection-automatic volume control-tone control-ihree bond illuminated oeroplone type dial-full dynamic speoker-etc.

## USES LATEST TYPE TUEES

The latest most improved type tubes are used throughout including the new type 6A7 converter fube that se ves as both oscillator and modulator thus taking the place of two tebes and in oddition providing o higher conversian gain than two separate lubes would have. A type 78 vario-mu pentode lube is used in a high gain stage of radio frequency omplification, a type 75 duo-diode-friode tube is used os second detector-automatic volume control-and Arst audio amplifier stage fallowed by o trpe 42 pawer oufput lube. An 80 rectifier tube is used for rectifying the high vallage B supply. Both sensitivity and selectivity have been developed to 0 remarkable degree for surpassing mony of the five tube receivers offered loday.

## THREE SEPARATE BANDS

Three separate tuning bands are provided with individual scales on the airplane lype dial. The regular breadeast band covers the stondord American broadcast Irequencies between 200 and 550 meters ( 1500 to 550 KC ) the two short wave bands are covered as follows: One between 18 and 50 meters ( 15,600 to 6.000 KC ) and the other from 75 to 200 meters ( 4,000 to 1500 KC )

# TAWE A WODRD TOUI witha < <br> <br> Lafayette <br> <br> Lafayette tube A.C-D.C. tube A.C-D.C. 1 - WMDERHET: 1 - WMDERHET: FOUR DISTINCT TUNING RANGES: 

 FOUR DISTINCT TUNING RANGES:}

SOME receivers work on AC or DC, some ore all-wave models, some have outomatic volume control, some have full vision dials. Lafayette engineers, after considerable work, have been able to combine all of these desirable feotures into a single, reasonably priced receiver, which we ore proud to present as our 6 Tube All-Wove AC-DC Superheterodyne. After studying its specificotions, you will realize that this set certainly is a big bargain and that it does things few other sets of its price class are oble to do.

## DUAL PURPOSE TUBES HELP CIRCUIT

The six lubes in this Lafoyette achievement do the work of eight with o corresponding soving in power and space. A 6A7 combines the funstions of oscillator and modulator, while a type 75 octs simultaneously as secand detector and automotic volume contral. Two 78's oct as intermediate frequency amplifiers, giving the sel great selectivity and sensitivity. A type 43 output tube, working into a powerful $61 / 2$ inch dynomic speaker, gives the sel a loud, clear

13 to 25, 25 to 75, 75 to 200 and 200 to 555 Meters

* Easy to Read - Airplane Type Dial. $\star$ Direct Foreign Reception Assured.
$\star$ Positive Auiomatic Volume Control. voice, which can be loned down to a whisper without loss of quality. The rectifier is a 2525.


## FULL ALL WAVE COVERAGE

The 6-Tube All-Wave Superhel is a true all-wave re ceiver, funing continuously, without deadspols, from 23 megacycles to 540 kilocycles, or 13 to 555 meters. This means you get everything on the short wavesforeign broadcasts, amaleurs, ships at sea, oirplanes in fight, scientific expeditions, police olarms, etc. All the thrills of the short waves are yours at the fip of the wave changing switch.
The illuminated airplone type dial, with the various bands clearly marked on it, makes distont reception easy even for the novice. The handsome modern cabinet will satisty the most fastidious taste. Its highly polished sotin finish brings out the true beouty of the aftractively grained hordwoods. A distinctive addition to the furnishings of any home.

Model AM-42-Lofoyelle 6 Tube AC-DC All-Wave Superhet, complete with lubes ond loud speaker. Beautiful modern cobinet. Overall dimensions: $12^{\prime \prime}$. $1412^{\prime \prime} \times 61 / 2^{\prime \prime}$. For 110 volts, AC or DC, 40 to 60 cycles. Shpg. wt., 24 lbs. Code Colmo.
List price $\mathbf{\$ 5 9 . 9 0}$. Yaur Cast.
s29.95
.Add $\$ 1.25$
List price $\$ 5$
Fo: 220 volts


# TOUR the WORLD that De Cuxe LONGESHORT WVAYE SUPDR-HIET 

 low ranges It will safely hande the 3 walt output withourattling or blasting.

## CHOICE OF BEAUTIFUL CONSOLE OR MANTEL MODEL CABINETS

In keeping with the electrical and mechanical quality of the seven tube De Luxe DualWave chassis, Lafayetle has chosen cabinets of appropriate finish and appearance. The two illustrated are beautiful examples of the cabinet maker's art. They are both solidly built to eliminate any possibility of cabinet vibration, and they will contribute a definite decorative note to any room in which they are used.

The montel model is striking in its simplicity. Large baffe areo for the speaker is ob. lained by coreful plocement of the latter unit. A silk grille covers the speoker opening without affecting the sound emission in the slightest. The console model is truly a moiestir piece, with the chossis mounted high to afford moximum operoting convenience. It is o piece of furniture that deserves a prominent place in any living room. The beautifully grained woods are a delight to the eye and the finish is such as you would expect in the finest, highest priced furniture.

## EUROPEAN RECEPTION GUARANTEED

This receiver has been carefully adiusted for maximum sensitivity and will under reasonably favorable weather conditions provide enjoyable European reception. That is the guarantee that Wholesale gives you on this receiver and that Wholesale Radio Service Co. lives up to with a money bock (less transportotion charges) agreement.

Wholesale Radio Service Co. mokes no wild promises in order to sell you a receiver-but it does live up to the promises it makes. Our Lalayette thirty day free trial offer has been a policy of this compony since its inception - use it to prove our claims.

Madel B-39-Chassis, tubes and speaker. Size of chossis, $131 / 4^{\prime \prime}$
long, $101 / 4^{\prime \prime}$ deep, $73 / 4^{\prime \prime}$ high. Shpg. Ot., 10 lbs . Code
Borem. Your Cast. $\$ 29.95$ Model B-40-Lafayelte Seven Tube Super-heterodyne in Mantel cab-Super-heterodyne in maniel cabinet and corplete with ubes. For
$110-125$ volts, $50-60$ cycle operotion. Dimensions: $151 /^{\prime \prime} \times 1834^{\prime \prime} \times 10^{\prime \prime}$
 List $\$ 67.50$. Yaur Cost
$\$ 33.75$ Madel B-41-Lafoyette Seven Tube Super-Heterodyne in Console cabinet measuring $36^{\prime \prime}$ high, 201/2" wide and $111 / 2^{\prime \prime \prime}$ deep. For 110 . 125 wills, 50.60 crele AC current. Compolete with tubes and speaker. plete with iubes and speaker Shpp. wt., 35 lbs. Code Bodis.
List $\$ 79.90$
Your Your Casi.
s 39.95 Either mod
additional.

The LARGEST RADIO MAIL




THIRTEEN years ago WHOLESALE RADIO SERVICE COMPANY was founded upon the principle of SERVICE. The very word was incorporaled in our company's name to be forever a reminder of that principle.

As the years passed and the infant radio industry grew, it became more complex, more involved. Gradvally the ward Service took on an added meaning. In order to serve you well it became necessary to gather together the finest staff of trained technicians, engineers and sales staff. Men who knew the solution of all your problems; men who could create new equipment, new apparatus to meet the larger needs of Radio and Public Address.

So, today in this great National Organization there are hundreds of willing hands to serve you-in New York, in Newark and in Atlanta. Here you will find the promise of Service performed.

When you buy from Wholesale Radio Service, you buy from the Largest Radio Mail Order House in the World. Because of this you may be confidell that what you buy will insure service and your complete satisfaction.



THE first of the Lafayette 10 Tube All-Wave Receivers proved a sensation when it was introduced a few years ago. Yet today the newest model is so superiar in perfarmance that there can be na comparisonl Canstantly impraved since its introduction it is today the undisputed leader in its field. Previous models ware good, as the following extracts from unsolicited restimonials show

## UNSOLICITED TESTIMONIALS

I have the pleasure of owning one of your Lafayelle All-Wave 10 Tube Receivers and it is a dandy. I have verifications from VK3ME and VK2ME Australia, Rabat-Africa, G5A England, HBL Swilzerland, VE9GW Canoda, EAQ Madrid, Spain, and Caracas, Venezuela, 5. A. I only need one Asia station to be a member of the "Hear All Continent Club:"-Walter L. Smith, Baltimore, Md.
"During the two weeks I have had the receiver, I have had only a few hours to operate it each day; but in that time. I have loog ad the following foreion short-wave broadcosting statians: DJB, Radio Calonial, Paris, GSD, DJD, EAQ, LSK, VK2ME, CTIAA, HBL, GSC, DJA, VK3ME, GSB, PRBA, PSK, CNR, HJ3ABD, PRADO, HJIABB, YY3BC, GSA, DJC, HIX, HJAABE, and quite a few 1 am not sure about."-D. W. Parsans, Cape Henry, Va. Official Radia Listening Post far Virginia.
This is what the previous models have done. The new and greally improved model has so many new and additional leatures that there is no question but that it can and will out-perform its predecessors.

## 4 SETS FOR THE PRICE OF ONE

This new product of Lafayette engineering skill is really and truly FOUR sets in ane, althaugh the price you pay for it is no mare than the price of an ordinary receiver. Not only damestic broadcasting alone. but the entire world of radio becames ovailable to yau. You practically have four-separate receivers for four separale bands.
The first band is the regular American broadcast band between 200 and 550 meters and its operation on this band is for superiar to that obtained an mast receivers that are only for operation within this limited range.
The secand band covers the range belwean 75 and 200 meters within the limits of which are included the thrilling short wave police broadcasting stations, the amusing amaleur stations on both the 80 and 160 meter bands and the interesting aircraft statians.
The third band, from 30 to 75 meters, is af particular interest to the broadcast listener since it is on this band that the foreign statians broadcast during the evening hours. Landan, Berlin, Paris, Madrid, Moscow, are all on this band with interesting braadcasts interspersed with announcement: in English for the benefit of American listeners.
And fourth we have the band from 14 to 30 meters which is used for the broadcasting of foreign and domestic sharl wave programs during the daytime. This band also has the ather amusing amateur phone band af 20 meters where you can eavesdrop on conversations between omateurs thousands of miles opart.

## NEW CIRCUIT USING NEW TYPE TUBES


#### Abstract

$A^{N}$N ENTIRELY new circuil using R.F. Amplification on all bonds hos been developed for this new madel. The types of tubes used and the circuits they are used in, ore as follows: The first tube is one of the new type 606 varia-mu lubes and is used in the radio frequency pre-amplifier stoge that consid. erably increases the sensitivity of the receiver and areatly decreases image frequency interference and bachground noise. This is followed by a type $6 \mathbf{N}$ tube that is a combined ascillotor and madulatar or first delectar which, in turn, is followed by a high gain intermediate frequency amplifier stage using another type 606 vario-mu tube. A type 37 tube follows this with the elements connected as a diode for use as the second detector thus making it copable of handling great power without overloading or distorting. Another type 37 tube is used for the sole purpose of providing automatic volume control oction thus providing a more positive ond effective control over vorying signal strengths. This completes the R.F. portion of the receiver which is followed by the audia system described below.


## AUDIO POWER OUTPUT OF 12 WATTS!

Of porticular interest is the newly developed Class " $A$ " Prime audia amplifier having an output of 12 waths. The second detector is followed by a type 76 tube which is, in turn, followed by a type 41 tube that is transformer coupled to a pair of 41 's in Class " $A$ " Prime. The rectifier is a type 523 high vacuum heavy duty tube. No mere writhen description can do full iustice to this amazingly powerful amplifier. Musical reproduction, especially of symphany orchestras, will hove a new meaning for you when you hear the full rounded sonorous tones that anly ample reserve pawer can make passible.

## HIGH SENSITIVITY ON ALL BANDS

The Super-heterodyne circuil is used to its greatestadvantoge in the 10 Tube All-Wave receiver. For example, the sensitivity on the broadcast band is 3 microvalts an the 75 to 200 meter band ip is fram 3 to 5 microvolts on the 30 to 75 meter band it is from

5 to 10 microvalts and an the 14 to 30 meter band it is from 5 to 25 microvalts-truly an omazing achievementl this accounts for the fact that this receiver will provide pertectly intelligible signals an stations that cannol even be heard an many other receivers.
Selectivity is also of a high order-providing full 10 KC . sepa ration without offecting the tone quality in the slightest degree due to side bond cutting. Greater selectivity could easily be obtained but it would necessarily hove to be of the expense of culting the side bands and thereby offecting the tone quality.

## HIGH ORDER OF FIDELITY

By actual measurement the overall response of the set from 60 to 5000 eycles is from plus 1 DB. to minus 10 DB. In less technical terms this simply means that the loud speaker will faithfully reproduce everything transmitted by the broadcasting slation.

## IMPROVED AIRPLANE TYPE DIAL

A new and greatly improved dial makes the tuning af both domestic and foreign stations a simple motter. The calibration for the stondard Americon broadeast band is etched on the outermost of four concentric circles, the figures being large and legible. The three inner circles contain the morkings of the short wave bands which are given in megocycles 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 contrals in all ore provided; band selector, luning, volume and tone.

## FOR USE OUTSIDE THE UNITED STATES

For use in foreign cauntries 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, oside from this additional band it is the some as the Model F-62 described obove. This special long wave model is known os the Model F-59. For prices on this model see the following page. beautiful Cabinets pictured herewith.
The Mantel Cabinet is truly a masterpiece of the furniture craftsman's art. It exemplifies the artistic blending of rare hardwoods to create a cabinet that will please even the most fastidious person. Although modernistic in design, it is in no way "flashy", and will go well with any set of furniture you may have. The woods used are: selected straight grain American walnut, rich Claro walnut and a fine burl maple. The speaker opening is covered with a beautiful gold grille cloth, and the finished product presents a very pleasing appearance.
The Console Cabinet is of American hardwood with an instrument panel of matched bult walnut. Overlays of Birdseye Maple add an interesting bit of decoration.

## LAFAYETTE ALL WAVE SUPERHETERODYNE Four Band - 14 to 550 Meters

THESE receivers are regularly equipped with a standard 10 inch dynamic speaker. But if desired the Console model and the chassis moy be obtained with o special 14 inch photophone type speaker. Thls speaker is not avallable in the Mantel Model since it will not fit inside the cabinet. Add $\$ 7.50$ to prices


Model f-60-Lofoyette 10 Tube All Wove Superheterodyne Receiver in the Mantel Cabinet illustrated at the left. Complate with 10 inch speaker and tubes. Dimensions: $21 /{ }^{\prime \prime}$ high. $12^{\prime \prime}$ deep. $15^{\prime \prime}$ wide. For 105 to 120 volt, $50-60$ cycle operation. Shpa. wh., 60 lbs. Code Gayre. \$59.75
List Price $\$ 119.50$. Yóur Cost........... 59.7 Madel F -61-Same as above except for $200-240$ volts, $25-60$ cycles AC. Shpg. wh., 65 lbs. Code Ginzo. $\$ 62.25$ Madel F-62-Chassis only, with motched 10 inch dynamic speaker and lubes. For $105-120$ volts, $50-60$ cycle AC. Dimensions: $131 / 2^{\circ}$ wide, $10^{\prime \prime}$ deep, $9^{\prime \prime}$ high. Shpg. wt., 38 lbs.
 Model $7.63-$ Same as above except for $200-240$ volts, $25-60$ cycles $\$ 54.75$
AC. Shpg. wt., 43 lbs. Code Galic. List Price $\$ 109.50$. Your Cost 54.750 Model F-74-Lafoyette 10 Tube four Band All Wave Superheterodyne in the attrac tive Console Cabinet illustrated in the lawer left hand corner of this page. Dimensions of cabinel are $37^{\prime \prime}$ high, $201 / 2^{\prime \prime}$ wide and $111 / 4^{\prime \prime}$ deep. Complete with tubes. For operation on 105.115 volis, $50-60$ cycle AC. Shpg. wi., 145 lbs. Code Emtam. List Price $\$ 132.90$
Your Cost
66645
Model 5.75 - Same as above, for $200-240$ volis, $25-60$ eycle AC. Code Emris. List Price $\$ 137.90$. Your Cost.
s8.95

## LAFAYETTE ALL WAVE SUPERHETERODYNE <br> Five Band - 14 to 2000 Meters

Model F.5s-Lafayette 10 Tube Five Band All Wave Superheterodyne Chassis ONLY, with matched 10 inch dynamic speaker and tubes: For $110-220-240$ volts, $25-60$ cycle $A C$ operation. Dimensians: $131 / 2^{\prime \prime}$ wide, $10^{\prime \prime}$ deep, $9^{\prime \prime}$ high. Shpg. wi., 42 Ibs. Code Gonga. List Price $\$ 115.50$
$\$ 57.75$ Your Cost
57.15

Model F.59-L Lafoyette 10 Tube Five Band All Wave Superheterodyne Receiver in Mantel Cabinet illustrated at too of page. Complete with 10 inch speaker and tubes. Dimensions: $21 \frac{1}{4 \prime \prime}$ high, $12^{\prime \prime}$ deep, $15^{\prime \prime}$ wide. for $110-220-240$ volts, $25-60$ cycle AC. Shpg. wt., 64 lbs. Cude Goyer. List Price $\$ 129.50$.
Your Cost.
\$ b4. 45
Model F-76-Lafoyelte 10 Tube Five Band All Wave Superheterodyne Receiver in Console Cabinet as illustrated at the left. Dimensions: 37" high, 201/2" wide and $111 / 4^{\prime \prime}$ deep. Complete with pubes. For operation on $110-220.240$ volis, $25-60$ cycle AC. Shpg. wt., 146 Ibs. Code Emsor. List Price $\$ 143.90$. Your Cosi
$\$ 7$ I. 95


These Features!

1. COVERS TWO EXTENDED WAVELENGTH RANGES! Tunes from 165 to 565 meters on one band and from 16.3 to 51.6 meters on second; takes in all important short wave stations.
2. PRE-SELECTOR R.F. AMPLIFIER ON BOTH BANDS! Gives high image ratio and eliminates annoying cross talk found in circuits not so equipped.
3. SENSITIVITY OF 2 MICROVOLTS ABSOLUTE! Gives set ability . keception range is practically unlimited.
4. FULL 10.XILOCYCLE SELECTIVITY! Means that stations are separated cleanly and without interference, and also that tone quality is not affected by side band culling.
5. AMPLIFIED AUTOMATIC VOLUME CONTROL! Eliminates blasting effects when tuning from weak to strong signals and assures steady volume of reception and easy tuning.
6. CAREFUL AND THOROUGH SHIELDING! Stabilizes circuit and prevents receiver itself from picking up undesired extraneous noises and interference.
7. FULL RANGE TONE CONTROL! Allows complete gradation of tone from low bass to brilliant highs, at the choice of the individual set owner.
8. POWERFUL AUDIO AMPLIFIER SYSTEM! 12 watts of audio energy gives big reservoir or power for dancing or outdoor parties; tone quality remains high at all volume levels.
9. BIG 12-INCH DYNAMIC SPEAKER! Magnificent tone quality is yours, at either "whisper" or "concert hall" volume.
10. TWO RECTIFIER TUBES! Separate rectifiers for plate and grid bias supply make audio amplifier perfectly stable and free from distortion.

GUARANTEED FOREIGN RECEPTION!
AVE you ootten the idea that direct foreion reception of short-wove broodcasting stotions is irregular, inconsistent, undependable? That the shor waves-in géneral are something of a gamble? Well, they used to be, but not since Lafayette engineers began to build real short-wave sets. We now GUARANTEE foreign reception with the new lafavelle 12-Tube Custom Built DUAL.WAVE re. ceiverl Think of it-foreign reception guaranteed in your home or your money back! If you have been hesitating to buy a new receiver because you weren't sure about the short-wave feature, you can now be confident that your money will be well spent.
Behind this quarantee is the reputation and character of Wholesole Radio, a reputation that has been firmly established in the thirteen years that we have been in business. The DUAL-WAVE receiver MUST be good to be backed up sa strongly! It has passed every canceivable lest with Aying

MARVELOUS EUROPEAN PROGRAMS
W ITH historr in the making in Europe, this Lofayetre
DUAL-WAVE sel keeps you in direct touch with all the important capitals of the Old World. You get firsthand news DIRECTIY from such reliable shon-wave stations as London, which has eight transmitters in a world. wide service, Berlin, Paris, Rome, Vienna, Madrid and Moscow. Think of the thrill of hearing the voices of the world's famous men, men whose vaices and personalities change the destiny of the world, whose nomes blaze across the newspaper headlines every day. This is no empty promise, for the short wave bands are filled with important talks every day of the week. Sometimes you hear important news before the papers get it. When local programs bore you, Aip the wave-changing swith of your Lafoyette DUAL-WAVE and stations from all over the warld will entertain and amaze you. No technical skill is required; you iust furn the dial and there are the stotions:


# BATMERTV SETS for <br> Carayette $\left|\begin{array}{l}\$ / 475 \\ 4 \text { wifa tuess }\end{array}\right|$ T TUBE 



## $\star$ R.F. AMPLIFICATION ON ALL BANDS

FARMERS, LUMBERMEN, RANCHERS and other peaple who live oway from electric lines have been badly neglected in the past by rodio set manufocturers. Not so any morel Lafayette engineers, affer a careful survey of form, ranch and camp requirements, hove developed a new line of economical all bathery operated receivers that are fully the equal of the A.C. models used by city folks. Here are sets that work well-are attractive in appearance-and that remain trouble-free. Forget past troubles with makeshift sets and short-lived batteriesl Enioy real reception with any one of these new Lafoyette achieve. ments.

## The Adventurer

The new tafayette Adventurer heads the line af the new battery models. This is a truly sensatianal 10 fube All-Wave receiver covering ALL bands between 15 and 560 meters This range is divided up inta four bands as follaws; one fram 180 to 560 meters which takes in all the American broadcasting stotions and mony palice statians, the second from 71 to 187 meters includes palice colls, amateur, oirpart ond aircraft stations, the third from 30 ta 71 meters is of porticulor interest since this includes the band that is used for the fareign short wove broodcasts in the evening, the fourth is of equal interest since this is the band used for foreign shart wave braadcasts during the daytime.

Ten tubes in a superheterodyne circuit assure yau af real performance. One type 34 tube is used as a radia frequency amplifier aheod af the first detector, a type IC6 as combined modulator and ascillatar, two type 34's as I.F. amplifiers, une type 30 as second detectar-outomatic volume contral tube, and laur type 30's in the oudia system of which two are in a class " $B$ " output stage, final tube is a valtage regulatar. The use of a class " $B$ " autput stage pravides a high output with minimum battery current cansumptian.

With a $11 / 2$ watl push-pull audio system and on 8 inch motor magnetic speaker, the tane quality of the Adventurer will sotisty the most discriminating lastes. The full range tane control allows complete gradation of tone from low bass to brilliont high. An airplane type dial with a 20 to 1 ratio makes funing o simple matter. Baftery current consumption is extremely low being only .6 amp ., for the " $A$ " and 25 Ma . for the " $B$. Model F-55 Lafayelte 10 Tube Adventurer Chassis with tubes and speaker, but less $\$ 3.75$
batteries. Dimensions $151 / s^{\prime \prime} \times 93 / /^{" \prime} \times 10^{\prime \prime}$. Shpg. wt. 31 lbs . Code Canfi. Your Cost. Model F. 56 Lofoyette Adventurer in Mantle Cabinet with fubes but less botteries. Dimensions : $181 / 4^{\prime \prime}$ high, $151 / 2^{\prime \prime}$ wide and $10^{\prime \prime}$ deep.
Shpg. wt., 45 lbs. Code Conse. 44.75
Model F-51 Lafayefte Adventurer in Console Cabinet with tubes but less batteries. Dimensians: $36^{\prime \prime}$ high, $201 / 2^{\prime \prime}$ wide and $111 / 2^{\prime \prime}$ deep. Shog. wi., 85 lbs. Code Conti.\$52.95
Your Cost. Your Cost


## Complete set of Burgess Batteries and Eveready Air-Cell. Shpg. wt., 85 lbs 110.40 <br> 



## Economy and Effectiveness Combined in This New Batlery Receiver

Five tubes in an advanced super-heterodyne circuit give the new Lofayelte 5 tube Battery Receiver the two most important features a receiver for farm use should have-economy and great sensitivity. The total filament drain is only $1 / 2$ ampere and the " $B$ " battery drain only 13 milliamperes! A special three point switch is provided to discannect all batteries when the set is nat in use. The obility of the set to pick up weak or distant stations is rated at 10 microvalts per meter, which means in ordinary language that it will furnish plenty of entertainment in the remotest locations.

## Dual Tube in Class " 8 " Stage

The lube layout is os fallows; one type 30 , one 32 , two 34 's, and one 19. The 19 which is really two tubes in one, operotes as a complete Class B output stage, with an output of 1.2 watts. The 8 inch motor mognetic speaker assures a high quality of reproductian. The tuning range of the receiver is from 190 to 565 meters. A three-gang tuning condenser is used, one section of which is used for luning the pre-selector circuit. Selectivity is excellent providing ample 10 KC . separation of stations. A full vision luning dial makes the accurate logging of stations a simple matter.
Model B. 61 Lafayetle 5 Tube Battery Operoted Superheterodyne, complete with tubes and


Camplete set of Ben Hur Botteries and a Burgess " $A$ " Pack for the abave receiver. Shpg. wi., 50 Ibs. Your Cost
5.25

## Cafayette <br> FOR USE



## 6 Caraupecte the AL-wave A.C.-D.C. SUPERHIT

* Long. Medium and Short-Wave Coverage-5 Distinct Bands 13 to 25,25 to 75,75 to 200,200 to 55 and 800 to 2000 meters.
* Six tubes do the work of eight in a superhet circuit.
* Migh order of selectivity to meet European conditions.

DEOPLE who live in Europe understand the need in a radio receiver for a $P$ long wave (low frequency) band, but residents of other countries, who plan to take or send sets to the Conlinent, do not generally appreciate its importance. Broadcasting in Europe is done not only between 200 and 550 meters, but also between about 800 and 2000 meters, and a receiver that does not tune to these waves is missing some of the best stations.
To meet this condition, Lafayelle engineers have designed the 6 -tube fiveband AC-DC All-Wave superheterodyne. It tunes continuously from 23 MC . to 540 KC . ( 13 to 555 meters) taking in all the shorl-wave and medium wave broadcasting stations, and olso from 350 to $136 \mathrm{~K}=$. ( 857 to 2200 meters), which covers the highly important long wave stations.

The AC.DC leoture is valuable in Europe, beceuse there is no standardization of power current there. The superheterodyee circuit, with its inherently

## HANDSOME MODERN CABINET

HE receiver is housed in a particulorly handsome
cabinet of modified modernistic design that will add grace and dignity to the furnishings of ony room. The highly polished finish greatly ènhonces the ottractiveness of the beoutifully groined waods. Model AM. 40 Lafoyette 6-iube All-Wove AC-DC Superhet, complete with tubes ond speaker. Cabinel dimen sions $12^{\prime \prime} \times 141 / 2^{\prime \prime} \times 61 / 2^{\prime \prime}$ deep. For 110 Volts DC or AC 40. 60 crcles. Shog. wt. 25 lbs . Code Calle. List Price $\$ 65.00$.
Your Cost
s32.50
220 Volt model also ovailable at ........s1.25 extra high selactivity, is just whot is needed to separate the tangled moss of high power Europeon broadcasters. The sensitivity is also of a high order, the sel being capable of excellent long distance reception on the regular brood. casi band, to say nothing of world-wide reception on the short wove channels.

## USES LATEST TUBES IN MODERN CIRCUIT

Using the latest tubes in o modern circuit, the s-tube All-Wave Superhet is unquestionably superior to onything previously offered of a similar type. The six tubes do the work of eight, which occounts fer the sel's great power. The tube line-up is as follows: 6A7 oscillator-modulater; 78 first I.F., 78 second I.F., 75 second detector-A.V.C. tube, 43 output tube and 2525 rectifier. Airplone type dial makes tuning easy. Dynomic speaker, $\mathbb{C} / 2$ inches in diameter, gives beautifully cleor and rounded tone.

## Cafayette 6

## $\star$ THREE POPULAR TUNING BANDS

 18 to 50, 200 to 550, 820 to 2200 Meters
## SPECIALIY DESIGNED FOR EUROPEAN USE!

Th- HE tremendous demand for, and the consequent quanlity production of receivers especially designed for European use, have enabled us to offer this trio-wave receiver, with all of the features our overseas friends and customers hove demanded, ol o price that is truly unprecedented in the onnols of the rodio business!

## THREE POPULAR TUNING BANDS

The three popular and most used bands are ovailable at the turn of a switch the shorl wave band from 18 to 50 meters the American Broadcast band from 200 to 550 meters-and the European Long Wave band from 800 to 2200 meters All bands have individually calibrated scales on the full vision airplane type diol.

## SIX TUBE SUPER-HETERODYNE CIRCUIT WITH AUTOMATIC VOLUME CONTROL

The six-lube super-heteradyne circuit makes use of the following new and improved tubesi 1.78 as first detector, 1.76 os oscillator, 1.78 as intermediote frequency omplifier, 1.75 as second detector-automatic volume control tubeand first oudio amplifier, $1-42$ as pawer oulput tube and 180 as rectifier. Selectivity and sensitivity ore unusuolly fine. Power oulput is 3 watls-more thon sufficient for doncing purposes. A continuously variable tone control permits modification of the tone lo suit individual preferences.
Model AM-3S-Lafayelte Trio-Wave 6 Tube Super-hel complete with tubes. Far 110 valt. 60 cycle operotion. Dimensions: $14 \times 17 \times 88^{\prime \prime}$.
Shpg. wt. 25 lbs. Code Recan.
s32.95
Model AM-57-For 220 volls. Code Retis. Your Cost

"COURIER"
C. SUPPR-HEFO
THE European Model Lafayette Courier has on additional wave-length range between 850 and 2000 meters besides the regular broadcast band from 190 to 550 meters.

The Superheteradyne circuit emplayed in the Courier uses one 77 tube as first defector, ane 77 as oscillatar, ane 78 as I.F. amplifier, ane 77 as second defector, ane 43 as pawer outpuf tube and one 2525 as rectifier. Output is oppraximately one walt. Dimensions: $81 / 4^{\prime \prime} \times 143 / 4^{\prime \prime} \times 7 / 2^{\prime \prime}$. Shpg. wi., 18 lbs.
Model A-19-European Madel Lafayette Courier camplete with tubes. For 110 V. D.C. or A.C. 60 cycle operation. Code Tallo. S 24 List \$49.9. Your Cost.
Model A-14-Same but for Broadcosting only 190-550 Meters. Tubes used 1.6A, 2-78's, 1.75, 1.43, 1-25Z5. Cade Canta. Your Cost
s23.45

 anat an wom
$\$ 1.00$ additional

 SPECIAL EUROPEAN MODEL-187.5-550 AND 850-2000 METERS
HE Lafayelte Yaurist 5 Tube AC-DC Superheterodyne is also available in a Euro. THE Laforyelte Taurist 5 Tube AC-DC Superheterodyne is also available in a Euro-
pean Model as pictured here. This model is identical in all respects to the TOURIST model listed and described on page 4 of this catalag but includes on additional wave-length range covering the band fram 850102000 meters. For a complete technicol descriptian of this morvelous receiver refer to the page mentianed above. Model C. 56 -Lafayetle Tourist-Eurapean Model, camplete with fubes. For 110 V . D.C. or A.C. 60 cycle operation. Shpg. wh., I8 Ibs. Code Guaya.
List $\$ 35.90$. Your Cost.................................................... $\mathbf{1 7 5}$ Carayette"NEW DEAL"/
tube AC. -C . SUPFR.HII.

AMERICAN BAND 200 TO 550 METERS, PLUS EUROPEAN BAND FROM 850 TO 2000 METERS
THE papular Laforette New Deal 5 Tube A.C.-D.C. Superheterodyne is also avail. model listed and des model. This model has all of the fealures of the standard modelditianal tuning range covering the band fram 850 to 2000 meters. For a detailed description of this ercellent receiver refer to the page mentioned above. Model AM-25-Eurapean Model Lafayette New Deol 5 Tube Superheterodyne camplete with tubes. Far operation on 110 Y. D.C. or A.C. 60 cycles. S.
Shpg. wi., 12 lbs. Code Cabby. List $\$ 43.90$. Your Cost.... ........ 220 Volt Model also available at. $\$ 1.00$ additional

tUBE CUSTOM-BULLT AID-WYME
FOR use in toreign countries, the Lafayetie 10
Tube All-Wave Superhel is also available as illustrated here with five bonds. These caver from 14 to 30,30 ta 75,75 to 200,200 to 550, and the European lang wave band from 850102000 meters.
Covering such a complete range of wavelengths this receiver brings the whole world of radio to the finger-tips of its owner. Using the some lubes as the four band receiver it olso includes all the features of this model.

EOR a camplete description of this receiver F refer 10 pages 12 and 13 of this catalog. Model F-58-Lafoyelle 10 Tube All-Wave Re ceiver in Mantel Cabinet as illusirated, complete with lubes. Dim. $211 / 4^{\prime \prime} \times 15^{\prime \prime} \times 12^{\prime \prime}:$ For $110-$
$220-240$ V. $25-60$ cycle A.C. Shpg. wt., 63 ibs. Cade Goyer. List Price $\$ 129.50$. Your Cost. Model F-5s-Chassis only, with speaker and tubes. No Cabinet. Code Ganga. List Price Your Cost.

## Muric whilu yideri: <br> Cafayette RADIO ${ }^{\text {or }}$, <br> EXCEPTIONALLY SENSITIVE AND SELECTIVE <br> Six tuned circuits (not including the oscillatar funing) make this ane of the most selective auto radio sets ever built. And through the use of high goin coils in the RF and IF stages together with

 the new high gain tubes a remarkable degree of sensitivity has been oblained. This assures satisfactory reception on practically any type of auto aerial in use to-day.The automatic volume control system used in the receiver is posi tive and quick acting and minimizes fading due to passing undel bridges, between steel buildings, under elevated structures, ele It makes unnecessary the constant adjustment of the manual voi ume control when passing from o strong signal oreo to a weak one

## SINGLE UNIT "QUICK SERVICE" CONSTRUCTION

One of the outstanding features of this remarkable receiver is the single unit canstruction that permits the removal of the entire chassis for service merely by loosening four wing nuts I The hausing of the receiver is fostened permanently to the car chassis and need not be removed at ony time. The entire receiver chassis is constructed along the lines of an ordirary home iype radioeverything is accessible-no trick hodge-כodge construction that is difficult to service. Remote cantrol is of the new indirectly lighted airplane type and is equipped with a key to lock the receiver off and prevent unauthorized use. Receiver housing finished in mad ernistic silver and black.

Model AM-20-Lafayette " $\$ 1 X$ " Auto Radio complete with Suppressor Kit for six cylinder car. Airplane rype Remote Control two foot remote control cables, and Kit of matched tubes. Dimensions: $101 / 2^{\prime \prime}$ long, $71 / 2^{\prime \prime}$ deep, $65 / \mathrm{m}^{\prime \prime}$ high. Shpg. wi., 25 lbs. Code Bosun. List $\$ 39.95$.
Your Cost-Special
${ }^{s} \mathbf{2 3 . 9 5}$

THINK of it .... a six tube Super-Het Aulo Radio using the latest type tubes and with all of the latest features such as: AIRPLANE TYPE DIAL . . . AUTOMATIC VOLUME CON TROL . . . SINGLE UNIT "QUICK SERVICE" CONSTRUCTION . . . Etc., for only $\$ 23.951$ At this price you can sell this set to evervone wanting an Auto Radio. You can compete with a NEW model, at a price as low and lower than mast of LAST YEAR'S models that are being sold at this time of year by your campetitors at so-called borgain prices.
Six tubes are used in the highly efficient Super-Helerodyne cir cuit emplayed in this new Lafayelte Auto Radio. A type 78 vario-mu rube is used in a stage of tuned radia frequency amplification, a type $\boldsymbol{\Pi}$ is used in a cambined oscillator-modulator stage, a type 78 is used in an intermediate freauency amplifier stage followed by a type 75 duo-diode-triode used as second detector which is in furn follawed by a fype 4] pawer output tube having on output of three wattsl A new rype $6 Z 4$ rectifier tube is used in the $B$ supply

Nen! Better! Cafayette "DASH-BOARD MOUNT AUTO RADID.

A T LAST a refreshingly new idea in aulo radios. A particularly A handsome dashboard or roof mounted receiver that is ex. tremely simale and unusually sturdy in construction.
Just mount the receiver wherever you prefer-it is equally adopt able for mounting to the doshboard-to the back of the rear seator to the roof. Installation requires but a few minutes and for service the entire receiver can be removed from the car merely by loosening two screws.

## HIGH SENSITIVITY ASSURES GOOD RECEPTION

With a sensitivity of one microvolt absolute (per four meters) the Lafayette 5 tube Superhet is superior to many home receivers in its ability to pick up stations. On any raod that on autamobile can travel you will always have plenty of radio entertainment. The full range automatic volume control holds the signals steady as you go over hills or down valleys and prevents blasting in the loud speaker os you tune from one stotion to onother. The airplane type dial is particulorly easy to reod.

## NEW TYPE TUBES - LOW CURRENT DRAIN

Five of the latest type tubes are used as follows: one SD6 as R.F. Amplifier, ane 6C6 as Oscillator-Modulator, one 6D6 as I.F. Amplifier, one 75 as Second Detector, A.V.C. tube and first oudio amplifier ond one 41 as output lube, Plate current is supplied by - built-in unit using o new type dauble vibrator, which is exceptionally quiet and highly efficient in operation. A 5 -inch dynamic speaker driven by the $11 / 4$ watt audia system, assures mare than ample volume to averride all car ond traffic noises.
> * Single Unit Construction - Fiss Anywhere.
> t One Microvalt Sensitivity.
> - Positive Automatic Volume Control.
> t Full Electro Dynamic Speaker.
> t No Rectifier - All Tubes Amplify.

Madel 8-62-Lafayette 5 Tube Superhe Aulo Radio, complete with tubes, hardware and a sel of suppressors for a six eylinder car. Dimensions: $12^{\prime \prime} \times 8^{\prime \prime} \times 4^{\prime \prime}$. Shpg. wt, 21 Ibs. Code Covey. List price, $\$ 39.90$ Your Cost
\$19.95


A DE LUXE Custom-Built Receiver thot is exceptionally quiet in operation. No doubt you have heard Aulo sets that buzzed like a hive of bees when operated at low volume-not this one-it is so quiet in operation that you can barely hear the vibrator even with your ear against the receiver housing. A tremendous advantage when installed in a quiet closed car. Its mellow lifelike tone, and more than ample volume, that easily overrides the rush of the wind and the drone of the molor, is pleasant ond easy to listen to. It is so simple to tune, ond so eosily adiusted, that never for a moment need you take your oyes off the rood in order to change from one station to another. The outomatic valume contral keeps all of them at equal volume at all times.

## Cafayette cusilit De Luxe SUPER-HIT AUTO RADIO CUSTOM-BUILT!

## NON-GLARE AEROPLANE TYPE REMOTE CONTROL

## DUST PROOFED DYNAMIC SPEAKER

 LONG RANGE A.v.C.- FULL RANGE TONE CONTROL
* RATTLE PROOF CONSTRUCTION


## MAXIMUM PRACTICAL SENSITIVITY AND SELECTIVITY

W $\begin{gathered}\text { HILE the lubes used in the Lafayette "Road King" ore practically } \\ \text { the same as those used in other receivers the results oblained are }\end{gathered}$ so superior that there can be no comparison. The perfectly engineered circuit uses six tubes; 1-75, 1-77, 2-78's, 1-41, and 1-84. Sensifivity and selectivity, due to the use of a funed radio trequency stage and a carefully selected intermediate frequency, are exceptionally fine. Sensitivity is rated at $1 / 2$ mierovolt per meter ( 2 microvolts (absolute) per 4 meters) )

## AUTOMATIC VOLUME CONTROL

The special long range automatic volume control makes unnecessary the constant adjustment of the manual control when possing between steel buildings, under bridges, efe., thus maintoining the volume of a constant level.

## NON-GLARE AEROPLANE REMOTE CONTROL

A new type of aeroplane remole control is equipped with an adiustable pilot light dimmer so that the brightness of the light con be regulated to prevent interference with driving vision of night. The large fully sensilized dynamic speaker ( 9 watts field excitation) is thoroughly dustproofed to protect it agoinst dust ond grit. Construction of the receiver throughout is exceptionally rugged and ratlle-proof. The receiver housing is finished in an attractive duroble block erystallized Iacquer. Dimensions: $\left.10^{\prime \prime} \times 63 / 3^{\prime \prime \prime} x\right]^{\prime \prime}$ deep.

Model L.50-Lofoyette "Rood King" Auto Rodio complete with Suppressor Kit for six cylinder cor, Airplane type Remote Control, two foot remote control cables, and Kit of Matched Tubes. Code Cabre. List $\$ 52.50$.
Your Cost
hercules metal car antenna


Two-piece all metal adjustable antenna. $8^{\prime \prime}$ wide. Length variable from 3 to 4 ft Equipped with 2 springs. Rainproof in. sulation. Shpg. wt. 5 lhs.
XY22043.
Your Cosi, Each
${ }^{5} 1.15$
ONE PIECE AERIAL


Made of one piece of heavy metal, and fully plated. Comes complete with springs, rubber grommets and all necessary hardware. Size $8 \times 35^{\prime \prime}$. Shpg. wit. 5 lbs. XY22047.
Your Cost, Each.


One aerial is mounted under each running board and a wire laced between them through special hooks provided. May be used singly if desired. Shpa, wt. 8 lhn XY22041 Single Unit Aerial. \& 1.25
Your Cost ......................
1.23

XY22042 Two Units for Aerial $\$ 2.40$
(illustrated). Your Cosif......

## WARD MOULDED RUBBER

 DE LUXE CAR ANTENNA

Something rarically new in the line of auto aerials. Of one piece moulded rubber, $100 \%$ moisture and weatherproof. Provided with "Magic Pick-up" splash guard. Has $48^{\prime \prime}$ weatherproof lead-in wire. Two bolt mounting. Size $7 \times 34^{\prime \prime}$. All accessories included. Shpg. wt. 5 lbs. XY22019.
Your Cost, Each
${ }^{\text {s }} 1.65$


This aerial is made of copper wire, molded in a very strons piece of rubber. Ties to front and rear axlex of the car, springs take up the slack. Shpy. wi. 3 lhs XR17148.
Your Cost, Each
$18^{c}$
ROOF ANTENNAS
Ensily inserted by opening the roof lining about a foot and sliding in theantenna. Providen extremely sood pick-up. Two sizes available. Shpe. wt. 3 lbs.
xY22020-12x27
$65^{c}$
YY
$75^{c}$

e most hishly fffient antennas avai able. Come in three different kits: Kit A-1, able. Come in three different kits: Kit $A-1$, existing installation: Kit A-3. complete existing instalis
antenna system.

KIT A.1
Contains 25 ft . Lynch "Hi-Mho" Antenna Wire, two rear axle insulator assemblies. one flywheel housing insulator assembly, all necessary connectors and 10 ft . of lead-in wire. Instructions enclosed. Shpg. wl. 4 lbs.
XN14191 List. $\$ 3.50$.
Your Cost, Each
82.05

KIT A-2
Contains 1 -Lynch auto antenna impedance matching transformer, 1 receiver impedance matching transformer and 10 ft . of Lynch Nostat shielded transmission line. Instructions included. Shpy. wt. 2 lhs. YN14192 List, \$5.00
Your Cost
$\$ 3.00$
KIT A-3
Complete system. Contains all parts in the both kits listed above. Full instructions included. Shpr. wt. 4 lha
YM14193-List, $\$ 1.00$
Your Cost

## tube SUPER-HET

FIER years of experimentatian. Trutest engineers are affering a 7 -fube receiver in kit form to the public. Seventube sets are usiually "tricky", and Trutest did not want to announce such a receiver until it was periect. NOW, IT IS PERFECT, AND WITHOUT A DOUBT IS THE FINEST 7-TUBE KIT AVAILABLE.
This advanced model of the now famous Trutest 7-tube Superheterodyne does justice to the fore sight of Trutest engineers. They developed a circult of the superheterodyne type which has all of the features of far more expensive sets, and which sells for a price that seemed "impossible" ta other production engineers. This "impossibility" was realized, nat by using inferior parts, but by so designing the circuit that a minimum of apparatus is required. The parts used in this superhet are the same high quality parts that ore used in all other Trutest equipment.

## NOTE

In addition to the com. plete Kits listed on these pages an assortment of Essential Coil Kits is listed on page 146.
The new All-star Kit will be found listed on page 41.

The selectivity and sensitivity of this 7 -tube superhet are remarkable-slations whisk in and aut at every furf of the dial. The quality of reproduction is perfection itself, notwithstanding the hairline selectivity and sensitivity.

The latest tubes helped ta make this "impossibility" passible A 58 is used in the radio-frequency stage, a 56 as oscillator, a 58 as a first detectar, a 58 in the intermediate-frequency slage, a 2A6 combination diode detector and audio amplifier, and a 2AS in the output stage. Undistorted power outpul, 3 watts. Rectification is accomplished by means of a type 80 tube.
The outomatic volume control used is very effective. By setting the manual volume control at a predetermined point, all stations will come in at the same volume withaut resetting the volume control. This is ane A.Y.C. system that really works.

Dimensions: $13^{\prime \prime}$ wide, $10^{\prime \prime}$ deep, and $7^{\prime \prime}$ high. All parts well spaced to prevent excessive heating and consequent service calls. It is fully equipped with tone contral and full-vision dial.

The Kit is shipped to you complete and ready to assemble with the chassis carefully drilled for all the parts and correctly bent into shape. The instructions and diagrams supplied are especially written so that practically anyone with even it slightest technical knowledge of radio can readily understand and fallaw them. Both schematic and pictorial wiring diagrams are included. A lew hours work with a screw driver, a pair of pliers, knife and a soldering iron are all that is required. Kit af parls 7 fube Superhet-less tubes and speaker. 6 l.
Shpg. wt., 30 lbs. Your Cost...............................

 Mantel cabinet.
 The neat appearance and logical arrongement of the parts never fail to arouse favorable comment. Dan't get the idea that the large size means that there ore large empty spaces in the chassis. There are no midget parts in this receiver. Each component has been carefully designed to provide an ample safety factor, resulting in a finished unit that will give trouble free service.
For the service man or custom-set builder the ADVANCED ECONOMY 8 is a sure-fire money maker. It can be assembled in a short period of time, the only tools necessory being plieis, screwdriver and soldering iron. During the present times of rising prices, this is one of the few sets that stand out as a remarkable buy at the price quoted. Installed in a console cabinet, along with a dynamic speaker, it attracts attention from people interested in high quolity radio apparatus-people who have money to spend. A demonstration is enough to convince them that this is the set that gives complete radio enjoyment.
Only the finest of materials, all carefully selected and checked by our laboratory engineers, are used in this kit. The quality and workmanship of all parts and fittings are checked iust as thoroughly as in the case of the complete factory built Lafayelte receivers.
The reliable, lime-tried T.R.F. circuit makes the ADVANCED ECONOMY 8 a real performer, with sensitivity, selectivity and power much in excess of normal requirements. Three stages of r.f. using type 58 pentodes work into a type 57 defector; a 56 first audio and two 245 's in the output stage and type 80 rectifier. The oudio output is 7 watts. For general smoothness
PACE of operation this combination is unbeatable.

Model Y22031-Trutest Economy 8 Tube Kit, less fubes and speaker. Shpg. wh., 28 lbs. Code Trute. List price $\$ 35.00$.

## Your

Cost
${ }^{5} 14.95$
Model Y22038-Matched 10" Dynomic Speaker. Shpo. wi. 10 lbs. Your Cost $\$ 3.98$ Madel Y22039-Kit of 8 matched rubes. Shpo. wl., 7 lbs. $\$ 4.08$ Your Cost.
The $K i l$ is shipped complete with all necessary instructions and diagrams for cosy. quick assembly.

## NOTICE!

All that is needed is a screwdriver, a pair of pliers, and a soldering iron. THERE ARE NO "EXTRAS" TO BUY -ALL KITS ARE ABSOLUTELY COMPLETE. All bolts, washors, nuts, instructions, etc. are included.

## tube A.C.-D.C. <br> 5 SUPERHETERODYNE RECEIVER!

HE simple electrical circuit arrangement of universal AC-DC receivers makes the construction
of this new Trutest 5 Tube $A C-D C$ Superheterodyne Kit particularly easy. The strong aluminum of this new Trutest 5 Tube AC-DC Superheterodyne Kit particularly easy. The strong aluminum sproyed steel chossis, measuring $101 / 2$ inches lang, $41 / 2$ inches deep and $61 / 2$ inches high overall, holds the entire receiver, including a 5 inch dynamic speaker in the center. At the right end is a 3 gang tuning condenser with illuminated dial. Batancing this cantral on the lefl is a combined an-aff switch and smoath oction valume cantral. Although small in size, this receiver is a full grown superheteradyne, with a pre-selectar stage ahead af the first detector.
One type 77 tube is used as composite first detector and ascillator, and onother 77 as secand diagram and full instructions eliminate any possibility of error. Model Y22014-Trutest 5 Tube AC-DC Kit, including speaker but less tubes. Shpg. wt., 12 Ibs. Code Calte. Your Cast.
512.25 Motched kit of Lafayette tubes kif of Lafayetre tubes ........................................ 83.20
detector. There is one 78 in the 1.f. amplifier stage, and a powerful type 43 in the audio autput stage. The rectifier is a 2525. The speaker supalied is a special 5 inch dynamic unit. The wave length range of the receiver is $100-550$ meters

The chassis is supplied completely drilled for all parts. A clear

SHORT.WAVE "DX" fans will especially oppreciate the new Trutest 6 Tube band fr bond" receiver kit, for it lakes in not only the entire damestic broadcast 200 to 550 meters, but the important foreign channel from 17.6 ia 50 ab and have the set work the first time he ums it on The diograms ond instrus cians are very explicit ond the parts At perfectly on the chossis.
This is on all A.C. receiver, using the sturdy 6.3 volt series of tubes. The 6A7 is the first detector-ascillator, working into twa I.F. stages employing 606's. A pype 75 tube performs the multiple functions of second detector, outamotic volume control lube and first oudia amplifier, and leeds a type 42 output tube. The rectifier is on 80. With two I.F. stoges and outomatic volume control, the "Skip Band" receiver is a set that you will be praud to demonstrate as a product of your mechanical skill. A 6 inch dynomic speaker, whose field coil is part of the re ceiver's Alter system, is supplied separately. Chassis measures $101 / 4^{\prime \prime} \times 61 / 2^{\prime \prime} x 7^{\prime \prime}$
high overall.
Madel Y22012-Trutest 6 Tube "Skip Band" kit al parts,
less lubes and speaker. Shog. w., 17 lbs. Code Leram.


Special 6 inch dynam. ic speoker....... $\$ 3.45$ Matched kit of Lofayette lubes........ $\$ 3.25$

# tube Jr. DX'er 

$A^{\mathrm{N}}$ advanced superheleradyne braadcast receiver of
A such excellent desion that its five tubes give the some
results obloined from many six and seven tube sets. Needle sharp tuning is assured by the use of a three gang variable condenser and a stage of pre-selection ohead of the combined oscillatar first detector slage employing o type 57 pentode; following is a stage of high ooin 1.F. fre. quency amplification using o 58 pentode, then a type 57 second detector, a $2 A 5$ and finally an 80 rectifier. An undistorted output of three walts is obtoined
Kit is complete to the last detail including washers, soldering lugs, etc. Chossis is accurately drilled and formed, and all parts fit perfectly. You cannot ao astray-full and detailed instructions are included. Any standard dynamic speaker with an 1800 ohm field con be used. Chassis dimensions are $101 / 8^{\prime \prime} \times 634^{\prime \prime} \times 6^{\prime \prime}$ high. Shpo. wh., 19 lbs Model Jr. DX'er-Complete Kit less tubes and speaker Your Cast.

- 5.95

| Your Cost............... \$2.55Matched spenter- |
| :---: |
|  |  |
|  |  |

PACER 25


# IN RADIO at <br>  SALE PRICES! 

## Our feadersthio Enables Us To Say... WE WILL NOT BE UNDERSOLD!

0N the opposite page we list six reasons why it is possible tor us to sell at lowest wholesale prices; but behind these six reasons there is one powerful factor which has brought us to endisputed leadership as the Largest Radio Mail Order House in the World... that one factor is SERVICE!
Throughout 13 years it has always been our endeavor to serve you well. We have not been con tent to merely sell you quality merchandise at the lowest prices consistent with sound merchandising practices. We have given you an added something .. SERVICE, Service that cannot be measured in dollars and cents. For example:

WHOLESALE has a Bureau of Standards to protect your purchases.
WHOLESALE carries hundreds of thousands of parts in slock at all times to render fast -fficient delivery service.
WHOLESALE has permanent displays of Public Address and Short Wave equipment... to eliminate the guesswork in picking the right equipment for the right job.
wHOLESALE offers a $\mathbf{3 0}$-day Free Trial and Money Back Guarantee on every Lafayette set.

WhOLESALE issues 4 Big Catalogs each year to keep you constantly informed of the latest developments and price changes.

WHOLESALE publishes many helpful books on Sound, Hints on Making Money, etc.... to aid the Radio Serviceman.

WHOLESALE brings its vast resources into the refrigerator parts field, thus benefiting the serviceman.

WHOLESALE has a large trained technical staft to aid you in solving your probloms as they arise.
These are but a fow of the many services which we offor you-at no extra costi You get more than just merchandise when you buy from Wholesale. It is no wonder, therefore, that each year more and more Servicemen, Dealers, Amateurs and Experimenters deal with Wholesale Radio Service Company, the Home of Radio Rellability!

Manufacturers, too, realize the outstanding posi-
tion of this great National Institution. They come to us with the latest innovations-always giving us the benefit of their lowest prices because of our tremendous purchases.
These savings we pass on to you for now, as always, we teel that every customer is entitled to the lowest current prices on all merchandise sold by us.

The prices in this catalog are lowest WHOLESALE prices. Occasionally, an item is listed by a competitor at a lower price than ours. If you should see such an item in our catalog listed at a lower price in a mail order competitor's catalog and it is identical merchandise, write us giving the name of the competitor and his catalog page number and WE WILL SHIP THE ITEM TO YOU AT THE SAME PRICE!

In addition, should the prices on any of our merchandise be reduced after this catalog has been printed you will receive a refund in full for the difference when your order is filled. In other words, you can never buy from anybody cheaper than you can buy from Wholesale Radio Service Co. Now, as always, our leadership onables us to say, "WE WILL NOT BE UNDERSOLD"!

## ANOTHER NEW POLICY No Order Too Small To Handle!

Perhaps you have offon hositated to send in an order knowing that many companios will accept no order for less than a minimum amount. Actually there was a reason for it because small orders sometimas entail an actual loss. Every order, large of small, must be packed, checked, billed, shipped... a hundred and one detalis that cost money.

WHOLESALE realizes that this policy ofien inconveniences you; that many times a small order is needed in a hurry when you are not prepared to buy other merchandise.
Yot because we desire to serve you; to make it as conveniont as possible for you to buy, we accept ANY order no matter how small or large! Now you can buy as your needs arise!
Please try to cooperate with us as we do with you. Try, if possible, to bulk your oplers to the amount of $\$ 3.00$ or more ... but if you do find yourself "on the spot"-in need of quick service on a small order-just rush it to us and your order will get the same attention as If it were for $\$ 100$ or more!
Anothor Wholesale Radio SERVICEI

## BATIERY :

## ALMOST MRY-IESS" "BATTERY-LESS Cafayette Suber

ONLY A SINGLE STORAGE BATTERY IS NEEDED NO "B" OR "C" BATTERIES ARE USED

$\mathrm{H}^{\mathrm{E}}$ERE is the most unusual baltery operated receiver we have yel presentedl We con even call it a "batteryless" set since it requires no $B$ or C bolteries, but works entirely off an ordinary six-volt slorage battery. How does it do it? The secret is a special power unit for the high voltage supply that delivers full voltage and never runs down. As long as you keep the storage battery in good candition the set will deliver its full power outpul iust like on AC receiver. This power unit is exceptionally reliable and needs no attention or odiusiment

## EXTENDED WAVELENGTH RANGE

Ordinary receivers tune from 200 to 550 meters. This new sel goes down to 171 meters and up to 565 ond thus is copoble of bringing in stalions thot would otherwise be inoudible. On the low wove end porticulorly you will find is very interesting to eovesdrop on police rodio alarms and the newly licensed experimental stations that are trying "wide band" tronsmission.

## IMPROVED OPEN FACE DIAL

A feoture of the open face diol is its listing of more than 100 of the most popular broadcosting stations of the United States. You can tune by call letters quickly and accurately! Police station channels are olso indicaled. Two smoll pointers inside the dial indicate the seltings of the tone and volume controls. A clear olass window protects the dial.

## ECONOMICAL TO OPERATE

DESPITE the fact that all current required by the receiver is supplied by the storage battery - only $11 / 2 \mathrm{am}$. Deres are consumed from the battery, enobling approximately three weeks operation from a 125 ampere hour boltery per charging.

## SUPERHETERODYNE CIRCUIT

Seven tubes ore used in the poweriul and selective superheterodyne circuil. 1 type 34 os first detector, 1 type 30 as oscillator, 1 type 34 os I.F. omplifier, 1 type 30 as diode detector-AVC tube, 1 type 34 os first oudio, one type 30 os second oudio driver feeding o type 19 dual triode in Closs B. An output of $11 / 2$ watts is obloined. A new motor mognetic speaker provides excellent tone quolity with this output.

The automatic volume contral keeps the receiver output at a constant level and prevents blosting or distorting as the receiver is funed from one station to another
Model B-65-Lofoyette 7 Tube Botteryless Su perhelerodyne in. Mantel Cabinet with fubes but less Storoge Battery. Dimensions: $11 / 4^{\prime \prime} x$ $221 /{ }^{\prime \prime} \times 3533 /{ }^{\prime \prime}$. Shpo. wt., 112 lbs . Code Lemse. List price 183.00 . Your Cost.
$\$ 41.50$ Special 125 ampere hour Storage Battery for
the above receiver................... $\$ 10.95$

PEOPLE who live in country districts, away from electric power lines, will find the Lafayette 7 Tube Long and Short Wave Battery Receiver ideally suited to their requirements. Ruggedly constructed of quality ports and incorporating o new and important feature in the form of an automatic voltage regulator tube, thus assuring many years of dependable service.

## EXTRA BAND INCREASES <br> USEFULNESS OF SET

Two entirely separate tuning ranges are pro-vided-one from 175 to 560 meters is for use in receiving all Americon broadcast stations and in addition many police calls and amaleurs. The second band is designed for the reception of all the popular short wove broadcasting stations and covers the band from 18.7 to 57.7 meters, thus including both the daylight short wave broadcasting band from 19 to 31 meters and the evening band around 49 melers. This range also includes such interesting stations as aircraft, oirport, ship rodiophones, and amoteurs. In isolated districts, where there are no large bodies of steel or electrical appliances to cause interference, you will enjoy unrivalled reception from the best stations on the air. You will be able to enioy to the fullest such interesting stations as Daventry, England; Paris, Fronce; Madrid, Spain; Berlin, Germany; Rome, Italy, and manv more.

## LONG BATTERY LIFE

TTHE seven fubes used in this hiohly efficient receiver consume only .63 ampere for flament supply from the A battery and only 23 milliamperes for plate supply from the B batteries. This assures long and sotisfactory botlery life. The use of antomotic voltage regulator tube permits the use of ony of the following types of $A$ batteries as desired-three volt dry cell packstwo voll storage battery-or an Evereody Air Cell ballery. The boltery complement includes three 45 volt $B$ batteries, one $22 \frac{1}{2}$ volt $C$ boltery and the A supply.

## SUPERHETERODYNE CIRCUIT

Sensitivity and selectivity great enough for all ordinary requirements is made possible by on advanced superheterodyne sircuit using one type IC6 sube as oscillator-modulator, one 34 I.F. amplifier, one 30 detector-AVC lube, ane 30 first audio and one 30 second oudio, one 33 power output lube and a 6-1 voltage regulator tube. A 6 inch motor magnetic speaker is used.

Model F-52-Lafoyelle 7 Tube Long and Short Wave Superheterodyne with fubes, but less botteries: Dimensions: $15 \frac{1}{2} 2^{\prime \prime} \times 183 / /^{\prime \prime} \times 10^{\prime \prime}$. Shpg. | $\mathbf{W l}$., 40 lbs . Code Lesul. Cost $\$ 29.75$ |
| :--- |
| List price $\$ 59.50$, Your Cost | Complete set of Ben Mur B and C batteries ond one Eveready Air Cell. Your Cost . \$8.15




$\rho_{20}$ $\square$ A TECHNICAL TUBE CHART FREE WITH EVERY ORDER FOR TUBES


## First, we guarantee every receiving tube sold for a period of 6 months-not

 90 days, but a full six months. IF ANY TUBE SOLD BY US SHOULD FAIL DURING SIX MONTHS IT WILL BE CHEERFULLY AND PROMPTIY REPLACED WITHOUT CHARGE-burn-outs and breakages are the ONLY exception. To the best of our knowledge, this is the most liberal tube guarantee in the country.Second, we make this guarantee possible by testing every tube before it is shipped out. We maintain an elaborate testing laboratory, equipped with every modern testing device avallable. SHOULD TUBE PRICES DECREASE OR INCREASE AFTER THIS CATALOG IS PUB LISHED OUR PRICES WILL CHANGE ACCORDINGIY. It pays to buy from Wholesale Radio Service!

| O1A | List 60c Your Cost |  |
| :---: | :---: | :---: |
| 146 | $\begin{gathered} \text { List } \$ 1.50 \\ \text { Your Cost } \end{gathered}$ | 750 |
| 106 | $\begin{aligned} & \text { Lisi } \$ 1.75 \\ & \text { Your Cost } \\ & \hline \end{aligned}$ | 88 |
| IV | List $\$ 1.00$ Your Cost | 509 |
| 2 A3 | List \$1.75 Your Cost | 3 c |
| 2.45 | List $\$ 1.10$ Your Cost | 3 S |
| 2.16 | List $\$ 1.10$ <br> Your Cost | 559 |
| $2 A 7$ | $\begin{aligned} & \text { List } \$ 1.30 \\ & \text { Your Cost } \end{aligned}$ | 5 |
| 236 | List $\$ 1.50$ Your Cost | 750 |
| 237 | $\text { List } \$ 1.50$ Your Cost | 5 |
| 523 | $\begin{gathered} \text { List } \$ 1.20 \\ \text { Your Cost } \end{gathered}$ | c |
| 6 Cb | $\begin{gathered} \text { List } \$ 1.10 \\ \text { Your Cost } \end{gathered}$ | 5 |
| $6 \mathrm{D}_{6}$ | List $\$ 1.10$ Your Cost | $C$ |
| 6 A4 | List \$1.40 Your Cost | 68 |
| $6 \wedge 7$ | $\begin{aligned} & \text { List } \$ 1.30 \\ & \text { Your Cost } \end{aligned}$ | 6 |
| 637 | List $\$ 1.40$ Your Cost | 700 |
| *6F7 | List $\$ 1.60$ Your Cost | 80 |
| 10 | $\begin{gathered} \text { List } \$ 2.50 \\ \text { Your Cost } \end{gathered}$ | 1.25 |
| 12A | Lis1 90c Your Cost | 459 |

*There highly specia lired rubes
in the Kadette Junior

| 39 | $\begin{aligned} & \text { List } \$ 1.20 \\ & \text { Your Cost } \end{aligned}$ | 600 |
| :---: | :---: | :---: |
| 40 | List $\$ 2.00$ \$ Your Cosi | \$1.00 |
| 41 | Lis! $\$ 1.10$ Your Cost | 550 |
| 42 | $\begin{gathered} \text { List } \$ 1.20 \\ \text { Your Cost } \end{gathered}$ | 600 |
| 43 | List $\$ 1.25$ Your Cost | 635 |
| 44 | List $\$ 1.20$ Your Cost | 609 |
| 45 | List $75 c$ Your Cost | 345 |
| 46 | List $\$ 1.20$ Your Cost | 60 |
| 47 | List $\$ 1.30$ Your Cost | 58 |
| 48 | List $\$ 3.00$ Your Cost | \$1.50 |
| 49 | Lisy $\$ 1.10$ Your cost | $55 c$ |
| 50 | List $\$ 2.50$ Your cost | \$1.25 |
| 51 | $\begin{gathered} \text { Lisi } \$ 1.10 \\ \text { Your Cost } \end{gathered}$ | $55 c$ |
| 53 | $\begin{gathered} \text { List } \$ 1.35 \\ \text { Your Cost } \\ \hline \end{gathered}$ | 68 |
| 55 | List $\$ 1.10$ Your Cost | $55 c$ |
| 56 | List 75 c Your Cost | 38 c |
| 57 | List $\$ 1.10$ Your Cost | 559 |
| 58 | List $\$ 1.10$ Your Cost | 550 |
| 59 | List $\$ 1.60$ Your Cost | 790 |
| 71 | $\begin{aligned} & \text { List } 70 c \\ & \text { Aour Cost } \\ & \hline \end{aligned}$ | c 330 |


| $75 \quad \mathrm{l}$ | List $\$ 1.10$ Your Cost | 55 |
| :---: | :---: | :---: |
| 76 t | List 90c Your Cost | 450 |
| $77 \quad 1$ | $\begin{aligned} & \text { List } \$ 1.20 \\ & \text { Your Cost } \end{aligned}$ | 609 |
| 78 L | $\begin{gathered} \text { List } \$ 1.20 \\ \text { Your Cost } \end{gathered}$ | 609 |
|  | List $\$ 1.30$ <br> Your Cost | 656 |
| 80 | Lis! 70c Your Cost | 320 |
| $81 \quad \text { Lis }$ | List $\$ 2.50$ Your Cost | \$1.25 |
| 82 | List 90 c Your Cost | 450 |
| 83 L | List $\$ 1.10$ <br> Your Cost | 550 |
| $84 \quad 1$ | List $\$ 1.30$ Your Cost | 650 |
| 85 | Lisi $\$ 1.10$ Your Cost | 550 |
| 89 | List $\$ 1.20$ Your Cost | 600 |
| V-99 | List $\$ 2.25$ Your Cost | $\$ 1.13$ |
| X-99 | $\begin{aligned} & \text { List } \$ 1.00 \\ & \text { Your Cost } \end{aligned}$ | 1500 |
| 1823 |  | 5750 |
| 183 | List $\$ 1.65$ Your Cost | 5 800 |
| 484 | $\begin{aligned} & \text { List } \$ 1.80 \\ & \text { Your Cost } \end{aligned}$ | 90 |
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## Round Inverted Metal Can-500 Volts Peak



These single and dual section electrolytics, contained in cylindrical aluminum cans. Fit "hole, and are furnished with hex nut and rated, working voltage 450 v . D. C.

| Stock | Cap'y | Size | Your |
| :---: | :---: | :---: | :---: |
| No. | Mid. | $L$ Dia. | Cost |
| XD3104 | 4 | 23/8" $18{ }^{\prime \prime}$ | \$0.31 |
| XD3105 | 6 | 436"196" | . 34 |
| XD3106 | 。 | 41\%" $11 \%$ " | . 36 |
| $\times$ X3107 | 4-4 | 41/5"11/3" | . 59 |
| XD3108 | 8-8 | $48{ }^{\prime \prime} 11 /{ }^{\prime \prime}$ | . 79 |

Tubular Cartridge Units $\Longrightarrow$ Thithert Compact dry electrolyties in tubular cardboard containers measuring only $21 / 4^{\text {" }}$ Iong Eapecially suited for use in Midget receivers, where space is an important factor. Provided with stifi wire leads.
Stock Cap'y Wkg. Peak Diam. Your
$\times$ D3100
$\times$ X 3101
$\times$ X3102
$\begin{array}{r}\times 83101 \\ \times D 3103 \\ \hline\end{array}$


If high electroiytic condensers are the exceptionafly low prices at which they are teing offered, it is $1 \mathrm{mpera-}$ tive that you order now. Quantities

Type With Flanges con tained in tough fibre cardboard housinge and provided with mounting tabs at either end. When dosired, these tabs may be cut off without beaking the cardboard housing. Low in price, All capacities are conservatively rated, and will remain constant over a wide rapge of frequencies and voltages.

| Stock |  | Peak |  | Size Inches |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No | Mul. | Volts | L |  | D |  |
| XD3115 | 4 | 500 | 4 | 13 | 的 | \$0.27 |
| XD3116 | 8 | 500 | 41. |  |  | 29 |
| $\times$ X 3117 | 4-4-4 | 500 |  |  |  | . 85 |
| XD3118 | 8-3 | 500 |  | 1 |  | 68 |
| XD3119 | 8-8-8 | 500 | 41/8 |  |  | 92 |
| XD3120* | $8-3$ | 500 |  |  | $110 / 5$ | 85 |
| XD3121* | 8-8-8 | 500 |  | $17 \%$ | $21 / 2$ | 119 |
| XD3125 | - | 25 |  | 13 |  | . 39 |


\section*{Round Upright Metal Can Units-500 V Peak ontainers and lug terminals. Will fit standard ring mountings. Peak voltage 500 volt <br> | Stock | Cap'y | Size Your |  |
| :---: | :---: | :---: | :---: |
|  |  | $L$ Dia. Cost |  |
| XD3127 | 8 | 4\%" 11/6" 30.36 | $\pm$ |
| XD3128 | 4-4 | 4\%"13" . 64 |  |
| XD3129 | 8-8 | 4\%"116" 79 | Ein $\times$ |
| XD3126 | 5-16 | $43{ }^{\prime \prime} 21 /{ }^{\prime \prime}$. 85 | 표 |
| XD3130 | 4-4-4 | 43 " $21 / 2^{\prime \prime}$. 95 | mom |
| XD3131 | 8-8-8 | $4)^{\prime \prime} 3^{\prime \prime} \quad 1.25$ |  |
| $\times$ X 3132 | 8-8-8-8 | 4\%" ${ }^{\prime \prime}{ }^{\prime \prime} 1245$ |  |
| XD3133 | 9-9-18 | $4 \%{ }^{\prime \prime} 31 /{ }^{\prime \prime} 1.45$ |  |
| XD3134 | 8-8-18-1 |  |  |

Compact Rectangular Units in Cartons
In cardboard cartons only $21 /{ }^{\prime \prime}$ long. Popular for use in A. C.-D. C. Midgets where space is limited.


Speaker Plaque


Beautiful matched walnut speaker plaque with caned metal grill. $153 /$ 月 $^{\prime \prime}$ long, $133 /^{\prime \prime}$ wide. Speakeropening $10 \%$ " diameter
Shpg. wt. 5 lbs. XY19996Your Cost special.
M. Antenna or Master Coupler. Type 1053 Tor use with twisted air transmission aes. Matches anemna to line im= -edances. Permits use of more than one weceiver on a single ontenna. To be used ntenn. To be used sted below. Equipped
 sted below. Equipped
with bracket for mounting to mast. When installed properly, these enits will eliminate from 60 to $90 \%$ of the objectionable local interference. Shpg.

G.M. Wall Type Set Coupler
For coupling any type receiver to a twisted pair transmission line. May mission line. May without the antenna coupler listed a bove, coupler listed a bove, but better results will be obtained when both are used. More than one antenna coupler may be used on a single aerial if desired so that several sets can be operated it a time. When properly installed, the same time that all the other lectrical wiring is done, this unit becomes a permanent part of the becomes a permanent part of the
intenna installation. Shpg. wt. intenna installation. Shps.
KQ16178-
Your Cost Special.....

## Genuine

Radiola 28 Only $\$ 4.95$


Fere is a value you can seldom duplicate! One of the finest battery operated receivers ever built, a real superheterodyne using a loop aerial and requiring no other aerial, at loop aerial and requiring no other aerial, at a price that amounts to practically giving
them a way! Wherever a receiver is to be them a way! Wherever a receiver is to be operated from batteries-on the farm-in
the camp-at the shore-etc., this receiver the camp-at the shore-te., this receiver so place yous order today! Shpg. wt. 120 lbs.


XY22129-Complete Set of Tubes for the above. Your Cost ............... $\$ 3.25$
XY 22130 -Complete set of batteries, 2-45 V. "B," $3-221 / 2 \mathrm{~V}$. "C"



Mantel Cabinet
Beautiful curved top cabinet of contrasting walnut veneers Hiluatrated at the left. Drilled for chassis as illustrated. Built-in baffe. Overall dimensions: 171/2" wide, 17 20 lbs .
XY19993Your Cost Special.

## $\$ 1025$



Beautifully polished hardwood Mantel Cabinet of matched grain veneers. Attractive modernistic speaker grill. Cut and drilled for receiver chassis as illustrated. Cabinet dimensions: $13 \frac{1}{2} \times 10 \times 15^{\prime \prime}$. Shpg. wt. 16 lbs .
XY19992
Your Cost. Special.

## Midget Cabinet



Pillow Speaker


A comfortable sanitary sponge rubber plllow with a speaker unit inside of it. Especially designed for hospitals, sick rooms, etc., where one individual can listen to a radio yet not disturb anyone else. With yet not disturb anyone else. With
8 ft . waterproof cord and plug, pillowcase and speaker unit. Size $15 \times 12^{\prime \prime}$. Shpg. wt. 10 lbs .
$\times w 19176$.
XW19176-
Your Cost Special.
53.95

Combination Radio Wall Outlet
Provides outlets for aerial and ground in addition to an A.C. outlet with an individual switch for the A.C. At-

tractive bronze wall $\qquad$
plate will fit standard "gern" box. Complete with tip plugs. Shpg. wt. ${ }^{1} \mathrm{lb}$ M13221
Your Cost Special.

## Metal Chassis



Heavy steel painted green. Size $16^{3} \times 9 \times 17 /{ }^{\prime \prime}$. Shpg. wt. 4 lbs. XM12885
Your Cost $15^{c}$

## Cins TinNE ANviofroma DISTANT POINT 




## PT Tha AMPLIFIERG and SPEAKERS ---priced for immediate clearance GUANTITY LIMITEロ

## Single 250 Photophone Amplifier and Speaker



An amazingly powerful single 250 Amplifier designed and built to exacting standards by RCA-Victo:. A single 26 freeds a single 250 tube in a carefully designed circuit that assures an excellent frequency response throughout the tonal range. Plate current for the tubes and the field of the 105 RCA -Photophone Dynamic Speaker is suppied by a pair of 281 tubes in a full wave rectifying circuit. An undistorted output of 5 watts is sufficient for gatherings of from 500 to 000 persons. An excelbent amplifier for public address systems and phonograph pick-up reproduction. RCA Model AP-736 (SPU 2t). The amplifier is so arranged that connection can be made to the cutput of the first stage if desired. An input transformer is part of the amplifier and will match a low impedance pick-up or can be attached te the output of a tuner. Shpg. Wit. 66 libs. 250 Amplifier only, les
XPisize Single speaker and

## THORDARSON "250" Amplifier and Self-Contained "B" Supply

It can be used as a public address amplifier for small installations; it can be used to electrify old battery sets or to modernize obsolete electric sets; it is idea! for use as a phonograph use as a phonograph
amplifier or for a r $\theta$. amplifier or for a re.
placement power pack. placement power pack. The circuit employs tubes. The 27 is transformer coupled to the 50 tube with a resultant power output of 4.6
 full wave rectifier circuit, provide ample plate current. Provision is made in the amplifier to supply the necessary field excitation for any 2500 ohm D. C. speaker.
All connections are brought out to a terminal board mounted over the power transformer. These taps are in the form of screw terminals for solderless connections. Voltage taps are at 150, 135, 112, 90, 67 and 45 volts.
Other featurea include a pressed steel chassis; oversized parts conservatively rated to withstand great overloads; a safety, \& witch pro-
tective line fuse. A 4 and a 5 prong adapter are supplied for easy tective line fuse. A 4 and a 5 prong adapter are supplied for easy
connection to the detector circuit of any tuner. Full instructions included. Shpg. wt. 25 lbs.
XP15750-Thordarson Model T-3715 Amplifier. $\$ 2$ List Price $\$ 89.50$ Your Cost Special

## SPARTON Replacement <br> Speaker

A new improved speaker designed for eplacing the old peakers in Sparton receivers. Greatlyim prove the performance of these sets. Can also be used in other receivers or with amplifiers, D.C. field has a resistance of 5000 ohms. Voice coil impedance is $8-12$ ohms. Cone diameter $83{ }^{\prime \prime}$ ". Shpg. wt. 11 lbs. XW19399Speclal
s2.25


## CLARION 61/2"

 Dynamic Speaker
## The genuine Clarion speaker

 used in the Model 220 receivers. Can also be used in other receivers. Has 1500 ohm field and a voice coil impedance of 6-8 with a hum bucking coil and provides excellent

## Gloritone ${ }^{1 / 21}$

 SpeakerReplacement speaker for the Gloritone receiver has 11,500 ohm field tapped at 9040 ohms. Equipangle with transformer for single 45 tube. $61 / 2^{\prime \prime}$
diameter. Shpg. diameter. !bs. 19123

Special..... \$3.235
XW19112-Same 81/2" diameter $\$ 3.75$
Your Cost Special................. 3.75


Speaker Grille Cloth
Fine quality brown ornamental cloth for use behind speaker grills. $11 \times 12^{\prime \prime}$. Shpg. wt. 8 ozs XW19609
Your
$19^{\circ}$

## C-H Radio Outlet

Can be used as aerial and ground outlet or as speaker outlet. Standard equipment is many apartment houses, hotels, etc Plate of brass in brushed finish. Jack nickeled finish. Fits standard outlet box. Shpg wt 1 ih ard outlet box. Shpg. XM13232
Your Cost Your Col


## Super Silver Cone Unit



A real prowerful highly sensitive double roil balanced armature magnetic speaker unit. Excellent for peplacement purposes in any magnetic speaker. Can also be used so build sound operated toys such as dancing dolls, etc. Shpg. W:. 4 lbs ,
XW19228
Your Cost Special.
$20^{\circ}$

## CROSLEY Speakers

A special purchase makes possible these exceptionally fine ty loudspea qualType 241 illustrated at the right is an at the right is an special Burtex cone, an output transformer for a single 47 or similar im-
 pedance tubo. Field resistance 900 ohzns. Shpg. wt. 22 lbs XW19398
Your Cost Special
s2.25
Type 243 is the same as the above but has an 800 ohm field and a push-pull output transformer suitable for $171-\mathrm{A}, 215$, and similar type tubes. Shpg. wt. 18 Ibe.
XW19390-Your Cost Special., $\$ 2.25$

## XW DYNCONE Speaker

 Illustrated at the left is the 6 volt Drnacone model for operation from a 6 volt battery Equipped with transiormer suitable for 71A and similar suitable fubes. Shpg. wt. 12 . outp. lbs. 19389 Your Cost Special $>$
## Genuine Magnavox Speakers

 $8^{\prime \prime}$ ModelsThe ideal speaker for the set builder. All original Magnavox guaranteed. Diameter guaranteed. Dianneter
$8^{\prime \prime}$. Various field resistances and transformers as listed be ow. Shpg. wt. 7 lbs

650 Ohm Field XW19377-P.P. Penode.
XW19378-Parallel Pentode.


XW19379-P.P. 45
XW19380-P.P. 46 Class B.
1000 Ohm Field
XW19366-P.P. 45, 50, 71A
XW19384-P.P. 46 Class B.
XW19381-P.P. 2000 Ohm Field
XW19382-Single Pentode.
X w19383-Parallel Pentode.
2300 Ohm Field
XW19385-P.P. 45, 50,71A.
XW19386-P.P. 46 Class B. 2500 Ohm Field
XW19368-P.P. $45,50,71 \mathrm{~A}$
XW19387-P.P. 46

## Special 91/2" Dynamic

A fine quality speaker that will afford excellent tone quality and frequency response. Supplied with either 1000,1800 or 2500 ohm field. Transformer supplied for single or P. P. $45,46,47,43,2 \mathrm{~A} 5,2 \mathrm{~A} 3,59$ 79 , or 50 output tubes Specity Type Trans. former and Field Coil ormer when ordering, Shpg, wt. $6 \mathrm{lbs}, 54$
XW19120-9 9, Your Cost Snecial

## HUBBELL <br> Cord Receptacle

10 amp., 250 v. 13 /10" XMis311-
YourCost Each.


## Tone Controls for

## RCA-VICTOR

For Models R-32,
R-52, RE-45, RE-75 Genuine RCA-Victo: Part No. 10408, for the above model sets. Has resistance of ? megohm. Has slotted Xhatt for
Your Cost Each


## 以)

For Models R-7, R-9, R-10 D.C., R-7 D.C. and R-9 D.C. 000 chms. Bradley control. Can be used
In eny receiver.
in eny rece
Shpg. wt. 1 lb. XG8344 Your Cost $29^{\circ}$

## STEINETE Voltage

 Divider

## READRITE Portable Meters

[Quantity Limited]
These portable meters are available in several different types. Althouch superseded by later models in the Readrite line, they are extremely useful in all types of service work. All A.C. meters are of the repulsion type, and provide extreme accuracy. Have resistance up to 100 ohms per volt. The D.C. meters are of the ohms per volized vane solenoid type, and contain re sistance up to 300 ohms per volt. Quantities sistance up tory limited. Average shpg. wt. 3 lbs .

22,440 ohms, tapped at $10,000-$ $2,440$.
$15^{\circ}$

## 465 K. C. Midget I. F.

 Transformers3
5
8XH10150-Midget double tuned I.F. Transformer. Compact type used in most late ty pe receivers. Dimensions $14 /$ s $^{\prime \prime}$ diameter, $258^{\prime \prime}$ high. New alloy shield. Due to precision winding, these units provide exceptionally high genuine isolantite bases, and are tuned from the top of the assembly. Shpg. wt. 1 lb.
X $\mathrm{HIOL51}$ The model illustrated at the right is similar to the ahove but is $11 / 3^{\prime \prime}$ in diameter and $3^{\prime \prime}$ high. This model is used in particularly suitable for particularly suitable for all-wave and short-wave receivers. Shpg. wt. 1 lb .
Your Cost. Your Cost,
Special, Either Type.


## D. C. Milliammeters

$\left.\begin{array}{llrl}\text { D. C. Minammeters } \\ \text { Stock No. } & \text { M.A. } & \text { List Cost } \\ \text { XK11126 } & 0-25 & 53.09 \\ \text { XK11127 } & 0-100 & 3.0 j \\ \text { XK11128 } & 0-200 & 3.00 \\ \text { XK11129 } & 0-400 & 3.05\end{array}\right\}=\square \mathbf{~}$
A.C. Milliammeters
$\begin{array}{llll} & \\ \text { Stock No. } & \text { M.A. } & \text { List } \\ \text { XK11138 } & 0-25 & \$ 3.09\end{array}$
$\begin{array}{llr}\times K 11138 & 0-25 & 53.09 \\ \times K 1139 & 0-50 & 3.09 \\ \times M 11140 & 0-100 & 3.09\end{array}$
$\left.\begin{array}{lll}\times K 11139 & 0-50 & 3.09 \\ \times K 11140 & 0-100 & 3.09 \\ \times K 1141 & 0-250 & 3.00 \\ \times K 11142 & 0-500 & 3.00\end{array}\right] \quad \square$
RCA Onemet Tmans

## former

Genuine RCA Part
 photophone equipment. Provides excellent tone quality. In metal container, size $6 \times 3 \% \times 21 / 2^{\prime \prime}$. Large solder lug terminals. Shpg. wt. 6 lbs. $\times \mathrm{C} 2379$
Your Cost Each.
$39^{\circ}$

## CROSLEY Transformers



For
Model
704-A

Crosley Part No. 4905. Shielded in metal case. May also be used in other sets using $4 n^{\prime 2} 268 ; 1-27$; 2-'71A's; $1-{ }^{\prime} 80$. Size,
high. Shpg. wt. 9 lbs. high. Shpg
Your Cost Each
81.95

## Model 704

Crosley Part No. 4715-4816. Identical in appearance with above transformer. 4-265, 1-'27, 1-'71 and $1-80$. Size $456 \times 4 \times 454^{\prime \prime}$ high. Shps. wt. 10 lbs.
XC1887-
Your Cost Each


Crosley Part No. 3315. 5-'99s, 1-12A and Raytheon rectifier.


P.P.Input

PartNo. 6590. Single plate to twogrids. Metal container with mounting lugs.Shpg.wt. 2168.

XC1849
Your Cost Each
$.75^{c}$

Model 405 Tube Checker Tests all four and five-prong tubes, including pentodes, without adapters. Connects to A.C. supply line. Easy to operate. Separate button provides for testing second plate of ' 80 tubes. Meter protected by fuse. Uses mutual conductance test on all tubes. In leatherette case$103 / 1 \times 7 \times 41 / 4^{\prime \prime}$. Full instructions included. For 60-cycle A.C. Shpg. XK10984
Your Cost
s8.95


## GENERAL MOTORS

Tone Control
The original Allen Bradley tone control used in the following chassis: $120,130,140$ 150 and 160 . Has total megohm. Gen
eral Motors Part
No. 1200197. Has long shaft and takes screw type knob. ${ }^{3} / 6^{\prime \prime}$ bushing mounts through $1 / 2^{\prime \prime}$ panel. Can also be used for other sets. Shpg.

Your Cost Each
Analyzer Knobs


FARADON Noise and Interference Filter


High capacity tilters for use on A.C. or D.C. 110 lines. May be connected beconnected
across lines across lines
directly at source of interference One of these units and two rolls of bell wire are all that is necessary to make a fine line filter for any radio set. Two sizes: for devices up to 3/5 H.P., 2-5 mid., and for devices above $1 / 2$ H.P., $2-10 \mathrm{mfd}$. Shpg. Wt. 4 lbs. Under 1/2 H.P.
YB55 Cost........... XB553-Above $1 / 2$ H.P. ${ }^{\text {Your Cost................ }}{ }^{\text {C }}$

## 30 Henry - 50 Ma.

 Filter ChokeOpen frametype choke. Inductance 30 henries. Current carrymilliamperes D.C. resistance 450 ohms. $6^{4 \prime}$
 leads. Size 216
$124 \times 21 /$ " $^{\prime \prime}$ high. Ideal for midet celvers. Shpg. wt. 3 lbs. XA246-
Your Cost, Special.
$39^{\circ}$

## Bargains in Oversize Audios



Oversize fine
quality audios quality audios at exceptionaly low prices. Manyold cype receivers can be greatly improved by installing transformers. Twotypes availableStraight Audio and Push-Fudio receivers or power amplifiers. Size $25 / 8 \times 2 \frac{1}{8} \times 3188^{\circ}$ high. Shpg. wt. $2 l b s$.

## XCl932-

Push-Pull Input
Your Cost, Special
XC1913-Straipht Audio XC1913-Straight Audio similar to above ratio $3: 1$.
Your Cost, $\mathbf{S p e c i a l}^{2} . . . .59^{\mathrm{C}}$

Base mount-
ing type with screw terminals. Thistype is excellent for use in experi use in experimental bread ing on top of ing on top of chassis work. Two typen
available-
audio and push-pull input. This is an oversize transformer with a large core and provides excellent fre quency response over the audio range. Shpg. wt. 2 lbs .
$\times$ C1840
Push-Pull Input.
Your Cost.
ratio $3: 1$.
Each.

XC1841-Straight Audio as above


Power and Super-Power Clarostats


Powerand Super-Power Clarostats are heavy-duty variable resistors for radio powerunits, transmitters, or genersi electrical applications. The power handle 80 watts, the Super-Power will carry 250 watts. Both types can be mounted in single panel hole. Power Clarostats


Fully cased in metal container. Single common lead for both secSingle common lead for both secage. Used in early Zenith sets, age. Nsed in early Zenith sets, wt. 1 lb .
$\times 8752$
Your Cost Each
-I Mrd. Cased By-Pass
Condenser
Metal cased lug mounting type .1 mid . by-pass rated at 200 volts. Shpg. wt. 1 lb . XB461
Special. .
$7^{c}$
Trimmer Condenser


RCA Part No. 7114, capacity $5-15 \mathrm{mfds}$. Used in the
Rediola 42,48, etc. A fine trimmer condenser that can be used for practically any purpose that condensers of this high are lity ceramicinsulation and finest grade ruby mica dielectric. Shpg. Wt. 1 lb . Xour cost

HAMMERLUND
Double I. F. Taning Condensers


These double trimmer condensers are used to tune l.F. stages to
thesame frequency so that maximum signal response and sensitivity can be ohtained. Have Isolantite tops, $1)^{\prime \prime}$ in diameter for a $2^{\text {" shield. }}$ Capacity range 10 mmf . minimum XH8533-YOUR Cost

## CUTLER-HAMMER

 Power Switches
## S.P.S.T.

Single circuit toggle 8 witch. Rated 10 amps. at 125 volts.
For heavy duty

## work. Used on mo tors up to 1.3 H.P.

tors up to tis H.P.
XM12813
Your Cost
Each.
Double Pole-Sing Same rating as the above. Makes and breaks two circuits. XM12814
Your Cost Each


## H. R. Rotary Switch

 with Knob

Rated 3 amps. at 250 volts. 3 /f" shaft extends $134^{\prime \prime}$ through panel. Complete with bakelite knob. Knob has sisith brass bushing. At khis low price you should stock a this
few.
$\times \mathrm{Min}$ few. X M12819
Your Cost Each....

13 Contact Switch


4101
 $\left[\begin{array}{lll}+1 & 0 & 1 \\ 1\end{array}\right]$ Pos. No. 3


## tititttititt

Used in RCA Model RE-57 combination. Rectangles in the schematic diagram above denote con nections that are tied together when the switch is in the respective positions as shown. Contacts and contact points of phosphor 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 o key, one power supply to an ther, etc. Shpg. wt. 2 lhe, Your Cost. special.
$75^{\circ}$


## CARTER Jacks



Type 103. Three springs; two open circuits closed when plug inserted. Fil. control.
XF6282
Your Cost Each...

## GENERAL MOTORS Voltage Divider

For Model A, chassis $120,130,14 C, 150,160$. 5200 ohms tapped at $460-2000-1700-240-800$ ohms. Part No. 1201395.
$\times 20393$
Your Cost Each
$69^{\circ}$


## AEROVOX Special Condenser Bargains

Electrolytic Condensers
 These high
voltage filters are housed in drawn aluminum cans; mounted in any position. Have Peak voltage of 500 volts D.C.; voltage 450 volts D.C. Only two types. Stock Cap. Size D Your
No. Mid. Lost

$\frac{\text { Cenmine ATWATER }}{\text { ATM }}$ KENT Condensers
 ceivers.
X
$\times$
$X$
$X$
$X$
$X$
$X$
$X$

| Type 1450. 5000 -volt working voltage. Fine ruby mica dielectric. |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Moulded bakelite shells. Only sizes listed are a vailable. |  |  |  |
| Stock No. | Cap. <br> Md. | List Price | Your Cost |
| XD3893 | . 00003 | S0.25 | Each |
| XD3894 | . 0008 | . 25 |  |
| XD3895 | . 0007 | . 25 |  |
| XD3896 | . 0004 | . 25 |  |
| XD3851 | . 00025 | . 25 |  |
| XD3848 | . 0001 | .25) |  |
| XD3854 | . 001 | . 30 | 12c |

## POLYMET Uncased Replacement Sections

 Impregnated in moisture-proof pitch and provided with long insulated leads. All conservatively rated. Used extensively to resections of condenser blocks. 1 denser blocks. 1 mid . condenser $4 \times 315 \times 1 / 8{ }^{\prime \prime} ; 4$ mid. condenser $25 / 8 \mathrm{x}$ $2 \times 21 / 2^{\prime \prime}$. Only two sizes available.Stock Cap. Wkg. Your | Stock | Cap. | Wkg. | Your |
| :---: | :---: | :---: | :---: |
| No. | Mfd. | Volts | Cost |
| $\times 8721$ | 4 | 400 | So. 75 |

Moulded Rubber Tronble Lamp


This unit is ideal for use by the auto radio set installer. Also finds many uses in the garage, workshop, machine shop, etc. A single piece of solid moulded rubber comprises the handle and socket with built-in switch. A hinged lamp guard protects the lamp. Equipped with 20 ft . rubber covered cord and rubber plug. Shpg. wt. 5 lbs XPis519
Your Cost, Special.
Special Bargain:
Na-Ald Sockets


Never before such a buy as this! Genuine Na-Ald brown bakelite sockets at a price that is almost unbelievable! Standard subpanel type for use in radio receivers; testers, etc. Panel hole 13 /6" Mtg. holes 1 19, 尽"
Stock No. Prongs Your Cost
XK11681
$\mathbf{X K 1 1 6 8 2}$
$\times K 11683$
$\mathbf{X} \times 11684$

$9{ }^{\circ}$


## AMPLES

 Grid-DenserA very compact mer condenser mer condenser mounted in a moning case and equipped with binding posts. Very handy for temporary or permanent
use in receivers, etc. Sheg use in receivers, etc. Shpg. wt. 1 lb .
XH9738
Your Cos
POTTER By-Pass

## Condensers

 .15 Mfd .Used in early
Zenithsets. Part No. 22-67. 200 volts D.C.working voltege. In metal container with long leads. $\times B 750$
Your Cost Each

. 1 Mfd. By-Pass
Similar in appearance to the above. Zenith Part No, 22-63. 200 volts D.C. working volts. XB751-
Your Cost Each........... $\underbrace{c}$
STROMBERG-CARLSON 2 Mid. Condensers

The original Stromberg Part No. P15075, Used inearly modelreceivers. volts D.C. In metal container $41 / 2 \times 23 / 4 \times 5 /{ }^{4 \prime}$. Solder lug terminals. Can be used in general repair work as filter or by-pass condenser. Shpg, wt. 11 b.
$\times 730-$ X8730-
Your Cost Each

#  A PROFESSIONAL Type Short-Wave Set Using Standard Parts Produced by America's <br> <br> 8 <br> <br> 8 LEADING SHORT LEADING SHORTWAVE EQUIPMENTWAVE EQUIPMENT MANUFACTURERS MANUFACTURERS <br> These Features Guarantee reception from every foreign continent - CONTINUOUS BAND-SPREAD-- Over entire tuning range, offords casy separation of all stations, making possible the reception of hundreds of weaker distant stations covered up by European and American stations on the ordinary set. 10 to 500 METER TUNING RANGE - Continuous without any skips. Covers new 8 -way 10 meter pollice band. <br> A-TUBE SUPERHETERODYNE T CIRCUIT-\&A7 oscillator and first detector, 58 first I. 1,58 second i. h., 56 second detector, 2 A 5 power output penlode, and 80 rectifier. <br> 1 PRE-ADJUSTED COILS - Oscillator and $i$. folls are pre-set eliminating all difficult adjustments or need for test instrudifficult adjustments or need for test instruments. <br> $\star$ Eraydone type tuning dial, tone control, base, sulvel finished hont panel and suboperation, and countless other leatures are described in the FREE booklet. Write today. <br> A revolutionary ideal The newest and best short-wave development from the laboratories of EIGHT greatradio man-ufacturers-gathered together in the design of this A.LL-STAR Receiver. Think of itl-Treasured secrets, usually carefully guarded, all offered without stint-to bring you a radically better receiver-a set th at assures unequalled WORLD-WIDE RECEPTION thrills. You would expect such a sensational development to be costly, but the huge manufacturing facilities of these EIGHT leaders and remarkable design <br> <br> \section*{The NTMA} <br> <br> \section*{The NTMA} <br> have made possible this extremely low cost receiver. <br> The ALL-STAR ALL-WA VE Superheterodyne is yours for the price of the parts alone-and a few hours of interesting construction. Just mount the parts in place on the already drilled panel. Wire according to the carefully worked out directions-and EngIand,France, Germany, Italy, Russia, Australia, and South A merica will be waiting on your dial. Write today for the FREE diagram and parts list. 

Complete List of Parts, With Net Prices, For All-Star Receiver

## THORDARSON Electric Mfg. Co.

| Stock | Part | No. | Description | List | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Price | Each |
| $\times$ - 261 | T-5602 | 1 | Power Transformer | \$4.25 | \$2.50 |
| XA289 | T-5753 | 1 | Choke | 2.00 | 1.18 |
| XA268 | T-5738 | 1 | Audio Transformer | 3.25 | 2.90 |
|  | MISISSNLR MSg. Co. |  |  |  |  |
| $\begin{array}{r} \mathbf{X H 9 9 6 0} \\ \times H 9961 \end{array}$ | D1995 | 4 | 16 MH R. F. Chokes | \$0.45 | \$0.26 |
|  |  | 1 | First, Second and Third |  |  |
|  |  |  | I. F. Transformers and adjusting wrench, in kit | 6.00 | 3.73 |
| XH9962 | D3340 | 1 | 20 meter Ant. Coil | . 50 | . 29 |
| $\times \mathrm{H} 9963$ | D3339 | 1 | 20 meter Osc. Coil | . 50 | . 29 |
| XH9964 | D3336 |  | 40 meter Ant. Coil | . 50 | . 29 |
| XH9965 | D3335 | 1 | 40 meter Osc. Coil | . 50 | . 2 |
| XH9966 | D3337 | 1 | 80 meter Ant. Coil | . 50 | . 29 |
| XH9967 | D3338 | 1 | 80 meter Osc. Coil | . 50 | . 2 |

## CORNELL DUBILIER Corporation

| XD4185 | BA2100 | 10 | .1 Mfd -200 v. Cond. | \$0.25 | \$0.15 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| XD4186 | DA4100 | 2 | 1. Mid. -400 y . Cond. | 1.00 | . 59 |
| XD3678 | 2-W | 1 | . 0001 Mid . Mica | . 15 | . 19 |
| XD3680 | 2-W | 1 | . 0005 Mid . Miea | . 20 | . 12 |
| XD4187 | BA6030 | 1 | . 003 Mid. Paper Cond. | . 20 | . 12 |
| XD3643 | E89080 | 3 | 8 Mrd . Elec. Cond. | 1.05 | . 63 |
| XD4188 | BA6100 | 1 | . 01 Mid. Mica | . 25 | . 15 |

CONTMMOUS BAND-SPREAD A


## CROWE Name Plate and Mfg. Co.

$\times 1231$ Airplane Dial Complete with $\quad 123.00 \quad \$ 276$
$\times 199914$ Socketand Escutcheon $\$ 3.00 \quad \$ 276$
XH9914 251 Volume Control Name Plate 12 . 127
XH9915 26
XH9916 27
$\begin{array}{r}28 \\ \times H 9917 \\ \hline\end{array}$ Tone Control Name Plate Oscillator Cond. Name Plate Detector Cond. Name Plate .12 .07 BELDEN Mfg. Co.


## OHMITE Mfg. Co.

1-Wirewatt 500 ohm resistor 3-Wirewatt 5,000 ohm resistors 1-Wirewatt 25,000 ohm resistor 1 -Red Devil 500 ohm resistor 2-Adjustablelugs ( 0358 )
XH4428-Complete Kit. List $\$ 4.20$
Your Cost.
Your Cost. Chassis with all Cut-Outs. List $\$ 5.00$. Your Cost $\$ 2.50$
XY22199-Complete Kit of Parts for "ALI
Star" Kit. List $\$ 56.52$
Your Cost..............................................

2-Wirewatt 1,000 ohm resistors 2-Wirewatt 10,000 ohm resistors 1-Carbohm 50,000 ohm resistor 1-25,000 ohm Dividohm (0585)

Designed for use with any set using 4,5 or 6 prong output tubes. Provided with 3 ft . of cable connected to box having a D.P.D.T. toggle to box having a P.P.D.-. The switch connects the phones in grid circuit and at the phones in grid circuit and at the
same time cuts ofl the speaker in the receiver. No wiring necessary Available for sets using single or P.P. output tubes. Shpg. wt. 3 lbs .

For Single Output Tubes (Uses One Adapter)


For P. P. Output Tubes (Uses Two Adapters) Stack No. Prongs Your Cost $\left.\begin{array}{ll}\text { XK11723 } \\ \mathbf{X K 1 1 7 2 4} & 5 \\ \mathbf{X K 1 1 7 2 5} & 6\end{array}\right\} \quad$,

Special! JENSEN Ortho-Dynamic Reproducer


These famous electro-dynamic speakers are being offered at a special bargain price. All are brand new and guaranteed. Have 12" $\begin{array}{cc}\text { cones, Field coil resistance } 800 \\ \text { ohms; voice coil impedance } & 5.4\end{array}$ ohms. Come completely equipped with output transformer to match P.P. 45 's, 50 's or 71 A 's. Will handle 12 watts continuously, with peak input of 18 watts. Frequency response essentially fat from 30 to 5500 cycles. Quantity limited.
Only this one type is Only this one type is a vailable. Finished in bla
wt .25 lbs .
XW19253
Your Cost,
Special......

## New! PEAK Pre-Selector

Just what the "Ham" and the short XN13760
Your Cost. mid. 100 volts. tit 80 volts A.C.
XB503-
Your Cost Each ${ }^{-} \times 1504$ volts.
$\times 8505$
Your Cost Each.
wavelistener have been waiting for; a consistently efficient "signal
booster." This unit, using two stages of high gain '58 tubes, increases the signal input to any short wave receiver, be it TRF, superhet, or autodyne, and invariably boosta weak signals to R9 or Ry plus. The first stage is electron coupled refrst stage is enectron coupled generative, lending greatly to stative control is variable to obtain maximum overall gain.
Five major results are obtained from the use of the Pre-Selector. These are: first, tremendous increase in signal gain; second,
consequent increase in sensitivity; third, absolute rejection of image or repeat spots; fourth, considerable increase in selectivity; fifth, reduction of noise to signal ratio. Pre-Selector uses buitt-in coils covering from 14 to 200 meters. Ranges are selected by means of a selector $s$ witch. The tuning dial is of the popular airplane type, with black background and white figures and pointer. Escutcheon is oxidized silver. Unit contains its own filament supply; installaeon is oxidized sil ver. Unit contains its own flament supply; installa-
tion consists of connecting output to "Ant" and "Gnd" of receiver, and connecting to $B$ plus and ground for necessary plate supply. Ali connections made to terminal strip on rear of chassis. Entire unit
housed in heavy gauge steel cabinet finished in black crackle. Size housed in heavy gauge steel cabinet finished in black crackie.
$71 \mathrm{j} \times 1 / \mathrm{P} \times 10^{\text {". Shpg. wt. } 15 \mathrm{l} \text { bs. }}$
$\times N 13760$ Peak Pre-Selector, complete less tubes

Lafayette Tubes for above. Your Cost
$\$ 1.44$


XB502-Your Cost Each. $?^{\text {c }}$

## For Model 159

Original part No. W-29012. Two sections: 12 mfd ., 40 volts; 2.5 mfd .
$59^{\circ}$
For Models 167, 169, 179
Original part No. W-29150. Three sections: 7 mfd .450 volts; 6 mfd ., 400 volts; $8 \mathrm{~m} / \mathrm{d} ., 25$ volts. $\quad$ C

## For Model 181

Original part No. W-30059. Three nections: 8 mfd .450 volts; 8 mid., 450 volts; 8 mid ., 25

$\qquad$


Type "EL"
two button ( 200 ohms) earbon microphone with a stretched
duralumin diaphram. Bright nickel finish. 23, " 2 lhs.
List $\$ 10.00$
Your Cost
4.90


A two button microphone with a frequency response from 50 to 4200 c.p.s. Has 24 K . gold spot on duralumin diaphragm, 200 ohms per but-
ton. Ideal for either P. A. or amaton. Ideal or either P. A. or ama-
teur work. Bright nickel finish. Shpg. wt. 4 lbs .
$\times$ M13519 List $\$ 23.00$
Your Cost
${ }^{\$ 11.25}$

## Cafayette Power Supply

## Complete with Filter

## For Use With Tunets

A new line of low priced D. C. to A. C. converters incorporating many improved features. These include: Bal bearing motor, put voltage; extremely quiet operation; lasting performance due to quality construction. All furnished complete with efficient radio noise filter. Sizes other than those listed can be procured-prices on request. Average shpg. wt. 25 lbs .

32 Volts D.C. to 110 Volts A.C. Stock Output Input Your $\begin{array}{llrl}\text { No. } & \text { Watts Amps. } & \text { Cost } \\ \times \$ 17200 & 80 & 4.7 & \$ 24.40\end{array}$ $\begin{array}{lrrrr}\mathbf{X S} \\ \mathbf{X S 1 7 2 0 1} & 110 & 5.6 & \$ 24.40 \\ \times S 17702 & 150 & 78 & 29.43\end{array}$ $\begin{array}{llll}\times 517202 & 150 & 7.8 & 29.37\end{array}$

110 Volts D.C. to 110 Volts A.C. Stock Output Input Your No. Watts Amps, Cost $\begin{array}{llll}\mathbf{X S 1 7 2 0 4} \quad 80 & 1.30 & \$ 24.40\end{array}$ $\begin{array}{llll}\mathbf{X} 517205 & 110 & 1.78 & 26.43 \\ \mathbf{X 5}\end{array}$ $\begin{array}{llll}\times 517206 & 150 & 2.23 & 29.37 \\ \times 517207 & 200 & 2.80 & 35.25\end{array}$

|  | $\$ 17207$ | 200 | 2.80 |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

NATIONAL
Screen Grid Coupler
Type S-101-
Used in SW3.
S W 5,
SW3.
and
SW58.' Used to couple the output of a screen grid tube to an audio amplifier tube. Will give
 from two to
three times the
amplification of resistance coupling. Response uniform between 75 and 5000 cycles. Choke 700 Henries; coupling condenser. 01 mfd.; grid in metal case. Leads marked. Shpg wt. 3 lbs.
XN14509
Your Cost Each

S-51 Input Transformer Similar in appearance to the above.
P.P. input transformer used in the SW58. Single plate to two grids. Ratio 2.5:1. Shpg. wt. 3 lbs. Your Cart Each

S-110utput Transformer Similar in appearance to the above units. Matches P.P. $45^{\prime} \mathrm{s}, 71 \mathrm{~A}^{\prime} \mathrm{s}$, or 50 's to a $5-15$ ohm voice coil. Used


## BMS Microphones Studio Model



A real microphone
for home for home broadeast-
ing. Not a toy. Very easily attached to your radio. Will not interfere with tion. Has sliding switch to cut microphone in and out of the circuit. Attractively finished. Complete instructions included. Shpg. Wit. 2 lbs.
$\times \mathrm{M} 13380-$ Your Cost.

## Junior Model

Similar to the but in a differently designed entiy designed case and with a push butcon sliding switch. Complete with instructions. Shpg Wt. 2 lbs. X 13379- Your Cost. . . $55^{c}$


## PIONEER "Gen-E-Motor" Converters



A high quality power supply designed for use in conjunction with radio tuners. Delivers 275 volts at 50 milliamperes (max.). Sciengood good regulation and filtering. Has variable voltage taps for selecting any desired voltage plished by the use of two oversized filter chokes and three 8 microfarad condensers. An 80 rectifier tube is used. Entire assembly housed in a heavy gauge metal chassis finished in crystallin* lacquer. All parts protected by metans chassis a perforated metal screen, presenting an overall professional means of a perforated metal screen, presenting an overal professional
appearance. Line $s$ witch and piloi light included in the unit. Size $84 \times 6 \frac{1}{9} \times 6 \% 8^{\prime \prime}$. Shpy. wt. 15 lbs .



[^0]
# 28y in Clanion Padio for REPIACEMENT PARTS 

As sole distributors for a 1 Clarion pioducta we are prepared to supply A special department has been created for the handing of Clarion replacepractically any replacement part resuired. We carry complete atock 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. ment parts and should any new products be developed from time to time by Clarion engineers these will alsc be available to authorized dealers at 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.



Input and Output Audio Transformers


## Input Transformers

For Models P-3, P-10, P-11 and P-13 The original replacement Part No. P-188. Shpg
BRIB0
wt. 21 bs $\qquad$ $\$ 1.35$
For Models $\mathbf{S - 1 4 , ~ S - 2 1 , ~ a n d ~ S - 3 1 : ~ B r e m e r - ~}$ Tully Models S-81, 5-82
The original replacement Part No. X-656. Shpg. wt. 3 lbs.
$\$ 2.25$

## For Brunswick Panatrope 31

 The original replacement Part No. X-682, Shpg. wt. 3 ibs BR187-Your Cost Each
${ }^{\text {s }} 1.75$

## Output Transformers

For Models S-14, S-21 and S-31: BremerTully Models S-81, S-82
The original replacement Part No. X-658. shpg. wt. 3 lbs.
BR202
Your Cost Each
$\$ 1.75$
For Models 15, 22, 32 and 42 The original replacement Past No. 3054. Shpg. wt. 3 bibs. BR203-
Your Cost Each
${ }^{\text {s }} 1.95$
For Models 11, 12, 16 and 33 The original replacement Part No. 6083. Shpg. wt. 11b. Coil Only BR185-

## Filter Chokes



For Models 15, 22, 32 and 42 The original replacement Part No. 3013. Shpg. wt. 31 bs . BR173Your Cost Each

For Models 14, 21 and 31 The original replacement Part No. X-647. Shpe. Wt. 4 lbs ShpI. W YR164 Co
\$I.45
For Models S-14, S-21 and S-31: Bremer-
Tully Models S-81, S-82
The original replacement Part No. X-705. Shpg. wi. 41 bs . BR165-
Your Cost Each
${ }^{\text {s }} 1.45$
Four-Gang Condenser for

## Models 15 ,

22,32 and 42
Genuine Part. No. 3004. Comes complete with trimmer condensers. Shpg. condenser
RR252
Your Cost Eact


#### Abstract

All Brunswick and Bremer-Tully parts will be kept in the New York warehouse only. Orders directed to our Newark or Atlanta branches will be filled immediately from the New York stock.


Power Transformers


For Brunswick Models S-14, S-21, S-31: Bremer-Tully Models $\mathbf{5 - 8 1}$ and $\mathbf{S - 8 2}$ Original Part No. X-755, for the above model receivers. Shpg. Nit. 12 lbs .
BR113-
Your Cost Each
s3.75
For Brunswick Models 15, 22, 32, 42 Original replacement Part No. 3015. Shpg wt. 10 lbs.
s2.75
Your Cost Each
25
Similar to the above, but for 25 cycle. Part
No. 3030 . Shpg. wt. 16 lbs. BRi20.
Your Cost Each
$\$ 4.25$
For Brunswick Models 11, 12, 16, 33 Original replacement Part No. 6070. Shpg. wt. 6 lbs .
BR122-
Your Cost Each
$\$ 3.45$
For Brunswick Models 17, 24, 25 Original replacement Part No. 6068. Shpg. 8 lbs.
$\$ 3.65$
Condenser Blocks


For Models S-14, S-21, S-31:
Bremer-Tully Models S-81, S-82 The original replacement Part No. X652. Shpg wt. 31 bs . BR262 Your Cost Each
$\$ 1.23$
For Models 15, 22, 32 and 42 The original replacement Part No. 3029. Shpg. wt. 4 lbs
$\$ 2.23$
For Models 11,'12, 16 and 33 The original replacement Part No. 6023. Shpg. wt. 2 lbs.
BR27L. BR274.
s 1.95
For Models 17, 24 and 25
Original replacement Part No. 6022. Shpg. wt. 21 bs .
BR276.
Your Cost Each
$\$ 1.95$

## Electrolytic Condensers <br> For Models 11, 12, 16 and 33

Original replacement Part No. 928 . 6 Mid BR290
$.5^{c}$
For Models 17, 24 and 25
Original replacement Part No. 929.
BR292
Your Cost Each

## Volume Control

For Models 15, 22, 32 and 42 The original

## PR401-

Your Cost Each

For Models 14, 21 and 31: Bremer-Tully Models 81,82
The original replacement Part No. X-626. With line switch.
BR295
Your Cost Each.
(1) $3^{\circ}$

For Models 11, 12, 16 and 33 The original replacement Part No. 6647. BR308-
Your Cost Each

For Models P-3, P-10, P-11, PR-28C, PR-38C and PR-48C
The original replacement Part No. P-190. BR415
Your Cost Each
Tone Control for Models 11, 12, 16 and 33
The original replacement Part No. 6652 BR314
Your Cost Each
$85^{c}$


## Speaker Cone and Voice Coll Assemblies

Furnished ready to install in set. Voice coils firmly ce-
mented, will not pull-out.
For Models 15, 22, 32 and 42 Geniune replacement cone, Part No. 3069. BR2028
Your Cost Each
51.95

For Models 11, 12, 16, 33, 17, 24 and 25. 8-inch Cone Genuine replacrment cone, Part No. 6079. BR2027
Your Cost Each
ST. 75
For Models 11, 12, 16, 33, 17, 24 and 25. 12-Inch Cone
Genuine replace ment cone, Part No. 6078.
BR2030
Your Cost Each
$\$ 1.95$
Replacement Field Coils


For Models 15, 22, 32, 42
Genuine replacement coil, Part No. 3806. Has D. C. resistance of 1610 ohms. Size $3^{4}$ high, $2^{3 / 4}$ " diameter, $11^{\prime \prime}$ hole. Shpg. wt. 3 lbs. BR215 Your Cost
2.235

For Models 11, 12, 16 and 33
Replacement coil, Part No. 6840. Has D. C. resistance of 2400 ohms. Size $2^{7} /$ is $^{\prime \prime}$ diameter. $17 /{ }^{\prime \prime}$ high. 13 㐌" hole. Shpg. wt. 2 Ibs.
BR219
Your Cost
s 1.95
For Models 17, 24 and 25
Genuine Part No. 6868. D. C. resistance 1500 ohms. Size $2^{15, / 4 s^{\prime \prime}}$ diameter, $2^{\prime \prime}$ 你" high, $11 / 2^{\circ}$ hole. Shpg. wt. 3 lbs.
Br220-
Your Cost
s. 15

# REPLACEMENT PARTS 

## R. F. Coil

 AssembliesAll furnished complete with shield cans, leads and grid caps.
For Models 14, 21 and 31:
Bremer-Tully Models 81, 82
Genuine replacement coil, Part No. X-622 BR127-
Your Cost Each $\qquad$
For Models S-14, S-21 and S-31: Bremer-Tully models $\mathbf{S - 8 1 , 5 - 8 2}$
The original replacement coil, Part No. X-739. BR125-
Your Cost Each
$90^{c}$
For Models 15, 22, 32 and 42
Original replacement coal, Part No. 3016. BR151
Your Cost Each
For Models 11, 12, 16 and 33
Original replacement Part No. 6043. 8R23.
Your Cost Each
For Models 17, 24 and 25
Original replacement coil, Part No. 6053.

BR131
Your Cost Each
$95^{\circ}$

## Antenna Coils

For Models 15, 22, 32 and 42
The original replacement Part No. 3017. BR135
Your Cost Each
For Models 11, 12, 16 and 33
The original replacement coil, Part No. 6042. BR129-
\$1.10
Your Cost Each $\qquad$
For Models 17, 24 and 25
Original replacement coil, Part No. 6052. 8 R156
$\$ 1.10$

Dial Scale Assembly for Models S.14, S. 21 an S-31: Bremer-Twily Models S-81, S-82

The genuine Brunswick part for the above model receivers. Con sists of drum dial and dial scale Fart No. X-608. Comes com plete with set screws and adjustable dial cable anchor Chpg. wt. 2 lbs.
ER2013-List $\$ 2.00$
Your Cost Each...
Dial scale only for the above assembly, Part No. X 613 .
BR411-Your Cost Each.
$14^{c}$
Dial Scale for Models 11, 12, 16 , $33,17,24$ and 25


The genuine replacement scale, Part No. 6046. Transparent celluloid, with black numerals. List $\$ 0.50$
BR410-
Your Cost Each

Space limitations prevent us from listing every Bransw ck and Bremer-Tully part in stock. Only the more popular items are shown on these two pages. We can, however, supply practically any radio or Phonograph replacement part for all Brunswick and Bremer-Tully models. If you will write, giving model number of set, and name of part, we will immediately quote the lowest price for the merchandise. Technicians Service Data Books on all Brunswick and Biemerafter 1931 are available at 25 c each. Requests for service data imformation will be efficiently taken care of by our technical staf.

##  <br> These excellently constructed units provide fine tone quality. units provide ine tone quality. Two types available: Type TO-501 has lock-on connector: TO-501 has lock-on connector: type TP-501 has set serew con- nector. Can be used in many nector. Can be used in many other orthophonic phonographs. Shpg. wit. 11 lb . <br> BR2086-Type TP 501. BR2083 Type TO 501. Your Cost Each. Either Type.

## Aluminum Diaphrams

For use in the above described orthophonic sound bozes. Accurately constructed. By replacing the old diaphram you can increase volume and better the tone quality. BR2123
Your Cost Each
10 for


## Needle Screws

For all types of magnetic pick-ups. Have $2 / 56$ thread. Every repair man should keep several on hand. BR406
Your Cost Each

Phono-|lnput Transformer

## For Mode S-31

The genuine Part No. X-769 for the a bove Panatrope model. Matches the impedance of a 200 ohm pick-up to the grid of a type 27 tube. Fully shielded in metal case. Can be used as a general replacement. Shpg. wt. 4 lb BR188 Your Cost
Each.


## Governer Ball and Spring Assemblies

Used in types $\Sigma, K$ and No. 3 motors, used in 110,108 and 1107. Can be used in many othe electric motors. BR2124-Your Cost Each

Low Impedance Pick-up Coil Genuine Part No. P-152.

1. Impedance 20 ohms. Used in models S-31 and Bremer-Tully S-82. Can be used as a general replacement coil BR405
Your Cest Each

## Oscillator Coil

## Assemblies

These units come completa with shield cans. Contains padding condensers, plate and grid by-pass condensers, and grid lead with grid cap. Shpg. wt. 1 lb .
For Models 11, 12, 16 and 33
The original replacement coil, Part No. 6044. BR154
Your Cost Each
\$1.95
For Models 17, 24 and 25
The original replacement coil, Part No. 6054. BR153
Your Cost
Each
s 1.95

## 1. F. Transformers

These units are furnished com plete in aluminum shield cans. Have grid leads, trimmer condensers and mounting bracket. For Models 11, 12, 16, 33, 17, 24 and 25. 2nd 1. F. Transformer The original coil, Part No. 6032 Osed in both D and E chasgis.
BR232
Your Cost Each
For Models 11, 12, 16, 33. 1st I. F
Genuine replacement coil, Part No. 6031. 8R133
s. 1.35

For Models 17, 24, 25. 1st I. F.
Genuine replacement coil, Part No. 6033.
Genuis replacement coin, Part No.
Your Cost
Each...........................

## Antenna Loading Coil

Part No. X-741. Used in models S-14, S-21, S-31 and Bremer. Tully models S-81 and S-82. May be used as a general replacement part. 3 Your Cost Ea. $2,5^{\circ}$


# RCA-Victor Co for Genuine RCAstictor 

## VICTOR Test Oscillator

Type TM V.97B


Similar in appearance to the type TMV-97. oscillator which was introduced to the service trade a short time ago, this new mode incorporates many new and dispactly constructed, sell-contained R.F. oscillator designed for service work in conjunction with all types of radio receivers. Covers an extremely wide frequenc. range of from 90 K.C. to 25,000 K.C. ( $\mathbf{3 3 0 0}$ to $\mathbf{1 2}$ meters). This range is covered in eight steps, a range switch being provided o select the bands. The dial frequency and accurate to within plus or minus $3 \%$. Employs two " 30 tubes, and requires one $22 \frac{1}{2}$-volt " $B$ " battery and one 416 -volt entire range. Variable Vernier dia lis adjustable from $6: 1$ to $20: 1$ ratio. Enclosed in black wrinkle finish aluminum case provided with handle. Size $81 / 2 \times 99 / 4 \times 4 / 2^{\prime \prime}$ Shpg. wt. $31 / 2 \mathrm{lbs}$., less batteries
$\times 110596-$
Test Oscillator,
With tubea, less batteries.
Your Cost
Burgess 4y-volt "C'י Battery
Your

Capacitor Pack
Models R-8, R-10,
R-12 and RE-19
Genuine Part No. 7342, for the above model sets. Shpg. wt. 3 Ibs. List $\$ 6.75$
X8534
Your Cost $\ldots . .54$


Dial Drive Assembly RCA Part No. 2999. Used in Models R7A, R-9, R-43, R-10 R-11, R-8, RE-18, RE-26, RE-16A, R-4 and R-6. Comes with friction rubber and screws and lock-washers. XH974 Your

RCA Field Coil

## Assemblies

These assemblies consist of the field coil, magne and cone support. In all the late model RCA-Victor receivers, the field coil is sealed in its housing. When these parts become defective, therefore, it is necessary to replace the entire assembly For Model R-22. RCA Part No. 7606. $\begin{array}{ll}\mathrm{XC2565} \\ \text { Your Cost } & \text { \& } \\ \text { O }\end{array}$ For Models R-28P, R-37 and R-38. RCA Part No. 8988.
XC2566-Your Cost.

${ }^{\$ 1} .41$ For Model RE-40P. RCA Part No. 9003. XC2567-
$\$ 1.41$ Your Cost For Mode
$\times C 2568$ Your Cost
$\$ 2.80$

## Replacement Field Coil

## R-14-15-17-34-42.48

Genuine Part No. 8599. D.C. resistance 1300 ohms. Size $2^{\prime \prime}$ high $21 / 4^{"}$ wide, $1^{\prime \prime}$ hole. Has long leads. Shpg. wt. 3 lbs. XY19412-
Your
$\$ 1.20$

##  <br> We can supply any genulno RCA-Victor replacement part at a discount of $40 \%$ from the list price. This also applies to corresponding models of Westinghouse, Graybar, and General Electric. Just Graybar, and General Electric. Just state model number of receiver and name state model number of receiver and name attention.

RCA Book of Service Notes


1933 Oet pages of service notes for all 1983 models. Book is bound with a stiff and durable fabric cover lettered in gold. Also contains other valuableinformation in the form of inductance, impedance and capacity charts, etc. Shpg. Wt. 3168.
XY19950-

## 1931-1932

Similar to the above, bat contains service data and schematics for all sets sold in 1931 and 1932. Also contains other helpful information. Shpg. wt. 3 lbs
$\$ 1.01$
XY19997-Your Cost Each.

## "Glow Tube" <br> Output Indicator



A small, compact, visual output indicator deaigned for use with an oscillator When aligning radio retapped step-up transtapped a potentiometer lormer, a potentiometer,
a glow tube and three a glow tube and three
binding posts for connectbinding posts for connecting the output of the set to the transiormer. Outare: $0.6,1.5$ and 4 ohms. Glow tube is extremely sensitive, and followsle very
 variation in frequency and intensity of the signal impressed on the indicator. Bakelite case $58 / 3 \times 27 / 8 \times 2 \frac{8}{7}{ }^{\prime \prime}$ Shpg. wt. 2 lbs . Your Cose

## M-34 Remote Control


$30^{\prime \prime}$ remote e introl cable gang and the dia scale. One end has a flattenod shaft, the insertion in conting rod tor coupling. Part No. 6497.

XC2599-Cost.... 9 I. 15
M-34 Power Transformer The Genuine RCA Part No. 9430 for the M-34 auto set. Delivers the necessary high velivages for the set. Taken only a few minutes to install. Has color coded leads. Shpg
wt. 31 bs .
XD2013-List $\$ 3.60$.
Your Cost
$5 ? 1 ?$

## M-34 Filter Block

Genuine RCA Part No. 7600. Contains one reactor, one cholse coil, one .5 mfd , t wo 4.0 mfd ., and one 375 mmid . capacitors. In metal container with crimping lugs. Color coded leads. Ready to install. Shpg. wt. 8 XB1024List $\$ 4.06$ Your Cost
s. 2.44


## RCA Auto Radio Panel

## Control Unit

Makes control unit of RCA-Victor Models $\mathrm{M}-123$ and $\mathrm{M}-197$ an integral part of the inintegral part of the in strument panel. Spe cially designed for 193 Ford, Plymouth, Shrys ler, Dodge, and De Soto
cars. May be adapted
 to other cars where sufficient space is a vailable. Mounts flush with panel. Chromium finish with black enamelstripes. Comprises complete dia assembly, knobs, escutcheon and pilot socket. Shpg. wt. 2 lbs. YN14618-
${ }^{\text {s }} 1.50$

#  REPLACEMENT PARTS 

(15
RCA-VICTOR I.F.

## Transformers

These intermediate frequency transformers are correctly er gineered and well construeted. Ideal for use by the set builder. Average shpg. w

For RCA R-80, 82, 86, RAE-68 XC2580-First I. F. RCA No. 856.7. XC2581-Second I. F. RCA No. $\varepsilon 565$. XC2582-Third I. F. RCA No. 8666. Your Cost, Any Type.
$\$ 1.26$
For Models
RE-20, R-50, 55, RAE-59, RAE-79
Firat I, F. RCA No. 7281 XC2583-Your Cost
$\$ 1.20$
econd I. F. RCA No. 7282. XC2584 Your Cost Third I. F. RCA No. 7283.
$\$ 1.44$
XC2585 Your Cost
For Models R-4, R-6, R-7, 7A, 7D.C. R-9, R-9 D.C., R-10 D.C., RE-16A First I. F. RCA No. 2991 Xc2586-Your Cost
$\$ 1.22$ XC2587- Your Cost 2992.
$\$ 1.32$
For Models R-11, RE-18, RE-18A, R-21 and RAE-2E

For Models R-8, R-10, R-12 and RE-19
XC2590-First I. F. RCA No. 7340 . XC2591-Second I. F. RCA No. 7341 Your Cost,
Either Typc
s 1.20
Phono-Matching
Transformers


These transformers are scientificaly designed to accurately match the impedance of the different pick-up coils to the input of the receivers with which they are used. The use of high quality materials in their construction assures a unit that will not only prove satisfactory, but shown in the listing can be procurec quickly.
Part No. 6053 -Used in RCA Model 67. Matches 48.5 ohm pick-up to grid of tube Shpg. wt. 2 liss.
XC1630
3.51 XC1630 Your Cost. RE-20 and Part No. 6226-Used in Modets RE-20 and CE-29. Matches 20 ohm pick-up togrid. Shpg.
Xt. 2 ibs, Your Cost. ............. XC1631-Your Cost.
Part No. 6238 -For Models RE- 18 and RE18A. Matches 20 ohm pick-up to grid of tube. shpg: wt. 2 lbs.
Your Cost
$\$ 14$
Part N0 7083 - For Modcls T-5, RE-57, RE-16, RE-16A, R-86, RAE-68 and R-73. Matches 20 ohm pick-up to grid. Shpg. wt. 2 XC1633-Your Cost.
3.01

Part No. 7445-For Models PT- 13 and RE 19. Matches a 12.7 ohm pick-up to grid of tube. Shpg, wt. 2 ibs . XC163-Your Cost
1.63 Part No. 7632-For Modei 331 Also contains two reactors, three capacitors and two resistors in the container. Matches 23 ohm pickup to grid. Shpg. wt. 3 lbs. 8.2 .27

RGA VICTOR Balanced

## Pick-up



Genuine RCA part used in Models R-86, RE-17, RE-57, RAE 68 and T 5 Electrola. Composed of three parts: Pick-up Head No. 7085 with an impedance of 20 ohms: Arm and Base No. log92. For use with Finished in dull si ver. XA140 Your Cost Each
${ }^{5} 4.50$
Special RCA-VICTOR Two Speed

Pick-up
$331 / 3$ and
78 R.P.M.
The most ad-
 ranced counter balanced pick-up assembly available, used on the new 1934 au omatic combination Model 381. Pick-up Hewd, designed according to the atest developments of the RCA engineers shows a substantially fat frequency response from 50 to 5000 cyoles . Arm is heavily weighted trom 50 to 5000 cyoles. Arm is heavily weighted and 78 R .P.M. records. Base of arm is mounted in a special rubber cushion so that pick-up rides free at all times. Unit comprised of Pick-up Head No. 6542 wish an impedance of 28 ohms, Pick-up Arm No. 6543 and Escutcheon No.
3779 . Provided with shielded connecting cable, coupler and stop pod, Finished in
Shpg. wt. 8 lbs.
XA 388 Your Cost Each.
${ }^{5} 5.17$

## Pick-Up Head for RCA <br> Model 67



Part No. 2601. Impedance of coil 48.5 ohms. Has long


## For Victor Models RE-45 and RE-75

Victor Part No. 10779. Used in the above model combinations. Impedance 200 ohms Has fine frequency response. Shpg. wt. 2 Ibs. Your Cost Each
2.86

## Pick-up Head for

RCA R-86, RE-17 and RAE-68
VICTOR RE-57.TS
The genuine RCA Part No.
 7085 used in the popular balanced pick-up assemblies with the above model receivers. Coil has an impedance of 20 ohms. Has pin terminals for cable connections. Shpg wt. 2 Ibs. $\$ 2.40$
$\times 4390$ Your Coit Each........ 18.4

For RE-80, RE-81, RE-84 Part No. 6335. S milar in appearance to the tions, Shpg. wit. 2 lbs. XA391-
Your Cost Eacts
$\$ 2404$

## For RCA Model 331

Part No. 6542. Similar in appearance to the above. The most sensitive pick-up in the RCA ine. Has a flat response from 50 to 5000 cycles. Uses newly develoced anchored damping block. Finished in dull silver. Impedance 28 ohms. Shpg. wt. 2 lhs.
XA392-Your Cost
\$2.49

Midget Phono-Motor and


By far the most ingenius device produced to allow for phonograph reproduction where space is at a premium. The motor, for operation on in diameter and $216^{\prime \prime}$ A. C., measurea ons type but not self starting. It is only necessary to give turntable a slight push and the motor wil! gtart immediately and reach its full speed of 78 R.P.M. in a few seconds.

The Pick-up Unit measures only $6 \%^{2} \mathrm{~N}^{\prime \prime}$ from needle screw to tip of arm. Although midget in size, it is fully as efficient as the full sized pickups. Impedance of the coil is 2500 ohms. Comes complete with head, arm and connecting cable XA355-Midget Motor, RCA No. 9038. Shpgwt. 71 bs .
54.80 Your cost
Shpg. wt. 2 lbs
Your
3.00

## Drive Springs for Victor Orthophonic Victrolas

Two types a vailable. Part No. 8656 will fit Victor Portable and Table Models 2-65, 2-35, and the console Models $2-25$, and the console Models
$7-11$ and $V-30$. Also fits many $7-11$ and V-30. Alsofits many
other makes of phonographs. other makes of phonoyraphs.
Part No. 10148 is used in the Vietor Models 4-40, 4-20. 7-10, 7-25, 7-30, 8-9, 8-36 and 8-8. Shpg. wt. 2 lbs XA393-Part No. 8656. XA394—Part No. 10148.
Your Cost
Either Type


## VICTOR

## Pick-up-Coils

## REPLACEMENT COILS

For all models of RCA and
Consult list for proper tyye.

| Cat. | RCA | Ohms |  | Y |
| :---: | :---: | :---: | :---: | :---: |
| No. | No. | Imp. | els |  |
| XA174 | 2255 | 3300 | 9-25, 9-55, |  |
|  |  |  |  | \$0.7 |
| XA186 | 2314 | 20 | 9-16,9 |  |
| XA175 | 264 | 200 | AZ-1604 | 6 |
| XA169 | 2769 | 20 | R-86, RE-5 |  |
|  |  |  | RE-17. T |  |
|  |  |  | RAE-26, RAE |  |
|  |  |  | RAE-79 |  |
|  | 316 | 12.7 | $\begin{aligned} & \text { RE-73, RE-16, } \\ & \text { RE-19 } \end{aligned}$ |  |
| XA396 | 3385 | 7 | RE-81, RE-84, |  |
| XA397 | 6118 | 48.5 | RE-80 |  |
| XA398 | 10777 | 200 | RE-45, RE-75, |  |
|  |  |  | E-35, E-135 |  |

## Orthophonic Sound Box

The finest unit of its kind. Will improve tone and volume of any Vietrola. RCA Part No. 6927. Shpg. wt. 1 lb .
A ribbed aluminum diaphragm provides better frequency response. Shpg. wt. 1 lb.
$\times 4350$
Cour


## Parcel Post Rates for Various Zones

Parcels up to 8 oz . may be shipped anywhere in U.S.A. for $11_{2} \mathrm{c}$ for each 2 oz . Rates Subject to Change by U. S. Posial Authorities

| Tone Number | 1 | 2 | 3 | 4 | 5 | $f$ | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost for 9 to 16 az. | 8 C | Bc | 9 C | 10 c | 11 c | 12 c | 14 c | 15. |
| Each addit'l lb. or fration | 1.1 c | I.Ic | 2 c | 3.5 C | 5.3 c | 7 c | Oc | 11 c |

## TERMS

Wholesale Radio Service Company buys for cash and sells for cash. That is the secret of our low price poliey. We eannot afford to give redit as we ask none ourselves.
We ship C. O. D. if desired, providing a deposit of $20 \%$ accompanies pour order. We cannot ship c. O. D. without a deposit. C. O. D. Jackages can be shipped to all parts of the United States, Porto Rico, Hawali, Alaska and Mexico. We CANNOT ship C. O. D. to any country sutside of the United States, excepting those mentioned. Orders gen!rally, cannot be sent Parcel Post, C. O. D. care of banks, as most banks efuse to handle such shipments.
The safest and best way to send money is by postal, express, or telegraph mones order, bank draft or firm checks. Do not send cash. If absolutely necessary to send cash, register the letter.

ON ALL ORDFRS FOR FIFTY ( 850.00 ) DOLLARS OR MORE DEDUCT $2 \%$ FHOM THE TOTAL IS A TRINSPORTATION ALLOWANCE EXCEPT ON HEADRITE, TRIPLETT AND NATIONAL PHODUGTS.

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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 control conditions exist. In countries where rigid exchange control exists, merchandise plus transportation charges must be paid for in fall 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 $\$ 25.00$ PAYABLE IN FULL IN ADVANCE, PLUS SHIPPING CHARGES. Remittance by draft on New York bank in U. S. Currency. We do not recommend that you send us foreign checks, as shipment will be delayed until cleared.
The average Parcel Post rate on foreign shipments is 14 e per pound. Insurance 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 slight additional charge covering our extra costs. There is no extra charge for shipments to points outside the United States, which can be forwarded packed as for domestic shipment.

## PARCEL POST

Freight and Express shipments are sent transportation collect. Orders shipped by parcel post must be prepald, and we therefore request that you INCLUDE POSTAGE FOR PARCEL POST SHIPMENTS. Estimate the cost of postage to your town by finding the welght of the articles you are purchasing (welght 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 :n Edwight, West Virginia. He orders a condenser, which according to the catalog weighs 3 pounds. The nearest blg clty 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 $4 t \mathrm{~h}$ zone is 17 c and he adds this amount to his remittance plus cost of insurance.

## INSURANCE

All parcel post packages are cove-ed against damage or losa Insurance costs and postage shoull be added to the amount Insurance costs and postage sh
sent. Charges are as follows:sent. Charges are as follows:- $\$ 5.00$
when value of parcel is up to

| $\$ 5.00$ |  |  |
| ---: | ---: | ---: |
| 5.00 | \& | $\$ 25.00$ |
| 25.00 | $\&$ | 50.00 |
| 50.00 | $\&$ | 100.00 |

After $\$ 100.00$ value the charge for each $\$ 50.00$ additional is 5 "extra

## C. D. D. SIILMENTS

Transportation charges on C. D. D. parcels are slightly higher than those fully prepaid. C. O. D. charges in addition to the regular postage costs outlined are as follows including insurance:When value of parcel Is up to $\$ 5.00$ the exira charge is 12 c (incl. Ins.) between
 "170 . $32 c$
$440 c$
150. \& 200. " "t " " 45 c र

For each $\$ 50.00$ value above $\$ 200.00$ the charge is $5 e$ more (Including insurance) The Post Office also charges an extra small money order feo on each C.o.D. parcel.
If you are doubtyl as to the correct amount do not hesitate to send us sufficient postage. We GUARANTEE to refund any xcess remittance.
Parcel post shipments to all zones must not exceed 70 pounds. The 11 mit 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, measures 65 inches in length and girth combined. (Length 35 inches, plus $2 \times 10$ inches width, plus $2 \times 5$ inches helght, equals 65 inches).

## OUR SERYICE

We endeavor at all times to give you the finest possible service. According to figures prepared by our Traffic Department, $96 \%$ of all orders are shippec within 24 hours of receipt. Very often orders go forward with in a few hours after their arrival. All packages are inspectell before shipment to avold errors and delays.

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Wholesale Radio Service Co. has two branches located at strategic points for your convenience. These branches !ocated in Newark, New Jersey, and the other in Atlanta, Georgia, are fully equipped to serve you quickly and efficiently either personally over the counter, or by mail.

TO INSURE PROMPT DELIVERY To insure prompt delivery of your orders or corres pondence to us that you write (preferably print) or type our FULL name:

## Wholesale Radio SERVICE Company, Irec.

on all letter envelopes or packages.


It is quite well known that we have in the past designed and built transmitters, special modulation equipment, etc., all of this work, however, being done to specifications and special orders. We are more than pleased at this time, therefore to announce our new standard line of Transmitting Equipment.
We have two entirely new Transceivers for 5 meter work and a new 100 Watt Multi-Band C. W. and Phone Transmitter. After several months of intensive research and experimentation our engineering department has succeeded in developing a number of truly sensational units. These have been both field and air tested and the reports we have received have been so flattering that we anxiously await your comments when you try them. For a complete description of each of them we refer you to the following two pages and should you require any additional information please write us
This new department will introduce in the near future a complete selection of both C. W. and Phone Transmitters from "flea-power" size up to the largest permitted
by the Federal Communications Commission. We here at Wholesale are particularly interested at this time, as we have always been, in receiving your comments and suggestions as to what you would like to see incorporated either in our pro ucts or in our service to you. Let us know just how you think we can be of greater service to you.

In turn we want you to feel free to call upon us for any assistance you may require in solving any problems which will arise in your amateur activities. We may or may not be able to help you but in any event it is possible that someone in the Gang here at Wholessle has had the same problem to overcome at some time in his work. We also have the complete facilities of the Iafayette Research Laboratory and Bureau of Standards at our command and we feel sure that nine times out of ten ne can be of real assistance to you. And while we are on the subject of the Laboratory - we have a number of new things we are now working on in there but we are not as yet ready to release any information concerning them. As soon as we can, however, we will pass the news on to you in forthcoming bulletins and catalogs.

Best 73's from the Gang-sig.-
W2CF, W2FB, W2ND, W2AMJ, W2CLS, W2CDL, W2DHW, W2DIE, W2ONR, W2HNM

## NATIONAL "HRO"

## 9-Tube Super-Het Amateur Receiver

This new National HRO was designed to meet the demand for a receiver that would meet the most exacting requirements the most exacting requiremeat Every feature found to be desirable has been ermbodied inits desiga. Nine tubes (not including the rectifier) are used in a well balanced circuit. The 21/2 volt model uses: 4-56's, $3-57{ }^{\circ} \mathrm{s}$, $1-2 \mathrm{~B} 7$, and $1-2 \mathrm{A5}$. The power supply requires 1 type 80 .
The 6 volt model uses: $4-6 \mathrm{D} 6$ 's, $3-6 \mathrm{C} 6^{\prime} \mathrm{s}, 1-6 \mathrm{~B} 7$ and $1-42$. Power The 6 volt model uses: $-6 \mathrm{D} 6 \mathrm{~s}, 3-6 \mathrm{C} 6 \mathrm{~s}, 1-6 \mathrm{~B} 7$ and 1 - 42 . Power
supply (for A. C. operation) requires 1 type 80 . A model with built-in power supply, known as the HRO-S, is also a vailable.
Circuit features include: Two Stages of Pre-Selection give remarkable image frequency suppression and weaksignal response. First R.F stage designed to provide maximum gain, and provide highest signal to noige-ratio. Air Tuned I. F. Transformers are used and provide exceptional sensıtivity and sesectivity. A Lamb-Single Signal (Crystal) Filter precedes the I. F. amplifier. All controls brought out tofront panel. Automatic or Manual Volum Control selected by to front panel. Automatic or Manual Volum Control selected by
means of switch on panel. Vacuum Tube Volt meter indicates carmeans of switch on panel. Vacuum Tube Voltmeter indicates car-
rier Intensities directly in $\mathbf{R}$ units. A Neon Trigger Lamp wired rier Intensities directly in $\mathbb{R}$ units. A Neon Trigger Lamp wired
across the input circuit automatically shunts the terminals whenever across the input circuit automatically shunts the terminals whenever
excessive voltages are pieked up by the antenna. This device also excessive voltages are picked up by the antenna. This device also the break-in system. Phone Jack is provided on front panel, as well as a Send-Receive switch for cutting $\mathbf{B}$ voltages during transmission. Four Gang Condenser wich worm drive tuning affords a $20: 1$ ratio free from back-lash. Ganged Plug-In Coils employed; same coils used for either band spread or general coverage. Each of the four coll units in the assembly has an individual aluminum shield with the calibration curve for the range covered. Complete set of coils, supplied as standard equipment with each receiver, cover the range from 1.7 M.C. to 30 M . C

Entire receiver mounted in metal chassis. finished in black crystalline Size $836 \times 171 / \times 10^{\prime \prime}$ Panel for Relay Rack mounting is available. Shpg. wt. 30 lbs.
XN13770-HRO-2 Receiver, complete with coils, less tubes, speaker and power supply List $\$ 233.00$
XN13771-HRO-6 Receiver, complete with coils, less tubes, speaker and power supply. List $\$ 233.00$ Your Cost, Either Type
s 139.80 XN13772-HIRO-S Receiver with built-in power supply and full set of coils, Less tubes and speaker. List $\mathbf{\$ 2 5 7 . 0 0}$
$\$ 154.20$
Two additional sets of coils covering from 550 to 900 and from 900 to 1700 Kc . List $\$ 20.00$ per set.



## + Low Noise to Signal Ratio <br> * Low Miss Level <br> t Provisions for Doublet Antenna <br> $\star$ Easy to Operate <br> * Individually Tuned Circuits

Cafayette Short Wave Converter


Guaranteed short wave reception. This Lafayette Short Wave Converter was designed solely for the purpose of offering to the radio trade a converter both easy to install and operate and highly efficient in operation. Exhaustive field tests have proven this goal has been reached. Circuit employs four tubes as follows: one 6C6 as first detector and modulator; one 6D6 as I. F. amplifier; one 76 as oscillator and one 80 rectifier. Power supply is built in. For $50-60$ cycles, $105-125$ volis A. C. Covers the range from 13 to 200 meters in four steps: from 1.5 to 3.3 ; from 3.0 to 6.8 ; from 6.0 to 12.5 and from 11.0 to 23 Megacycles.

## LDW HISS LEVEL

Due to the development and inclusion in the circuit of an entirely new form of modulation, the hiss level has been brought so low that it does not interfere with or become noticeable during reception

## LOW NOISE TO SIGNAL RATID

Efficient shielding and scientific wiring of chassis have resulted in an extremely low noise level.

## EASY TO OPERATE AND INSTALL

Installation consists of connecting two wires; one to antenna and one to sround post of the receiver with which converter is used. Operation consists of selecting desired band by means of a band switch, and tuning by means of Vernier tuning dial. Dial affords an 8:1 reduction ratio and is calibrated directly in Megacycles.

INDIVIDUALLY TUNED CIRCUITS
All circuits individually tuned. Bach coil tuned by a separate trimmer

## condenser. PROVISIONS FOR DOUBLET ANTENNA

Two binding posts on rear of chassis provided for doublet antenna connections. Single wire antenna may also be used. Unit housed in metal chassis finished in black crystalline. Size $10^{\prime \prime}$ long, $71 / 4^{" 1}$ wide and $7^{\prime \prime}$ high. Shpg. wt. 15 ths.
XP15914 LalayetteShort WaveConverter, lesstubes. SI
Your Cost.................................................
Set of Matched Tubes for above.
$\$ 1.55$

# Wenc la fayette loo watt 



## Uses "Suppressor - Grid"

## and the New "Les-tet" Exciter

Lafayette engineers are proud to announce this new and modern up-to-the-minute 100 watt C. W. and Phone Transmitter. Not only is it the greatest dollar value in initial cost but for its rated output it is the most economical transmitter to operate ever offered to the amateur.

## Has All the Latest Features

It incorporates such modern features as suppressor-grid modulation that provides $100 \%$ modulation with a minimum of modulating equipment ....crystal frequency control. . . the new "Les-tet" harmonic oscillator which with a single 2B6 tube provides a stable crystal osclllator and is a very efficient doubler or a neutralized buffer stage having more than sufficient output to excite the 100 watt Class C Pentode Amplifier . . . and a universal antenna matching unit that permits successful operation of the transmitter on practically any type of antenna.

## Entirely Self Contained

The entire transmitter is contained in a single rack. Just connect a key, a crystal microphone and the antenna. insert the A.C. plug into any 110 volt 60 cycle A.C. outlet and you are ready to operate, You have plenty of sock-and a clean note on C.W. plus a broadcast quality phone that has an absolute minimum of amplitude
distortion. And best of all operating and maintenance cost are at an a bsolute minimum.
The output stage is a Push-Pull RK20 Pentode Amplifier having a conservatively rated output of 100 watts. Other units include a 2B6 Suppressor-Grid Modulator unit, a Universal Antenna Coupling unit and a Power Supply. On this and the adjacent page are individual descriptions of each unit.
Complete control is had over the entire transmitter through the use of meters permanently connected in circuit wherever required. Transmitter comes complete with one set of coils (your choice of 80,40 or 20 meter bands). Additional sets of coils are a vailable. Crystal not included. Rack dimensions $163 / 4 \times 193 / 4 \times 72^{\prime \prime}$ high. Shpg. wt. 375 lbs .
XN13992-Lafayette 100 watt transmitter, complete with one set of coils but less
tubes, key, microphone
and crystal:
Yourcost..................
Kit of Tubes: 2-RK20, 2-2B6, 1-57, 5-83's.
Your Cost
${ }^{\text {XN13993-Extra Set of Coils: } 80,40 \text { or } 20 \text { meters. Specify }}$ Band desired. Your Cost. .54 .25 Mounted Crystal. Specify frequency XN13988-80 Meter Band. Your Cost 53.25

XN13989- 40 Meter Band. Your Cost 53.25
53.95
${ }_{\text {Xour Cost. }}$ M13363-Crystal Microphone. Shpg. wt. 2 ibs.
$\$ 12.60$

## Carayette Excitier



A new harmonic type of oscillator using a single 2B6 tube that serves as both crystal oscillator and bufler or doubler. When operating at the crystal frequency the output section acts as a neutralized buffer stage. Developed in our own laboratories by Mr. Frank Lester W2AMJ this unit has between 7 and 10 watts output and can be used as a low power transmitter or to excite pentode R. F. stages up to 100 watts or any other buffer or amplifier requiring this amount of excitation. Plug in colls for 80,40 or 20 meter bands. Rack panel $19 \times 8^{3} \mathbf{4}^{\prime \prime}$. Shpg. XN13994-Exciter Unit with 1 set of coils. (Specily band desired) less crystal. Your
Cost.
XN1399s-Extra Coils per Se
529.75

Your Cost
Mounted Crystal.' Specify Frequency. $\$ 1.75$
XN1398: 80 Meter Band. Your Cost $\$ 3.25$
XN1399s-40 Meter Band. Your Cost \$3.95

Cofayefte Modulator


Designed expressly for suppressor-grid modulavides a pair of RK20 tubes in class "C". Provides $100 \%$ modulation. Excellent frequency response. Particularly designed for use with a crystal microphone. Uses a 57 and a 2B6 tube with an 83 mercury vapor rectifler in the self contained power supply. Output transformer designed for use with RK20 suppressurs. Meter provided for reading suppressor current as modulation indicator. No-noise gain control. Has A. C. switch and pllot light. This unit may also be used with a double button carbon microphone or a condenser microphone by adding a Larayette Senior In-put Stage. Rack panel mounting $19 \times 8 \%$ ". Shpg. wt. 25 lbs.
XN13995-Lafayette 2B6
Modulator Unit less tubes.
Your Cost. .............
Kit of Matched Tubes. 1-57, 1-2B6,
Your Cost

## Carayette somer



This is the Power Supply used in the complete Lafayette Transmitter. Supplies 1250 V. a 250 Ma , and 550 V , at 200 Ma . Also suppliea 2.5 V . at 6 amps . and 7.5 V . at 6 amps . Uses 4 type 83 mercury vapor rectifiers in a bridge circuit. A separate filament transformer is used for the 83 filaments. Separate switches and pllot lights are provided for plate and filament transformer primaries. No electrolytic condensers are used. Bleeders are provided. Regulation is exceptionally good and ripple voltage is extremely low. The circuit is so arranged that a time delay relay for delaying plate voltage application can be installed easily at any time. Construction throughout isexceptionally sturdy Made for rack panel mounting $19 \times 83^{3 \prime}$. Black crystallized finish. Shpg. wt. 60 lbs.
XN13996-Lafayette "High
Power" Power Supply, less tubes.
Your Cost.
$\$ 49.51$
Four 83 Tubes. Your Cost.

## New: Lafayette "19" Transceiver for 5 Meters or 50-60 Megacycles <br> A new Transceiver that really gets out and lets you do audio and the second 19 as a class "B" push pull output

 things. One of the most poweriul portable units ever offered in this class. Using a type 19 tube in a push-pull oscillator it has a power output of approximately 2 watts in comparison to the ordmary type 30 oscillator with an output of approximately 2 watt. Practically a ten-fold increase! The complete circuit consists of a type 19 oscillator modulated by another type 19 in class " 8 " driven by a type 30 driver. Oscillator is unity coupled using ${ }^{3}$, 6 " copper tubing with threaded grid coil soldered directly to the socket terminals, thus making a rigid vibration proof oscillator circuit so important for high frequency work. All batteries are self-contained in the lower half of the case. The upper half being devoted to the transceiver proper. Reception is obtained by converting the oscillator into a sensitive superregenerative detector followed by the 30 as a first stageDespite the low power used in Transceivers a license is required for their operation.

# TRAMMITTER 

## Cafayette p.P. RK20 Amplifier

A 100 -watt Push-Pull
Pentode R.F. Amplitier especially designed for tubes of the RK20 type. Particularly adapted for suppressor-grid modulaion. Switeh incorporated for change over from phone o C. W. plug-in coils permit use on 80,40 or 20 meters. Meters accurate to $2 \%$ are provided for grid, screen and plate current readings. Requires $1000-1250$ volts at $150-$ 200 M.A., 300 volts at
 6 amps., and 45 volts bias supply. Isolantite sockets and Cardwel condensers used. Link coupling input. Rack Panel mounting 19x14" condensers used.
Shpg, wt. 25 lbs.
XP15921-Lafayette P.P. 100-watt Pentode R.F. Amplifier with 1 et of coils ( 80,40 , or 20 meters). Specify bund desired Less tubes. XN13993-Extra Set of Coils. Specify band desired

## Cafayette Universal Antenna

## Coupling Unit

Accurately matches antenna and transmitter output impedances so that maximum performance can be obained at any frequency with any antenna. Either single or two wire feeds may be used. Both coupling and
 tuning are accomplished with individual condensers Harmonics are well suppressed. Meter provided for reading an-
tenna current. Rack Panel $19 \times 8 \% / 4$. Shpg. wt. 101 bs . $\times$ Q15990-Your Cost

## Cafayette "Medium Power"

 Power Supply A lower power unit than transmitter. Supplies 1250 volts at $150 \mathrm{M} . \mathrm{A}$. and 550 volts at 100 M.A. Uses a type 83 mercury vapor rectifier tubes in a bridge circuit. Separate switches and pilot lights provided for filament ind plate trans former primaries. Suicable for use with transmitters up to 50 watts. Only the finest quality components and workmanship are used throughout. Heavy steel chassis and panel assures permanent alignment and provides ample shielding. Designed for rack mounting. Panel $19 \times 8 \mathrm{Km}$ ". Shpy. wt. 60 Ihs.
XNi39s: Lufayette "Medium Power" Power
Supply. less tubes. Your Cost.
32.50

Standard Relay Racks and

## Rack Panels

Sturdy spot welded steel racks finished in black crystalized lacquer. These are standard relay racks for use with standard $19^{\prime \prime}$ long panels and are accurately drilled for mounting screws every $1 \mathrm{3} / 4 \mathrm{"}$. Holes tapped for $10 / 32$ thread. Substantially braced base to prevent wobble and to keep unitsin correct alignment. Can be used for Transmitters or Public Address Systems. Steel panels a vailable in sizes listed below to fit rack. Finished in black crystaltized lacquer and are slotted for mounting screwis at ends. Panels are $1 / 8$ " sloted for mounting screwis at ends. Panels are $1 / 8$.
thick. Blank sub-bases are also available in two sizes thick. Blank sub-bases are also available in two sizes
and are finished to match panels and racks.
 These are the same types of panels and
racks that are used in racks that are used in our own transmittersthey are NOT cheap to a price! It pays to buy a good rack.


## Relay Racks

| Stock No. | Height | Width | Depth | Shpg. Wt. Your Cost |  |
| :--- | :---: | :---: | :---: | :---: | ---: |
| XY22150 | 6 ft. | $194^{\prime \prime}$ | $16^{\prime \prime}$ | 601 ibs. | $\$ 10.95$ |
| XY22151 | 3 ft. | $193^{\prime \prime}$ | $16^{\prime \prime}$ | 301 bs. | 8.95 |

## Steel Rack Panels 19 "Long

| Stock |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Width | $\begin{aligned} & \text { Shpg. } \\ & \text { Wt. } \end{aligned}$ | Your Cost | Stock No. | Width | Shpg. Wt. | Your Cost |
| XY22160 | $7{ }^{\prime \prime}$ | 8 lbs . | \$0.80 | XY22165 | 1534" | 14 Ibs. | \$1.80 |
| XY22161 | 83/4" | 9 lbs. | 1.00 | XY22166 | 17 | 15 lbs. | 2.00 |
| XY22162 | 101/" | 10 lbs. | 1.20 | XY22167 | 1931 | 16 Ibs. | 2.20 |
| X Y 22163 | 12\% | 12 lbs. | 1.40 | XY22168 | 21 | 17 Ibs. | 2.40 |
| X Y 22164 | $14 *$ | 13 lbs. | 1.60 |  |  |  |  |
| Blank Steel Chassis or Sub-bases |  |  |  |  |  |  |  |
| Stock No. XY22155 | $\begin{aligned} & \text { W.L } \\ & 8 \times 17 x \end{aligned}$ |  | $\begin{aligned} & \text { Your } \\ & \text { Cost } \\ & \$ 1.60 \end{aligned}$ | Stock No. | $\begin{array}{r} \text { W.L } \\ 11 \times 17 \end{array}$ | D | $\begin{aligned} & \text { Your } \\ & \text { Cost } \\ & \$ 1.95 \end{aligned}$ |

## Cafayette "Tunable" 5 Meter Antennas



The doublett type consists of two adjustable quarter wave rods equipped with a 12 -inch insulating bracket. Can be mounted in any position desired-horizontal or vertical. Overall length can be varied from 52 inches to 9 feet, permitting tuning the aerial to any desired
frequency within these limits. Made of aluminum, each half in three sectlons. Equipped with binding posts for feeders. Shpg. wt. 2 lbs. XR17080
1afayette 5-Meter Doublett Antenna.
s3.00

## "Half-Wave" Type

An adjustable "half-wa ve" antenna made of aluminum tubing threaded at bottom and equipped with insulated mounting so that antenna may be mounted on automobile, boat, etc. Equipped with binding post for feeder. Extends from 38 inches to 9 feet permitting tuning any where within this range. Shpg. wt. 2 lbs.


## High Frequency Feeder Spreaders

Low power factor, light weight feeder spreaders for $s . \square$ use with doublett antennas.
XR17181-5". XR17182—7"

XR17183-12"

Your
Cost
$20^{c}$

## New Lefayette "30" Transceiver For 5 Meters or 50-60 Megacycles <br> Using the popular 30 and 33 tube combination this new mike and headphones are provided on the face of the panel.

 lafayette " 30 " Transceiver is a considerable improvement The case is 15 " high, $734^{\prime \prime}$ wide and $61 / 2^{\prime \prime}$ deep finished in over others of this type. Not only has the electrical portion been improved but the mechanical design is such as to provide a more rugged construction better suited to portable usage.Asage. $\mathbf{t y p e} 30$ tube is used as the oscillator for transmitting with a type 33 pentode as modulator providing a signal that is strong and clearly understood. Inductances are wound with hard drawn copper and rigidly mounted to prevent vibration. All batteriea are self-contained in the loper half of the case thus using leads of fixed length and being fully shielded. The upper half of the case is devoted to the Transceiver proper. For reception the 30 oscillator is converted into a sensitive super-regenerative detector followed by a high gain audio stage using the 33 pentode. Sufficient volume is The case is $15^{\prime \prime}$ high, $73^{\prime \prime}$ wide and $61 / 2^{\prime \prime}$ deep finished in handle Batteries required are 135 volts "B" 131 volts "C" and two $11 /$ quired outside of the case are the antenna, mike and headquired ouiside of the case phones. Shpg. wt. 15 lbs.
XN13986-Lafayette "30" Transceiver
less tubes batteries and accessories.
Your Cost................................
Set of Burgess Batteries; 1-5156, 3-5308, 2-6A. Your Cost
$\$ 3.72$
Kit of Tuhes, 1-30, 1-33.
Your Cost
. $\$ 1.19$ secured to operate a loud speaker in most cases. Jacks for Your Cost
51.95


Despite the low power used in Transceivers a license is required for their operation.

# EXPERIMENTERS build your own SHORT WAVE SETS and SAIVE MONTY 



- Weighs only 9 lbs. including batteries!
- Fully 5 hielded.
- Audio Stage.


## The "Band Spread" Portable

## A Combined S. W. Receiver and Monitor

Just the thing you have been looking for-a combined portable self-contained "band-spread" short thing-receiver- " $A$ " battery-und " $B$ " batteryifinside the steel case. Just plug in a pair of head-phones-connect a short length of wire for an aerial and you have an excellent short wave receiver for either "ham band" or "broadcast band" use. Not a make-shift type of band spreading but real honest-to-goodness band spread coils that make it possible to keep an accurate log of station dial readings. The simplicity of construction makes it an ideal set for the beginner to build since it will at all times be a valuable instrument to have. Not only is it a very good portable receiver but also when the beginner finally becomes a full fledged amateur and installs a transmitter it is an excellent monitor-an instrument he must have. The special "band-spread" coils used may be ob-
tained for the following a mateur bands-20, 40 ,

80,160 meters and the ollowing broadeast bands19,25 , 31 , and 49 meters. Thus this receiver suitable for all bands.
The use of an audio amplifier stage in addition to the detector assures ample volume at all times Two type 230 tubes are used. Regeneration is smooth and noiseless. Case is of steel $83\left\{\times 61 / 2 \times 516^{\prime \prime}\right.$ Shpg. wt. 12 lbs .
XN13960-Complete kit of
parts less tubes, coils and bat-
teries.
Your Cost. ..................
2-30's). Xour Cost
XN13962-One Burge is 6308 " $B$ " and one "A" battery. Your Cost XN13963-Special Coils. Broadcast bands. XN13964-Special Coils. Ham bands.
Your Cost per Set of 4
ary.
s1.95 additional

The "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 volt, 60 cycle A. C. Its 3 tubes (not including rectifier) are used in a highly efficient circuit consisting of one stage of radio frequency amplification-using a type 58 tube, a regenerative super-sensitive pentode detector using a type 57 -and finally a pentode power amplifier stage using a type 2A5, having an output of almost 3 watts! Both panel and chassis are of metal shielding to prevent body capacity effects and are atiractively finished in black crystallized lacquer. A special three winding coil is used to couple the R. F. and Detector stages. Regeneration is smooth and tuning is accomplished with a vernier dial having a fairly high ratio. In addition a unique circuit arrangement permits the use of either a "band-spread" or standard circuit. The Power Supply Kit Includes all necessary parts--power transformer -filter chokes-filter condensers-tube and cable connection sockets-chassis-ete. Receiver chassis is quickly and easily connected to the power pack by means of a cable and plug. Shpg. wt. Receiver Kit 5 lbs. Power Pack Kit 8 lbs
XN13905--"TROPHY 3" 3-tube A. C. kit of parts, with Your Cost for kit, less coils, tubes and power supply.. XN13906-Power supply kit less tube. Your Cost.
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
 $\$ 1.25$ Your Cost
$\$ 2.50$ additional

UNI-SHIELDED SHORT WAVE KITS


2and 3Tube Battery Operated Receiver Kits
2 Tube $\$ 5.75$
3 Tube $\$ 6.75$
Known humorously as the "Pretzel Bender" receivers, because of the uniquely bent shield, these short wave kits have been hailed by radio magazines, from coast to coast, as the greatest development in battery operated receiver kits. They are extremely simple to build and even simpler to operate. A highly efficient circuit design, using the newly developed 2 volt tubes, assures excellent performance over the short wave bands from 15 to 200 meters. In the short period since these receivers were first announced, reports have come in, from satisfied customers, of verified reception from practically all parts of the world. Part of the excellent performance of these receivers is due to the use of a uniquely bent chassis that serves co shield the tubes and coil from the body capacity of the user and foom the tuning condenser, etc Both a three tube model, using a 34 R. F. tube, a 32 Detector tube and a 33 A . F. tube, and a two-tube model, using a 32 Detector and 33 A . F tube are a vailable. Shps. wt. of Kits 6 l bs.
Uni-Shielded 2-tube Kit Uni-Shielded 3-tube Kit XN13975-2-tube
Kit, less tubes and Kit, less tubes and
coils. Your Cost. XN13976-Tubes for the 2-tube XN13979-Tubes for the 3-tube reseiver. Your Cost . . . . . . \$2.3. meters. Your Cost........ $\mathbf{\$ 1 . 1 0}$ meters. Your Cost 15 to 200 Complete set of Burgess " $A$ " " and " $B$ " Batteries consisting of 3 -. 2308 45. B'; $3-41 / 3$ Batteries and 2 Dry Cells. Shpg XY19864
Your Cost

## New: HAIGIS Models

 For 56-60 MC. Operation

## Nom-Radiating

 ReceiverA non-radiating Super-regenerative Receiver for use in 5 meter work. $\Lambda$ new and original R. F. amplifier prooriginal $R$. F. amplifer pro-
vides complete suppression vides complete suppression of radiation via the antenna
from the fully shielded defrom the fully shielded de-
tector plus plenty of amplitector plus plenty of ampli-
fication. Other features eliminate all radiation from the battery cables. Uses a 76 , a 36 and a
41 tube. Requires 6.3 volts for the filaments either from a storage 41 tube. Requires 6.3 volts for the filaments either from a storage battery or A.C., and 135 volts for "B" supply from batteries or eliminator. Equipped with volume control and on-off switch. Shpg. wt. 10 lbs.
XN13987-HAIGIS Receiver less tubes and batteries.
Your Cost.
52300

Portaphone A complete radio-telephone transmitter and receiver for operation on 5 meters. All batteries including 150 volts of "B" supply selfcontained. A new circuit. Ruggedly built. Carefully tested. Leather
 carrying handle. Card holders for field notes or logs. Uses a type 30 and a 33 tube. Instructions included. Shpg. wt. 10 ibs XN13798 Portaphone less tubes and batteries Y . . . . 3.50

TYPE AM DE LUXE
The popular AM model plus new features such as tone-telegraph, volume control, side tone, etc. Shpg. W.t. 7 lbs . $\$$.
XN13799 AM De Luxeless tubesand batteries
Your Cost...........................................

# Trutest PLUG-IN COILS andFORMS 

## Small Eared Coils and Forms

New. small short wave coils wound on brown bakelite forms equipped H. F. coils are spaced wound, two being wound with plated wire. Each coil individually color coded Ranges: 10-21; 20-41; 40-81; and $80-200$ meters with .00014 mid. ondenser. 4 coils to set XH10040-Set of 4 coils. Your Cost
Your Cost
Two broadeast coils- 185 to 565 meters XH10041-Your Cost.
Ultra short-wa ve coil- 9.5 to 21 meters. XH10039 Your Cost coils similar to above but with 6 prongs and having secondary and tickler windings. Two broadcast colls, similar to XH10041, but having three windings ike above
XH10043-Set of two. Your Cost
Ultrashort-wave coil- 9.5 to 21 meters, similar to XH10039, but with three windings
XH1004 Your Cost, Each.

| Coil Forms only, simila | no winding. |
| :---: | :---: |
| XH10060-4-prong. T C | Set of four 4 -prong forms |
| Your Cost, Esch | Your Cost, Per Set |
| XH10061 5-jrong. TT | Set of four 5-prong forms |
| Your Cost. Each.. | Your Cost, Per Set. |
| XH10062-6-prong. $\rightarrow$ c | Set of four 6-prong forms. |
| Your Cost, Each. | Your Cost, Per Set |
| XH10069-7-prong. T ${ }^{\text {cec }}$ | Set of four 7-prony fo |
| Your Cost, Each. | Your Cost, Per Set |
| XH10071-8-prong. $\rightarrow$ T | Set of four 8-prong forms. |
| Your Cost, Each.. | Your Cost, Per Set. |

## Bakelite Ribbed Coils and Forms

At lowest prices ever offered.
Wound on speciallow Loss bakelite forms which have extended ribs moulded on them, making the windings a bout $90 \%$ air core, and greatly increasing their efficiency. High frequency coils space wound to permit better tuning. Wave range printed on card and protected by a celluloid cover fits into patented feature on top of coil form. Four coils cover from 15 to 200 meters with a . 00015 condenser


## Four coils, 4 -prong base, 15 to 200 meters <br> XH9982-Your Cost, Set of Four

Two coils, like above, to cover the broadcast range 185 to 565 meters XH9983-Your Cost, Set of Two
$95^{\circ}$
Ulira short-wave coil, 9.5 to 21 meters, 4-prong
XH9984 Your Cost, Each.
Four coils, 6-prong base, similar to XH9982, but bavi secondary and tickler windings
XH9985 Your Cost, Set of Four
s 1.50 Two brosdcast coils, similar to XH9983, but having three windings XH9986-Your Cost, Set of Two
Ultra shor-wave coil, 9.5 to 21 meters, similsr io X X 9984 , but with three windings. 6-prong base
$\mathbf{X H 9 9 8 7 - Y o u r ~ C o s t , ~ E a c h . ~}$
Ribbed coil forms only, similar to the above, but no winding.


H
ámmarlund "XP-53" S. W. Plug-in Coils
 high frequency ${ }^{\text {w }}$ lectric known as "XP $63^{\prime \prime}$ has been developed in the Laboratories by Hammarlund Engineers. This new material, having a far greater reterials heretofore used in short-wave work, is used exclusively in the new Hammarlund "XP-53" coils. It is unaffected by marlund or temperature. The coils are precision wound (with silver plated wire wherever possible) on "XP-53" ribbed coil forms. Both
four-prong and six-prong coils are available four-prong and six-prong coils are available. Four-prong coils have two windings and six prong coils have three windings. Both fitstand ard sockets. These coils are compact in size in diameter. Shpg. wt. 1 lb .

Short-Wave Coils-4-Prong Two winding coils sovering trom 16 to 217 meters, Four coils to set. Full instructions
includit All mirked. $\times \mathrm{H} 978 \mathrm{c}$-Set of lour Your cost

6-Prong Coils -3 Windings
 XH9789 Your Cost Broadcast Coils-4-Prong Two coils cover from 190 to 550 meters One coil, 190 to 310 meters; other coil, 300
 Simimise to the above, but with six prongs and

Covers Ultra Short-Wave Coil two windings.
$\times \quad$ H9792-
our
Cost, Each. (59 ${ }^{\circ}$ three windingex
XH9793-Your Cost, Each
Coil Forms Unwound forms of "XP-53", $31 / 2^{\prime \prime}$ high.

| Stock No. | Your Cost, <br> Each |
| :--- | :--- |
| XH9970 | 4-Prong |
| XH9971 | 6-Prong |
| XH9972 | 6-Prong |

NA-ALD Short Wave Coil Selector Assembly


This new short-wave coil selector unit was designed to switc different coils into the circuit of a short wave instantly selects knob one of four different
coils. All 4,5 and 6 -
prong coils are rigidiy held by the specially constructed sockets without the need for adjust-
ments of any kind. Knob and indicator on ront of panel show what coil is in use. It is simple to install, compact in size and efficient n operation. Ideal for the short-wave set builder. Shpg. wit. 2 lbs.
Yo11647-Selector Unit, only
Similar to Type $700-\mathrm{V}$.
oss Victron materia but made of the new low
XK18660 Your Cost

## Trutest

## Band Spread Coils

These Trutest coils are provided
with adjustable band-setting condensers mounted on top of each coil. A vailable for $20,40,80$ and 160 -meter Amateur bands, and for the $19,25,31$, and 49 -meter B. C bands. For use with 140 or 150 mmfd. tuning condenser. These coils offer the most practical method coils offer the most practical method for dial. Forms have five prong bases.


## Trutest Tube Base

## S. W. Coils

A new and novel addition to the Trutest line of short-wa ve equipment. Although midget in size, however, they are highly efficient in operation. All have four-prong bases. Shpg. wt. 1 XH9981-Set of four coils, 15 to 200 meters. Your Cose.
Special


## Front Panel <br> Plug-In Coils



Each coil is completeiy shielded and the wire is protected by adequate insulation. Wound on genuine ribbed bakelite forms 19 " in diam by $31 / 2^{\prime \prime}$ high. Precision winding and extremely handle makes these coils highly efficient. Have handle grip. Shield essential.

## Front Pamel Coil Shields

Designed especially for I. C. A. handie grip coils. Come completely mounted with bakeXH9785, ready to attach XH9786-4-prong socket. XH9787-6-prong sncket. Your Cost, Each, Either Type Short-Wave Coils 4-Prong From 16 to 217 meters with four coils. Green coil from 16 to 36 meters; brown cuil from 33 to 65 meters; biack coil from 57 to 115 meters: red coil from 108 to 217 meters. Set of four.
Your Cost
3.80

6-Prong- 3 Windings
Similar to the above, but with primary, secondary and tickler windings. Wound on six-prong
XH9781-Set of four
Your Cost.
$\$ 4.10$
Broadcast Coils R-Prong
Cover from 190 to 550 meters with two coils.
One coil, 190 to 310 meters; other, 300 to 550
XH9782-Set of two.
Your Cost
s2.05
Similar to the above, but with primary, second-
ary and tickler windings.
XH9783-Set of two.
Your Cost.
s2.20
XH9784 Ultra Short-Wave Coil
Four-Prong.
XH9784-Your Cost, Each
Similar to the above, but with six prones and
three windings.
$\times H 9785$ Your Cost, Each $\$ 1, I 8$

## NATIONAL Short



## NATIONAL

"FB-7A" "FBX-A"
Receivers

- High Selectivity and Sensitivity Uniform Gain over Entire Frequency Range
- Two I. F. High Gain Stages - Seven Tubes not including Rectifier - Band Spread and Full Range Coils Full Range 34 MC to 1500 KC

The "FB-7A" designed primarily for the experienced amateur operator, is a seven tube (plus Rectifier) Superheterodyne Receiver, having exceptional sensitivity, selectivity, stability and all other characteristics essential in order to contend with the crowded conditions of the Amateur C. W. and Phone Bands. Ample sensitivity and selectivity are assured through the use of a circuit employing two stages of High Gain I. F. Amplification (six tuned circuits) while individual filtering of all circuits, inciuding the Oscillators, together with thorough shielding, resulta in unusual stability. Variation of the Volume Control has no appreciable effect on the pitch of C. W. signals, e ven at 14 M . C. The Receiver is compact, being only $111 \mathrm{~V}^{\prime \prime} \times 12^{\prime \prime}$, and is shaped to conserve space on the operating table as much as possible. The Full Vision Dial,
plug-in coils, send and receive switch, beat oscillator switch, calibration chart, etc., all on the plug-in coils, send and receive switch, beat oscillator switch, calibration chart, etc., all on the and make it an outstanding model
XN13867-FB-7A Receiver, with Air Dielectric Condensers in 1. F. Ampli-
fier, completely wired, less coils, power supply and tubes. List $\$ 62.50$. Your Cost
XN13874-Complete kit of RCA Tubes, 1-56, 1-67, $2-58$, 1 , $1-59,2-244^{\circ}$, Your Cost. . . $\$ 4,70$

## FBX-A Single Signal Receiver

Fully realizing the tremendous advantages of "Single Signal" reception in connection with C. W. reception, the National Co. has engineered a set employing a mechanical filter. This model is designated as the FBX-A, and is essentially the same as the FB-7A except for the addition of the quartz crystal with its associated "selectivity control" condenser and multipoint switch. Both the FBX-A and the FB-7A operate from standard power packs described on another page, or with a filament transformer and "B" batteries. Both sets encased in a motal cabinet with black crackle finish. Shpg. wt. 29 lbs.
XN13871-FB-XA, completely wired with Crystal, and Air Dielectric Con-
denser tuned I. F. Trans., less coils,power supply and tubes. List $\$ 86.50$. Your Cost
XN13877-5897AB Special Power Supply for either Receiver; full rated high voltage for '59 Tube, 115 volts, 60 cycle. List $\$ 26.50$.
Your Cost, Less Tube
\$ 15.90

## NATIONAL Pre-Selector

Especially designed for use with the National FB Receivers though it may be used with any make of short wa ve superheterodyne. The addi ion of this unit to the FBXA receiver makes a combination that is practically equal to the AGSX receiver. The only essential difference being that the combination will have two controls instead of one as in the AGSX receiver, and the automatic volume control not acting upon the pre-selector stage. Image frequency suppression, an improved algnal to noise ratio and increased selectivity are only a few of the many
 advantages to be obtained through the use of this unit. If you are greatly bothered by QRM you will be pleasantly surprised at the differnce this unit will make.
KN144G4-National Pre-Selector Type PSK With one plug-in coil. Shpg. wt. 14 lbs List $\$ 25.00$ Your Cost

合

## NATIONAL "FB-7A" Coils

The Plug-in Coils employed in the "FB-7A" are essentially the same as those developed originally for the "AGS" Receiver. The windings are on accurately threaded forms of R-39, the low loss dielectric, protected from damage by an outside sleeve of Bakelite. The regular type and the band-spread coils are interchangeable as they both are supplied in a six prong coil base amateur type receiver. Both type coils are furnished with air dielectric condensers

| Stock No. | Coil | Range | Stock No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| N14450 | AB-20 | 20 Meter B. S. | XN14456 | FB-AA | 34000 to 1800 |
| X N14451 | AB-40 | 40 Meter B. S. | XN14457 | FB-A | 19500 to 11400 |
| N14452 | AB-80 | 80 Meter B. S. | XN14458 | FB-B | 11700 to 7000 |
| XN14453 | AB-160 | 160 Meter B. S. | XN14459 | FB-C | 7300 to 4000 |
| XN14454 | FB-F | 1500 to 900 Kc . | XN14460 | FB-D | 42 |
| XN1445 | B-E | 2500 to 1500 |  |  |  |
|  |  |  |  |  |  | List Price of coils for all ranges $\$ 10.00$ per pair XN14461 "XP

XN14461-"XR-39" Unwound Forms, with Handle, Condenser adn多eeve. $\mathbf{X N 1 4} 62$ - "XCS" Special 6 pr. socket mounted in aluminum shield as XN14462-"XCS" Special 6 pr. socket mounted in aluminum shield as
used in "FB-7A." Your Cost Each............................... $\$ 1.05$

## Plug-in Type Inductors

Made of ultra low loss form material R-39, developed for Short Wave use. The " 10 " series are used for original A. C. and D. C. 3-tube amateur receivers-A. C Boxes, are used in the A. C. SW-58, and the latest A.C. SW-3. The special Band Spread Coils are designed so as to permit 50 dial division spreading on the amateur bands.

## GENERAL COVERAGE COILS

 "10" SERIES

| "10" SERIES |  |  |  | Stock | Coil No. | Meter Band | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | Coil <br> No. | Band | Your Cost | KN14446 <br> XN14435 | $60-\mathrm{A}$ | $\begin{aligned} & 10 \\ & 20 \end{aligned}$ | Per <br> Pair |
| XN14417 | 10-A | 10 | Per Pr | XN14436 | 63-A | 40 |  |
| XN14412 | 11-A | 20 |  | XN14437 | 64-A | 80 |  |
| XN14413 | 13-A | 40 |  | XN1 4438 | 65-A | 160 |  |
| XN14414 | 14-A | 80 |  | Cost list | on | type |  |
| XN14416 | 15-A | 160 |  | $r$ set of |  |  |  |

## "R-39" Coil Forms

XN14418-4-prong base
XN14419-5-prong base XN14420 6-prong special XN14424-6-prong socket. Your Cost
Either Type.
$45^{\circ}$

Low loss formidget* and ung form material. Unwound diameter ${ }^{1}$ " ${ }^{4}$-prong only. 1 XN1442
Your Cost Each.

## Wave EQUIPMENT TM



## NATIONAL "AGS" and "AGS-X"

 Communication Type S. W. Receiversconjunction with the Airways Division of the U.S. Department of Commerce, to meet the demand for a receiver in which considerations of price are entirely subordinate to those of per formance and reliability. Of particularimportance is its unusual pre-selector circuit which is largely responsible for the exceptionally bigh signal to noise ratio, which is so vital to the
reception of weak signals. To this Pre-selector may also be credited tivity, and almost complete image suppression. The "AGS-X" offers an effilient fuain in sensiin the use of a single (mechanical quartz filter) circuit preceding the a still further refinement

## "OUTSTANDING FEATURES"

 amplifier.Among the many outstanding features of this remarkable receiver are: Tuned R.F. Stage preceding the first detector, electron coupled oscillators. No frequency drift-air padded oscillators. Air dielectric tuning condensers in the I. F. amplifiers. Single dial S. F. L. Tuning $\left(270^{\circ}\right)$. Calibration curves and station chart on panel. Coil change from front of panel. A.V.C. or M. V. C. by throw of switch.

Rugged "Vibration-Proof" Construction
Extremely rigid mechanical construction from very heavy aluminum plate. Relay rack or table mounting (panel $83 / 4 \times 19^{\prime \prime}$ ). Frequency range 1500 to $20,000 \mathrm{KC}$. Band spread coils a vailable. Heterodyne oscillator for C. W. A. C. or Battery operation. Panel switch for phones or speaker. Each receiver a precise hand-made product.

9-TUBE SUPERHETERODYNE
Both the "AGS" and the "AGS-X" employ nine tubes in a Superheterodyne circuit, comprising a preselector stage of tuned radio frequency amplification, and first detector using screen grid tubes; a high frequency oscillator; two stages of high gain air-tuned I. F. amplification; I.F. power detector; automatic volume control, working in conjunction with both R. F. and I. F. amplifiers; beat frequency oscillator, and pentode output with provision for either headphones or loud speaker. Tubes used are: $3-36$ 's, 1-37, 1-89,
and $3-78$ 's, XN13856- "AGS" Model, completely wired; Laboratory tested, with coils to cover 1500 to $20,000 \mathrm{KC}$. Less tubes. List $\mathbf{\$ 2 6 5 . 0 0}$.
Your Cost
${ }^{\text {s }} 159.00$
XN13864-"AGS-X"Model, same as "AGS" Model but with single signal (quartz erystal) control.
Less tubes. List $\$ 295.00$. Your Cost......... $\$ 7.0$ Matched set of tubes for either receiver. Your Cost for AGS and
XN13865-GRSPU Rack and Panel Power Supply for


The New NATIONAL Cathode Ray Oscilloscope for Checking

## Per Cent Modulation <br> R. F. Signal Distortion <br> Class C Ampo Excitation



This Cathode Ray Oscilloscope offers a means of checking both phone and $C$. W. transmitters by providing an instantaneous graphic picture of the actual operating conditions in transmitter circuits. Percentage Modulation, Signal Distortion, and Peak Voltages, for instance, are indicated directly, and results are more easily interpreted. The Cathode Ray tube used is an RCA type 906 , having a 3 -inch screen A type 80 tube is used for rectification. No linear sweep is provided it having been found more desirable to use an sudio simal is provided, it mitter for this purpose. The resulting "trapezoig" pattern transinterpreted more readily, and percentage trapezoia pattern may be culated, than with linear sweep. However, the linear swee easily caladded at any time if it is found necessary for the linear sweep may be is entirely self-contained, the necessary for special work. The unit built-in. The dimensions of the cabinet are $12 \times 8 \times 6^{\prime \prime}$ excl devices being and binding posts. Cabinet is finished in black crackle. Shpg wive and binding posts. Cabinet is tinished in black crackle. Shpg, wt. XN13832-Cathode Ray Oscilloscope, less tubes.
List $\$ 29.50$. Your Cost............................
${ }^{\text {s }} 17.70$ RCA Type 906 Cathode RCA Type 906 Cathod
Amateur's Net Price

## Code Practice Oscillator



Using the familiar circuit employing the windings of an audio transformer to produce oscillation, this unit is furnished with four flashlight cells which fit inside the case and provide all necessary filament and plate current. A type 30 tube is used. The "Ham" will find this outfit very useful for modulating ICW eiguals. Shpg. wt. 6 lbs. XN14018-Code Practice Oscillator, less tube and batteries. Your
Cost
$\$ 3.8$
Four Burgess Cells for above-Your Cost
.50 .25

## Rack and Panels for "AGS" or "AGS.X"

Either the "AGS" or the "AGS-X" may be mounted in a standard relay rack as illustrated herewith. The panels illustrat
top to bottom

1. National Speaker Panel consists of a permanent magnet dynamic speaker mounted on a standard $83 \times 9$ " panel. Provided with a matching transformer and connector
XN13800-CRP Speaker and Panel. List $\$ 30.00$.
s 18.00
2. This small panel, $51 / 4 \times 19^{\prime \prime}$, conKN13801 ve receptacles for idle coils. XN13801-CRP Coil Rack Your Cost
s9.00 3. This is the standard receiver either
the AGS or AGSX as listed on this the AGS or AGSX as listed on this
page. page. Thi
3. This is the Power Supply rack as listed on this page.
4. This is the lightweight "knockdown" rack designed especially for steel with black finish and is drilled and tapped for the standard panels. $36^{\prime \prime}$ high and $19^{\prime \prime}$ wide.
Yist $\$ 22.50$.
${ }^{s} 13.50$


## Power Units

These Power Packs were derigned especially for humless Short Wave Reception. Co Type $350^{\circ}$ "B" Eliminator-Adjustable taps give the following voltages: $22-45$ volts for Detector; 45-90 volts for R. F.; 90-135 volts for A. F.; full 180 volts with no ad justment for Power Tubes. Has a silent

hum-free output. Uses Your Cost, Less tube.
Type 5880AB-Pow 1.90 use with A.C. SW-3 and A SW-5 using '27-type tubes in output stage, $105-120$ volts, $50-60$ cricies. XN13807-,
Your Cost, Less Tube. 50 Type 5880ABS-Power Supply for use with A. C. SW-45 and A. C SW-58 using ' $45-$ type tubes in out-
put stage, $105-120$ volts, $50-60$ cycles.
XN13810 Your Cost
$\$ 23.70$ Both of the a bove models are made for 25-40 cycle, at a slight increase

Type 5897AE-Power Supply for use with FB-7A and FB-XA. High voltage for 59 -tube at full rating. 115 volts, 60 cycle.
XN13877
Your Cost,
Type 5886AE-Power Supply for "AGe with "SRR" and also the ing pack. 115 volts, 60 -cy mount XN13876-
Your Cost
${ }^{s} 20.70$
Type GRSPU-Special Rack Mounting Power Supply for the Relay Rack. 115 volts, 60 cycles. XN13878
Your Cost,
s29.70

## Air-Tuned Intermediate Transformers



The original National air-dielectric tuned I. F. transformers have been completely redesigned to incorporate many new and exclusive features. All adjustments to top of shielddouble bearing precision condensers-self locking rotorsisolantite insulation-adjustable coupling-new type of Litz wound coils-450 to 550 K . C. tuning range (also 175 K. C.) non-resonant aluminum rotor and stator plates. Beat oscillator coil is equipped with knob for varying beat note. Shpg, wt. 2 lbs . List $\$ 5.00$.
XN14442-465 K.C.I. F
XN14443-465 K. C. Best Oscillator
XN14444-175 K. C.I.F. Oscillator
XN14445-175 K. C. Beat Os,

## NATMONAL Short

## "THE NEW DIELECTRICS"



This new line uses the three highest grade di-
electric materials known: Isolantite, Steatite and electric materials known: Isolantite, Steatite and
Victron. Steatite is a white ceramic material Victron. Steatite is a white ceramic material
especially developed for use in H. F. Circuits. Victron possesses almost incredible electrical properties, its loss factor being $1 / 90$ th that of Low Loss Hard Rubber. Is non-hydroscopic


Stand-off Insulator
Long and slender, makes excellent H. F. Isolantite chokes.

XN14479-WGS-1. $13 / 8^{*}$.
Your Cost Each
XN14480 WGS-2. $27 / 8{ }^{\circ}$. Your Cost Each Metal mounted, like smaller unita Arcefficient strong and convenient Din 3 . XN14481-WGS-3. 2\%". Your Cost Each
XN14482-WGS-4, $4 \% /{ }^{\prime \prime}$
Your Cost Each
Your Cost Each


Eigh Frequency Bushings Steatite. Has a variety of uses for bushings, supports and lead mounts.
XN14488-WXS-1. $1 \times 1116^{\prime \prime}$ high. 2 © Your Cost Per Pair
XN14489-WXS-2. 11/2玉1130" high. $48^{C}$ Your Cost Per Pair Steatite. For high H. F. Voltages. Conform to lines of electrical stress. Prices include netal fittings.
XN14490-WXS-3. $23 / 4 \times 2{ }^{5} /{ }^{\prime \prime}$ high.
Your Cost
Fer Pair
61.98

YN14491-
Four Cos


## Fifty Watt Socket

One piece, all Steatite, positive contacts. No metal shell, cannot break duwn. No arcing. 23 x2 \% high. An unusual socket. Your Cost Each

It is limpossible within the amount - of space avallable to list the entire - National lline. We can supply any 5 also supply such new items as may - be announced from time to time.


Strain Insmlator
Aircraft type. Used in mobile, portable and police installations. Being loaded in compression, it provides great mechanical strength. Is X 14497 " long.
Your Cost Each

## Spreader

Conventionalin design, unusual in efficiency XN14498 AA-3. $6^{\prime \prime}$ long. Steatite. T 8 c
High Voltage Shaft Coupling
Isolantite, insulated, rugged. No backlash. Bored for $8 / 6^{\prime \prime}$ or $1 / \mathrm{s}^{\prime \prime}$ shafts.
XN14396-TX-3. 3 5/8" long.
Your Cost Each.
XN14397-TX-5. $5^{\text {r }}$ long.
XN14398 Each.
Your Cost Each
Isolantite, insulated. For ín S.I 1 Int design features. Leakage path ${ }_{3}$ " less than overall length.
XN14501-TX-1. 13 In $^{\prime \prime}$
Y N14 Cost Each.
Your Cost Each.

## Stand-off Insulators

Steatite. In 3 sizes. $1 \times 113^{\prime \prime}$ high, $11 / 6 \times 2^{\prime \prime}$ high, ${ }^{11203 "}$ high. Tapped both ends. XN14483-WGS-5. 13/4" high. Your Cost Each. XN14484-WGS-6. $2^{\prime \prime}$ high. Your Cost Each. XN14485 WGS-7 Your Cost Each Steatite. Dia. 11." NN148. WGS-8.


## Coil Form

Steatite. Suitable for 20 and 40 meter amplifers, and 80 meter self-excited oscillators. Threaded for No. 10 or smaller wire. Drilled. Forms for 80 and 160 meter ready soon. 5 overall length. Diameter of winding 216 Grooved for 26 turns; spaced . $143^{\prime \prime}$.
Your Cost Each................2.25 Steatite Cost Each
Steatite four section Choke Form for preci-
sion work.

Your Cost Each
Of R-39. Machinable, permitting grooving and drilling. In 4,5 and 6 prong. Uses sockets shown. ${ }^{1 / 1 / 2 \times 21 / 4}$ high.
KN14418-XR-4
XN14418-XR-4 pr
XN14419-XR-5 pr.
XN14419-XR-5 pr.
XN14420-XR-6pr. Special
Your Cost Each.
Midget coil forms in 2 sizes. With or without
 Yach Cost
YN14448

## Each.

high.
$21^{c}$
XN14424-XR-1. 4 prong. $1 \times 11 / 2$
Your Cost
Each
$30^{c}$


## Five Meter Coil

Heavy copper air spaced winding. Steatite base. For 5 meter transmitters, receivers, etc. XN14449-XR-9 complete.
Per Coil
$27^{\circ}$

## Transposition Block

Wafer-thin, made of Victron. Exceptionally light weight. They remove weight where it is most objectionable and reduce losses to a minimum
XN14503-AA-1
IB

## Antennalinsulator

Of Steatite. Was designed for general amateur use. Length provides ample leakage path; cross-section provides ample strength. Your Cost AA-6. 41/4" long.
Four Cost Each
For heavy loads.
Combines $15^{\text {c }}$ with low losses. The Steative bar diameter and has a leakage path of $81 / 4^{n}$ Bronze fittings.
XN14500
XN14500-AA-7
Your Cost Each
12\%" long. 53.00

## VELVET VERNIER DIALS

## Type "G" Dial

The Scale is projecterd onto a ground glass screen on tbe dial opening by a brilliant illuminator. Figures greatly enlarged and easy to read entarged and easy to read from any angle. Beautiful burnished silver escutcheon. Shag. Wt. 3 lbs .
standard green. Standard green.
sise; 0 to $100 ; 180^{\circ}$. List $\$ 3.75$
XN14354-Clockwise; 150 to
$0 ; 270^{\circ}$
Your Cost,
Either Type,


## Type "H" Drum Dial

Employs the patented drum dial mechanism with its powerful non-conducting drive, and spring take-up. Ratio 10 to 1. List $\$ 5.50$. GREEN
XN14355-Counter-clockwise; 0 to 100
XN14356-Clociswise; 100 to 0. \$3.30
RAINBOW
XN14357-Counter-clockwise; 0 to 100 .
XN14358_Clocikwise; 100 to 0. \$3. 30
Your Cost, Either Type......
GREEN $370^{\circ}$
YN14359-Clocku ise; 150 to 0. \$3. 31
Type "Ex" Dial This dial embodies a Velvet Vernier disc type of mechanism that assures a positive anism that assures a positive drive on condensers mounted perpendicular to the
front panel. Ratio 10 to 1 : Hammered Silver or Bronze finish escutcheon plate. Fits 3/4" shaft; also supplied at y/s" at no extra cost. Shpg. wt. 5 lbs.
XN14350-Dual 0-100-0.
XN14351-200 to 0. List $\$ 2.75$
Your Cost
Either Type


XN14352-Illuminator
${ }^{\text {s }} 1.65$
Your Cost

## Type "F" Dial

Same nppearance as the above dial but is a drum type having a white scale. Automatic take-up spring. Ratio 10 to 1. For $1 / 6$ " shaft. Can be illuminated. Shpg. wt. 3 lbs. XN14474- $180^{\circ}$ counter-clock- $\$$ wise; 0 to 100. List $\$ 4.00$
Your Cost
XN14475-Illuminator


## Netitralizing Condenser

This is a compact, rigid and efficient condenser and is particularly suitable for neutralizing 45 , 47,10 and similar tubes in amplifier, buffer or doubler stages. Very low minimum capacity. Isolantite insulation and polished plates. Maximum capacity 18 mmf ., peak voltage breakdown 3000 volts.
Shpg. wt. 11 b .
$\mathbf{X N 1 4 4 7 6}$ List $\mathbf{\$ 2 . 0 0}$
${ }^{s} 1.20$
Your Cost

## Experimenter's

 CondenserDesigned to meet the demand for a low priced mid get condenser that can be used for experimental purposes. Non-corrosive brass plates mounted on a sturdy
frame. Six stator-six rotor
Capacity 100 mmfd . Suitable for receiving or low power $x^{\prime}$ mtg. Shpg. Wh. $1 \mathrm{lb} . ~$
XN14322-List $\$ 1.00$
Your cost.

## Wave EQUIPMENT 做

## NATIONAL Vernier Dials



TYPE "A" This type " $A$ " with its smooth matchless mechanism, gives pertect control for highly setransmission used germites motion that is even and reg ular throughout. No back lash exists; none can develop. Assuring a positive even drive always. Ratio XN14375-4" dia. clockwise; 200 to 0; $360^{\circ}$ XN14376- ${ }^{\text {" }}$ dia. clockwise; 150 to $0 ; 270^{\circ}$ XN14373-33 ${ }^{8}$ S $^{\prime \prime}$ diameter; counter-clockwise Your Cost Each.


TYPE "B" and "BM" Variable ratio of 6 to 1 and 20 to 1. Black bakeliteshell. 4 " diameter. Type " $B$ " is Without light or bracket. to 0, $360^{\circ}$ XN14368to $0: 180^{\circ}$. Your Cost

Dial Illuminator and Eracket XN14352-List 50 c . Your Cost
$30^{\circ}$ Similar to Type "BMM"-3" Dial
ncorporate type "B". Diameter $3^{\prime \prime}$. Does not itluminated. List $\$ 2.50$
XN14371-Dual range; 0 to 100 to 0 XN14372 Clockwise; s00 to 0. SI. 59


This is a $4^{\prime \prime}$ Precision Instru ment Dial, equipped with original, and unexcelled Velvet Vernier mechanism, assuring a smooth positive, and reliable rive. Reading possible to 1-10 XN14363-0 to 100. $180^{\circ}$. XN14365-150 to $0 ; 270^{\circ}$ XN14364-100 to $0 ; 180^{\circ}$
$\times N 14366-200$ to $0 ; 360^{\circ}$
List $\$ 6.75$. Your Cost Each.
 A 6" Precision Dial, with standard Velvet Vernier mechanism, with firm and positive drive. It is capable of extreme precision. Flush Vernier eliminating parallax. Reads may be estimated to a twentieth. Equipped with a threepoint variable ratio. Mount-
ing exceedingly easy. Standard size hub S/8"
XN14360-100 to 0: $180^{\circ}$.
XN14361-150 to 0; $270^{\circ}$
XN14362-200 to 0:360
List \$15.00. Your Cost Each.
Full Vision Dial

(9)

Used by many manufacturers of Short Wave Receivers, this dial has been found to be one of the finest made for this purpose. It fills a deftnite need for a dia having none of the farlings usually so noticeable in a unit of this type. The scale is fully seven inches in length, insuring accuracy o. reading, which is quite essential in high frequency work There is ample separation between calibrations. The pointer moves evenly across the scale, and remains vertical at all positions. The mechanism is similar to that of the type "E", noted for its smooth and positive drive which improves with use. The scutchens can be supplied in either Silver or Antique Bronze, and is easily mounted With four small screws
XN14378-0-100; 180
$\times N 14379-0$ counter-clockwise
XN14379 $-0-100 ; 270^{\circ}$; counter-clockwise XN14377- $100-0 ; 180^{\circ}$ clockwise. $\$ 2$ List $\$ 4.50$. Your Cost Each


No Shorted Turns. A basic feature
of all two-bearing National Midget Condensers is the insulated front bearings, resulting in no shorted turns.
Exclusive Constant-Impedance Pigtail, a patented National feature. One of the many advantages that make National Midgets such consiatent and invariable performers. This electrically perfect connection to the rotor elfminates the noise crackle and varying impedance ( 1 . C. Inductance) of tke
 brush type of contact.
Isolantite, acknowledged high efficiency dielectric, is ured for insulating National Midgets-reducing dielectric losess to a AI
Aluminum plates; thick, polished all over, with wide polisted Frequed edges, are used in the Naticnal SEU Ultra-EichFrequency Midgets. Non resonant characteristies of aluminum plates prevent microphonic feed-back from plate vibration.
National Condenser Designatiors SE-270-degree rotation, SFL. ST-180-degree rotation; SLW. SS-180 degree rotation, SLC. H-High capac-ity-close spacing. U-Ulira short wave-extra wide spacing. HS-High capacity, single bearing. D-Dual type. N-Neutralizing Condenser.


| Stock No. | Natione! Type No. | $\begin{gathered} \text { Capacity } \\ \text { in } \\ \text { Mmf. } \end{gathered}$ | $\begin{aligned} & \text { Air } \\ & \text { Gap } \end{aligned}$ | No. of Bearings | Plate <br> Shape | Rotor Plates | Stator Plates | Depth behind Panel | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XN14291 <br> XN14293 | ST- 50 100 | 50 100 | .026 .026 | 2 2 | $180^{\circ}$ | ${ }_{10}^{6}$ | 10 | $21 / 0^{\prime \prime}$ $21 / 6$ | $\$ 1.08$ 1.25 |
| XN14294 | 150 | 150 | . 026 | 2 |  | 15 | 14 | 234. | 1.35 |
| $\begin{aligned} & \text { XN14295 } \\ & \text { XN14296 } \end{aligned}$ | STH-200 250 | 200 250 | .0175 .0175 | 2 2 2 |  | 114 | 13 | $2{ }^{2}{ }^{1 / 7}$ | $\begin{aligned} & 1.65 \\ & 1.80 \end{aligned}$ |
| XN14299 | STN-18 | 18-3000 v | . 065 | 2 |  | 16 4 | 16 3 |  | $\begin{aligned} & 1.80 \\ & 1.20 \end{aligned}$ |
| XN14303 | STD- 50 | 50 per sec. | . 026 | 2 | $\begin{aligned} & 180^{\circ} \\ & \text { S.L. W. } \end{aligned}$ | 6 per sec. | 5 per sec. | 29/4" | 2.10 |
| XN14304 | STHD. 100 | 100 per sec. | 0175 | 2 | S.L.W. | 7 per sec. | 7 ner sec. | 23/4" | 2.70 |
| XN14305 <br> XN14306 | SS- 50 | 50 75 | .026 .026 | 2 | S. ${ }^{180}{ }^{\circ}$ | 5 | 4 | $24^{\prime \prime}$ | 1.68 |
| XN14307 | 100 | 100 | . 026 | 2 2 2 | S.L.C. | 7 | 8 | 24" | 1.20 |
| XN14308 | 150 | 150 | . 026 | 2 |  | 12 | 8 12 | 29 | 1.35 1.50 |
| XN14309 | SSII-200 | 200 | 0176 | 2 |  | 11 | 10 |  | 1.65 |
| XN14310 | 250 | 250 | . 0175 | 2 |  | 13 | 13 | $2{ }^{\text {2 }}$ | 1.65 |
| XN14311 | 300 | 300 | . 0175 | 2 |  | 16 | 15 | 2\%" | 1.80 1.95 |
| XN14312 | 350 | 350 | . 0175 | 2 |  | 18 | 18 | $2^{\text {a }}$ | 2.10 |
| X N14313 | SSN-18 | $18-3000 \mathrm{v}$. | . 065 | 1 |  | 3 | 3 | 13/6" |  |
| XN14314 | SSS- 20 | 20 | . 0175 | 1 |  | 1 | 2 | $13 /{ }^{\prime \prime}$ | 1.84 |
| XN14315 | 30 | 30 | . 0175 | 1 |  | 2 | , | 11\%" | . 90 |
| XN14316 | 50 | 50 | . 0175 | 1 |  | 3 | 3 | 110" | . 96 |
| XN14317 | SSD- 50 | 50 per sec. | . 026 | 2 | $180^{\circ}$ | 5 per sec. | 4 persec. | 23" | 2.10 |
| XN14318 | SSH D-100 | 100 per sec. | . 0175 | 2 | $180^{\circ}$ | 5 per sec. | 5 per sec. |  |  |
| XN14319 | 150 | 150 per sec. | . 0175 | 2 | S.L.C. | 8 per sec. | 8 persec. | 2 ${ }^{3}$ | 3.60 |
| XN14280 | SE- 50 | 50 | . 026 | 2 | $270^{\circ}$ | 6 | 5 | 21 | 1.80 |
| XN14282 | 100 | 100 | . 026 | 2 |  | 10 | 10 | 21/4 | 2.10 |
| XN14283 | 150 | 150 | . 026 | 2 |  | 15 | 14 | 2\%" | 2.25 |
| XN14285 | 250 | 250 | . 0175 | 2 |  | 16 | 16 | 23 | -2.40 |
| XN14287 | 335 | 335 | . 0175 | 2 |  | 22 | 21 | 2 ${ }^{\prime \prime}$ | 2.55 |
| XN14288 | SEU- 15 | 15 | . 055 |  |  | 3 |  | 2." | 1.50 |
| XN14290 | 25 | 25 | . 055 | 2 |  | 5 | 4 | 24. | 1.65 |

Shafts $16^{\prime \prime}$ dia. Standard rotation clockwise, counter-cloclivire on special order. Special Any intermediate capacity may the rear bearing for gangine.
Any intermediate capacity may be had in any of the above types. The list price would be the same as the next higher capacity listed.

NATIONAL Type 800

## Neutralizing

## Condenser

Due to the extremely low capacity required for neutralizing the new 800 tubes an entirely different design of condenser had to be devised. Micrometer adjustment of capacity. Isolantite
insulation. Shpg, wit. 2 lbs, XN14259
Your Cost....
YI.

## Frequ:ency Meter

## Condenser

Especially designed for use in frequency meters and monitors, A fixed
minimlim capacity of 40 mmids. With a maximum Capacity of 75 mmfds
 When used with 100 divi-
zion dial will soread ban Shpg. Wit. 2 lbs.
XN14320

## Imput Transformers

 Class "B"XE5350 - Driver plate to 59, 5ै, 79 or 89 grids. Type PA-1. Shpg. wt.
3 ibs.
Your Cost XE5351-D 46 or 59 grids. Type $P$ Your Cost $\$ 3.30$ $2-46$ or 59 grids; or P. P. 2 A3 1028811 grids. Type PA-2. Shpg. Your cost
 plates to $2-42 \mathrm{~A}^{\prime} \mathrm{s}, 800^{\prime} \mathrm{s}, 830$ 's,
 $\times$ K5354-P P. 2 A 3 203 A grids. Type PA-2 ${ }_{4}$ Yibs. Cost XE5355 $50,0,200$,
1o $2-46$ or 59 grids Shpg. wt. 5 lbs Your Cost
5.10

KE5356-5
$\$ 4.50$ ${ }^{10} 5$ Your cost Your cost $\quad . \quad \mathbf{6 . 0 0}$






$\$ 4.50$

## for <br> 5 Meters or 50-60

 Megacycles This transceiver efficient 5 meter receiver andtransmitterin one case and uses the same tubes ( 1 type 30 and 1-33) for both transmitting and receiving. Its wa velength range is ample for the complete band from 56 to 60 megacycles with room to spare at each end. Picard " Q " or the more conventional 1 or 1 wave rods. A highly efficient volume control is incorporated (not a filiment rheostat). Special
 Posts, and the completete tuning cirreuit is insulated and mounted on the new National Yietron. This material is ar superio to others
in thigh Treauncy
nork
 attractively finished in black crinkel lacquer. Shpg. wt. 9 lbs.
N Nis3833- Nat ional 6 Meter Transeeiver, lees
Your cost
s27.00
Kit of Matched Tubes
${ }^{\$} 1.18$

## Shielded Air Dielectric Padding Condensers


dielectric padding condenser Isolantite insulation. $114^{\prime \prime}$ in diameter and $11 / 4{ }^{n}$. high for the 76 mmid., and $1132^{\prime \prime}$ for the 100 mmid. Shpg. wt. 1 lb b

| Stock | Capacity | Your |
| :---: | :---: | :---: |
| No. | Mmids. | Cost |
| XH9745 | 75 | $\$ 1.20$ |
| XH9746 | 100 | 1.35 | XE5345 150 M . A. PA-2. Shpg

## XE5346-5

 Your Cost 15 lbs . Your Cost
## 

## TYPE P.A MTG.

## UTC X'mitting © P. A. Guide

## A new 100-page Guide on Amateur, Broadcast Station

 and Public Address Equipment. Articles by Turman, Dow, Kruse, Jones and Hawkins. Amateur section alone contains over 40 diagrams. A mighty XY19998-Your Cost.$50^{\circ}$

## NATIONAL <br> X'mittilng Condensers

UTC Transformers and Chokes have been uni versally accepted by the



Swinging Imput Chokes to 25
D. $C$.
D.C.
resistan

25 henries at 20 to ohms. Max. D.C. resistance 110 PA-3. Shpg, wt. 10 lbs. $\$ 4, B$ XE5347-6 to 30 henries at 25 to 250 M. A. D. C. resistance 90 ohms. Max. D. C. volts 1300.
$\$ 7.20$
XE5348-20 to 100 henries at 25 to 250 M. A. D. C. resistance 240 ohms. Max. D. C. volts 2600. Type Pa-5. Shpg. wt. 25 lbs
Your
Cost..............
ST2.00 XE5349-5 to 25 benries at 75 to 500 M . A. D. C. resistance 60 ohms, Max. D. C. volts 1300.

## mesperimpreresene NOT

 Due to space limitations we catransformers and chokes mad
Corppation. We are prepared,
delivery on any item at your delivery on We lione prepared, however, to furmish immediate -


Light weight yet highly efficient transmitting condensers, Both rotor and stator plates have polished rounded edges. Positive rotor contact brush. Provision for either panel or shelf mounting (both if desired-to hold shelf). 3000 volt condensers have $.077^{\prime \prime}$ spacing . 6000 volts have $.171^{\prime \prime}$. Ratings conservative Stock Capy. | No. |
| :---: |
|  |
|  |
| 171 |

## XN14510 <br> XN14511

XN14511
$\mathbf{X N 1 4 5 1 2}$
XN14512
$\mathbf{X N 1 4 5 1 3}$
XN 14513
$\mathbf{X N 1 4 5 1 4}$
XN14514
$\mathbf{X N 1 4 5 1 5}$
XN14515
$\times N 14516$
$\times N 14517$
XN14516
XN14517
XN14517
XN14518
Midd
35
50
100
100
150
150
230
230
350
450
$.171^{\prime \prime}$
$.171^{\prime \prime}$
$.0771^{\prime \prime}$
$.077^{\prime \prime}$
$.171^{\prime \prime}$
$.077^{\prime \prime}$
$.077^{\prime \prime}$
$.077^{\prime \prime}$
Your

## Equimeter Condensers

Similar to the above but do not have polished rounded edges. Excellent for use in receivers or low-powered transmitters and oscillators using 45 's, 47 's, $59^{\prime}$ 's, $10^{\prime} \mathrm{s}$, etc., where plate voltages do not exceed 1000 volts Isolantite insulation. Straight wave-line shaped plates. Shpg. 3 lbs.

XN14525
XN14526
XN14527
XN14528
$\times \mathrm{X} 14529$

Capacity
50 mid .
Plates
3
6

## Trap Resonant Smoothing Chokes

 All have off-center tapbucking arrangements. XE5340-8 henries at 150 M. A D.C. resistance 115 ohms. Type PA-2. Shpg.
Your Cost
XES341-10 hen 3001 D. C rist 110 M. A P.A-3. Shpg. wt. 10 lbs . $\$ 4.811$
Your Cost.......... XE5342-12 henries at 250 M . A D. C. resistance 90 ohms. Type Your Cost............ \$7.29 XE5343-35 henries at 250 M . A. D. C. resistance 240 ohms. Type PA-5. Shpg. wt. 251 bs .
Cour
$\$ 12.00$
resistance 60 ohms. 500 M . A. D. C. resistance 60 ohms. Type

PA-5. Shpg. wit. 25 lbs .
${ }^{1} 12.00$

## Type SRR

This is a 3 -tube Super Regenera Uses a 36 -screen grid regenerative interruption frequency Oscillator and an 89-Pentode Primarily de supply
Lists $\$ 32.50$
Your Cost.

## Output Transformers

 Class "B"
## Xe5333-Primary: 10,000 ohms

 (suitable for $49,53,79$ or 89) and 6,000 ohms ( 46 's, 59 's) plate to plate. Secondary: 5000,3500 ohms. YourCost
XE5334-Primary: io, $0,000,20$ (suitable for 830B's) and 6,000 ohms (for 203's), plate to plate. Secondary: $10,000,2500$ ohms. Type PA-5. Shpg
Cost.
SIC.S0
(eysimary: 6000 ohms plate to plate (suitable for 46 's or 59 's). Type PA-2. Shpg. wt. 4 lbs.
XE5335-Primary: 8000 ohms plate to plate (suitable for "A Prime 2.5 or 42 s). Secondary: 5000 , 4 Jobs.
Your
Your Cost
$\$ 4.21$
Xe5337-Primary: 12,500 ohms plate to plate (suitable for 800 's,
RK18's, 825 's). Secondary: 5000 ,
3000 ohms. Type PA-4. Shpg. Wt,
10 lbz .
Your Cost........ XE5338-Primary: 12,500 ohm (suitable for $800^{\prime} \mathrm{s}$, RK18'2, $825^{\prime} \mathrm{s}$ ) 8000 ohms (for 242A's, 211 E 's).
Secondary: $\quad 20,000,5000$ ohms Type PA

## Your <br> Cost.

XE5339-Primary-8000 to plste (suitable for 210 's $830^{\prime}$ 's 841's). Secondary: $18,000,4500$ ohms. Type PA-3 Shpg , 4500
Your
Cost
s7.50

## Super Regenerative Receiver


signed for 5 -meter work, the 56 to 60 MC band is spread over 50 -dialdivisions. A phone jack is connected in the detector output. Ample volume for loudspeaker operation. Plug-in inductors enable the receiver to be operated on the 10 , $20,40,80$ and $160-$ meter bands as a conventional detector and one-stage (with the I F tube removed). Iequires a 6 -volt A. C. o D. C13875-Type "SRR" with 56 to 60 MC coil. Less tubes and power
${ }^{\text {s }} 19.50$
XN13876-National 5886 AB Pack for a bove Lists $\$ 34.50 ~ . . . . . . . . . . . . .21 .70$
$75^{\text {c }}$
Your Cost Each Coil.
XN13899-Coils for the 80 and 160 -meter
band.
Your Cost Each Coil...........

Ultra High Frequency Converter
Converts any receiver into a 5 -meter zeceiver. $9 \times 10 \times 7^{\prime \prime}$. Requires $2-24$ 's and $1-27$ or $2-36^{\prime}$ 's
and 1-37, Shpg.wt. 22 lbs. $\$$.
XN1382i
Your Cost...............
-


## 

Not just another line of "cheap" transformers and chokes for the Amateur Transmitter. If price were the only thing we had to offer, we would probably start by telling you how much money you could save, and so forth, and forget to say how well they were made. This NEW line of Trutest Transmitting Transformers was designed by one of the foremost transformer engineers in the country and incorporates every improvement known to date in transformer manu-
facture. Every bit of material used in making these units-core iron insulating paper, wire. castings, terminals, etc., are checked again and again to assure uniform quality. Prices? Of course they are not as low as that of "surplus" material, but, they are the lowest ever placed on units of like quality - and you can now, for only a very few cents more than you would pay for unknown, undependable, "bargains" buy thoroughly reliable, guaranteed transformers and chokes.


Type D Mounting-Fully shielded. Can be mounted with terminals on top or under chassis.


Type E Mounting-Open type with terminal strip at top.

## Filament and Plate

 TransformersPrimaries $105-115$ v. 60 cycle. XC1517-Secondaries 400-0-400 V. at 150 Ma., 2.5 V at 5 amps., 2.5 v . at $12 \mathrm{amps},. 5 \mathrm{v}$, at 3 a
all C . T. except 5 v . m . Shpg. wt 10 lbs.
Your Cost
53.75

XC1516 - Secondaries 580-0-580 v. at 175 Ma., 5 v. at $3 \mathrm{amps} ., 2.5$ V. at 3 amps.; 2.5 v at 10 amps. 10 libs.
Your cost. ........ $\$ 4.45$

## Class B Inpret

XC2555-Driver 46 or 59 plate to 46 or 59 grids. D motg. $\$ 3.45$ XC2556-P.P. 45 or 59 plates to 2-46 or 2-59 grids. D mtg.
Your
s. 4.75

XC2557-P.P. 45 or 59 plates to $2-210,2-800,2-830$ or 2-RK18 grids. D mtg
s 4.75
XC2558-P.P. 250 or 2 A3 plates to


Filament Transformers All have $105-115 \mathrm{v} .60$ cycle primaries.
XC2542-Secondary 2.5 v . winding (C. T.) at 10 amps. B mtg. $10,000 \mathrm{v}$. insulation. Shpg. wt. 6 lhs. \$3.
Your Cost....... XC2543-Secondary 5 v. (C.T.) at 20 amps . B mtg. 10,000 insulation. Shpg. wt. 12 lbs.
Your
Cost
XC254-Two secondaries 7.5 v . (C. T.) at 5 amps , each. $\mathbf{B}$ mtg. $5,000 \mathrm{v}$. insulation. Shpg. wt.
6 Ibs. Your Cost........ 3.25
XC2545-Secondary 7.5 v (C. T.) XC2545-Secondary 7.5 V . (C. T.)
at 8 amps . B mtg. $5,000 \mathrm{v}$. insulation. Shpg. wt. 101 lbs . Cost XC2546-Secondary 10 V (C.T.) at 8 amps . B mtg. $5,000 \mathrm{v}$. Insulation. Shpg. wt. 81 bs , Your
XC2547-Second....
s.75

XC2547-secondary 10 v (C.T.)
at ${ }^{41} 2$ amps. E mtg. Shpg. wt.
6 lbs .
Your Cost.....
Your Cost.
$\times \mathbf{C 2 5 4 8}$-Th
XC2548-Three C.T. 5 v. secondamps. $B \mathrm{mtg} .3500 \mathrm{v}$. insulation. Shpg. wt. 8 lbs. $\$ 3.35$ XC2549-Two 2.5 v. C. T. secondaries at 5 amps each. One 5 v . Shpg. wt. 7 lbs. $\$$ I .75 Your Cost xC2031-Secondary $23 /$ v. at 5 amps.; 5 v. at 3 amps., $71 / 2$ v. at 3 amps. Type E mtg. Shpg. wt. $\stackrel{8}{8}$ libs. XC2032-Secondarie amps., $71 / \mathrm{V}$.at 3 amps $71 / \mathrm{v}$ at 3 amps. Type E mtg. Shpg. wt. 8 lbs. Cost......... \$1.75 XC2033-Three secondarieseach $71 / 2 \mathrm{v}$. at 3 amps . Type $\mathbb{E}$ mtg. Shpg, wt. 8 lbs.\$1. 75 XC2034-Se 3 amps, two 7 daries, one 5 v.at each. Type E mtg. Shpg. wt 8 Your Cost......... \$I. 75

## Special Output

XC2037-Single 45 plate to RK20 suppressor grid. Type D mtg.
Shpg. wt. 6 lbs. Your Cost.

## Chokes

XC2533-Swinging choke. Max. D. C. 200 Ma . Resistance 100 ohms. Type D mtg. Shpg. wt. 7 lbs. $\times{ }^{2534}$ XC2534-Swinging 3 D. C. 400 Ma . Resistance 95 ohms. Type $B$ mtg. Shpg. wt 10 lbs. XC2535
$\$ 7.95$ XC2535-Swinging choke. Max
D. C. 750 Ma. Resistance 40 ohms. Type $B$ mt 15 lbs.
Your Cost
s 11.25
XC2536-Filter choke. 15 hen ries. Max. D. C. 150 Ma . Resistance 110 ohms. Type D mtg. Shpg. wt. 5 lbs. \$2. 40 Xc2537-Filter choke. 15 henries. Max. D. C. 250 Ma . Resistance 100 ohms Type Shpg. wt. $71 / 2 \mathrm{lbs} . \$ 3.95$
Your cost........
$\times$ C2538-Filter choke. 30 hen-
XC2538-Filter choke. 30 hen-
ries. Max. D.C. 150 Ma. Resistance 130 ohms. Type D mitg. Shpg. wt. $71 / 2 \mathrm{lbs} . \$ 3.95$ XC2539-Filter choke. 30 hen fies. Max. D. C. 250 Ma. Resist nes. 100 op. Shpg. wt. 14 lbs.
Your Cost.
$\$ 6.75$
XC2540-Filter choke. 15 henries. Max. D. C. 350 Ma. Resistries. Max. D.C. 350 Ma. ResistShpg. wt. 13 lbs.
Your Cost......... 6.75
-

## Outputs

XC2599-Pri. Imped. 10,000 ohms plate to plate suitable for Class "A" P.P. 59 triodes, $71^{\circ} \mathrm{A}$, 2B6, Single 210, 41, 268A, 2 A3. Also 6000 ohms suitable for Class ${ }^{4} \mathrm{~A}^{\prime \prime}$ P.P. 52A, Single 31, 46, 59 pentode. Class "B" P.P. 46, 59. Secondary Imped. 5000 and 3500 ohms. D mtg. S4.25 XC2560-Prl. Imped. 3200 ohms plate to plate for P.P. 203A in plate to plate for P.P. 203A in 10,000 and 2500 ohms. A mtg. Your
Cost.
XC2561-Pri. Imped 10,000 ohms plate to plate for Class "B' B " P.P. 800, RK 18. Secondary 5000 and 20,000 ohras. A mtg. will handle $75-100$ watts. \$II.?
Your Cost


Type A Mounting-Totally en metal end covers. Ceramic standmeft type terminals.


Type B Mounting-Open type cast frame.

Type C Mounting-Flush type in combination models only.

## Plate Transformers

All have $105-115$ volt primaries.
XC2551-Secondary 550-0-550 at 200 M. A. Type 13 mtg. Shpg Your Cost
$\$ 5.75$ XC2552-secondary 1000-750-0 $750-1000$ v. at 200 M . A. Type A mtg. Shpg. wt. 30 lbs Your
\$I0.25
XC2553-Secondary 1500-1250. $0-1250-1500 \mathrm{v}$. at 300 M . A. Type A mitg. Shpg. wt. $\$ 8$ libs. 10 Cost.
21.0. XC2554-Secondary 2000-1500-
$0-1500-2000 \mathrm{v}$ at $500 \mathrm{M}. \mathrm{A}$.Type $0-1500-2000$ v. at 500 M . A. Typ
A mtg. Shpg. wt. 80 lbs . A mitg
Your
Cost
$\$ 37.50$

## GUARDIAN X'mitting Relays

These relays have silver contacts $3 / 4^{\prime \prime}$ in diameter and $1 / 8^{\prime \prime}$ thick Insulation is of genuine bakelite. Laminated magnets. Overload Relays Adjustable type. When once set for any value between 150 and 500 Ma , will trip when this value is exceeded. Hand re-set - does not make contact until handle is released so that it wif button extonds through panel. Shpg. wt. 4 lbs XN14120-List $\$ 12.00$ Your Cost
\$7.06 XN14121-Non adjustable for 250 Ma .

## XN14122-Non adjustable for 500 Ma. Shpg. wt. 3 lbs . each.



## DEAGAN

## Station

## Chimes

For the amateur phone man or the broadcast station. Can also be
used in the home for dinner chimes. Four perfecty
 pitched notes of beautiful tone. Tuned to a perfect chord-im possible to play them out of tune. Simulate: bugle-calls or clock tower chimes. Black plates on manderin red frame; gold ornaments. Com. plete with harmmer and book of 80 calls and tion a distinctive chime call when sioning of tion a distinctive chime call when sigming of
it helps identify you during bad QRM. Shpg XN14013
XN14013-

## HORDARSON Transmitting Transformers



Type A


Type B


Type C

Thordarson Engineers present these eight new power transformers and associated filter chokes as the essential units of complete power supplies for operation of e very amateur transmitter. Within the range of voltage and current outputs provided by these power supplies are covered the needs of practically every a mateur transmitter from those using 46 's to 851 's. Thordarson again takes the lead by rating all high voltage transformers at the actual DC watts output, when used with a recommended filter system. No longer must the amateur be guided by AC secondary voltage-current ratings that are meaningless in terms of transmitter performance.

## CHOKES

## Plate Transformers

XA407-Provides 1-K.W. input. XA411-Provides 1000 volts. D.C. Actual D.C. rating- 3000 volts at at 500 M.A. with choke input. 380 M.A. Sec. A.C. -3630 volts. A husky, air-cooled transformer, weighing 70 lbs. Type A motg. Shpg. wt 85 lbs. $\$ 39.223$
Your Cost XA408-Similar to the above, but with a D.C. rating of - 2000 volts at 500 M.A. Sec. A.C. -2420 volts. Type A mtg. Shpg. wt. 65 lbs . Your
Cost XA409-D.C. rating of 2000 volts at $250 \mathrm{M} . \mathrm{A} . ~ T y p e ~$
B mtg. Shpg.
Your Cost...... 25 I Your Cost XA410-Especially designed for
the 800 tubes. D.C. rating- 1000 the 800 tubes. D.C. rating- 1000 Ar.C. 1250 volts at 280 and 1600 volts. Type B mitg. Shpg. wt. 43 lbs.
Cour
$\$ 13.52$

## Swinging Type (Input)

 XA415-150 M.A. choke, to be used with the XA414 plate transformer. 30.3 henries dry- 9.85 henries at 150 M.A., 2000 -volt insulation. D.C. resistance, 200 ohms. Type H mounting. Shpg. wt. 7 lbs. \$2. 94 XA416-400 M.A., for use in class "B" '03A supply. 40 henries dry 25.6 hearies at 400 M.A., 3000 volt insulation. D.C. resistance, 118 ohms. Type D mtg. Shpg. Wt. 35 lbs. S10.58 XA417-A $250-\mathrm{M}, \mathrm{A}$. choke, to be used with XA410-or similar plate transformers. 19 henries dry12.35 henries at 250 M.A., 5000 voit insulation. D.C. resistance, 95.3 ohms. Type D mtg. Shpg.wt. 13 lbs . wt. 13 lbs.
Your
Cost.... $380-\mathrm{M} . A$. choke for use with XA407-or similar plate transformers. 19 henries dry10.4 henries at 380 M.A. 5000 volt insulation. D.C. resistance, 93 ohms. Type D mtg. Shpg. Wit. 20 lbs .
$\$ 7.16$ XA419-A $500-\mathrm{M}, \mathrm{A}$. choke. 17 henries dry- 8.23 henries at 500 M.A., 5000 -volt insulation. D.C. resistance, 70 ohms. Type D mig. Shpg. wt. 241 lbs.
Your Cost.........
.

Sec. A.C. -1335 volts. Type B mtg. Shpg. wt. 43 lbs.
Your
Cost

## Cost.

XA412-Designed for the new
750 -volt tubes. D.C. ratinc- 750 volts at 350 M.A. Sec. A.C- 980 volts. Type $\mathbf{B}$ mtg. Shpg volts. Type B mtg. Shpg. wt.
31 lbs. Cost...... 1.58
Your XA413-Provides 1000 volts at 400 M.A., through suitable filter. Sec. A.C. -1270 volts. Type B mtg. Shpg. wt. 34 lbs.
Your
Cost. ........... Cost.............. 525 volts D.C. at 150 M.A. Sec. A.C. -725 volts. Type $C$ mtg. Shpg, wt. 12 lbs. $\$$ Your
Cost

## Smoothing Chokes

XA420-150-M.A. filter choke, for use with XA415-or similar input choke. 19.7 henries at rated current. 2000 -volt insulation. D.C. mt Your Cost with XA 417 choke. 23.6 henries at rated cur rent. 5000 -volt insulation curresistance, 190 ohms. Type D mesistance, Shpg. wt. 15 ohms Your $\$$ Sos. 8 Cost XA422- $380-\mathrm{M} . \mathrm{A}$. filter choke fo use with XA418-or similar input chokes. 20 henries at rated cur-
rent. 5000 -volt insulation rent. 5000 -volt insulation. D.C. mtg. Shpg. wit. 30 lb Your
Cost.
Cost . . . . . ..... \$9.40
XA423-500-M.A. filter choke for use with XA419-or similar input choke. 16.5 henries at rated curesistance volt insulation. D.C. mis. Shpg. wt. 29 lbs . Type D Your
Cost
$\$ 10.10$

## Filament Transformers

All secondaries have center taps. The following transformers have primaries tapped for 105-110115 volts.
XA441-71/2 volts at $21 / 2 \mathrm{amps}$ Type H mtg.
Shpg. wt. 7 ibs.
Your Cose.....
$\qquad$
XA442-10 volts at $61 / 2 \mathrm{amps}$. Type $H$ mtg. Shpg. wt. 7 lbs. Your
Cost.
3.24 Type H mtg. shpg at 10 mp Your

## Cost.

\$4.12
XA444-Four secondaries: 10 volts at 31, amps., 10 volts at $61 / 2 \mathrm{mps}$., $71 / 2$ volts at $11 / 4 \mathrm{amps} ., 21 / 2$ volts at 5 a mps. Type F mitg. Shpg.
wt. 10 lbs. Your Cost.
${ }^{3} 6.76$
XA445-Three secondaries: 71/2 volts at $41 / 2$ amps., $71 / 2$ volts at $61 / 2$ amps., and $21 / 2$ volts at 4
 NEAHFRAOAV Iranstormers í chowes or three heater tubes. Size $2 \times 31 / 4$ $17 / 8$ Shpg. wt. 2 lbs. Your Cost Each


Type 464-221-Delivers 6.3 volts C.T. at 4 amps. (for 6.3 -volt heaters) and 5 volts at 4 amps. For rectifier or power tubes. Sizes $21 / 2 \times 4 \times 25 / 8{ }^{\prime \prime}$. Shpg. wt. 3 lbs
XE5440-
$\$ 1.18$
Type 464-231-Delivers 7.5 volts C.T. at 2.5 amps , and 7.5 volts C.T. at 2.5 amps . For filaments of 10 or 50 type tubes and for 81 rectifiers. Size $4 \times 31 / 3 \times 2 \% / 6 .^{"}$ Shpg. wt. 4 lbs .
XE5441-
$\$ 2.06$

Type 464-241-Delivers 10 volts C.T. at 7 amps. Suitable for use with 50 -watt tubes, such as 203 A 211 , ete. Size $4 \times 3 \frac{1}{4} \times 2^{7 / 1 "}$. Shpg. XESA42
Your Cost, Each
$\$ 2.35$

## Chokes

Type 466-210-A 30-henry at 150 M.A. filter choke. D.C. resistance is 425 ohms. Dimensions, $21 / 4 \times 41 / 4=$ 3". Shpg. wt. 5 lbs. 51.03
XE546S-Your Cost.
Type 466-220-A 20-henry, at 120 M.A. choke. 200 ohms D.C. resistance. $21 / 8 \times 27 /$ in $\times 4^{\prime \prime}$. Shpg. wt. 41 bs.
XE5464-

Following have 115 V . primaries XA446-11 volts at $151 / 2 \mathrm{amps}$. Type C mig. Shpg. Your Cost.
XA447-5 volts 25 volt insulation. Type B mtg. Shpg Wt. 7 lbs .
Your Cost S 10.58 XA448-Twosecondaries. $21 / 2$ volts at 10 红 amps., 5 volts at 3 amps. 3000 -volt insulation. Type $F$ mtg. Shpg. wz. 7 lbs.
$\$ 3.53$
XA449-21/2 volts at 10 amps . 1600 -volt insulation. Type H mig. Shpg. wit. $71 \mathrm{bs} . \$ 2.65$ XA450-21/2 volts at 10 amps. 7500 -volt insulation. Type H mts Shpg. wt. 7 lbs. Your Cost.
$\$ 3.53$ XA451-71
volts
Type H mig. Shpg. Your
Cost
wt. 7 l bs .
$\times 445$
52.94

H mtg. Shpg. wt. 7 amps. Type
Cost.
\$2.06
Type 466-230 15 as 30 -henry at choke. D.C. re sistance is 1400 sistance is 1400 ohms. Dimen sions: 21/8x ${ }^{7} / 1 / 5 x$ 4". Shpg-wt. 4
XE5465
Your
Cost... $88^{c}$


Type $466-260$ is a 15 -henry filter choke with a capacity of $60 \mathrm{M} . \mathrm{A}$. The D.C. resistance is 150 ohms. Dimensions are $15 / 5 \times 2$ 多 $\times 2^{12} / 8^{4}$. Shpg. wt. 3 Ibs. XESAG6Your Cost

## CORNELL-DUBILIER OIL-FILLED CONDENSERS



Stock Cap.
No. Mfd. XD2982

## Type "TA" Condensers

The use of Pyranol, a new impregnator having high dielectric strength and high dielectric constant is responsible for the compactness and high efficiency of these condensers. Specially designed for amateur transmitters. The impregnator used is non-inflammable and eliminates the fire hazard. Height 4" length $33^{3}$ ", width of 1 mid. unit $11 / 4^{\prime \prime}$, of 2 and 4

Type "TB" Pyranol Condensers Designed especially for high voltage rectifying systems
supplying the plate circuits of commercial radio telesupplying the plate circuits of commercial radio telehoused in arc welded steel containers, very compact in size. Leakage resistance and power factor change far less at high temperatures than with other types. Sbpg wt. 32 lbs

| Stock | Cap. | Wkg. |
| :--- | :---: | :---: |
| No. | Mld. | Volts |
| XD2940 | .5 | 7500 |
| XD2985 | 1.0 | 7500 |
| XD2986 | 2.0 | 7500 |
| XD2941 | 4.0 | 7500 |
| XD2942 | .5 | 10000 |
| XD2943 | 1.0 | 10,000 |
| XD2944 | 2.0 | 10,000 |

SANGAMO Mica


## Condensers

Designed for the a verage lo wand high powered Dielectric of the finest ruby mica. Cased in moulded bakelite.

| 5000 V. D. C. Test 2500 V. D. C. Working |  |  |
| :---: | :---: | :---: |
| Stock |  | Your |
| No. | Cap'y | Cost |
| $\times \mathrm{C} 3085$ | . 00005 | \$0.39 |
| $\times$ O3076 | . 0005 | . 73 |
| XD3077 | . 0001 | . 53 |
| $\times \mathrm{O} 3078$ | . 00015 | . 59 |
| $\times \mathrm{C} 3079$ | . 00025 | 62 |
| $\times \mathrm{CD3080}$ | . 0002 | . 62 |
| $\times \mathrm{C} 3081$ | . 002 | 1.32 |
| $\times \times 3082$ | . 001 | . 88 |
| $\times$ X 3084 | . 0015 | 1.15 |

## ELECTRAD

## Power Rheostats

Vitreous En ameled. Shaf and bushing in sulated from Contact shoe of special graphite composition conelement on th element on the
 outside diamcter. Units eapecially suited for primary controls, filament controls, and general voltage attenuators. Single hole mounting. Shpg. wt. 3 lbs.

## 50-Watt Size

Stock Res. Cur. Stock Res. Cur. No. Ohms Amps. No. Ohms Amps $\times G 7870100.70 \times G 7873 \quad 300.41$ XG7871 $150.58 \times$ X7874 500.31 XG7872 $200.50 \times 678751000.22$ List Price $\$ 3.50$. Your Cost, Any Size., \$2,06 150-Watt Size
Stock Res. Cur. Stock Res. Cur.
No. Ohms Amps. No. Ohms Amps. No. Ohms Amps. No. Ohms Amps. $\begin{array}{llllll}\text { XG7876 } & 25 & 2.4 & \text { XG7882 } & 150 & 1.0\end{array}$ $\begin{array}{llll}\times G 7877 & 35 & 2.0 \times G 7883 & 200.87\end{array}$ $\begin{array}{llll}\text { XG7878 } & 50 & 1.7 \times G 7884 & 250 \\ \mathbf{X G 7 8 7 9} & 75 & 1.7\end{array}$ $\begin{array}{lrrrr}\text { XG7879 } & 75 & 1.4 \times \text { XG7885 } & 300 & .70 \\ \text { XG7880 } & 100 & 1.2 & \text { XG7886 } & 500 \\ \mathbf{X G 5}\end{array}$ XG7881 1251.1 List Price $\$ 6.50$ Your Cost, Any Size.. $\$ 3.62$

> | Dimensions |  |  |
| :---: | :---: | :---: |
| H | L |  |
| $9^{\prime \prime}$ | $8^{\prime \prime}$ | $41 / 2^{\prime \prime}$ |
| $9^{\prime \prime}$ | $8^{\prime \prime}$ | $42^{\prime \prime}$ |
| $12^{\prime \prime}$ | $8^{\prime \prime}$ | $6^{\prime \prime}$ |
| $12^{\prime \prime}$ | $12^{\prime \prime}$ | $7^{\prime \prime}$ |
| $9^{\prime \prime}$ | $8^{\prime \prime}$ | $41 / 2^{\prime \prime}$ |
| $12^{\prime \prime}$ | $8^{\prime \prime}$ | $41 / 1^{\prime \prime}$ |
| $12^{\prime \prime}$ | $10^{\prime \prime}$ | $612^{\prime \prime}$ |




Type "TC" Condensers
Pyranol impregnated and filled high voltage transmitting condensers. Can be operated continuously at voltages and ambient temperatures which are destructive to condensers using ordinary impregnators. $5 \% / 8$

 $\begin{array}{lllll} & \\ \times D 2988 & 2 & 3000 & 6^{\prime \prime} & 13.80 \\ \times 02989 & 4 & 3000 & 91 "^{\prime \prime} & 18.00\end{array}$


 $\times 029921500091 /{ }^{\prime \prime} 18.00$ XO
$\times 008$
$\times 02993$ CO 2993
$\times \mathrm{O} 3009$ $\times 030092$
$\times 030124$

Type "TD"' Oil-Filled

## Condensers

These extremely compact special oil impregnated and filled condensers are the latest development by the Cornell Dubilier Co. Particularly suited for Transmitters, Ampli fiers, etc. $1^{\prime \prime}$ long, $1^{\prime \prime}$ wide. Shpg. wt. 1 lb .

## Stock Cap. Wkg. Your Stock Cxp. Wkg. <br> $$
\begin{aligned} & \text { Stock Cxp. Wkg. } \\ & \text { No. Mid. Volts. } \end{aligned}
$$

 Stock Cxp. WkgNo. Mfd. Volts
$\times \mathbf{D O}_{2999} 1500$




## CORNELL X-Mitting Micas

Designed to meet the requirements of power ampli fiers and low- power transmitters. Used principally as grid or plate-blocking condensers, as well as for the by-passing of R.F. currents. Tested at more than double the working voltage.
Test Voltage- 1000 Volts
D.C. Working Volts 600

| Stock No. | Cap. Mfd. | Your Cost |
| :---: | :---: | :---: |
| XD4154 | . 0001 |  |
| $\times \mathrm{C} 155$ | . 0002 |  |
| XD4156 | . 00025 |  |
| $\times \mathrm{C} 4157$ | . 0005 |  |
| XD4158 | . 001 |  |
| XD4159 | . 002 | 50.39 |
| $\times \mathrm{X} 4160$ | . 003 |  |
| $\times \mathrm{C} 161$ | . 005 \} |  |
| $\times \mathrm{X} 4162$ | . 006 | 50.60 |
| XD4163 | . 01 | . 84 |
| Tes | Voltage - | 5000 Volts |
| XD3708 | . 0001 | \$0.54 |
| XD3709 | . 0002 ? | 3 c |
| XD3710 | . 00025 \} | 3 |
| XD3711 | . 0005 | . 75 |

> Test Voltage -2500 Volts D.C. Working Volts- 1200
$\begin{array}{lll}\text { Stock No. Cap. Mrd, Your Cost } \\ \text { XD3700 } & .0001 & \\ \times D 3701 & .0002 & \end{array}$
$42^{\circ}$
 $\left.\begin{array}{ll}\times D \\ \times 0464 & .005 \\ \times D 4165 & .006\end{array}\right\} \$ .05$
D.C. Working Volts-2000 x

Vol $\times D 3713$
$\times 04184$

## Porcelain Cased Micas-Type 86

 Ceramic casing insulates condenser from interfering ground capacityand prevents field absorbtion-heace lower R.F. resistance. Stock $\times{ }^{\times D 143}$ $\xrightarrow{\text { Mid. }}$ A.C. $\times D 4145$
$\times D 4146$
$\times D 4147$ XD4147
$\times D 4181$
$\times 24188$ XD 4181
$\times 04148$
$\times 2419$ XD 4148
$\times \mathrm{XD} 149$ $\times \mathrm{XD} 4149$ $\times \mathrm{XD4150}$
XD 119
$\times D 4151$
$\times D 4152$


## Sprague Oil Immersed Condensers

## These condensers are oil impregnated, oil filled and sealed

 so that there can be no leakage. Besides capacity and voltage ratings, all units are clearly marked as to type of filter circuit and output voltage with which they may be used, making it unnecessary to use higher voltage ratings than needed. Employ cylindrically wound foil such as that vided with isolantite insulator connections and corne with mounting clamp. Average shpg. wit. 3 lbsXD4233 Your Cost
Each
Your Cost ....... \$2.65

XD4231-2 mid. 2000 volt
Your Cost
Each.
XD4232-4 mid. 1000 . 7
Your Cost
 especially designed for amateur and commercial stations. High quality hloy resistance wire-wound on porcelain tubes and covered with witm ous enamel. Special eyelet method of fastening wire to the terminals prevents trouble due to high resist ance contacts. Furnished with end mounting brackets. No tap.
100-Watt-61/2x11/3 Inches Stock Wkg, Res. Your
No. Volts XN14100 500 Ohms Cos $\begin{array}{llll}\mathbf{X N 1 4 1 0 1} & 1000 & 60,000 & 165\end{array}$ $\begin{array}{llll}\text { XN14103 } & 1500 \quad 100,000 \quad 195\end{array}$
 $\begin{array}{llll}\text { XN14105 } & 1000 & 60,000 & \mathbf{1} 98 \\ \mathbf{X N 1 4 1 0 6} & 1500 & 80,000 & \mathbf{2 1 5}\end{array}$ $\begin{array}{llrr}\text { XN14106 } & 1500 & 80,000 & 2.15 \\ \text { XN14107* } & 2000 & 100,000 & 3.30\end{array}$ *Indicates double units.


## Trutest

X'mitting Resistors


BLILEY Crystal Oven
A scientifically designed oven that is neat in appearance and easily mounted in an preadjusted jemperature yet can easily temperature to if desired. Holds Heats quickly. For inch square or emaller 40,80 or 160 ir eter crystals. Interchangeable plug-in with standard Bliley holders. Rating: 7.5 volts at ${ }^{8}$ amps. Weighs 6 oz. All Bakelite construction, 2 diameter, X $\mathbf{M 1 3 0 9 7}$ Your
Cost

## BLILEY Crystal

 HolderCrystal holder of
 moulded bakelite to fit tube eocket base. 20-40
meter and 80-160 meter types. XM13098-20-40 meter.
XM13099
$80-160$ meter.
Your Cost,
Either Type.
BRADLEY Radiostats


Power Rheostats especially designed for radio transmitting. Type E2111 Resistance 4 to 150 ohms. Capacity ${ }^{2}{ }^{2} \mathrm{~N}_{1} 12 \mathrm{i}$
Your Cost Each
5.42 Type E210: Hesistance 4 to 150 ohms. Capacity wt .21 ibs
XN 14129.
Your Cost Each
 Rype Radioleak: Variable ohr leak, Range, 5000 to 30,000 XN14130

)
s. 47

## Thilloot Oscillating Transmitting Crystals Accuracy Guaranteed Within 1\% or Belter

 Fundamental frequency-control is now possible with these Trutest quartz crystals. Carefully ground from the finest quartz obtainable to precision thickness. Approximately $1^{\prime \prime}$ square
with rounded with rounded corners. X or Y
 tenth of $1 \%$ or better. Specify frequency and cut desired and we will supply nearest STOCK crystal calibrated.
$\qquad$
 XM13502
XM13502
$\mathbf{X M}$
$\mathbf{X M 1 3 5 0 3}$ XM13504

Frequency K. C
7000 to 7300
3500 to 40001
1700 to 2000
500 to 1500
Your Cost
$\$ 2.95$
Singie Signal Qlartz Receiver Filter 525 and 465 kilocy receivers with 1. F. transformers tuned bet ween

KM13459-525 to 465. Your Cost 100 K . C. Frequency
Used for checking frequency calibration. Very XM13460-100 K.C. Your Cost................. 5.95

## Oscillating Quartz Blanks

High quality quartz blanks a bout $1^{\prime \prime}$ square with rounded corners. These crystals are practically finished but have not been calibrated. XM13461-
Your Cost
$\$ 3.95$ $\$ 1.75$


## High Frequency <br> Buzzer

High frequency buzzer for modulatmg making code practice ret. Black KN14006
Your Cost

## SPEEDX

## Buzzer

Constant frequency buzzer for practice or modulation work. Shpg. wt. 1 tb XN14021-
Your Cost


## Compact Piezostat



A very compact yet highiy efficient thermostat meas uring only $1 / /^{\prime \prime}$ by $1 / 4^{\prime \prime}$. Specifically designed for use in erystal ovens. Can also be used for other purposes. Will carry up to 100 uatts A. C. and 50 watts D. C. Adjustable for any operating temperarure between room temperature and 300 degrees. Silver contacts. Housed in porcetain tube with brass end terminals. Actuating element is of the bimetal type and thoroughly reliable. Shpg. Wt. 16 ozs.
Your Cost
5

## SHGNAY

Practice Sets-Xmitting Keys

High Frequency Set


Consists of a key and special high frequency buzzer mounted on a polished wood base. Connect dry battery to the binding post on the set and it is ready to ocerate. An easy and quick means of learnWt. 2 lbs XN14001_ St
Your Cost Each

Junior Set Similar to the above hut with metal base and non-adjustable

buzzer. An inexpensive practise set that will serve the purpose for the beginner. Shpg | $\substack{\text { XN14014 } \\ \text { Junior Set. } \\ \text { Your Cost..... }}$ |
| :---: | :---: |



Designedespecially i r radio work Arm, base, and supporting posts of heavy cast brass. Coin silve Contact points. Shpg. wt. 21 lbs .
 XN14003
XN14004
2.50

Key with Switch


Twin Practice Set
Twe way communication outfit, consisting of two Junior sets with 75 ft . of wire and an instruction manual. Can be operated be tween houses, etc. Shpg. wt. 61 e Your Cost.........\$2. 15

## SPEEDX

## Hi-Speed Keys



Model 501
Speed key for amateurs and professionals. Adjustable from 8 words per minute to as high a rate as desired. Standard consiruction throughout. Solid silver coin contacts. Will hold adjustment at all speeds. Base and all parts chrome XN14028-
\$7.50

## Model 511

A smaller model especially designed for the amateur. Fully adjustable. All chrome finished. Shpg. wt. 5 lbs.
XN14029-Each... Either of the above may be had with black base at 60 c less.

## E

Key Knobs
Bakelite replacement
XN14036 Each
Navy knob (with dise)
XN14037 Each
Paddles for gpeed ke
XN14038 Each

Model 501 : For use with mercury vapor rectifiers. With enclosing cover and adjustable thermal time element to delay the plate potential. For use where a compact relay is desized for automatic or remote control of circuits. Single pole, single throw, single break, normally apen, 110 volts, 60 cycle. Shpg. wt. XN14131
Your Cost Each.... \$8.82 Model 507: Keying Relay; single pole. single throw, double break KN14133 D. C. XN14133
Your Cost
'4.12
Model 508: Keying Relay same as above for 6 V. D.C.
XN14134 $\$ 4 \cdot 12$

## Made of heavy nickel

 plated brass and bake-XN14098- Your Cost $\$$

Receptacle for Holder
Made of bakeli'e. Insulating qual-
ities insure minimum of loss, result
in meure minimum of loss, result-
XN14089-
your Cost. ............. $10^{\text {c }}$

- We can supply quartz spe-
- cialies. Write uss your

WARD LEONARD Midget Relays


Heavy Duty Key


For the experienced amateur and for the beginner who wants to start "right" this key is heartily eter solid coin silver contacts, Finest type insulation. All chrome plated. Heavy metal base. Shpg wt. 4 lbs.
XN14039
Your Cost $\$$ ?

Amateur's Key


A high grade key designed especially for the amateur. Pure coin silver contacts. Black base all other parts chrome. Shpg. wt XN14040
\$1.05

## Practice Key

An inexpensive key, carefully ad justed so as to have the feel of more expensive keys. Black base. All other parts chrome finish. XN14041-Your Cost. . $3^{\circ}$

## CARDWELL TRANSMITTING CONDENSERS



These condensers have made an enviable reputation for themselves over a jeptionally rugged, condensers having .084" air gaps and over have much heavier plates than have been used
by anyone for this purpose. Plate by anyone for this purpose. Plate
edges are carefully rounded off and very highly polished. This type of construction will withastand about $60 \%$ more voltage before flashing over. Extra heavy plates give a freedom from vibration which makes their use for tuning on medium power and a mateur use. Cardwell condensers are used in many commercial and government transmitters, as well as amateur, and are known for their accuracy and reliability throughout the world. Shpg. wt. 5 lbs.

| Stock <br> No. | Type No. | $\begin{gathered} \text { Max. } \\ \text { Cap. } \end{gathered}$ | $\begin{aligned} & \text { Air } \\ & \text { Gap } \end{aligned}$ | $\begin{aligned} & \text { List } \\ & \text { Prices } \end{aligned}$ | Number of Plates | Depth <br> (Back of <br> Panel) | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| X 48600 | *141B | 250 | .030" | \$ 3.00 | 11 | 2 | 51.76 |
| XH8601 | *123B | 480 | .030" | 4.00 | 21 |  | 2.35 |
| $\times \mathrm{H} 8602$ | *137B | 960 | . 030 " | 5.00 | 41 | $4^{\prime \prime}$ | 2.94 |
| $\times \mathrm{H8603}$ | 164B | 220 | .070" | 4.00 | 21 | 4" | 2.75 |
| XH8604 | 147 B | 440 | .070" | 7.00 | 43 | 53/4" | 4.12 |
| XH8605 | +T199 | 330 | .084" | 10.00 | 37 |  | 5.88 |
| XH8606 | +DT199 | 650 | .084" | 22.00 | 73 | 111** | 12.94 |
| $\times \mathrm{X} 8607$ | +520B | 242 | .100" | 10.00 | 33 | $61 / 2$ | 5.88 |
| $\times \mathrm{X} 8608$ | +521B | 525 | .100" | 21.00 | 67 | $111 /$ | 12.35 |
| $\times \mathrm{XH609}$ | *T183 | 110 | . 171 " | 9.00 | 23 | 615 | 5.30 |
| X H 3610 | +DT183 | 228 | .171* | 18.00 | 45 | 111/** | 10.58 |


| Neutralizing Condensers |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XH8611 | ¢511B | 23 | .171" | \$ 3.00 | 5 | $3^{\prime \prime}$ | \$2.05 |
| XH8612 | 1513B | 50 | .171" | 6.00 | 11 |  | 4.10 |
| XH8613 | \$515B | 56 | .230" | 10.00 | 15 | 53" | 6.85 |
| XH8514 | 1415B | 34 | .171" | 5.50 | 15 | 41/2" | 3.75 |


| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Type No. | Max. Capacity Mmfds. |  |  | Air Gap | $\begin{aligned} & \text { List } \\ & \text { Prices } \end{aligned}$ | NumberofPlates(EachSection) |  | YourCost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Sections in |  | $\begin{aligned} & \text { Per } \\ & \text { Sec- } \\ & \text { tion } \end{aligned}$ |  |  |  |  |  |
|  |  | Mult. | Series |  |  |  |  |  |  |
| XH8615 | *156B | 1000 | 250 | 500 | .030" | \$6.00 | 21 |  |  |
| $\times \mathrm{H8616}$ | 197B | 160 | 40 | 80 | .070" | 5.00 8.00 | ${ }^{9} 1$ | $4^{\prime \prime}{ }^{\prime \prime}$ | 2.94 4.70 |
| XH8617 | 157B | 420 100 | 100 | 210 | .070" | 8.00 10.00 | 11 | 5 $61 /{ }^{\prime \prime}$ | 4.70 5.88 |
| XH8618 | †512B | 100 | 25 | 50 | .171* | 10.00 | 11 | 61/2 | 5.88 |

## Design $16 B$

This model is primarily intended to meet requirements where condensers for modpossible to furnish in this type of design greater air gaps and higher capacities in greater air gaps and higher capacities in
relation to air gaps than is possible with retation do airgaps used in the smaller types; and still retain adequate structural strength and a proper balance between the vari
Stock

| Stock | Type | Capacity |
| :---: | :---: | :---: |
| No. | No. | Mmids. |
| XH8590 | 3279 | 315 |
| XH8591 | 3280 | 147 |
| XH8592 | 3281 | 84 |
| XH8593 | 3276 | 160 |
| XH8594 | 3277 | 80 |
| XH8595 | 3278 | 47 |
| May be furnished with | Split Stator |  |

 No.
$\times H 8590$ XH8591 $\times 48592$
 prices.)

## Midway Featherweight Series

A series of transmitting condensers having a $.070^{\prime \prime}$ air gap that have been especially designed for use where compactness and light weight are of great importance. Despite their light weight they are rigidly constructed and are well suited for use in portable transmitters such as are used in aircraft, etc., where considerable vibration is experienced. Aluminum construction throughout with the exception of shafts, bearings and contact surfaces. The small amount of steel used is well cadmium plated. Overall mounting space required; $3 \times 218{ }^{\circ}$ Shaft diameter 4 . Depths range from 2 Split Stator

| Stock | Your | Type | Plates | Split Stator |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Max. Cap. | Stock | Your |
| No. | Cost | No. |  | Mmids. | No. | Cost |
| XH8550 | 51.53 | 408B | 5 | 22 | $\times 188619$ | \$2.70 |
| XH8551 | 1.65 | 409B | 7 | 35 | $\times \mathrm{H8620}$ | 2.94 |
| XH8552 | 1.88 | 410B | 11 | 50 | XH8621 | 3.40 |
| XH8553 | 2.12 | 411 B | 15 | 70 |  |  |
| XH8554 | 2.36 | 412B | 21 | 100 |  |  |
| XH8555 | 2.94 | 413B | 31 | 150 |  |  |
| (The abo watt tub | cond | rs are | table | transmit | rs usin | 76 |

## "Trim-Air" Midget

Similar to the receiving types listed below but with $070^{\prime \prime}$ air gap for transmitters. Maximum
capacity 30 micro-micro-farads, 17 plates. Shpg. wt. 2 lbs.
XH8630-
s 1.00


## CARDWELL RECEIVING CONDENSERS



Has two plates which may be variably spaced, affording a low capacity. Stator plate adjustable to afford maximum capacities from 50 to 10 mm fds. Constant minimum. $7 \mathrm{~mm} / \mathrm{ds}$. Shpg. we. 2 lbs. XH8582 Type 201E. List 54.00 . Your Cos

## s.35

New "Trim-Air Midgets" An entirely new a n d
unique design in midget conden-
sers. Regu-

Taper Plate Condensers
A straight frequency tuning curve is secured by a regular variation of the thickness of the air dielectric with a pronounced gain in efficiency. compactness and mechanical strength. Shpg. wt. 4 lbs. $\begin{array}{lllcr}\text { Stock } & & \text { Max. } & \text { Your } \\ \text { No. } & \text { Type } & \text { Plates } & \text { Mmids. } & \text { List } \\ \text { Cost }\end{array}$ crafts, Portables, Midgets, etc. Shpg. XH8581-L
larly supdetachable shaft, rotor locking nut, and panel mounting nut. The shaft extension may be removed, leaving the screwdriver slot for permanent adjustment and locking of can easily be ganged together. Shpg. wt. 2 !bs.

$\$ 3.24$

Especially suited for aircraft equipment, portable sets, receivers. transmitters and oscilla: tor-amplifiers where weight and space are a factor. Very finely con-
structed-no swedged structed-no swedged
rivets or eyelet heads to num is used throughout with the exception of bearings. A Real Condenser-not a midget. Shpg. wt. 2 lbs

## Receiving Type

Have 031 air gap and are also suitable for low power transmitting sets using 210 tubes.

Stock Your Cap. Stock Your
Nock Cost Type Plates Mmi. No. Cost XH8563 $\$ 1.24401 \mathrm{~B}$ $\begin{array}{lll} \\ \times H 8564 & 1.30402 B\end{array}$ $\begin{array}{lllllll}\times H 8565 & 1.35 & 403 B & 5 & 50 & & \text { XH8547 } \\ \times 1235\end{array}$ $\begin{array}{lllllll} & \text { XH8566 } & 1.41 & 404 B & 11 & 105 & \times H 8548 \\ \text { XH } & 2.47\end{array}$ $\begin{array}{lllllll}\mathbf{X H 8 5 6 7} & 1.47 & 405 B & 15 & 150 & \times H 8549 & 2.59\end{array}$ $\begin{array}{lllll}\mathbf{X H 8 5 6 8} & 1.62 & 406 \mathrm{~B} & 25 & 260 \\ \mathbf{X H 8 5 6 9} & 1.77 & 407 \mathrm{~B} & 35 & 365\end{array}$
gennernen NOTE
In addition to the many types listed
on this page we can also supply a On this page we can also supply a great variety of special transmitting g and large stations. Write us your - requirements. $\qquad$



## New HAMMARLUND Transmitting



## Condensers

The NEW HAMMARLUND Transmitting Condensers incorporate features usually associated only with high power transmitters. The use of extruded Isolantite for insulation assures highest efficiency. Heavy cast aluminum end plates shield the condenser thor-
oughly. High voltage type condensers ha ve rounded polished edges to in crease resistance against flash-over on peak voltages. Both dual and single type of condensers
are a vailable as listed below. Shafts are $1 / /^{\text {n }}$ diameter, extend $11 / /^{\prime \prime}$ beyond panel mounting bushings. Overall width $4^{11} / \mathrm{Is}^{\prime \prime}$, height $3^{3 / 16^{\prime \prime}}$ Maximum shpg. wt. 5 jbs.

Stock

|  |  |  | Thick- | Edges | *Pl | ge Rating |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N14062 | 30 |  | .040" | Rounded | .192 ${ }^{\text {P }}$ | 6500v | $3 \mathrm{~s} 8^{\prime \prime}$ | S2.94 |
| XN14063 | 50 | 11 | . 040 " | Rounded | .192" | 6500 v |  |  |
| XN14064 | 100 | 21 | . 040 " | Round |  | 6500 v |  |  |
| XN14065 | 150 | 31 | .040" | Rou | 19 | 650 |  | 5 |
| XN14066 | 225 | 47 | . $0+0$ " | Rounde | 192* | 6500 v | 12 |  |
| XN14067 | 100 | 91 | . 040 | Round | . 080 |  |  |  |
| XN14068 | 150 | 17 | .040" | Round | .080" | 3000 |  |  |
| XN14069 | 225 | 23 | .040* | Round | . 080 | 3000 |  |  |
| $\times$ X 14.4070 | 335 | 43 | . 040 | Roun | . 100 | 350 |  |  |
| XN14071 $\times N 14072$ | 450 | ${ }^{47}$ | . $040{ }^{\prime \prime}$ | Rounded | .080" | 3000 v |  | . 00 |
|  | 225 | 23 | .025** | Plain | .080" | 2000 v |  | 3.53 |
| XN14074 |  | 12 | . 025 " | ${ }_{\text {Plain }}$ | . 0388 | 1000 |  |  |
| The following are Dual types, capacities are per section |  |  |  |  |  |  |  |  |
| XN14114 | 500 | 27 |  |  |  |  |  |  |
| XN14115 | 100 | 11 | . 025 " |  |  |  |  |  |
| $\times \mathrm{X} 14116$ | 225 | 23 | . 025 " |  | . 080 " |  |  |  |
| $\times \mathrm{N} 14117$ | 50 | 11 | .040" | Rounded | .192" |  |  |  |
| XN14118 | 100 | 21 | . 040 " | Rounded | . 192 |  |  |  |

* Actual Air Gap between adjacent rotor and stator plates.


## HAMMARLUND LITZ WIRE WOUND I. F. TRANSFORMERS Air Tuned <br> Mica Tuned



These air tuned I. F. transformers will retain their original setlings to within 1-10 of $1 \%$ as compared with transformers using mica dielectric condensers that have a change of $2 \%$ or more in frequency. Designed for '57 and ' 58 type tubes but may also be used with $24^{\prime}$ s and 35 s. Shield can is $2^{1}$ 反" $^{\prime \prime}$ wide by $5^{\prime \prime}$ high. Oscillator equipped with tuning
lever to vary beat note. A 1000 lever to vary beat note. A 1000
or 1500 cycle beat note is produced for CW reception. Shpg. WH. 18542

465 K. C. I. F.
XH8543-665 tapped.
XH8544-175 K. C.I.F.
XH8493-175 K. C. center
Your Cost tapped
Any Type.
\$2.65
Specially de-
signed for experi-
signed for experiplacement poses. $465 \mathrm{~K} . \mathrm{C}$. The twin coils are of $10-41$ Litz with al or a factor of
 Coupling is very ptimum very slightly below 58 or 95 . Designed for use with adjustable condensers with mica dielectric and isolantite base. Wax impregnation and sturdy construction provide excellent stability. The shield can is $13 / \mathbf{B}^{\prime \prime}$ square by $31 / 2^{\prime \prime}$ high. Base mounting.
XH8539_Peaked at 175 K. C. List $\$ 1.65$
XM8540-Peaked at $465 \mathrm{~K} . \mathrm{C}$. List $\$ 1.65$
Your Cost, Either Type


HAMMARLUND Midget Condensers

Soldered non-corrosive plates, sturdy frame, fitted bearings Isolantite insulation. Four point bronze wiping contacts, eliminates pigtail. Vibration-proof fixed frequency work. Panel and base mounting. Individuslly


 | KH850 |
| :--- |
| $\times H 8505$ | $\mathrm{XH} 8506^{\circ}$

$\times \mathrm{H}_{8507}$ KH8507* (H8508* | $\mathrm{KH8509}$ |
| :--- |
| $\mathbf{X H 8 5 1 0} \dagger$ |
| $\mathbf{K H}$ |

$\mathbf{X H 8 5 1 1}$
$\mathbf{X H 8 5 1 2}$ * Semi Circular Plates; - Semi Circular Plates; nthers Midline Plates.

## Dual Midget Condensers



## HAMMARLUND

## Tube Shield

An especially close fitting shield that is particularly suitable lor high frequency work. Drawn in neck completes shielding between elements. For 67, 58, and similar type tubes. Shpg. wit 1 lb .
XM1324-3 ${ }^{\circ}$ Your Cost $35^{\circ}$

## Flexible Insulated Shaft Coupling

 This coupling permits tandern operation of any number of indewithout requiring xact alignment. Shafts are insulated from each other allowing instruments in gang to be operated as independent electrica! units. List 60cXH8412- 1 ib .
Your Cost

Band Spread Midget


Designed for use as band spread condensers for use in short wave receivers and for use in a mateur band frequency meters. "Tank" section can be set and locked at any desired capacity permitting the tuning section to spread narrow frequency. ranges over the entire dial, regardless of the range of the band or the coils used. $\begin{array}{lccc}\begin{array}{c}\text { Stock } \\ \text { No. }\end{array} & \begin{array}{c}\text { Tank } \\ \text { Cap. Mmf. }\end{array} & \begin{array}{c}\text { Tuning } \\ \text { Cap. Mmf. }\end{array} & \text { Your } \\ \text { CH8516 } & 100 & 20 & 5177 \\ \mathbf{X H 8 5 1 7} & 100 & 50 & 1.91 \\ \mathbf{X H 8 5 1 8} & 100 & 55 & 206\end{array}$

## Double Spaced Midgets



Especially designe for use in transgap between rotor and stator is $.0715^{\prime \prime}$. Midline plates, special bearings, and Isolan tite insulation. Shpg. Min. Cap. Your Cost $\begin{array}{llll}\text { XH8488 } & 35 & 6 & \$ 1.32 \\ \mathbf{X H 8 4 8 9} & 50 & 7 & 1.62\end{array}$ $\mathbf{X H 8 4 9 0 *}$

* Dual Cond 33 able with either Semi C


## Air Padding Condensers

## Is ol a n tite|from 25 to 100 mmfds providin

 mounted air pad- suitable value Stock Capacity Your $\begin{array}{ccr}\text { No. } & \text { Mmfds. } & \text { Cost } \\ \text { NH8623 } & 25 & \mathbf{S 0 . 7 6} \\ \times H 8624 & 50 & 1.88 \\ \times H 8625 & 75 & 1.00\end{array}$

A popular lop priced midget for short wave trans mitters, receivers, etc. Light in weight, strong and compact in construction and smooth in opera tion. Low loss bakelite insulation and mon-corrosive alugle hole mounring, 1 "shaft. 10 pide 1 " high. Depth behind panel from "11" to $136^{\prime \prime}$ depending on capacity. $1^{\prime \prime}$ bakelite knob. Shpg. wt. 1 lb


## Equalizers

For neutralizing, balancing and trimming purposes. Mica dlelectric, bronze plate, bakelite base.

| Stock | Cap'y | Your |
| :---: | :---: | ---: |
| No. | Mmfd. | Cost |
| $\times 49748$ | $3-35$ | s0.18 |
| $\times H 9749$ | $25-80$ | .24 |



## 会价ammarlund Superi.pRO



## $\checkmark$ 2-R. F. Stages Preceding The First Detector

## $\checkmark$ Beat Frequency Oscillator For CW Reception

## $\checkmark$ Band Spread Tuning at All Frequencies

## V Covers SW and Broadcast

 Bands 15-560 Meters$\checkmark$ Complete-No Extrasto Buy
$\checkmark \quad$ No Plug-in Coils

## New! HAMMARLUND "Super-Pro" Receiver

The new "Super-Pro", just added to the line of Hammarlund receivers, is offered as the finest receiver that it is possible to build for amateur or commercial use. For simplicity of operation, high degree of sensitivity and selectivity, and modern refine ments of circuit design, it has no equal. It covers both the broadcast and the short wave frequencies.

## Ultra Modern 15 Tube Circuit

Every possible improvement in design (licensed under RCA and Hazeltine patents) has been incorporated in the advanced superheterodyne circuit using 16 of the latest type tubes as follows: 2-6D6's as two R. F. amplifiers; 1-6A7 as first delector; 3-6D6's as I. F. amplifiers; 2-6B7's as second detector and AVC tubes; 2-6C6's as high frequency and beat frequency oscillators; 3-42's as power output tubes; $1-5 Z 3$ as plate rectifier and $1-1 V$ as grid bias rectifier. The I. F. transformers are Litz wire wound and tuned by air dielectric condensers. The beat frequency oscillator may be cut in or out of the circuit by means of a toggle switch mounted on front panel.

## Other Features

Receiver and power supply are in two se parate chassis, both fully shielded. The main tuning control, callbrated to $1 / 2 \%$ accuracy, permits direct tuning on any band. An auxiliary control provides band spread at all fre-
quencles. Volume and radio frequency gain regulated by individual controls. No plug-in coils-a newly designed wave change switch selects any of the five tuning ranges which cover from 15 to 560 meters. Two illuminated tuning dials, one for main tuning and the other for band spread. Dials calibrated directly in five ranges; a special shield which worl-s in conjunction with the band switch allows only one selected band to show on dial. In put of receiver is electro-statically shielded for balanced transmission lines-either doublet or "double-doublet" antennas may be used. Output meter on front panel indicates comparative signal strength and Output meter on front panel indicates comparative signal strength and
assures excellent tuning. A special $12^{\prime \prime}$ high fidelity speaker supplied with assures excellent tuning. A special 12 high fidelity speaker supplied with the receiver fully handies
from the audio amplifier.

## Crystal Filter Model

The "Super-Pro" is available with Single Signal Crystal Fitter whicl. provides maximum selectivity.
Both receiver and power supply are housed in well ventilated metal cabinets finished in black crystalline. Adapted to relay rack mounting. The "Super-Pro" may be used with batteries if desired. Standard model for $105-120$ volts, $50-60$ cycles A. C. Shpg. w't. 70 lbs.
XN13910-Hammarlund "Super-Pro" Receiver, complete with power supply. tubes and special $12^{\prime \prime}$ High Fidelity Speaker. \$I64.64
List $\$ 280.00$. Your Cost. ......................... XN13911-Hammarlund "Super-Pro" Receiver, complete as above, with Single Signal Crystal Filter. List $\$ 310.00$
Your Cost.
s 182.28

## HAMMARLUND Comet "Pro" S. W. Superheterodyne $\checkmark$ Bandspread on ALL Bands $\checkmark$ Air-Tuned I.F. Transformers



This exceptional Short Wave Superheterodyne has not been named the "PRO" without reason. It was designed for communications, airport, broadcasting, police and other equally important services, yet, despite this rigid adherence to professional standards, it is simple to tune and can be successfully operated by the veriest novice. With only four sets of coils it covers a band of frequencies from 1,500 to $20,000 \mathrm{Kc}$. (additional coils covering from 20,000 to $37,500 \mathrm{Kc}$. and from 550 to 1,500 Kc, also a vailable), and, due to its unique design, bandspreading can be obtained at ANY frequency within the range of the receiver. The following are just a few of the features of these remarkable receivers:

1. Sensitivity of better than $1 / / 2$ microvolt per meter.
2. Selectivity of 1,000 times at 10 Kc . off resonance.
3. Noise level so low as to be negligible.
4. Intermediare oscillator for C . W. code reception, also valuable as a "station finder" in searching for weak phone stations.
5. Smooth control of sensitivity; tone control for noise suppression; vernier tuning control.
6. Isolantite coil forms, coil sockets, and condenser insulation.
7. Litz wound intermedlates.
8. Complete shielding.
9. Air-tuned I. F. transformers.
10. Electron coupled oscillators
11. Optional "single signal" reception using Crystal Filter.
12. Output of 3 watts.

All of these features contribute to the outstandingly fine performance that these receivers are capable of, and make it the ideal receiver both for the fan, who gets a thrill out of listening to foreign broadeasts, as "QRM" and "QRN" the stations he wants to get.
A. C. models use the following tubes: $4-58$ 's, 2-57's, 1-2A5 and $1-80$ Receiver comes mounted in an attractive black crystalife finished metal cabinet. Models in console cabinets are also a vailable; write for prices. Hammarlund "Pro" receivers are available in various types as listed below. All prices are without tubes. Shpg. wt. 61 lbs .
XN13833--Standard "Pro" with Cabinet. List $\$ 150.00 . \$ 88.11$ Your Cost.
XN13836-Standard "Pro" Chassis only. List \$135.00. \$779.38 XN13847_ "Pro" with Crystal Filter, in Cabinet. $\$ 105.84$
List $\mathbf{\$ 1 8 0 . 0 0 . ~ Y o u r ~ C o s t . . . . . . . . . . . . . . . . . . . . . . . . . . . ~} 10$.

All of the above models are for $110-115$ volts $50-60$ cycle A. C. Receivers for 25 or 40 cycles, $125,140,230$ or 250 volts are also a vailable for $\$ 5.88$ additional price. All prices are complete with four sets of coils to cover 15 to 250 meters.

XH8491-"Pro" coils for 250 to 650 meters, per set. List $\$ 5 . c 0$. Your Cost.
$\$ 2.94$
XW19136-Specially matched Lafayette 11" A. C. Speaker chassis for use with "Pro" receivers.
57.05

# Cofarette 

## "A Quality Tube at a Reasonable Price" GUARANTEED 1000 HOURS

All Transmitting Tubes in the new Lafayette Line now have pure carbon piates providing high plate dissipation without overheating. They also provide more constant tube characteristics under operation since the caron plates do not vary in physical size nor warp under heat. All types of Transmitting Tubes are available including high power amplifiers and Type 203-A 50 Watt Oscillator, R-F Amplifier and Class "B" Modu-204-A 260 Watt Oscillator, R-F Amplifier. Also used as Modu-

210 71/2 Watt Oscillator, R-F Amplifier or Modulator. An improved type
21150 Watt Oscillator, R-F Amplifier and Modulator
24250 Watt Oscillator, R-F Amplifier and Modulator
510-C New 15 Watt Oscillator and Power Amplifier that is interchangeable with the 210
800 A new Oscillator, R-F Amplifier or Class "B" Modulator that is extremely efficient
864 Triode Voltage Amplifier for use in pre-amplifiers for 264-B Triondenser, Mibbon, Microphones
264-B Triode Voltage Amplifier, similar to WE264-B used in WE P. A. System Condenser Mikes
ectifiers such as the 869, 869-A, etc. Prices and characteristics on request. Lafayette Transmitting Tubes are Guaranteed for 1000 hours gainst defective materials and workmanship on a pro-rata basis. Broken glass and burnt elements not subject to replacement

Type
845
852
852
860
860
865
866
866 Half
Half-Wave Mercury Vapor Rectifier. Maximum plate current, 6 amps
Half-Wave Hot Cathode Mercury Vapor Rectifier. Maximum plate current, $2.5 \mathrm{amps} . . . . . . . . . . . . . . . . . . . . . . . . ~ M a x i m u m ~ p l a t e ~$

Purpose
50 Watt Linear Amplifier and Modulator. Not recommended as R-F tube100 Watt Oscillator, R-F Amplifier. Grid lead at top andPlate lead at side00 Watt Screen Grid Oscilator and Amplifier. Especially efficient over $3000 \mathrm{~K} . \mathrm{C} . \ldots . . . .$.
1.75

## New BLILEY Mounted Crystals

A new mounted crystal of the X-cut power type havmis calibration accurate to. $03 \%$. It is a more powerfui special size crystal and has less frequency drift while warming up. In addition it is sold at a price practically the same as that of the BCX crystal alone Supplied to your specified frequency as listed below.


Shpg. wt. 1 lb .
Stock
XM13531
$\mathbf{X M 1 3 5 3 2}$ Freq
 Band
$7.0-3.5$
$\$ 3.95$
4.80

1 Kc
$\pm 5 \mathrm{Kc}$.
$\$ 4.90$
5.80
55.90

Exact
57.50 phosphor
bronze cad mium plated. UX and 50 watt sizes XN14160 UX Base. Your Cost Each XN14161 50 watt sizeS Your Cost Each

REL 50 W. Tube Socket


Fits all 50 watt tubes. hase, nickeled metal shell. Extra rugged Extra rugged Shpg. wt. 2 Shpg

XN14053
Your Cost

## KENCO Speed Key

The greatest value ever offered in speed key. A beautifully chrome finished key with 10 adjustments for fine keying. Three adjustments can be regulated from 5 words per minute to any desired speed. Multiplicity of adjustments makes it possible to suit the key to any particularstyle or "fist" are individually adjustable for any pres. Contacts are of tungsten and are highly polin heavy metal frame base. Metal base is not used is recessed into a nections. Overall dimensions $87 / \mathrm{s}^{\prime \prime}$ long, $4^{\prime \prime}$ wide, $233^{\prime \prime}$ high. Shpg. wt. $31 / 2$ lbs. XN14042 Your Cost

${ }^{\text {s }} 8.82$

## GAMMATRON

50 W. bracket type with rotatable shell. Meta parts nickeled.
Shpg. wt. 1 lb .

## XL12632

Your Cost
$\$ 1.47$

## UX Type

For 10's, 52's, 66's, etc. Insulex insulation. $\times \mathrm{XL} 2636$ Your Cost

The Type $35 \cdot 4 \mathrm{Gam}$ matron is a 100 Watt triode a mplifier suita ble for A. F. or R. F. circuits. Air-cooled. Standard 50 W . ceramic base. Top. plate contact. High vacuum. Tantalum plate and grid. Thoriated Tungsten filament 354 Gammatron. Your Cost.
 Type

ICA Insul

$$
13.41
$$ -

39 ${ }^{\circ}$

## Sypuania. <br> Xmitting Tubes

Sylvania's plant at Clifton, N. J. is fitted with the most efficient Tube making equipment, standardizing perfect tube manufacturing. The graphite, guaranteeing Precision, Performance and Endurance. Each graphite, gua ranteeing Precision, Performance and Endurance. Each
tube is carefully tested before shipment and carefully packed to assure your receiving it in perfect condition. The fare that wholesale Radio Service Company is the largest distributor of Amateur Transmitting Tubes insures prompt delivery of perfect tubes.
$\begin{array}{ll}\text { Type } & \text { Description } \\ 210 & \text { Oscillator and Amplifier...... } \\ 865 & \text { R-F Amplifier and Oscillator. }\end{array}$
Your Cost
865 R-F Amplifier and Oscillator.
842 Audio F. Amplifier
Audio F. Amplifier
High Frequency Oscillator and Amplifer Oscillator, Amplifier, Modulator
$830 \quad$ Oscillator, Ampl
.........
${ }_{5}$ Cost 5.75
12.75

Oscillator and R-F Amplifier. Modulator and A-F Amplifier 850 Oscillator and R-F Amplifier. 852 Oscillator and R-F Amplifier 204-A R-F Amplifier and Oscillator

## RECTIFIERS

$\begin{array}{ll}\text { 866 } & \text { Half-Wave Rectifier } \\ \text { 872-A } & \text { Half-Wave Rectifier }\end{array}$ 10.00 17.50 17.50
17.50 17.50
20.00
20.00
37.50
37.50
23.80
23.80
35.00
97.50


## Type

RK16
RK17

## RK18

864
841
203-A
RK24

## RAYTHEON

Xmitting Tubes

A complete new line of Transmitting Tuhes especially designed for amateur use. Their high efficiency per mits maximum output with a minimum input. All hav Isolantite bases and are ruggedly constructed. The new RK20 R-F Pentode is particularly interesting since it is the first amateur tube permitting efficient suppressor grid modulation.

RK18 Class "A" "B" "Co "Amplifier or Triode Ocilator
RK20 High Output Amplifier Pentode

VG27 Grid Controlled Mercury acuum Rectifier
866-A Half Wheromercury Vapor Rectifier
872-A Har Wave Mercury Vapor Rectifier.
Heavy Duty Half-Wave Mercury Vapor Rectifier Low Current Tube for microphone pre-amplifiers Voltage Amplifier, R-F Power Amplifier or Oscillator Oscillator or R-F Power Amplifier
2 V. H. F. Price on request.

Your Cost
R-F Amplifer Purpose
Modulator Oscillator, R-F Amplifier or Class "B" Modulator Class "A" Amplifer, R-F Amplifier or Crystal Class A
W.H.F. Priee on request.


We carry a complete line of RCA-DeForest Transmitting Tubes for Amateur and Experimental Use Only. A type for every amateur power requirement is represented in the listing below. The RCA-DeForest Amateur Radio Division of the RCA Radiotron

## Amateur Transmitting Types

203A-Used as oscillator, R.F. Power Amplifer, or Class B Modulator. 100 watte maximum plate dissipation. Net Price Each \$17.50 211-Used as Oscillator, R. F. Power Amplifier and M watts maximum plate dissipation. Net Price Each
$\$ 17.50$
800 - Used as Oscillator, R.F. Power Amplifier or Class B Modulator. 30 watts max. plate dissipation.
Net Price Each \$10.00 801-Used as R.F. and A.F. Poover A mplitier, Modulator or Oscillator.
20 aratts maximum plate dissipation.
Nct Price Each Net Price Each 841 Used as Volage Amplifier, R.F. Power Ampliter and Oscillator.
15 wert
Net Price Each pathe disaipation. Net Price Each
catt 25
842 -Used as A.F. Power Amplifier or Modulator. plate dissipation
s3.25 Net Price Each.
${ }^{\text {iffer. }} \mathbf{1 5} \mathbf{1 5} \mathbf{2 5 0}$ max. plate dissipation Net Price Each
844-Used as A.F. and R.F. Power Amplitier, Oscillator 15 watts max. plate dissipation.
Not Price Each
845-Used as Modulator and A.F. Power Amplifier plate dissipation
Net Price Each plate dissipation. Net Price Each
. Power Amplifier or Oacillator.
100 watts max.
852 -Used as Oscillator and R.F. Power Amplier maximum plate dissipation. s 23.80 Net Price Each $\qquad$ Maximum plate dissipation. s35.00 Net Price Each

Company offers an engineering service to the radio amateur. Any advice concerning radio tube applications can be obtained by writing to the RCA-DeForest Amateur Radio Division at Camden, N. J., or write to us and we will forward your request.

## High Power Types

204-A*-Used as Oscillator or R.F. Power Amplifier. 250 volts max plate dissipation.
831*-Used as Oscillator or R.F. Power Amplifier. 400 volts maximum plate dissipation.
849*-Used as A.F. and R.F. Power Amplifier or Oacillator. 400 volts max. plate dissipation
851*- Used as A.F. and R.F. Power Amplifier or Oscillator. 750 volta max. plate dissipation.
${ }_{861}$ max - Used as R.F. Power Amplifier or Oscillator. 400 volts max. plate dissipation.

* Prices on these types quoted upon request


## High Voltage Rectifiers



## Cathode Ray Tubes

## $904-5$ " Electro-static-magnetic deffection, high vacuum, hot

 cathode, 4600 volts, $\overline{5}$ electrodes.Net Price Each $9055^{\prime \prime}$ Electro-static-magnetic deflection, high vacuum, hot Cathode, 2000 volts, 4 electrodes. $\$ 4$. $9063^{\prime \prime}$ Electro-static-magnetic deflection, high vacuum, hot cathode, 1000 volts, 4 electrodes.
$\$ 18.00$

## RCA Radio Tube Agency Plan



## CONSIGNMENT EXCEPTIONS

As authorized Wholesale Agents we may sell upon approvals from RCA to certain purchasers at special discounts, RCA-Cunningham radio receiving tubes not to exceed such purchasers' own requirements. Such tubes may be purchased only for installation in radio apparatus, equipment, or devices either owned, controlled, or used by the purchaser but not for resale. The purchasers to which this authorization applies are
Class 1. United States Government, including all departments
Class 2 and divisions, also Federal institutions.
Class 3. State Governments and institutions.
Class 3. County, municipal and other government and governmental institutions.
Class 4. Educational, charitable and other public institutions.
Class 5. MANUFACTURING, TRANSPORTATION, UTILITY, HOTEL, THEATRE, BROAOCASTING, OIL AND RESEARCH COMPANIES.
Companies, institutions, or organizations whose activities are of a character similar to those shown above but not specifically included should write us for further information.
Purchasing agents are invited to inquire concerning discounts allowable
under above authorization-Department ACR.


Especially designed for use in re "Beivers and transmitters. "B" are the popular banana type. "C" is $11 /$ " $^{\prime \prime}$ high and its plug " $\mathrm{b}^{\prime}$
is $1 / 4 \mathrm{diam}$ " E " is $11 / 2$ " high and is $1 / 4 \mathrm{diam}$. " E " is $11 /$ " $^{\prime}$ h
its plug " $F$ " $3 / 8$ " diameter. XLe2890-TypeAPlug Your Cost..............
XL12891-Type B Jack Your Cost.
XL12892-TypeC Jack XL12893-Type D Plug Your Cost..............
XL12894-Type EJack
Your Cost. ............ XL12894-Type E Jack
Your Cost.............
XL12895-Type FPlug $5^{c}$
$\ldots .4^{c}$
$\ldots 3^{c}$
$\ldots .3^{c}$
$\ldots .7^{c}$


Shell Only No fittings. For those who wish to provide their
own rods and fittings. Ship-
 XR16816-43/8 $46^{13 / 16 " ~}$
Your Cost

B

## Pyrex Standoff Insulators

 These high-grade Insulators are the last word in stand-off type units. Are absolutely non-hygroscopic. Unaffected by temperature changes. Oval base size $31 /$ x $\times 15 / 8$. Have flash-over value when dry of 21.5 and 56 KV , respectively. Shipping weight 2 lbs. XR16808-3
Your Cost

## Each.

XR16809 7\% higi. SI.S4 ping weight 3 lbs.
$\$ 1.72$

## BIRNBACH

## Feed Thru Standoff

 InsulatorsIntended for sub-
panelmounting. Constructed of high grade for mounting $R$. $F$. leads, resistors, high Chokes, etce. XR17093-5/7" high and $56^{\prime \prime}$ in dia. Solid nickel-plated brass hardware using 6-32 screws
and nuts.

## Your Cost Each.

XR17094-Similar to the above,
but measuring $7 /{ }^{"}$ high and ${ }^{n}$ in dia. Uses 10-32 screws and nuts. Your Cost

## Each.

## Jack Type

 ance with the above in place of the screw terminals. Jack made totakea high and ${ }^{3}$ " in dia. Uses $10-32$ hard$\underset{\text { XR17092- ware. }}{\text { Your Cost Each..... }}$

## SILVER PLATED X'mitting Coils

Here you are $0 M$ as pretty a coil as you've ever laid eyes upon and at a price so low that it won't pay you to try to make one like it. Silver plated not only for appearance, but for greater efficiency as well. All have drilled and fattened ends so that they can readily be mounted to standoff insulators or to plugs
for insertion into jacks. The type numbers given below indicate the diameter and the number of turns i.e.-AG24 has a diameter of $2^{\prime \prime}$ and has 4 turns-AG523 has a diameter of $5^{\prime \prime}$
and has 23 turns, etc. A verage shpg. wt. 2 lbs.

FOR 14 MC X'MISSION Type AG24-Use with 250 Mmf . condenser in selfexcited oscillator XN14162Your Cost $\ldots+5^{\circ}$ XN14163Your Cost. An. 10 Type AGz7-Use with 200 Mmf .


FOR 7 MC X'MISSION Type AG26-Use with 500 Mmf condenser in self-excited oscillator. Also used as Antenna coil, push-XN14163-
Your Cost. ......... $\$$.

FOR 7 MC X'MISSION
Type AG29-Used with 250 MmF , condenser in neutralized amplifier.
XN14167-XN14167-
Your Cost
Type AG312-Used with 100 © condenser in neutralized or P.P amplifiers. Your Cost

## FOR 3.5 MC X'MISSION

Type A G310-Used with 500 Mmf condenser in self-excited osciltator Also used as Antenna co Your Cost Type AG36-Antenn 1.49 Your Cost. .......... \$I. 41

FOR 3.5 MC X'MISSION Type AG317-Used with 250 Mm condenser in neutralized amplifiers
XN14173-XN14173-
Your Cost
FOR 1.75 MC ximission
Type AG420-Used with 500 Mm condenser in self-excited oscillar.
XN14174-
Your Cost
Your Cost
XN14175
3.95

Your Cost.
\$2.2.5
Type AG523-Used with 250 Mmi
condenser in neutralized amplifier
XN14176
Your Cost
Type AG58-Antenn 4.75
Your Cost
\$2.IO

## (1202, 10210121010121

Identical in appearunits except that
they have a jack top


## Stand-Off Insulators



## Jack Type <br> Stand-Off Insulator

This useful insulator is provided with a jack top to
take a standard take a standard tions are made to a soldering lug on top of stand-off.

## Airplane Type

Complete with brass rod and fittings.
Mounts to flat sur Mace by means of sce by means of
strews extending
throughouter
 flange. Diameter Shpg. 3. ${ }^{\text {" }}$. length $4^{*}$. Shpg. wt. 2 lbs. List 54.00 .
Your Cost Each... \$2.40

## Amateur Type

 Base mounting holes $11 / 8^{\prime \prime}$ between centers. Metal parts of nickel plated brass.
XR17091
Your Cost Each

## Antenna Feeder

 SpreadersBakelite. $3 / 4 \times 1 / 8$ " thick. "II" bolt and recessed washer holds No. 12 or 14 wire. Permanent grip. Idea! for Zeppelin Antenna.
XR16817-Spaces $5^{\prime \prime}$ a part
Xf16818-Spaces 7".
Your Cost Each........ 5

## Pyrex Antenna Insulators <br> 



Strong and neat; a size for every amateur purpose.
 $\begin{array}{lllll} & 1214^{\prime \prime} & 11 / 2 & \mathrm{KW} & 2.06 \\ \text { XR16807 }\end{array}$

Stand-Off Insulators


Made of porcelain; extra heavy tostand great strain. Ribbed body provides addiprevent leakage. Length $4^{\prime \prime}$.
XR16800
Net Each
Lots of $10 \ldots .65 \mathrm{c}$
Wall Insulator For supporting wiring on instruments or may be used for
supporting supporting lead-in or ground wires.
Glazed porcelain $21{ }^{"}$ high. Shpg. wt. 8
$\times 1616735-50$ for 53.45 XR16735- 50 for
Your Cost Each.

Screw-in Stand-Off
 oz. $8^{\circ}$ Strong insulator with wood base. Ht
$27{ }^{\prime \prime}$ ". Shpg. wt. 8 oz.
$\times$ R16801-Your Cost Ea. $10^{c}$

Antenna Insulator

The finest aerial insulator made. Very efficient for use with high power transmitters. Made of Wet Process Porcelain coated with a lection of ditt prevent the colin diameter and will withstand a strain of 1500 lbs . Shpg. wt. 8 oz

XR16828- $12^{\prime \prime}$ long.
Your Cost Each...
Your Cost Each... $44^{c}$
XR16829-20" long
$67^{c}$

## Feeder Spreader

Made oi wet process porcelain Which is much denser and is far ordinary dry process type than the ordinary dry process type. $6^{\prime \prime}$ long with grooves and holes for lead wires. Shpg. wt. 1 lb ,
XR16819-List 25c.
Your Cost
Each
$17^{c}$

## JOHNSON

Stand-Off Insulators


An excellent stand-off insulator useful in many ways. Three sizes provide a type for any purpose supports for condensers, or as coils, etc.
XR16745-No. 20. $2^{\prime \prime}$ high with 10-32 nickel plated brass hardYour Cost Each. In Lots of 10 .

80 c XR16746-No. 22. $13 / \mathbf{F}^{\prime \prime}$ high, with 8-32 nickel plated brass hardYour Cost Each
In Lots of 10.
XR16747-No. 24. ${ }^{13}$ /́" him 6-32 aickel plated brass , with Yare.
Your Cost Each.
In Lots of 10

# arysile 

 EXCELSTHE proof of the pudding is in the eating. With Public Address-the Proof is in the Performance! Performance past and present; Performance before and after installation! Here at Wholesale Radio Service Company we are Exclusive Worldwide Distributors for the famous Lafayette P. A. Equipment. Famous because it has withstood every test by some of the world's greatest users of P. A. Equipment. Famous because it gives you the best dollar for dollar value in P. A. Equipment . . . whether it be a low priced $31 / 2$ watt amplifier or the most complete and versatile rack and panel amplifier system.

To prove this we had a recognized and unbiased Testing Laboratory compare the relative merits of a Lafayefte Amplifier with that of the nearest competitor selling at the same price. Compare the specifications in the table at the right and see for yourself why Lafayette Leads in Performancel
But we do not ask you to buy on the basis of these lests alone. Visit if possible, our permanent displays in New York, Newark or Aflanta. Listen to the performance of your system before you buy, through the medium of our scientifically designed hookup which enabled you to compare the relative merit of any Lafayette Amplifier with any make of speaker or combination of speakers. This is exclusively a Lafayefte Service!

Here are the indisputable lacts as given us by an unbiased testing laboratory on the Lalayette P15787 single 2B6 Amplifier and its nearest equivalent.

| SPECIFICATIONS | LAFAYETTE | NEAREST COMPETITOR |
| :---: | :---: | :---: |
| Dimensions (overall not including tubes | $9^{\prime \prime} \times 41 / 2^{\prime \prime} \times 78 / 4^{\prime \prime}$ | $9^{\prime \prime} \times 31 / 2^{\prime \prime} \times 6^{\prime \prime}$ |
| Weight | $81 / 1 \mathrm{lbs}$. | $41 / 2 \mathrm{lbs}$. |
| Dimensions Power Transformer | $\begin{aligned} & 31 /{ }^{\prime \prime}, 33 / 4 " 1 \\ & \text { core stack } 11 / a^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 21 / 2,215 / 16^{\prime \prime} \\ & \text { core stack } 3 / 4^{\prime \prime} \end{aligned}$ |
| Tubes Shielded | 57 pentode | NONE |
| Filter Choke | 20 hy .300 ohm $11 /{ }^{\prime \prime} \times 21 /{ }^{\prime \prime}$ core | NONE |
| Output Cathode Bypass | 25 mfd 60 volf can type | 5 mid 35 volt cordboard |
| Frequency Response for + or - 1 DB | 40.6500 cycles | 62-1300 cyeles |
| Overall Variation $60 \cdot 10,000$ cycles | $\begin{aligned} & -308 \\ & (10,000 \text { eycles }) \end{aligned}$ | $\begin{aligned} & -2508 \\ & (10,000 \text { cycles) } \end{aligned}$ |
| Harmonic Content at 5 Watts 40.8000 cyeles | 5\% 60 6\% | 7\% to 12\% |
| Rated Power Oufput (Catalog) | 5 watts max. | 6 watts max. |
| Peak Power Output or Overlood Characteristic | 9 walts max. | 5 watts max. |
| Power Supply Regulation | 75 percent | 69 percent |
| Transformer Temperafure Rise Average of Windings | 125.6 Fahrenheit | 174.2 Fahrenheir |
| Deviation of Oufput | 1/3 percent | 25 percent | COMPETITOR $9^{\prime \prime} \times 31 / 2^{\prime \prime} \times 6^{\prime \prime}$

$41 / 2 \mathrm{lbs}$.
21/2, 2 15/16" NONE NONE

5 mid 35 volt $62-1300$ cycles (10,000 cycles)
$7 \%$ to $12 \%$
watts max.

69 percent
174.2 Fahrenheir


## LAFAYETTE EQUIPMENT IS USED THE WORLD OVER

 OME of the foremost users of Public Address equipment come to us for aid in solving their particular problems and with good reason. Lafoyette Engineers are authorities in this field and were the originators of the low priced High Fidelity P.A. Amplifier which are now in general use by leading companies everywhere. These companies come to us because they realize that Lafoyette does not build Public Address down to a price. They know that, although it is possible to manufacture equipment for less money, such equipment could never equal the high standards of quality or pass the rigid tests set by our Bureau of Standards. They know from experience that Lafayette prices are the lowest possible, consistent with the high quality of the equipment we manufacture. You may be sure that-"when good amplifiers can be built cheaper-lafayette will build them.'Surely, the confidence of these companies in Lafayette must rest upan Performance ... the one basis on which we ask you to buy when selecting Public Address Equipment.
this great book on sound IS ANOTHER PROOF OF lafayette leadershipl $H E R E$ is a great book on ERE isD greor book on Written by Lafoyefte Engineers. written by Lotayelte Engineers. Mr. Glenn E. West, Asst. Prof. of
Electrical Engineering oi Purdue University, soys of it: "We have lust received 'sOUND, lis Fundamentals and Methods of AP. plication.' This book is the best treatise on sound and the prinelples underlying public ad.
 dress systems that we have ever seen.
Surely, a book of this kind, complete to its most minute details and covering a complex subject in simpl. language anyone can understand, could anly be written by engineers who know intimately the Public Address Field. It will prove to be a Sales Manual and Susiness Builder for the Serviceman.
Get few capies of this profusely illustrated book which gives LIST PRICES thraughaut. Place them in the hands of prospective purchasers. Let them read it, and they will sell themselves on the advantages of Public Address. Your price is only 25 c which only partially covers the cost of printing.

You Can Buy With Confidence from TheLargest Radio Mail Order House in the World!

# Two Famous Cafayette MIDGET AMPLIFIERS 

### 3.5 WATT s9.75

 $\checkmark$ Pentode Tubes $\checkmark$ Field SupplyMany hundreds of these amplifiers have proven their worth in all parts of the world. In various climates, from the temperate to the hot humid air of the tropics, they have given unfailing service day in and day out. Its compactness plus the high efficiency of the circuit used and its low price hasve made this amplifier one of our most popular models. The circuit is as follows: a 57 pentode is resistance-capacity coupled to a $2 A 5$, a combination providing a gain of 80.2 db ., with an output of $31 / 2$ watts. An 83 -tube is used as the rectifier.

## Speaker Field Supply

Of particular advantage is the fact that this amplifier may be obtained with a 2500 -ohm field supply at no extra cost. This makes it possible to use a D.C. speaker instead of the more expensive A.C. type.

## Finest Quality Components

Despite its low price, only the finest quality components are used throughout. All are of generous oversize proportions and carry the usual Lafayette guarantee. This amplitier, like all Lafayette amplifiers, is designed for continuous operation. Every care has been taken to assure long life, for instance-all Lafayette amplifier chassis are finished in crystallized back lacquer INSIDE as well as outside. Dimensions are $91 / "^{\prime \prime}$ wide, $71 / /^{\prime \prime}$ deep and $71 / 4^{" h}$ high. Amplifier is regularly supplied without output transformer and when ordering specify whether or not desired for field excitation.
XP15790-Lafayette Two-Stage Amplifier, completely assembled and wired. Less tubes and speakers. Dimensions wide, $71 / 2^{\prime \prime}$ deep, $71 / 4^{n}$ high. Shpg. wt. 16 lbs.
XP15791-Complete Amplifier with tubes consisting 1-83. List $\$ 23.00$.
Your Cost
9.75 YWi9288-Special Matched $8^{\prime \prime}$ Lafayette Speaker. Shpg. wt. ${ }^{5}$ 1bs.


## 5 WATT

## S. 9.75

 $\checkmark$ New 2B6 Tube $\checkmark 72 \mathrm{db}$. GainNow for the first time it is possible to obtain an amplifier with a conservative rating of FIVE WATTS in so small a size. In fact, this amplifier uses a chassis identical in size with that of the single 2A5 a mplifier listed here. The tremendous output of this compact little unit is due to the use of the newly developed 2B6 tube. Lafayette amplifiers were the first to use this tube and the circuit used is an exclusive Lafayette the circuit used
For recording purposes no finer amplifier could be desired, due to its excellent frequency response. At 60 c . p. s. it is down 2 db ., at 1000 c . p. s. it is up 1 db ., and at $10,000 \mathrm{c}$. p. s. it is down only 1 db . below the average gain of 72 db . The power output of the a mplifier is 5 watts which is more than sufficient for recording (since only 1 watt is required for recording on aluminum and butsighty more on celluloid) and is a mple for reproduction. The gain of 72 db . permits the use of a carbon microphone without pra-amplification, provided the micronhone is spoken into directly. Input to the amplifier is of the high impedance type ( $500,000 \mathrm{ohms}$ ) and a high impedance pick-up may be connected directly to the amplifier without a matching transformer.

## Finest Construction

In building this amplifier only components of the highest quality are used so that failure due to breakine down of any part is practically unknown. All components are considerably oversize and are capable of carrying considerably greater loads than will ever be placed upon them. Chascis is cose crystallized lacquer finished both inside and out.
This is a standard Lafayette practice and assures long life under even the most humid conditions.
XP15787-Laifayette 2B6 Amplifier completely wired
and assembled. Size $91 / 4$ "wide, $7 \% 2$ deep, $7, / 4$ "high.
Shpg. wt. 17 lbs . List $\$ 19.50$.
Your Cost.
Xp15924 Same as above but will supply field current for fields from 2000 to 4000 ohms. Max. 10 watts.
Your Cost
$\$ 12.95$
.$\$ 2.40$

## IMPROVED PUSH-PULL 3-STAGE AMPLIFIER

## "High-Gain" Plus a 10-Watt Output for only \$19,50

By the use of a new and exclusive Lafayette circuit refinement the output of this extremely versatile amplifier has been stepped up fully $25 \%$ ! Now, more than ever before, is this the greatest value ever offered in a modern, standard, amplifier.

## THREE-STAGE CIRCUIT

Three stages, having the exceptionally high gain of 100.2 db ., are used as follows: a type 57 -pentode tube is resistance-capacity coupled to a type 56 -triode which is, in turn, transformer coupled to a pair of 2A5 pentodes in push-pull. An average output of 10 Watts with a peak output of 14 watts is obtained! Overall amplification is so great that input connections are provided for the second stage. Input devices having high outputs, such as magnetic phono-pick-ups, are to be connected to the second stage. If connected to the first stage the output tubes will actually overload.

TONE AND GAIN CONTROLS
A gain, or volume, control is provided for the first stage and a tone control, effective on either input, is also incorporated. A tone control is unusual in an amplifier of this type, and at this price, but, since a ittle tone correction is desirable in many installations to overcome peculiar acoustical conditions, it has been included. In short nothing has been overlooked that would contribute to a finer and better product.

## QUALITY CONSTRUCTION THROUGHOUT

Both workmanship and the quality of the components used are of the finest. All components being considerably oversize so as to withstand fargreater loads than they will ever be called upon to carry. Two models are a vailable-with-and without output transformer. When furnished with output transformer the output impedances are as
follows- $2,4,8$, and 15 ohms for speaker voice coils and $250-500$ follows-2, 4, 8 , and 15 ohms for speaker voice coils and $250-500$
ohms for line. Without the output transformer, impedance is 10,000 ohms from plate to plate.


XP15939-Lafayette Three-Stage Amplifier, completely assembled and wired. Less tubes, loud speaker and
output transformer. Dimensions $12^{\prime \prime}$ square $91 /{ }^{\prime \prime}$ high. Shpg. wt. 30 lbs square, $91{ }^{2 \prime}$ high. Shpg
XP1594i- Same as above but with output transformer less tubes Shpg. wt. 33 lbs . List $\$ 46.50$.
Kit of matched tubes, consisting of $1-57,1-56,2-2 \mathrm{~A}^{\circ} \mathrm{s}, 1-5 \mathrm{Z3}$.
Your Cost

# 15 WattPush-Pull 2A3 Amplifier 

by

## Cafayette

"De Luxe" Model
$\star$ Direct Coupled


Field Supply for 2 to 4 Speakers

$\star$ Compact Size

This new model Lifayette Push-Pull 2A3 Amplifier is the ideal unit to use wherever moderate power with outstandingly fine tone quality is desired. Its power output is such as to particularly fit it for use In the a verage medium sized dance hall, theater or other gathering place. It is for these reasons the most popular unit of this popular line, and it adequately fulfilla the demand for an amplifying unit that can be depended upon for satisfactory day-after-day performance in installations of this character.

## THE CIRCUIT

The circult used is of the direct coupled type, which is superior in both gain and frequency response, but which is rarely used in amplifiers at any where near this price, because it is more expensive to build due to the high voltage required. It is only because a ready consumer acceptance makes possible quantity production that we are able to offer an amplifier of this type at this price. A 57 pentode is direct coupled to a pair of 2 A 3 triodes in push pull. A $5 \mathrm{Z3}$ high vacuum tube is used as rectifier. An exceptionally high gain of 80 db . with an output of 15 watis ( 18 watts peak) is obtained. This gain in the majority of cases eliminates the need for pre-amplification when a carbon microphone is used.

## TONE QUALITY

The frequency response of the amplifier is particularly good due to the unique method of neutralization employed. The maximum variation, from the a verage level of 80 db . being only one db . plus or minus from 40 to 10,000 cycles. It is impossible, due to the limitation of space, to illustrate the actual curve obtained, however, this curve is space, to ilustrate the actual
shown in our "Sound Manual.

Field supply for four 1500 ohm or two 3000 ohnis fields ( 7 watts each) can be obtained from the amplifier, thus eliminating the need for separate field exciters and thereby considerably reducing the cost of the complete installation.

## INPUT AND OUTPUT IMPEDANCES

Input impedance of the amplifier is 500,000 ohms and permits the direct connection of high impedance phono-pickups without the use of matching transiormers.
Two models are available-one with, and the other without, output transformers. Output impedances with the transformer are 2, 4, 8 and 15 ohms for speaker voice coils, Also 250 and 500 ohms for line transmission application. When supplied without the transformer the output impedance of the amplifier is that of the plate loads required by the tubes- 5000 ohms.

## CONSTRUCTION

All components used in the construction of the amplifier are consider ably oversize and will safely carry far greater loads than will ever be placed upon them. The chassis is of steel and is finished in black crystalline lacquer, both inside and out, for protection against rust Amplifier dimensions are $12^{\circ}$ wide, $7^{\prime \prime}$ deep
and 71/" high. Shpg. wt. 30 lbs.
XP15940-Lafayette P.P. 2A3 Amplifier
less tubes and output transformer.
List $\$ 53.00$. Your Cost.............. List $\$ 53.00$. Your Cost.
XP15952-P.P. 2A3 Amplifier with output transformer, less tubes. Your Cost.
Kit of Matched Tubes. Your Cost

## 15 Watt "Three Stage" Amplifier

## "High Gain" $2 B 6$ Model by Cefoyette

 * Uses the NEW 2B6 DualTriode Tubes
## $\star$ Both Gain and Volume Controls

The excellent performance of this high gain amplifier, and its exceptionally fine dollar value, might casily lead us into using a string of superiatives in describing it. Instead, however, we will let the specifications given below give you the true pleture of how well it performs. The price, of course, speaks for itself.

## THE CIRCUIT

The circuit is almple and foolproof. A type 57 pentode is resistance capacity coupled to a type 56 triode which is transformer coupled to a pair of 2 B6 dual-triodes in push pull. A $5 Z 3$ tube is used as rectifier. The 2B6 dual-triode is a newly de veloped tube having a greater gain than former triodes yet retaining all the tone quality (irequency response) advantages of these tubes. Lafayette engineers were the first to develop an amplifier using this tube. Continued research work has made possible many new improvements and developments in the use of this tube. These new features have been incorporated in this amplifier and are responsible for the excellent results obtained. These features are exclusively Lafayette and are not obtainable in other amplifiers.

## HIGH GAIN

An exceptionally high average gain of 92 db . has been obtained thus making possible the use of a carbon microphone without preamplification making possible the use of a carbon microphone without preamplification under a verage conditions. This
industrial amplifier applications.

## FREQUENCY RESPONSE

Tone quality or frequency response is exceptionally good, the maximum variation being only 4 db . hetween 60 and 10,000 cycles. A tone contro is provided so that the tone may be varied to suit individual preferences or to compensate for acoustical peculiarities of the room or of the input device.

A gain or volume control is also provided so that the output of the amplifier can be adjusted to the degree of volume desired.

## INPUT AND OUTPUT IMPEDANCES

Two inputs to the amplifier are provided so that either three or two stages may be used. Both are of the high impedance type- 500,000 ohms. The a mplifier may be obtained either with or without an output transformet When supplied with the transformer the following impedances are avall able at the terminals-2, 4,8 and 15 ohms for voice coils also 250 and 500 ohms for lines.

## Low HUM LEVEL

Due to the use of heater type tubes throughout the hum level has bedn kept exceptionally low being actually 62 db . below maximum output The filter system is especially efficient using large filter condensers and heavy oversize chokes in a combination brute force and tuned choke circuit. Chassis dimensions are $12^{\prime \prime}$ square, $91 / 2^{\prime \prime}$ high. Shipping weight 30 lbs.
XP15937-Lafayette "High-Gain" P.P. 2B6 5 Amplifier, less output transformer and tubes.
List $\$ 44.90$. Your Cost
XP15938-Lafayette "High-Gain" "P'P.' 2 B6 Amplifier with output transformer but less tubes. List $\$ 52.50$.
Your Cost

# 28 WATT CLASS "B" AMPLIFIER "Auditorium" Model by Lafayette 

## $\checkmark$ Excellent Frequency Response

 $\checkmark$ Direct Coupled Driver
## $\checkmark$ Full 28 Watts Output (Peak 32 Watts)

Installations in Auditoriums, Theaters, Dance Halls, Lodge Rooms, etc., demand an amplifier that combines great power with excellent tone quality. This direct coupled class "B" amplifier has been especially designed for such installations. It has Power-conservatively rated at 28 watts. It has Tone Quality-a maximum variation of less than four db . between 60 and 10,000 cycles. And in addition it is economical to operate, the average drain from the supply line being 85 watts at 115 volts. Its power output is great enough for use in large auditoriums and dance halls and it will operate as many as 12 speakers to a plus 20 db . dance halls and it whll operate as many as 12 speakers to a plus 20 db .
level. In fact, for all except the largest outdoor stadium locations, no finer amplifier could be desired.

## THE CIRCUIT

The circuit employed uses a 57 -pentode tube directly coupled to a 59 -driver tube driving a pair of 59 tubes in ctass " $B$ "". An 83 mercury rapor tube is used as rectifier. An a verage gain of 83 db . is obtained making it possible to use a microphone without pre-amplification in many instances. This gain is due to a great extent to the use of the direct cupled stage ahead of the driver. The direct coupled stage also accounts for the excellent high frequency response of the amplifier.

## OUTPUT TRANSFORMER

The amplifier is furnished complete with an output transformer having the following output impedances: $2,4,8$ and 15 ohms for speaker voice colls, also 500 ohm and $250-\mathrm{ohm}$ line output impedances. Input imped ance to the amplifier is 500,000 ohms. This permits connecting a high mpedance phonograph plekup directly to the amplifier without using
a matching transformer.
Lum leves nas deen kept extremely low being 73.9 db . below maximum output. This has been accomplished throush the careful filtering of the plate supply to all tubes. Special low resistance filter chokes are used to assure excellent regulation and the filter condensers are of the high voltage type assuring long and satisfactory life. Both the power trane former and the choke assembly are designed to handle considerably more than the no:mal current to which they are subjected under full load. These husky units measure $6 \frac{1}{2}$ by 6 by 5 inches each.

## RUGGED CONSTRUCTION

Construction is extremely rugged throughout. The chassis is formed cf pressed steel with spot welded corners and is hea vily crystalline lacquered both inside and out for protection against rust. All components entering into the construction of the amplifier such as resistors, condensers, etc., into therully checked and tested both before and after they are buin operating conditions.
XP15760 Lafayette Class "B" Amplifier, completely assembied and wired. For $100-130$ volts, $50-60$ cycles A. C., less tubes and loud speakers. Dimensions: $1111^{\prime \prime}$ deep $20^{\prime \prime}$ long, $10^{\prime \prime}$ high. Shpg. $\$ 3$
wt. 61 ibs. List Price $\$ 79.0 \mathrm{C}$.
Your Cost
XP15757-Complete amplifier with matched tubes, consisting of $1-57$

## 22 Watt by Cafayette P. P. Parallel Model

Incorporating such advanced features as "Phase In version" and "Push-PullParalle! Output Stage" this Amplifier is truly modern in design. Its output has been very conservatively rated at 22 watts and it is therefore suitable for use in Auditoriums, Dance Halls and similar locations where a fairly large output is required.

## UNUSUAL CIRCUIT

The unusual circuit, as used in this amplifier is as follows: a type 53 duo-triode is used as a phase inverter which is coupled to another 53 duotriode as a stage of push-pull amplitriode as a stage of push-pull ampli-
fication. This is, in turn, coupled to four 2B6 dual-triodes in a push-pull-parallel output stage. Plate current is furnished by an 83 mercury vapor rectifier iube.

## WIDE TIANGE REPRODUCTION

All stages are resistance-capacity coupled, thus doing away with the inherent difficulties of transformer coupling such as limited frequency response, hum pick-up, etc. Frequency response is exceptionally fine, varying only plus or minus $1 / 2 \mathrm{db}$. between 60 and 10,000 cycles per second! The use of four output tubes in a push-pullparallel circuit makes possible the exceptionally high output of 22 parallel circuit makes possible the exceptionally high output of 22
watts with a peak output of 30 watts! The output tubes are of the naw dual-triode type (2B6) and are actually two direct coupled stages now dual-triode type (2B6) and are actually two direct coupled stages
of a mplification within each tube. The use of these tubes is one of of amplification rithin each tube. The wee of these tubers for the excellent frequency response obtained.

dynamic speakers.

## RUGGED CONSTRUCTION

Like all Lafayette amplifiers the construction throughout is exceptionally rugged. The chassis is of formed steel with spot welded corners and is heavlly lacquered, both inside and out. in an attrastive black crystalline finish. Dimensions, $12^{\prime \prime}$ square, $91 / 2^{\prime \prime}$ high. Shpg. wt. 35 lbs .
XP15936-Iafayette Push-Pull-Parallel
2 B6 Amplifier less tubes and output trans-
former. List $\$ 54.00$.
XA40G Output Transformer as described above. Shpg.
Kit of Matched Tubes. Your Cost

# $\rightarrow$ HIGH-FIDELITY" AMPLIFIER carayetre Flat from 20 to 17,000 C. P.S. Entirely New Circuit High Gain - 78 db. 15 Watts Output 

The trend toward "higher fidelity" or more faithful frequency response, in Public Address Systems has become increasingly greater from day to day. With the advent of ribbon or velocity microphones high frequency speakers, wide range recording, etc., it has been definitely proven that the amplifier must be capable of reproducing all the frequencies in the audible spectrum faithfully without stressing any particular frequency
The new Lafayette "Hich-Fidelity" Amplifier will amplify all frequencies from 20 to 17,000 c.p.s. with equal intensity! No par ticular frequency is amplified to any greater degree than any other within the range of the amplifier. Space limitations prohibit the illustration of the response curve obtained (this curve is, however, shown in the lafayette Sound Book) but it is actually a straight line from 20 to 17,000 c.p.s.

## CIRCUIT

Six tubes in all are used in the specially designed circuit consisting of a 53 "phase inverter" tube, a pair of 56 tubes in push-pull, a pair of 2B6 duo-triodes in push-pull and a type 83 mercury vapor rectifier. It will be noted that all stages are push-pull yet no coupling transformer is used! The gain of the circuit is actually 78 db . thus permitting the use of a carbon microphone under ordinary conditions without pre amplification. And the power output of 15 Watts (peak 20 Watts) makes this amplifier particularly suitable for the greater majority of in itallations. Input impedance to the amplifier is the standard high in pedance type as used in all Lafayette amplifiers- 500,000 ohms so that high impedance pick-ups, etc., may be connected directly without matching transformers.

## CHOICE OF OUTPUT TRANSFORMERS

It is advisable, of course, to use the best output transformer available No transformer is supplied with the amplifier but the following ar recommended:
Typè No. 1 has a frequency response that is down app.- 1.5 db . at 20 cycles; plus 1 db . at 1,000 cycles and down only- 2 db , at 17,000 cycles p.s. Type No. 2 is down 3 db . at c.p.s.; plus 1 db . at 1,000 c.p.s and down 4 db. at 12,000 c.p.s.
XP15753 High Fidelity A. C. Amplifier less tubes and less output transformer. Size $16^{\prime \prime}$ wide, $7^{\prime \prime}$ deep, $8^{\prime \prime}$ high. $\$ 2$
Shpg. wt. 40 lbs. List $\$ 79.00$ Your Cost
Kit of Matched Tubes
Your Cost
XP15931-Type No. 2 Output Transformer
Your Cost

Both transformers to 2 4, 8, 15 ohm voice coil-500 ohm line.
A Lafayette D. C. "High-Fidelity" Amplifier is also avails quoted below. For specifications refer to the "Sound Book." XP15754-Lafayette "High-Fidelity" D. C. Amplifier, less tubes and output transiormer. Size $16^{\prime \prime}$ wide, $7^{\text {" }}$ deep, $8^{\prime \prime}$ high. Shpg. wt. 40 lbs List $\$ 55.00$
Your Cost
Kit of Matched Tubes
XP15932-Type No. 1 Output Transformer. Your Cost
XP15933-Type No. 2 Output Transformer. Your Cost
Both transformers to $2,4,8$ and 15 ohm voice coil- 500 ohm line

## SIX VOLT P. A. STSTEM Cafayette 15 Watts

\section*{A Complete P. A. System

## A Complete P. A. System for Operation from a Storage Battery

Here is a system that, at an exceptionally low cost, makes it possible for you to turn any truck, or passenger car, into a sound truck that can be proftably rented out by the day, or week, to political clubs, theatres, merchants, etc. The system is so compact that it will not decrease the seating capacity of any car-even a coupe

COMPLETE SYSTEM
Included in the system are two large Larayette Trumpets with Cone Unity-a Two Button Microphone complete with a desk stand and 25 feet of mike cable-a Senior Mike Input Stage-and the Lafayette 6 Volt 15 Watt Amplifier. The output of 15 watts is great enough to make this system suitable for practically any purpose.

## SIMPLE INSTALLATION

Installation is extremely simple. The speakers are mounted on the roof of the car-one facing the front and the other facing the rear. The amplifier may be placed in any comvenient location with the Mike Input Stage within a short distance from it-connecting the two with the shielded lead supplied for that purpose. Only two leads are connected to the battery all otherleads-field, voice coil and inputstage going to the amplifier. The complete system can be installed within an hour easily.

WILL OPERATE 8 SPEAKERS
The output of this system permits the addition of up to 6 speakers ( 8 in all), where greater coverage is desired, without loss in volume or tone quality. A separate battery for the excitation of these additional fields is necessary

## RUGGED CONSTRUCTION

All components are rugged in construction so as to withstand the vibration and abuse that sound truck systems are subjected to. The amplifier has been finished, both inside and out, in an attractive black crystallized lacquer that protects it from rusting due to dampness. Chassis is of pressed steel with spot welded corners. Heavy rubher covered leads connect amplifier to battery. The trumpets are weatherproof, and strongly made, yet light in weight. Shipping weight of the complete system is 125 lbs.
Many sound trucks include a turntable and pick-up for the reproduction of recorded entertainment. This is used to attract the attention of passersby to printed advertising attached to the side of the truck or to entertain them until the speaker is ready to speak. In some cases a record is made of a sales talk, etc., and that is used instead of a speaker or lecturer. For this purpose we have a vailable a special six volt operated phono-motor and turntable and a highly efficient pick-up, which may be


Now you can increase the output of your Public Address system by adding to your present equipment this new POWER AMPLIFIER with the extraordinary output of 60 WATTS ( 80 watts peak) which is sufficient for use in outdoor installations with a capacity of 50,000 people. Thisextraordinary Amplifier is an exclusive Lafayette development and is far ahead of anything that has ever been designed for this purpose.

## TECHNICAL DATA:

INPUT-A special in put transformer is supplied so that the amplifier may be driven either from a push-pull 2A3 amplifier or from a 500-ohm line. If your present equipment does not have a 500 -ohm output it is only necessary to obtain a 500 -ohm output transformer output is ONLY 3 WATT'S and the average amplifier rated at this output is sufficient to drive this unit. However, it is ad vantageous to use an amplifier having a greater output than this to handle maximum peak voltages. We especially recommend the Lafayette Push-pull 2 A3 Amplifier. The peak output with 8 watts input is 80 WATTS, but like all Lafayette amplifiers it is conservatively rated.
OUTPUT-An oversized output transformer has three output windings, viz. 1-500-ohm line and 2-250-ohm lines. With this combination 250 ohm line or one 500 -ohm line or two 500 -ohm lines or one 1000 .
> ohm line or one 1000 -ohm and one 500 -ohm line. When ordering advise the speakers you intend to use and re will furnish information as to the best method to use for obtaining maximum efficiency. POWER SUPPLY-In order to obtain the most efficient current regulation extremely low resistance filter chokes are employed. All components are capable of carrying $200 \%$ of the maximum amount of current required at any time. Two 83 mercury vapor typerectifiers are used in a special bridged circuit so that each tube is carrying exactly half the current at all times. Choke input filtering is used to further Improve regulation.
> GAIN-The exclusive circuit developed by Lafayette engineers provides the unusual gain of 12 db .
> TUBES USED-Four type 59 tubes and two type 83 tubes. WATTAGE INPUT A.C.-This amplifier draws only 180 watts at maximum output-an efficiency of better than $333 / 5 \%$.
> MODULATION USE-Can be used to modulate $100 \%$ any transmitter using up to 120 watts of R. F. input.
> DIMENSIONS-111/2" deep, $20^{\prime \prime}$ long, $10^{\prime \prime}$ high. Shpg. wt. 60 lbs. XP15778-Lafayette 60-Watt Class "B"
Amplifier with input and output transformers. List $\$ 119.50$

> Kit matched tubes; 4-59; 2-83. Your Cost
> $\$ 4.60$

## 60 Watt Stadium Public Address System

 by Cafayette
# * Sufficient Power for Stadiums, Ball Parks, etc., seating up to 50,000 Persons 

Formerly, because of the tremendous power required, installations in large stadiums, air fields, ball parks, football fields, etc., were very expensive. New tube developments plus careful engineering, and a consumer acceptance that makes possible quantity production, have enabled us to bring the cost of such equipment to a surprisingly low level.

## SUPERIOR ALL AROUND PERFORMANCE

Despite its low price, however, this equipment is not only comparable to equipment costing many times as much, but is in fact superior in all around performance to many such systems.
The complete stadium equipment as shown here does not include speakers; for these should be chosen according to the particular installation at hand. In other sections of this catalog will be found complete listings and descriptions of suitable speakers. Naturally such speakers will be used out of doors and trumpet types must therefore be used.

## PHONO PICKUP AND TURNTABLE INCLUDED

The complete equipment, exclusive of speakers, consists of the following: One Lafayette Model 50 double-button microphone complete with an adjustable floor stand and 25 feet of microphone cable, one phono-mike radio control box, one portable turntable and pickup for record reproduction, the Lafayette Push-Pull 2 A3 Amplifier as described on page 71 of this catalog and the Lafayette 60 -Watt Amplifier described at the top of this page, plus a complete set of tubes for both a mplifiers.

## FINEST QUALITY COMPONENTS

With this system it is possible to furnish musical entertainment by means of recordings, or voice by microphone, to as many as 50,000 persons with ease. The complete system is of the finest quality throughout and is carefully inspected and tested under actual operation before shipment. It comes to you complete with full instructions for installing operation before
XP15934-Lafayette 60-Watt Stadium Public Address System complete with all equipment as described above.
Shpg. wt. 110 lbs.
List $\$ 320.00$
$\$ 1.0000$


Your Cost.

## 



Now a NEW and IMPROVED model Lafayette Deluxe Portable P.A. System. ALL of the fea PLus of the previous, highly popular, model PLUS a new high in power output! Iast year's model had what was considered to be the highest power output ever obtained in a portable P.A. System. But this NEW model has an output that is actually $50 \%$ greater than last year's! The phenomenal power output of 15 watts is available! This is more than enough lor many moderate sized auditoriums. Built into two compact rugged cases-one containing the amplifier and mixing panel ot the othe
Amplitier is the NEW and IM PROVED

## $\sqrt{ } 15$ WATTS OUTPUT - TWO HANDY CASES , BUILT-IN MIXING PANEL $\checkmark$ PERFECT TONE QUALITY / RUGGED CONSTRUCTION

Amplifier Case 181/ $\times 181 / 4 \times 111 / 3^{\prime \prime}$ deep Speaker Case 18 ; $\times 18$, $\times 131 / /^{\prime \prime}$ deep
pension and protection fo
both as bases for the speakers and as a very compact carrying case. Special Auditorium Speakers are used, having $12^{\prime \prime}$ cones, and are provided with special matching transformers that assure their maximum performance irrespective of the distance from the amplifier. Each speaker is provided with a 50 ft . cable and plug. A special snap-on cover protects each peaker cone from damage during transporation. The Microphone is a standard LAFAYETTE model 25 -one of the finest mlerophones made moday. A special desk stand assures correct sustoday. A special
the microphone.
XP15792-LAFA YETTE Push-Pull 2A3 Portable P. A. System complete with LAFAYETTE 25 D. B. microphone and $\$$ lens tuhes. Shpg. wt. 65 lbs. List Price $\$ 199.00$ Your Cost


XP15793 - Extra pair of matched speakers with self-contained field supply in carrying case same as the one supplied with system. Shpg. wt. 80 fbs . Your Cost
Kit of matched tubes, 2-2A3, 1-57, 1-83.
Your Cost.
$\$ 29.50$
53.00

A NEW and IMPROVED PORTABLE Cafayette

## A Dual Speaker System with a Full 5 Watt Output

- Using the NEW 2B6 Amplifier
- Greater Output-Better Tone


Never before has it heen possible to obtain a complete P.A. System with an output as great as this in so small a size. Many entirely new in the that are exclusive Lafayette developments are incorporated than the previous highly 2 B 6 Portable P.A. System. It is no larger over $40 \%$ greaterl It is compact enough to carry in a train or in the rumble seat of a car and can be set up ready for operation at a moments

## INGENIOUS CONSTRUCTION

Almost every cubic inch of space in the strong carrying case, measuring $15^{\prime \prime}$ square by $10^{\prime \prime}$ deep, is utilized. The two sides come off and act as baffles for the two speakers mounted in them. These sides are equipped with folding feet that keep them upright when they are placed on the stage, platform, etc. Inside the case itself is mounted the amplifier using a 57 pentode resistance-capacity coupled to a A sensitive current is furnished by an 83 tube
Microphone current is furnished hy dry supplied with the system. to the amplifier. A gain control by dry cells mounted in a box next to the amplifier. A gain control mounted on the side of the case per-
mits smooth and mits smooth and quiet adjustment of the volume from minimum to
maximum. The gain of the amplifier is sufficient to permit even a soft speaking voice to be heard over a considerable area.

## HIGH EFFICIENCY OBTAINED

In the design of a portable amplifier every part must justify its weight Lafayette engineers have carefully designed the entire unit in orde to assure the maximum performance of each component used. Dimensions are $15^{\prime \prime}$ square, $10^{\prime \prime}$ deep. Maximum shpg. wt. 55 lbs. XP15927-Lafayette Dual Speaker 2B6 Portable Public Address System with single button hand micro-
phone.
List Price $\$ 79.00$ List Price 579.00
Your Cost (less tubes)
Xp15928-Same as above but with double button Hand Mike
Your Cost
XP15929-Same with two button Mike and Floor Stand.

Your Cost
Complete Kit of Matched 1-57, 1-2B6, 1-83.
Your Cost

# Another Lafayette Triumph! 



## V 15Watts Output!

## A complete "Theater"

 Amplifier for use with Portable Talking Picture Machines!
## $\checkmark$ Absolutely Complete: $\checkmark$ Everything Accessible : $\checkmark$ Compensated Frequency Response:

Lalayette Engineers have again done the seemingly impossible? A complete Theater Amplifier with ALL the latest features in a unit measuring only $141 / /^{\prime \prime}$ by $83 /^{\prime \prime}$ by $9^{\prime \prime}$ hight It has EVERYTHING
other larger Theater Amplifers have-and then some For instance ...it has two photo-cell inputs with separate voltage control for each cell! . . . it has a separate sound on disc or microphone input with a switch to change over from photo-cell to mike input instantaneously! io . it has exciter lamp supply for either 8 volt lamps at 4 amps. or 10 voit lamps at 7.5 amps.! . . . it has connections for two separate exciter lamps (two projectors) and a switch for connecting either projector at will!. . it has a separate exciter current supply switch has both volume and tone controls! has ALL terminals accessible from the FRONT of the C. ine. it has field supply accessible from the FRONT of the amplifier it has field supply for either one 1000 ohm 10 watt field or two 2000
ohm 5 watt fields for speakers! ohm 5 watt fields for speakers! . . and it has a compensated "low frequency cut-off" response that makes it the finest amplifier you ever heard for portable talking picture machines!

## 15 WATTS OUTPUT

Despite its compactness that makes it possible to mount the complete amplifier in a very small carrying case it has a very conservatively rated output of 15 watts with a peak output of 20 watts! The special Lafayette designed circuit used in this amplifier makes use of the following tubes; one type 57, one type 53, two type 2B6's and one type 5Z3. An average gain of 94 db . is realized with a specially compensated frequency response curve having a low frequency cut-off. It is -10 db at 40 cycles, plus 3 db . at 1000 A special model for use with $16 \mathrm{~m} . \mathrm{m}$. film is also available. In addition a tone control is inIn addition a tone control is in-
cluded to modify the high frecluded to modify the high
quency response if desired.

SOUND ON FILM PROJECTORS. We can supply a Lafayette Portable Standard 35 Mm . Talking Picture System complete with this amplifier for commercial or home use. Prices and information with detailed description on application.

The particular problems arising in operating a portable projector have been carefully studied by Lafayette Engineers with the result that a special type of construction is used. All terminals, switches, controls and the fuse are at the front of the amplifie-so that it may be mounted into a case and yet permit access to all controls. A special screen cover protects the tubes against damage and loss. All construction throughout is rigid to withstand the unavoidable rough usage that portable equipment is bound to be subjected to.

CHOICE OF OUTPUT IMPEDANCES
A choice of output impedances of 2-4-8-15 and 500 ohms is a vailable, Field current for one 1000 ohm field at 10 watts or two 2000 ohm fields at 5 watts is also a vailable. Input impedances are of course for the photo-cells and for a high impedance pickup or for a matching transformer when used with low impedance pickups and microphones. Amplifier is supplied complete with two special "low capacity" shielded cables with plugs for attaching photo-cells to the amplifier and a cover for the amplifier. Overall dimensions (knobs included) are $141 / 2^{\prime \prime}$ long, $83 / 4$ deep and 9 "high. Finished in black crystallized lacquer both inside and out. Shpg, wt. 45 lbs. XP15922-Lafayette Portable Theater Amplifier complete as described but less tubes.
List $\$ 119.00$
Your Cost
Kit of Matched Kit of Matched tubes or the above. $--57,1-53,2-2 B 6,1-523$.
Shpg. wt. 2 Ibs.
Your Cost..............................................

Note: A model having a specially designed frequency response curve for use with sponse curve for use w.th
$16 \mathrm{~m} . \mathrm{m}$. film is available at a slightly higher price. Price and slighrly higher price.
detais on application.

## Special Theater Model 28 Watt Class "B"

'Sound on Film' General Purpose Amplifier by Lafayette

Now it is possible for even the smallest of theaters to offer their patrons the finest quality of reproduction. No longer is it neces3ary to put up with inferior tone quality because the cost of "high fidelity" sound system amplifiers was prohibitive. Here is an amplifier, especially designed for such installations, that compares favorably with the finest made, yet it is priced so low compares favorably with the finest made, yet it is priced so low "mushy." hard to understand, sound with their film entertainmushy
No pre-amplification is required with this four stage amplifier having an output of 28 watts. A 57 sube is coupled to a 56 Which in turn is coupled to a 59 driver sirge driving a pair of 59 's in class "B". An 83 rectifier tube supplies plate current. Two polarized receptacles are provided for the connection of the photo-cells. Both cell
polarization and exciter lamp current is supplied by the a mplifier. A polarization and exciter lamp current is supplied by the amplifier. A the other.

## Tone Control

Many theaters have difficult acoustic problems that can often be remedied by the use of a tone control. A really efficient tone control is incorporated in the amplifier.

## Rugged Construction

Theater work demands an amplifier that will give unfailing service contlinuously day after day. This amplifier has been designed with that in mind and each component is considerably oversize and can stand by far greater loads than will ever be placed upon them. Shpg. wt. 61 lbs. XP15763-Class "B" Sound on Film
 The "Utility" 2A5 System

## A complete System at an exceptionally LOW PRICE:

- Excellent for use by


## Window demonstrators.

This System is especially suitable for such uses as: Inter-office communication, Store Demonstrators, Hearing Aid, etc. It is also suitable for many special uses and can be adapted wherever a system with an output of 313 wats is required. A large well known chain of confectionery stores usesseveral of them in connection with window demonstrations. A prominent metropolitian broadcasting station has installed a complete system in each of its studios.

## COMPLETE SYSTEM

The System consists of the following: a modef 12 double button microphone With a desk stand, one 12 foot shielded microphone cable, a senior mike input stage complete with mike battery, an $8^{\prime \prime}$ dynamic speaker with a suitable matching transformer, and the $2 A 5$ three and a balf watt Amplifier complete
with tubes.

## The "Utility" 2B6 System

The Utility 2B6 System is similar to the system pictured above but incorporates a more powerful amplifier-the Lafayette 2B6, having an output of 5 watts! The more powerful amplifier makes it particularly effective where conflicting noises must be overcome. It is also of ad vantage where a greater number of speakers (up to 3 or 4) must be used. Because the 2B6 amplifier does not furnish field current a special speaker with its own built-in field supply is furnished with the system instead of the speaker pictured. While only one speaker is included in the system as listed it is of course pussible to use as many as desired up to the maximum capabilities of the amplifier. Full instructions for installation and operation are furnished with the system.
XP15926-Complete Lafayette "Utility" 2B6 System including one special
38 lbs. List $\$ 67.50$. List $\$ 67.50$.
s33.75

## MATCHED UNITS

All of the components used in this system have been chosen with the view of obtaining a unified matched system that will give the finest possible results. The Amplifier is the Lafayette Single 2 A 5 model that is fully described on page 70 and all the other items including the speaker, input stage, microphone, etc., are accurately matched to this amplifier.

## EASILY INSTALLED

The complete aystem is carefully tested and adjusted before it is shipped to you and comes complete with full easily understood instructions for installation. Actual installation is simple and can be quickly accomplished. This system is powerful enough to operate two speakers if desired. In this event the additional speaker will require its own field supply. For prices on additional speakers write us. XP15743-Complete Lafayette "Utility" 2A5 Public Address System as described a above. Shpg. wt. 35 lbs.
List $\$ 57.50$ list $\$ 57.50$ Your
Cost
s28.75

## The "High Gain" 2A5 System

## - An excellent System for

 the amplification of Music - Particularly suitable for small Dance HallsThe High Gain Three-Stage P. A. System, illustrated at the right, has been especially designed to eliminate the need for microphone pre-amplification. Pre-amplification is required with most systems when it is desired to pick up voice or music at a distance from the microphone; for example, the amplification of orchestral music. This is so because a greater gain is needed than is necessary when the microphone is spoken into directly. Therefore this system is particularly recommended for use in dance halls, small ballrooms, banquet halls, etc.

## COMPLETE SYSTEM

This System includes the High Gain three stage push-pull 2A5 Amplifier as described on page 70 of this catalog. It is furnished complete with a built-in matching transformer, a model 25 double button microphone and adjustable floor stand, 25 feet of shielded microphone cable, a senior mike input stage with self contained button current battery, two $12^{\prime \prime}$ Special P. A.-A. C. Speakers using tube rectification for the field supply and equipped with special matching transformers so that they may be placed any distance desired from the amplifier with a minimum loss in volume, and a complete kit of specially matched tubes for the amplifier and the speakers. For a more complete description of the various units look under their respective listings in this catalog.

## ADDITIONAL SPEAKERS

The a mplifier is capable of operating as many as six speakers, there-
fore it is possible to add as many speakers as desired to this system fore it is prossible to add as many speakers as desired to this system up to the full capacity of the amplifier. For prices on additional speakers refer to the speaker section of this catalog.

## QUALITY COMPONENTS

Each of the items included in this system is of the finest quality and will give long and satisfactory service. The complete system has been carefully tested and adjusted before shipment to you and comes complete with all necessary easily understood instructions for installing and operating.
XP15744 - Complete Lafayette "High Gain" 2A5 Public Address System as described above. Shpg. wt. So
87 lbs. List $\$ 144.00$
Your
Your
Cost
72.00


The "High Gain" 2B6
The High Gain Push-Pull 2B6 System is similar to the one pictured above but includes the more powerful P'ush-Pull 2B6 Amplifier described on page 71 of this catalog. Having an output $50 \%$ greater than that of the system described at the left, it will be more suitable for installations requiring a greater output in order to operate a incater number of speakers or to overcome conflicting noises. It 2A5 System, only the amplifier and its associated tubes being diferent.

## WILL OPERATE 10 SPEAKERS

While only two speakers are included in this system it is possible to operate as many as 10 if desired. This feature is of great importance if a number of locations are to be equipped with speakers. Restaurants, Dance Halls and Banquet Halls will find this system particularly well adapted to their needs. The high gain of the amplifier done in picking up music at a distance from the microfaone as is of 15 watts is great enough for the ma an orchestra. And the output XP15925-Lafayette Complete 2B6 "High Gain" Public Address System including 2 speakers, tubes, input stage, microphone and hoor stand and mike cable. Shpg. wt.
125 lbs . List $\$ 157.00$
Your Your Cost..

Push-Pull Parallel 2B6 P.A. System by Cafayecte


Everything needed for a powerful 22 -watt Public Address System capable of covering as many as 5,000 persons is included in this outfit which is ideally suited for use in Auditoriums, Dance Halls, Swimming Pools, Tennis Courts, etc. The nucleus of the system is the Lafayette Push-Pull Parallel 2B6 Amplifier, the outstanding feature of which is the excellent tone quality of its reproduction. Sufficient gain is provided n the amplifier to permit the pick-up of music directly from an orchestra, or a singer singing at a distance from the microphone, without the need of additional pre-amplification. COMPLETE SYSTEM Complete system includes the following: one Model 50 Double Button Microphone with an adjustable De Luxe Floor Stand and 25 feet of microphone cable. Senior Mike Input Stage, four 12 -inch Special PA C. Dynamic Speakers with special matching transA.C. Dy mo that they may be placed any distance deormers so the ired While only four speakers are included at the price While only four speakers are included at the price
quoted, the amplifier is capable of operating as many quoted, the amplifier is capable of operating as many as $t$ wel ve with ease. Additional speakers as desired
may therefore beadded. Prices on additional speakers may therefore beadded. Prices on addiond elsewhere in this catalog. For a cormplete description of the Amplifier refer to page 72. Shplis wt., 230 lbs.
XP15944-Lafayette Push-Pull Parallel 2B6 Public Address System complete as described above.
List $\$ 259.00$. Your Cost

The various Public Address Systems and Amplifiers listed on this and adjacent pages represent average installations. Should you have any special problem, requiring equipment other than that listed here, our Engineering Department is at your service to design and build suitable equipment and to assist you in its Installation.

## Push-Pull 2A3 P. A. System by Cafayette



A complete, powerful, 15-watt Public Address System sufficiently large for the average installation. Tone quality is exceptionally fine and reproduction is clear and lifelike, so important in all public address installations, yet seldom obtainable, with this unusually large output, at so low a price. Only the finest quality components are used in this a mplifier, and are sufficiently oversize so that the system may be used amplifier, and are sufticiently oversize so that the system may be used
continuously without the slightest fear of overheating. Complete system includes: 1 Lafayette P.P. 2 A3 Amplifier, system includes: 1 Lafayette P.P. $2 A 3$ Amplifier,
1 Lafayette Sr. Input Stage, 1 Lafayette Model 25 Llafayette Sr . Input Stage, 1 Lafayette Model 25
Miferophone with adjustable foor stand and 25 feet of mike cable, 2 Speaker to Line Matching Transformers (mounted on speakers), so that speakers may be placed any distance from the amplifier and 2 12 -inch Special PA-A.C. Speakers. While only two speakers have been included it is of course possible to add as many as you wish up to the full capacity of the amplifier. Everything included in this outfit has been chosen with but one idea in mind-to obtain the finest possible system with this particular output wattage. Shpg. wt. 120 lbs .
XP15708 Complete P. A. System as described less matched tubes. List $\$ 155.50$ Your Cost................... 7 Y Kit of Matched Tubes. Your Cost.... $\$ 3.10$
XP1575 XP15755 Same System as above, but with Matched
D.C. Speakers, obtaining field excitation from Amplifier; with matching Transformer. $\$ 72.51$
List Price $\$ 145.00$. Your Cost.... $\$ 2.51$

## Complete 28 Watt Class "B" P. A. System

 by Lafayette* Tremendous Power Output

Ł Suitable for Gatherings up tol10,000 People
$\star$ Clear Reproduction-Perfect Tone Quality

## t Complete Outfit-Simple Installation

With the proper accessories, the Lafayette Class "B" Amplifier makes an ideal P.A. system, capable of carrying voice and music to indoor crowds of as many as ten thousand people. The amazing performance of the Lafayette Class " $B$ " Amplifier is made possible by the advanced eng:neering principles involved in its design and the very high quality of its components. Its output is really tremendous, and must be heard to be appreciated. It is ideal for permanent installations in theatres, churches, dance halls, skating rinks, lodge rooms, etc. All of the component parts are considerably oversize; the amplifier having been designed for continuous operation under severe conditions.

## SPECIAL MATCHING TRANSFORMERS

By means of the special matching transformers mounted on the speakers, the loud speakers may be placed in the most advantageous positions, regardless of the length of the connecting lines, and will all produce uniform results. This is very important from the standpoint of good reproduction.
Servicemen or sound specialists can buy a complete system, as illustrated above, or they may select as many of the accessories as they need for a particular installation. All the parts listed are guaranteed to be up to the usual high Lafayette standard.
XP15720-Complete Public Address System consisting of the following: Class "B" 28-Watt Amplifier as described; 1 Lafayette Model 50 Microphone, with De Luxe Floor Stand and 25 feet cable; 4 12-inch Special PA-A.C. Speakers; 1 Pre-amplifier Control Box Complete with tubes.
Shpg. wt. 165 lbs.
List $\$ 277.00$. Your Cost
${ }^{\text {s }} 138.50$


XP15781-Same as above but with ten 12-inch Special PA-A.C. Speakers and matching transformers
mounted on speakers.
Shpg. wt. 3101 bs .
List \$438.00. Your Cost


The Lafayette 28-Watt Class "B" Amplifier included in this P.A System has a handling capacity of twenty dynamic speakers at full volume. It is listed with four and with ten speakers but can of amplifier. Write for prices on additional speakers desised.


## Lafayette, purnic Srupen

Cafayette "T - R - F"


* Excellent Tone Quality
* Highly Selective
* Pentode Tubes


## * Four Gang Condenser

Where TONE QUALITY is far more important than extreme selectivity (such as furnished by the Lafayette Super-Het Tuner) we recommend the use of this Lafayette T.R.F. Tuner. This circuit providing more of the side bands, so necessary for overtones and shading, is somewhat better for obtaining the finest tone quality possible for radio reception.

## PENTODE TUBES PRE-SELECTOR CIRCUIT

Four tuned circuits 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 frequency stages employing two type 58 variable-mu pentodes 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 recommended where transformer coupling is to be employed between the tuner and the amplifier or line. When ordering state which detector is desired. The tuner is thoroughly shielded and filtered to prevent oscillation irrespective of the type of amplifier employed.
Fila ment supply for the tuner is self-contained. "B" supply of from 180 to 250 volts may be obtained from the a verage amplifier, or a separate supply may be used, either eliminator or if necessary for short periods " $B$ " batteries. The maximum current drain is 25 M . A. with an average drain of 10 M.A. Furnished complete with plug and cord and full operating instructions. Size $: 8^{\prime \prime}$ wide, $714^{" 1}$ high, $10^{\text {" deep. Shpg. wt. } 12 \mathrm{lbs} . ~}$ XN13846-Lafayette"T. R.F. Tuner, less tubes. \$T7.95 List \$35.90. Your Cost Your Cost.
$\$ 1.75$

## Cafayette

## "Remote Control"

 P. A. Tuner
$\star$ Compact-Reliable-Remote Control $\star$ Standard Rack Panel
$\star$ Self-contained Filament Supply
No longer is it necessary to be at the $\boldsymbol{P}$. 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 Lafay ette Remote Control Tuner.

## T. R. F. CIRCUIT

Because tone was considered the primary factor in the development of this tuner the T. R. F. circuit was selected. A pre-selector stage tuned with one section of the four gang conderser is followed by two stages of tuned radio frequency using two type 38 pentodes which in turn are followed 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 rapaless of the type of ampl fier and power supply system osellation regardless orn fiament supply and requires 180 to 250 volts used. "Runer which may be obtained $f$ 'om the amplifier. Maximum of " $B$ "' supply, which may be obtained A. Overall dimensions: $19^{\prime \prime}$ long, $8^{\prime \prime} 2^{\prime \prime}$ deep $8^{3 / 4^{\prime \prime}}$ high. Will fit standard $W$. E. rack. Shpg. wt. 30 lbs. XP15700-Lafayette Remote Controlled Tuner, less tubes. List \$65.00. Your Cc.st
s32.50 Tuner, less tubes, List Kit of tubes consisting of $1-57, \pm-58$ 's. 81.77

Your Cost
Xp15701-"B" Eliminator ©or Tuner, with tube. Shpg. wt. 15 lbs. XP15701- "B M
I.ist $\$ 15.90$. Your Cost

# Cafayette "Super-Het" Tuner 

$\star 10$ KC. Selectivity $\star$ New Pentagrid Tubes $\star$ Diode Detection $\star$ Automatic Volume Control

A Superheterodyne Public Address Tuner in- use with amplifiers having a gain of over A superheterodyne Podern feature found in superheterodyne receivers today. Highly selective- 10 K. C. separation. Sensitive$33 / \mathrm{h}$ microvolt per meter. Thoroughly shielded. Automatic volume control. Diode shielded. Automatic volume control. Diode
detection. Pre-selection with a four gang detection. Pre-selection with a four gang
condenser. Self contained filament supply. condenser. Self contained filament

NEW TUBES NEW CURRENT
The circuit incorporating many exclusive Lafayette features is as follows: a preselector stage is followed by a tuned $R$. F. stage using a 58 pentode, then a type 2 A7 pentagrid converter tube ser ves as oscillator and mixer or first detector, which in turn is followed by a 2B7 pentagrid used as intermediate frequency amplifier and diode detector and A. V. C. tube. Two models are made, one for use with low gain amplifiers having a gain of less than 60 db . and for line transmission work, this has an extra audio stage using a 56 tube. The other, for

60 db . is without this stage

## STURDILY CONSTRUCTED

Only the highest quality components used throughout. Compact-714 "high, 101/2" deep and $91 / /^{\prime \prime}$ wide. Comes complete with instructions. Shpg, wt. 14 lbs
XN13828-Three tube Lafayette Super-Het Tuner for high gain am- \$
plifiers, less tubes.
List $\$ 5$ S.00 Your Cost
Kit of matched tubes for above $\$ 2.10$ XN13830-Four tube Lafayette Super-Het Tuner for low gain (under 60 db .) amplifiers, less tubes. List $\$ 49.00 \ldots$. $\$ 2.51$
Kit of matched tubes for above
Your Cost.


The Lafayette "B" Eliminator, Cat. No. XP15701 listed under the Remote Control Tuner can be used on any of the Lafayette Public Address Tuners listed on this page. Delivers 250 V . at 50 M . A. in humless form.

## RACON

## Dynamic Speaker Units Giant Unit



A powerful Dynamic Unit especially designed for use with trumpet type horns. Handles 20 watts continuously or 50 watts peak. Has 15 ohm voice coil and requires $6-8$ volts at 1.1 amps for field excitation. Has threaded collar for attaching horn or the
triple connector described below. Shpg. with 26 lbs.
Lesm transformer. XW19265-Your Cost Each.
s32.34
Racon Master Unit
Similar in appearance to the above unit. Continuous operating capacity 20 watts, peak 50 watts. 15 ohm voice coil; $6-8$ volts at 1.1 coupling transformer. XW1926s-Your Cost

## Coupling Transformers

XA400-Coupling Transformer for all units described 500 ohms impedance. described 500 ohms 4000 ohms impedance. Your Cost Each, STS

## RACON Bigh Frequency [Tweeter] Speaker



Average speakers drop sharply at about 3000 cycles whereas "high fidelity" ampllfiers are good to 17,000 cycles. By using a high freuency speaker, in addition to the regular peaker, this difficulty is overcome. H. F. Speakers begin to take effect where regular speakers leave off, thus producing a combined
response that is practically flat from 50 to response that
17,000 cycles.
The RACON High Frequency Speaker, when used with the RACON Filter Network, will cover the entire audio band very efficiently. Speaker comes complete with short flare horm with $3^{\prime \prime}$ bell. Overall length of speaker $6 \%{ }^{*}$. Either 6 or 110 volts D. C. fields a vailablestate which is desired. Voice coil impedance 15 ohms. Shpg, wt. 6 lbs. RACON High FreXW1926S Your Cost.
\$IG.IS Filter Network to couple high and low frequency speakers to line. State whether 500 or 4000 ohm line is desired.
\$I6.IS
All RACON Units now available with $110-$

RACON Junior

## RACON Baby



Continuous operating capae ity 5 to $71 / 2$ watts; peak
capacity 20 watts. Voice coil 15 ohms. Field current 6 volts at $11 / \mathrm{amps}$. Shpg.
wt. 9 lbs. Complete less coupling Transformer. XW19268-List $\mathbf{\$ 2 7 . 5 0}$
Your
Each.
s 16.17


## RACON Super Giant

 Particularly adapted for heatre and auditorium 6 to 8 -volt field excitation 1.1 ampere consumption at 6 volts 15 -ohm voice coil pperating capacity 25 watts. Peak load capacity 50 watts.

## ELECTROPHONE

"Crystal" High Frequency Speaker

The Electrophone Crystal Speaker is a highly efficient high frequency speaker that requires no field current-no filter system-and can be connected directly to the voice coil ter minals of any regular dynamicspeaker. The diaphram of this speaker consists of four specially matched pezoelectric crystals that will only respond to frequencies of over 1500 cycles thereby making unnecessary the use of a filter system. A coupling transformer to couple the speaker to any existing voice coil leads is an integral part of the speaker. Short flare horn is of moulded bakelite 5 " long with bell $31 / 2^{\prime \prime}$ diameter. Length of speaker overall $7 \% / 4{ }^{\prime \prime}$. Shpg. wt. 6 lbs. XW19279-Electrophone Crystal Speaker.


Made of fabric, impregnated and hardened. They are guaranteed to withstand all climatic temperato withstand moisture without effect. Light in weight and non-porous.
$31 /$ Ft. Trumpets BELL $22^{\circ}$ ROUND STORMPROOF MODEL Equipped with metal beaded edge, cast aluminum ferrule and suspension ring. Guaranteed for climates and weathers. Shpg. wt.
year outdonr use in all 201 bs .
XY19788-List Price $\$ 44.00$
Your Cost
Each
$\$ 25.38$
DeLUXE MODEL Equipped with metal beaded edge, cast aluminum ferrule and suspension outdonr use. Shpg. we. 17 Jbs . XY19789-List Price $\mathbf{\$ 2 7 . 5 0}$ Your Cost \$16.I5
REGULAR MODEL. Equipped with metal beaded edge, metal ferrule and suspension ring. Adapted for $/ 8-18$ thread unit.
For indoor use only. Shpg. wt. 17 For
lbs. $\mathbf{X} \mathbf{1 9 7 9 0 - L i s t ~ P r i c e ~} \mathbf{S 2 2 . 0 0}$
Your Cost
Each..............2.
ST4
$4 \frac{1}{2}$ Ft. Trumpets
BELL 24" ROUND STORMPROOF MODEL Equipped with rolled on beaded edge and half length cast alueasily assembled or disassembled. Especially made for outdour use. Three suspension points. Coup15 lbs . List $\$ 60.50$.
XY19740 \$35.53 Yourcost
DeLUXE MODEL. A special model for indoor use. Has rolled on beaded edge and half length cast aluminum tone arm. Can be taken apart or put together in a
few moments. Three suspension points are provided. Has a special flexilie coupling to attach unit. Shpg. wt. 13 lbs . List $\$ 44.00$.


6 Ft. Trampets BELL $30^{\circ}$ ROUND
STORMPROOF MODEL Equipped with metal beaded edge, cast aluminum throat and 4" suspension ring. For outduor use in all climates and weathers. Shpg. Wt. 35 lbs. List Price $\$ 71.50$. $\underset{\substack{\text { XY19791 } \\ \text { Your Cost } \ldots . . \\ \text { N. }}}{ }$ REGULAR MOODEL. Equipped with metal beaded edge, cast aluminum throat, and 4 " suspension ring. For indoor use
Shpg. wt. 31 lbs . List $\$ 55.00$. XY19792
Your Cost $\$ 32.34$ ALL METAL MODEL. Cast aluminum throat and reinforced
bell rim. Wt. 20 lbs . List $\$ 55.00$. bell rim. Wt. 20 lis. List $\$ 55.00$.
XY19745.
Your Cost...... $\$ 32.34$

## Cafayecte "Humless" Field Supply


#### Abstract

An entirely new idea in field supplies. Can be used interchangeably for 1000 or $2500-0 \mathrm{hm}$ fields-light in weight-no delicate high voltage windings-mannot be harmed by plugging into $D$ in size: $7^{\prime \prime}$ long $35{ }^{\prime \prime}$ for portable work. Compact in size: $7^{\prime \prime}$ long, $3 \%{ }^{\prime \prime}$ also a vailahle for 220 volts at slight additional cost. Two types for one field using one $25 \% 5$ tube-for two fields using two $25 \mathrm{Z5}$ tubes. Steel case finished in black crystallized lacquer. Shpg. wt. 6 lbs. XW13294-Single Field Supply less tube. Xw19295-Dual Field Supply less tubes. Your Cost 


## RACON Flared Baffle Projectors $\begin{aligned} & \text { Increase ma- } \\ & \text { terially the } \\ & \text { efficiency of } \\ & \text { theconespeak- } \\ & \text { er and im- } \\ & \text { prove } \mathrm{th} \text { e } \\ & \text { sound distri- } \\ & \text { bution. They } \\ & \text { extend the } \\ & \text { frequency re- } \\ & \text { sponse of the } \\ & \text { speaker, par- } \\ & \text { ticularly in } \\ & \text { the low fre- } \\ & \text { quency range } \\ & \text { Equipped } \\ & \text { withmount- }\end{aligned}$ ing block for the cone speaker and patented self-supporting frame. <br> | Stock No. | Bell, in. | Depth, in. | List Price | Your Cost |
| :---: | :---: | :---: | :---: | :---: |
| XY19700 | $18 \times 30$ | 10 | \$13.20 | 57.76 |
| XY19701 | $27 \times 27$ | 24 | 33.00 | 19.40 |
| XY19702 | $36 \times 36$ | 24 | 44.00 | 25.87 |
| XY19703 | $41 \times 41$ | 15 | 44.00 | 25.87 |
| XY19704 | $44 \times 44$ | 24 | 49.50 | 29.10 |
| XY19705 | $60 \times 60$ | 36 | 110.00 | 64.68 |
|  | Type 8 (with | acoustically | damped box |  |
| Stock No. | Bell, in. | Depth, in. | List Price | Your Cost |
| X Y19706 | $27 \times 27$ | 2. | \$12.50 | \$25.00 |
| XY19707 | 36x36 | 24 | 53.50 | 31.45 31.45 |
| X Y 19708 | $41 \times 41$ | 15 | 53.50 | 31.45 |
| XY19709 | $44 \times 14$ | 24 | 59.00 | 34.70 |
| XY19710 | $60 \times 60$ | 36 | 119.50 | 70.25 | <br> RACON MuItiple Trumpet Connectors



## O. Laf Payette PA. SPEAKERS and ACCESSORIES

11" A. C. Dyлатทic


An excellent speaker for use in small and medium sized P.A. radio receivers. This model utilizes the 2575 tube for rectifying 110 volts field current Tube socket, fiter condenser, and other parts are built on a steel shelf mounted under the field coil. Speaker cone constructed of high quality acoustic material and employs the time tried waveform spider. Shows practically flat response curve over the entire audible range. Reproduces with a rich, mellow tone. Will safely handle continuous output of 5 watts. Input transformers can be supplied to match the impedance of any type output tubes. Specify desired type when ordering. Size $111 /{ }^{\prime \prime}$ "high, 8 Wide, 6 deep. Attractively finished in bright cadmium plate. Shpg. wt. 20 lus.

| XW19149-Less tube.S |
| :--- |
| Your Cost............. |

Modified 14 inch Photophone Type

A large 14 -inch speaker at an excep tionally low price. It has all of the characteristics of the "photophone" speaker such as a 14 " cone, 144 diameter voice coil, 1000 -ohm field, but is for use with a somewhat lower input. It will safely carry 10 watts with a peak of 18 watts. The field is housed in a pot $31 / 2^{\prime \prime}$ long by $3 \frac{1}{4}$ " diameter. Voice coil impedance is from 8 to 12 ohms.
This speaker is excellent for use in public address systems or in large console radio receivers. Its frequency response is especially fine. flexibility and makes permits great flexibility and makes the speaker unusually senaitive. The cone is made of a special acoustic material and is pressed into shape thus assuring perfect alignment and unusualy fine tone quality under all conditions. Dimensions overall: $151 / 2$ diameter, $9^{*}$ deep. Shpg. wit. 14 lbs.
W19376-
${ }^{5} 8.95$

## Cafayette P. A. Speakers



New 14-Inch "Photophone Type" Dynamics
All of the desirable qualities of the popular Photophone ty pe of speaker plus many new features that greatly plus many new festures have its performance and construction have been combined in this newest Lafayette Dynamic speaker. Designed for use where great power with exceptionally fine tone quality is desired. An exremely large, heavy field, wound with approximately $51 / 1$ lbs. of pure copper wire is housed in a pot $51 / 2^{\prime \prime}$ long. The cone, made of the finest quality acoustic material, is $14^{\prime \prime}$ in diameter and has a $11 / 4^{"}$ voice coil with an impedance of 8 to 12 ohms. D.C. field resistance is 1000 ohms. This speaker will safely carry 15 watts continuously and 25 watts peak. Workmanship is of the finest and all metal parts are attractively finished in bright cadmium plate. Shpg. wt. 291 lbs. XW19153-Lafayette 14" Photophone Type Speake XW19155-Same but rith 2500 -ohm field. X W1915 Cost Eithe but with 6-volt field

## 14-Inch A, C. Model

The A.C. model is exactly the same in every detail with the exception that it is equipped with a base upon which is mounted a transformer socket, etc., for field supply. Requires a 523 tube as rectifier. For oporation from 110 volts 60 -cycle A.C


## 6 V. Cone Unit



The new Lafayette P.A. cone speaker is now available with either of two types of square model that is
 Where space is a factor or where a wide angle at short range angle at short range
is to be covered the is to be covered the
round trumpet is preround trumpet is pre48 square model that is $\qquad$ ferable, but where and a new round trumpet that is $24^{\prime \prime}$ long and has a $22^{\prime \prime}$ round bell. Both are made of non-resonant material.
The cone unit is capable of hand ling 15 watts and has an unusu ally powerful field. Field current consumption is 1 to $11 / 4$ a mperes at 6 volts. The cone of special acoustic paper is $6^{\prime \prime}$ in diameter and has a voice coil $11 / 4^{n}$ in diameter with an impedance of 8 to 12 ohms.
Careful design has made this most efficient speaker providing an exceptionally high ratio o distance the square type is better XW19830-Lafayette Cone Unit. Shpg. wt. $101 \mathrm{lbs} . \$$ I
Your Cost..... Xw19031 Trumpet.
Your Cost
XY19835-Lafayet 4.50 Trumpet.
54.50 Yourcost
s.94 Xw19832-Complete Square TrumpetSpeaker $\$ 24.50$ XY19836-Complete Round
Trumpet Speaker $\$$ ?
 Your Cost Complete Speaker. shpg.
lbs. Trumpets only 20 lbs

## Cafayette

"P. A. Special"

In Both
A.C. and D. C.

## Models



A new Lafayette speaker, particu larly designed for public address sysjems. Our wide experience in the design of public address equipment was called upon in the design of this new speaker and it incorporates every feature that would add to its suitability for this purpose. It has a $12^{\prime \prime}$ cone made of a specially prepared acoustic paper. Apecially prepared acoustic paper. having impedances of 250 and 500 ohms is mounted on the speaker. Field resistance is 1000 ohms. Two types available-A.C. and D.C.
A.C. type uses a $\mathbf{5 Z} 3$ rectifier and comes complete with tube. Shpg Wt.: A.C., $13 \mathrm{lbs} . ; \mathrm{D} . \mathrm{C}$, , 10 lbs XW19374-D.C. "P.A." Special Your
\$7.95 XW19375-A.C. "P.A. Special."

"Demountable" Flared Baffie Horn


While the fact that a baffie of the flared type greatly improves the efficiency of cone speakers is generally known, in many instances they are not used because their bulk makes portability difficult. This problem has now been successfully, sol ved with this new "demountable" flared cone speaker baffle
It can be assembled or disassembled in a few minutes' time with the aid of a socket wrench or a pair of pliers, and when folded can be packed within a space $30 \times 16 \times 23 / 2^{\prime \prime}$ Dimensions assembled are: $1^{\prime \prime}$ deep, and $30 \times 18^{\prime \prime}$ bell. Sides are fastened together by means of spade bolts on two sides passing through holes in the other two sides. A special moulding finishes off the edges. Two sizes of cone openings a vail able. Shpg. wt. 10 lbs.
XY19837-7" opening.
XY19838-10" opening
Your Cost,
Either Type
s3.95

## Celotex Speaker Baffles

To obtain the full efficiency from a dynamic speaker it must be mounted on a baffle. Preferably this baffle
should be of some non-resonant material. Such a should be of some non-resonant material. Such a
material is Celotex of which these baffles are made. Two thicknesses available. Any size hole can be had from 4" to 12 at no additional cost. When ordering specify size hole desired. Shpg. wt. $21 / 2$ lbs. per square foot.
$132^{\prime \prime}$ Thick Stock No. X Y19793 XY19794
XY19795
XY 19796
XY19797
XY19798
$\mathrm{X} Y 19798$
$\times Y 19799$

| Your |  |
| :---: | :---: |
| Cost | Size |
| $\mathbf{S 0 . 2 9}$ | $12 \times 12^{\prime \prime}$ |
| .75 | $18 \times 18^{\prime \prime}$ |
| 1.35 | $24 \times 24^{\prime \prime}$ |
| 2.60 | $36 \times 36^{\prime \prime}$ |
| 4.40 | $48 \times 48^{\prime \prime}$ |
| 5.25 | $36 \times 72^{\prime \prime}$ |
| 6.75 | $48 \times 72^{\prime \prime}$ |

## Walnut Speaker Cabinet

This cabinet permits the placing of a speaker in the most luxurious surroundings without detracting one iota from the appearance of the room. Walnut veneers, attractively grained and polished to a satin smoothness, have been fashioned into a particularly handsome cabinet, conservative in design. Many public cabinet, conservative in design. Many public club rooms, etc., where the speakers must be hidden. This cabinet will fit all speakers listed in this catalog except Wright-De Coster Ox-15, Lalayetue 14 Photophone type, and rom $12{ }^{\prime \prime}$ modela, wich projec $30^{\prime \prime}$ high $18^{\prime \prime}$ wide, $9^{\prime \prime}$ deep. Shpg, wt. 18 lbs.
XY19848-
Your Cost
\$9.50

#  

## WRIGHT DE COSTER



## Models

## 305 \& 315

Due to the excel lent design of the magnetic struc ture, the Model 305 is extremely efficient. This means that an amplifier to fulfil ment may be operated below its maximum rating, resulting in much better tone quality The Model 305 is rated conservatively at 15 watts. It is sensitive enough, however, to operate on as little as 1 watt

## PATENTED SOLID SPIDER

The solid center spider is made of material which is very durable. It malntains the voice coil in a perfectly centered position, but still allows the cone a great freedom of novement. Anot her feature of the solid center spider when the speaker is installed outdoors is the protection it gives to the air gap against dirt, etc. Furthermore the entire diaphram assembly is moisture proof. Equipped with input transformer having impedances of: 10 (directly to volce coil), 500 , 1000,1500 and 4000 ohms. These various impedances allow the user a great deal of latitude pedances allow the user a great deal of latitude
when matching several speakers to an a mplifier, when matching several speakers to an amplifier,
elliminating the need for special matching transelliminating the need for special matching trans-
formers. Standard field resistance is 1800 ohms formers. Standard field resistance is 1800 ohms
for oneration on 220 to 275 volts D.C. at 125 to for oneration on 220 to 275 volts D. C. at 125 to
140 Ma. Special field resistances can be supplied to order. Max. field dissipation 40 watto, $\min .18$ watts. Fields can be operated on A. C. by using the field supplies described on this page. Shpg. wt. 42 lbs .
XW19354-Model 305. wide, $9^{" 1}$ deep, $121 /{ }^{\prime \prime}$ high. List 348.50 Your Cost.

| Dimensions |
| :--- |
| $\$ 2311^{\prime \prime}$ |
| 2305 |

## MODEL 315

Similar to the above except that it is rated at 10 watts and has a 3500 ohm field requiring a maximum dissipation of 25 watts, minimum 12 Shp. 12 dide, $81 / 6$ deep, $12 \% / 9 \mathrm{hlgh}$. XW19353-Model 315. XW19353-
Your Cost

New WRIGHT De-COSTER


## $7^{3} /$ /n $^{\prime \prime}$ deep, $12^{3 / 1}{ }^{\text {/ }}$ hig

${ }^{73}{ }^{3}$ /" deep, List $\$ 16.50$
Your Cost

## Model 425

An entirely new model that should prove to be extremely popular. An excellent value. Same high quality construction as the larger models. watts Field resistance 2500 ohms. Other resistances to special order. Dimensions: $12 \%{ }^{\prime \prime}$ wide,
s.70

WRIGHT de COSTER STATE TYPE OF OUTPUT TRANSFORMER DESIRED

## Field Supplies

PA 25 supplies one 1800 ohm or two 3500 ohm fields, Output 250
V. at 140 amps. Uses V. at 140 amps. Uses
one 523 or 83 tube. 7 long, $61 / /^{\prime \prime}$ high, $31 夕^{\prime \prime}$ wide. Shpg. wt. 10 lbs. Tube included.
W19282-List 523.00
Your
Cost
Yo I3.52
PA 26 supplies one to

$$
\text { three } 1800 \text { ohm or one }
$$

to six 3500 ohm fields in parallel. Output 250 V . at . 5 amperes. Two $5 \mathrm{Z3}$ or 83 tubes used. Dimensions $8 \times 615 \times 66^{\circ}$. Shpg. wt. 18 lbs. XW19283-List 532.75 Your Cost
With Tubes
 48". Bell $30 \times 2133^{\prime \prime}$. Excellent for theater use, one horn being ample for a four hundred
seat house. Shpg. wt. 60 lbs . $\$ 0$ seat house. Shpg. wt. 60
$\times$ Y19834 Your Cost
 "Theatre" Models 309 \& 319
The cone in the 309 reproducer is especially designed to operate perfectly with sound on film. While voice frequencies, the covers an extremely full range so that the rest of the register is in no and distinctly enunciated ye voices are clearly ill istinctly enunciated, yet the music will

${ }^{s} 19.45$

## Flare Horn

 Wide flare allows sound to cover a large area. Special non-resonant mate-non-resonant material. Reinforced wial. Reinforced with metal corners. door use. length
s25.50 still retain all its original character

## SOLID LEATHER SPIDER

The patented solid leather spider maintains the voice coil in a perfectly centered position but still allows the cone a great freedom of movement. The back of the cone housing is dustprooled and the center leather spider is solid with no perforations. Neither will climatic conditions affect the speaker since both cone and spider are moisture proof.
Equipped with input transformer having impedances of: 10 (directly to voice coil) 500 , 1000,1500 and 4000 ohms. This permits matching several speakers to an amplifier without using additional matching transformers. Conservative maximum handling capacity 15 watts. Field resistance 3000 ohms for operation on 220 to 275 V. D. C. at 75 to 90 Ma . Other resistances may be had on special order. Max. field dissipation 25 watts; min. 16 watts. Field can be operated on A. C. by using the field supply described on this page. \$hpg. wt, 42 lbs . XW19372-Model 309. Dimensions 121/3" wide 9 " deep, $1214^{\prime \prime}$ high. S
List $\$ 48.50$
Your Cost. ...............

## MODEL 319

Similar to 309, the only essential difference be ing that the power handling capacity is somewhat less . . . 10 watts. Field resistance 3500 ohms. Max, dissipation 20 watts, min. 12 watts. Shpg. wet. 30 lbs .
XW19373-Model 319. Dimensions: 123/8" wide, $8-1 / 6^{\prime \prime}$ deep, $121 / /^{\prime \prime}$ high.
List S 37.50
Your Cost
s22.05

## JENSEN Ortho-Dynamic Reproducers



## The new Jensen Ortho-Dynamic

 models are a distinct improvement in loud spaaker design and are exthe Auditorium models. Careful design and precision manufacture combine to produce a speaker that is fully $250 \%$ more efficient than the ordinary speaker in the relation of output in acoustical measurement to electrical output. Field coils dissipate 15 watts normally. Maxi-mum recommended is 20 watts. mum recommended is 20 watts. Made in both D. C. and A. C. types.
110 V . D. C. field resistance is 800 110 V. D. C. field resistance is 800
ohms. A. C. types are for operation Made in both D. C. and A. C. types.
$110 \mathrm{~V} . \mathrm{D}$. C. field resistance is 800
ohms. A. C. types are for operation ohms. A.C.
from 110 V
50 to 60 cy Voice coil impedance is 5.4 ohms. These models will handle 12 watts continuously with is unusually oniform from 30 to 5500 cycles. Finished in black and aluminum. A. C. models use 280 rectifier tube and come complete with tuhe. Shpg. wt. D. C. models 25 lbs .-A. C. 35 lbs.
Xw19256 -110 V. D. C.
List $\$ 36.50$
Your Cost. ..............
XW19260-110 V. A.C. List $\$ 53.50$
Your Cost.
$\$ 331$
Ortho-Dynamic Models are a vailable with
either of two types of input transformers. either of two types of input transformers.
Regular is center tapped and has an impedance 4000 to 6000 ohms suitable for most tubes. Line is for 500 ohm lines. When ordering state type desired

## JENSEN

## Concert

 Models$12^{\prime \prime}$ diameter cone. 18 watt max. field. D. C. models may be had any field resistance desired. A. C. models are for 60 cycle 110 V . Volce coil-8 ohms.

35 lbs.
XW19370-A. C. Concert. $\$ 29.47$ List $\$ 41.50-$ Your Cost...
Xw19371-D. C. Concert $\$ 17.25$ List 525.00. Your Cost
Above prices are less output transformerif transformer is desired add $\$ 1.03$ to above if transformer is desired a
prices and specify type.

## JENSEN Auditorium Models

In sound output there new Auditorium Speakers are $400 \%$ more efficient than the conventional type. They are fully capable of handing 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: Overali width $185{ }^{5}{ }^{2 \prime}$ heighth $13^{28}$ 年", depth $8^{13}{ }^{10}{ }^{\prime \prime}$. Baffle opening $12^{\prime \prime}$. Shpg. wt. D. C. 48

## $\longrightarrow \begin{aligned} & \text { FOR } 110 \\ & \text { VOLTS } \\ & \text { A.C. }\end{aligned}$

XW19246-
List 576.50 Your Cost

C. Models use the new ' 82 mercury vapor rectifier, and are priced with tube.)

## FOR 110 VOLTS D. C.

XW19248-
Your Cost
${ }^{\text {s }} 35.33$
Auditorium Models are available with either of two types of input transformers. Regular is center tapped and has an impedance of 4000 to 6000 ohms suitable for most tubes. Line is for
500 ohm lines. When ordering state type desired. Models listed above are made in three types:- "M" for general use; "V" for voice reproduction; and "L" is a new type especially intended for use with tweeter or high frequency speakers. State type desired

## Type F4-5" Dynamic

 Type 4 apeaker is a special$5^{\prime}{ }^{\circ}$ model designed mainly for $5^{\circ}$ model designed mainly for
use in mid get receivers. Constructed of high grade mater lals. Frequency response ex ceptionally fine. Has standard 3000 ohm field. Furnished with output transformers as listed below. Shpg. wt. 3 lbs
XW19115-For Single 45,50
XW19116-For Single 38, 43 Kw19117
For Single 46, 47, 2A5.
Your Cost, Any Type

$\square$
\$2.95

## Type F5-6" Dymamic

Similar in every respect to the above, but will handle greater output due to its larger size. KW19118-For Single $45,50,71 \mathrm{~A}$ XW19118-For Single 45, 50, 71A
$\mathbf{X} W 19313-$ For P. P. 45, $50,71 \mathrm{~A}$. ${ }^{\mathbf{X}} \mathbf{X}$ W19314-For P Single $46,47,2 \mathrm{~A}$, $\mathbf{X}$ W19314-For Single 46, 47
$\mathbf{X W 1 9 3 1 5 - F o r ~ P . ~ P . ~ 4 6 , ~} 47$ Your Cost, Any Type
s3.45

## BBL Magnetic Speaker

The finest magnetic speaker a vailable. Will handle large output without rattling. Reproduces the $91 /{ }^{\text {che }}$. Impedance 7000 ithe-like fidelity. Diameter $91 /{ }^{*}$. Impedance 7000 ohms at 1000 cycles; D. C. resistance 1000 ohms. Shpg. Wit. 7 lbs .


The above speaker is
a vailable in the beautiful a valable in the beautiful
walnut cabinet shown at walnut cabinet shown at
the left. Cabinet has the left. Cabinet has
paneled front with dull gold grill cloth. Size $13 \times 11$ x712"。Shpg. wt. 4 lbs.

## XW19177

Your Cost, Special

## Special 6" Dynamic Speaker

A real bargain in speakers. This midget dynamic is exceptionally well constructed and shows a fine frequency response. Tone quality is full and natural, with both highs and lows laithfully reproduced. Has a standard 1800 ohm field coil. Employs ridged pressed paper cone with scientifically designed spider. All metal parts finished in bright cadmium plate. Shpg. wt. 41 bs
XW19131-Less Output Transformer Your Cost, Special
xw
XW19124-With Output Transformer for Single 47 or
1A5. Your Cost, Special

## Permanent Magnetic Speaker

 center shield which prevents entry of dust into the air gap, and new particle proof acoustic filter and corrugated diaphram type centering member which pro-
tects voice coil. Outside diameter $83{ }^{3 \prime \prime}$. Spetects voice coil. Outside diameter ${ }^{33}$ /t". Spe
cial transformers available on order. Shpg. cial trans
wt. 9 lbs.
XW19346-P. P. 45, 50, 71A
XW19347-P. P. 46, 47, 2A5. Your Cost, Any Type
 Rola speakers arearailable with special
transformers and field coils. Prices
on request.

## Type K7-93/4" Dynamic



## Type K9-11" Dynamic

Similar to the above in appearance. Will hapdle 10 watts. Shpg. wt. 13 lbs .
XW19342-For Single 45, 50, 71A.
XW19343-For P. P. 45, 50, 71A.
XW19344-For Single 46, 47, 2A5.
XW19345-For P P 46, 17 ${ }^{2}$ A5. Your Cost, Any Type.

## Balanced Armature Magnetic

## Speaker Chassis

A permanent magnet speaker having unusually powerful magnets and a balanced armature that provides double ended action making it very sensitive and eliminating the need for any great a mount of amplification. Cone is of specially processed pressed paper. Will handle considerable volume without rattling or distorting. Pressed steel frame. Tone quality is especially fine throughout the audio frequency range; both ow and high notes are reproduced with life-like fidelity. Shpg. wt. 7 lbs. XW19119-9" cone.
\$10. 5

## Balanced Armature Magnetic Speakers

## Midget Models



## Similar to the above in all respects except size. These

 speakers are excellent for use in midget and A. C.-D. C. receivers. They are also fine for extension speakers on any set since they do not require field excitation being of the magnetic rype. Shpg. wt. 2 lbs , XW19121- $3^{\prime \prime}$ Cone Your Cost51.20


## 0.K70R: speakers



81/2"Dymamic Speakers A.C.-D.C. These speakers will handle a continuous output of 6 watts. Finished in bright cadmium plate A. C.
model has built in model has built in
field supply using a field supply using a
type 80 tube. D. C. model has a standard 2500 ohm field. Transformers a vailable for any output tubes as per note at bottom of page. Specify type desired. Shpiget. 15
A. C. Model, Less Tube.

Your Cost
XW19292-D. C. Model Your Cost.
${ }^{\mathrm{s}} 5.75$
A.C. -D.C. Compact Model

Especially designed for use in Universal midgets. Will handle large
out put without distortoutput without distort-
ing. Has standard 3000 ohm field and is furnished with transformer for single 38 or 43 tube. Size $5 \times 43 / 4 \times 21 / 2^{n}$. Shpg. $\underset{\text { Your Cost }}{\text { XW19293_S }} \$$

## 11" Class "B'" Dynamic Speaker

Because ofits ability to handle large amounts of put, this speaker put, this speaker for use with pubfor use with pub-
lic address or centralized radio sysralized radiosys-
tems. Workmanship and materials used in its con-
struction are of struction are of
the finest. Large field is wound to a standard resist-
 ance of 2500 ohms. Outputtrans-
formers are available to match various types of tubes as listed in note at the bottor of this section. Size $11^{\prime \prime}$ wide, $63^{3} 4^{\prime}$ deep, $113 / 2$ " high. Shpg wt. 17 lbs
XWi9289-Your Cost

Oxford speakers listed on this page are furnished for: Single 38, 43. Single and Push-Pull 71A, 45,47,59,59 Class B, 89 Class A. 79, $53,2 A 3,2$ A5, 2B6, Parallel 38, 47, 45. Specify type desired when ordering.

## 11" Junior Model

## Has proven very popular

 for use in radio re ceivers, small and medium sized amplifiers, etc. Has excellent frequency response and will handle large output withoutdistortion. Field resistance 2500 ohms. transformer to match any tubes as per note at bottom of page. Specify type desired. This speaker is an excellent value. Construction is rigid and all metal paris are heavily cadmium plated. Shpg. wt. 13 lbs.Your Cost


## Special 6" Midget Model

For Midget and Auto receivFurnished with output transformers as in sote below. Specify type desired when ordering. Ruggedy built for mium plate. Shpg. wt. 8 lbs. XW19166-2500 ohms.

- XW19122-6-volt field for

Auto sets.
Either Type


#  

## Replacement Cones for Standard Speakers

## Stock


W0, 65, 66, 67, 64 60, 65, 66, $67,64, \%$
XW19502 Atwater Kent, 8088,84,
E5B, $627,87,90,92$,
Early models $83,85,0$
Xw19611 Baldwin (Head Sup
XW19505 Bosch 48-58
XW19612 Bosch
XW19613 Brunswick io
 18, 33
XW19616 Brunswick E
XW19512 Colonla! 33-LL, 18....
XW19578 Coionlal 34-3
XW19579 Colonial 36
XW19617 Crosley M45
XW19513 Crosley 40S
XW19618 Earl Inductor Dynamic.
XW19514 Edinon R4-5-7-
XW19516 Eveready
XW19517 Freed-Eiseman NR 80 -
XW19559 General Electric 31, 51 ,
XW19584 Jeneen D4, D5
XW19519 Jensen D7, D8
X W19622 Jensen D1
X W19645 Jensen D9, Inner Spider
XW19623 Magnavox 142
XW19625 Magna vox 143
XW19361 Magnovox 154
XW19530 Majestic G1
XW19530 Majestie G1
$\times W 19532$ Majestie G3, G4
XW19646 Majestic G6, G7.
XW19533 Majestic G5, G8, G9.
XW19647 Majestic G13, G14
XW19626 Majestic G10
XW19590 Majestic G19
XW19547 Pbilco 20, 70, 90 small. 02996
XW19400 Philco 40, 41, 65, 76,
$90^{\circ}$ large
36-3170
XW19401 Phileo 47, 71.
XW19552 Phileo 50, 61 smali, 80 .
XW19553 Phileo 50, 51 large..... 028881
XW19537 Oxford 2 and 3 point
XW19402 Oxford.
XW19628 Oxford 7, 72, 70, 82, 83 , $85,86,92,93,96,97$,
$98,99,100,101,104$, 108, 109, 110, 111,112, 113,114,115,116,117.
XW1s543 Peerles
XW19542 Peerless Copper Coil
${ }^{\mathbf{X} W 19542}$ peerless Copper Coil
XW1954 Peerless Copper Coil
XW19540 Peerless Copper Coil
XW19540 Peerless Copper Coil.
XW19545 Peerless Copper
XW19546 Peerless Copper Coil
XW19639 Rola
XW19640 Rola F
XW19648 Rola F6, F8
XW19560 Rola Series F and K
XW19641 Rola K9
XW19596 Stewart-Warner 900
XW19597 Stewart-Warner 950 Se-
XW19565 Temple Auditorium.
XW19629 U. S. Apex Gloritone 26
XW19642 U. S. Apex Gloriton
XW19570 Utah Stadium 66A
XW19574

## Genuine WRIGHT DECOSTER

 Speaker ConesStock Model Cone Stock Model Cone


List Price Each $\$ 8.25$
Your Cost, Any Type

## $(12 \mathrm{Cl}$

## Genuine <br> RCA-VICTOR <br> Replacement <br> Speaker Cones

Wholesalc Radio Service Company, authorized distributors of genuine RCAVictor factory replacement parts, is now able to offer the servicemen complete line of original spaker cones. Consult listing below for most popular numbers. If you cannot find what you want, wa can get it f


## KW19403-For RCA 106

Spar. D C RE20, RE59 and RAE79, RCA part No. 8558. RE59 and RALT, ST. 21 Your Cost Each..... $\mathbf{X} \mathbf{1}, 7,9,9,10,11,12$, RE18, RE19, 21, 14, 15, 17, 42, 48, RCA part No. 8601 .
Your Cost Each
$\times$ W19405 Fach Victor models $32,45,52$
RCA No 10801
Your Cost Each
s 1.20
XW19406-For R28, 28P, RE40, R22, 100, 101, 110, 111, 114, 115, 300, 301, RCA No. 8987. Your Cost
Each
XW19407-For $\mathrm{I} 5, \mathrm{R} 5 \mathrm{X}, \mathrm{i} 5 \mathrm{D} . \mathrm{C} ., \mathrm{RCA}$ No. 7236.

Your Cost Each. ..............
XW19408-For R17M, R27 (Magnetic), RCA No. 7594.
Your Cost Each
XW19409-For R18w, R27 (Dynamic), RCA No. 7598.
Your Cost Each
$53^{\text {c }}$


37 P $142 \mathrm{~B}, 241 \mathrm{~B}, 310, \mathrm{RCA}$ No. 9428.
Your Cost Each $60^{c}$ Your cost Each 100 A Speaker RCA No. 91900 Each $75^{\text {c }}$ XW1 100 -B
For
and 103 RCA No. 819290-Each.. $75^{\mathrm{C}}$
Field Coil for Victor Speaker Exact duplicate replacement for Victor Speakers used in model re-RE-45 and RE-75. Can also be used in other speakers. 3,000 ohms, 3. C/ resistance. Size diameter. Hole, $2^{1} 4^{7}$. Shpg. wt. 9 lbs.
$\times$ w19486- Your Cost


For 104, 105 and Photophone Speakers
The Genuine R. C. A. part. D. C. resistance
 long, $1 / 4$ overall $\$ 3.95$
Shps. wt. 13 jbs.
R.C.A. Magnetic Speaker Coils


Apex-Gloritone-U. S. Radio
 and Television and Montgomery Ward
For Chassis 26. Original part. 11500 ohms tapped at 9040 . Three different sized coils used. Specify
types as shown below. Shpg. wt. 2 lbs. 56" dia., $116^{\prime \prime}$ deep
XW19450-25/8" dia., 1
11/" hole. Your Cost.
XW19655-214 "dia. $7 / 8{ }^{\prime \prime}$ deep, $7 / 8$ " hole.
XW19656-21/ " dia., 1
Your Cost Any Type.

## Replacement Field Coils

## Stoc

| No. XW19680 | Set or Speaker Airline $8^{\prime \prime}$ |
| :---: | :---: |
| XW19681 | Airlin |
| XW19413 | Atwater Kent 5 |
| XW19495 | Atwater Kent 53, 55, |
| XW19414 | Atwater Kent 53, 55, |
| XW19668 | Brunswick 16 |
| XW19418 | Colonial 33 A |
| XW19419 | Colonial 33 D. C |
| XW19422 | Crosiey M45. |
| XW19423 | Crosley M 45 |
| XW19682 | Crosley $81 / 2^{\prime \prime}$ |
| XW19683 | Crosley 83 |
| XW19684 | Crosley Isodyne |
| XW19685 | Crosley Isodyne. |
| XW19686 | Crasley Model 58 |
| XW19669 | Edison |
| XW19687 |  |
| XW19688 | Gloriton |
|  |  |

18
18
6
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17
25
60
5
15
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250
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100
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XW19428 Jensen D4, D5
KW19429 Jensen D7, D8
XW19431 Jensen D9, D15
XW19432 Jensen D9, D15
XW19435 Jensen D9, D15
XW19436 Jensen D9, D15
XW19437 Jensen D12
Xw19490 Kolster Internationai...
XW19496 Kolster K43, K44, K70. XW19694 Lyric $9^{\prime \prime}$
XW19695 Lyric 9".
$\begin{array}{lll}\text { XW19670 Magnavox } 9 \text { " medium.. } 2500 & 2.20\end{array}$
XW19671 Magnavox 9" Large.... 75002.85
XW19672 Magna vox early models.. $2250 \quad 2.70$
XW19673 Magnavox $81 /{ }^{\prime \prime}$......... 6502.95
XW19674 Magna vox $81 /{ }^{\prime \prime}$
XW19675 Magnavox 11
XW19446 Majestic G1, G XW19657 Majestic G4
XW19448 Majestic G5
XW19677 Majestic G6, G20 XW19678 Majestic G3
XW19449 Newcomb-Hawley
XW19456 Philco 65, 76, 77, 86, 87,
95, 96, 111 (Philco No. 2850)
2.70

XW19458 Phileo 20, 21 (Philco
Xw19459 Philco 50, 51, 52 (Philco
Xw19460 Philco 70, 470 (Philco
XW19461 Phileo 90.112 (Phileo
Xw19471 Rola C. $\mathbf{N}$.....
XW19474 Rola FK
X W19475 Rola FK....iil 30
XW19679 Stewart Warner 950
XW19481 Stromberg-Carlson.
XW19482 Stromberg-Carlson. XW19667 Steinite.
XW19484 Temple All Models. XW19698 Utah Stadium.
XW19699 Utah $8^{\prime \prime}$ tapped
XW19652 Utah Midget
XW19486 Victor RE-32-45-75.... 250001.95
XW19653 Westinghouse WR-5-6-7 $1250 \quad 2.30$ $\begin{array}{llll}\text { XW19654 Westingbouse WR-8... } & 1330 & 2.30 \\ \text { XW19489 Zenith. }\end{array}$
XW19488 Zenith 52 Special........ $2500 \quad 2.75$

XW19488 Zenith 52 Specia!
550
Radio Repair Cement Kit


An efficient Radio Repair Cement Kit for Speaker Cones;
Voice Coils R. F. Voice Coils R.F.
Coils and Chokes. Coils and Chokes. purpose cement,
and one bottle of and one bottle of cement.
XW19499-Complete with handy brush. Your
Cost
$45^{\circ}$


## Cafayette MICRODHONES

Model "Fifty"


A new and improved model of this excellent and popular Lafayette microphone. Broadcast type, has stretched dur-
ai diaphragm only $.002^{\prime \prime}$ ai diaphragm only .002" response is from 50 to 5700 cy cles. Buttons are standard 200 ohms each. The model 50 melcrophones have proven their worth in many types of work under various conditions and this new model is bound to be even more popular due to the many refinements in its conatruction. Finished in highly polished nickel. $21 / 2$ "In diameter, 12 " in thickness. Shpg. wt. $21 / 2$ lbs.
$\underset{\text { Your Cost ListPrices50.00 }}{\text { XM1321_o }}$

## Cafayette

## Desk Stands



A very neat appearing stand of satin finish white metal with dle cast ring and weighted base. Ring liameter. Overali height 133 sm Neither of these types are adjustable. Shpg. wt. $61 / 2 \mathrm{l}$ lbs. Stand onlyi3427 Your Cost $\$ 3.50$ This desk stand is cast entirely in one piece. Ring is $43^{\prime \prime}$ " in diamIn the standard 4 point method. In the standard 4 point method. Base is drilled to take standard
microphone cable. Soft bronze finish. Helght 7 3 lbs. XM13495 Your Cost.


XM13381-Similar to above but with remov able ring for suspension mounting. Chro-


Trutest

## Carbon Microphone

 An outstanding big carbon microphone. The largest microphone made of the finest materials you have ever thought possible at such a low price. eter and $2^{\text {" }}$ thick. Frequency response is exceptionally good. Two and pure gold spot diaphragm. Finished in hignly polished chromish in ord and hear this microphone in order to appreciate its real value. Shpg. wt.
$\mathbf{X M 1 3 3 8 4 - Y o u r ~ C o s t . ~}$


## Model

"Twenty-Five" A very efficient two-buto ton carbon Microphone which will give entirely satisfactory service in less critical public address installations. Frequency response, 70 to 4000 cycles. Resistance, $200^{\circ}$ ohms per button. Heavy chromium plated brass frame. Special alloy diaphragm with 24 Kt . gold contact points. Size
 XM13420-List Price $\$ 25.00$. \$9. 95

## LAFAYETTE Input Stages <br> 

Double Eutton
For two button microphones and consists of potentiometer volume control, transformer, switch and a battery receptacle enclosed in a wooden cabinet $4 \times 6 \frac{1}{2} \times 51 / 2$ ". For matching any two-button microphone to filament and grid of tube if connected to amplifier or phonograph jack. The volume control is across the secondary of the transformer. Box finished in black leatherette. Equipped with 6 ft . shielded cable and full directions. Shipping weight 5 lbs .
XM13487-List Price $\$ 12.50$. $\$ 2$ Your Cost.

## Single Button

Similar to above; for all single button microphones. Shpg. wt. 4 lbs. $31 / 2 \times 6 \times 31 / 2^{\prime \prime}$. Your Cost. List Price $\$ 8.00$. $\$ 3.75$

## Yowr Cos

Tone Control A vital necessity in every P. A installation; used with any microphone. Extremely high pitched voices may be toned down and deep gruff voices modified to a higher frequency. Valuable in case of feed back. $2125 \times 21)^{\prime \prime}$. Shpg. wt.
$\times$ M13485-List $\$ 6.50$.
s2.75



## Model

## "Twelve"

An exceptionally fine microphone at this low price. An exceilent mike for use in the amateur station, either portable or fixed. Two-button earbon type with dural diaphragm having pure gold spot centers. Highest grade carbon granules are used. Buttons are grade carbon pranules are used. Buttons are
standard 200 ohms each. Scientifically damped standard for high quality voice reproduction. Bright nickel finish. Extremely rugged construction. $2^{3}{ }^{4}{ }^{\text {" }}$ diameter. Shpg. wit. 21 bs.
YM13392-List Price $\$ 11.50$.
Your Cost. .................

## NEW:

## Cafayette

## Floor Stands

Stand No. 1 is entirely different than any you have ever seen. A new nutomatic extension lock does away with the bothersome set s.rew and prevents the slipping and consequent jarring of the microphone. New "quick Way" hooks and bevel edge on the chromium plated ring. New double baked black japan finish on base and tubing furnishes an attractive contrast with the highly polished chromium plate. Extends from 52 to 76"
Stand No. 2 is a large, $20 \mathrm{lb} .$, all professional type. Has standard set screw adjustStand No. 3 represents phenomenal value at the price offered. Impressive in size and
 neat in appear-
ance. Satin silver finish. Extends XM13530Stand No. 1. ${ }^{\$} 11.95$ XM13431 No. Stand No. ${ }_{3}{ }^{2}$

Your Cost.
 wour Cost.......... 17 lbs. 5

## Boyiowletre



Pre-Amplifier

- Average Gain 20 db. - AC or Battery Operation


## The Lafayette Pre-Amplifier

 provides the additional amplification required with many low level input devices. It has can be operated either from AC or from a 6 -volt battery. Plate current is obtained from the amplifier or if necessary from a separate " $B$ " eliminator. Specify type when ordering.A gain control permits regulating the degree of amplification. This control is of special design and is usually quiet in operation. A tone control is also provided. A changeover switch permits rapid changing from microphone to phono-pickup terminals for which are provided on the rear of the pre-amplifier. A button current battery is self-contained. Size $10 \times 71 / 4 \times 51 / 2^{\prime \prime}$. Shpg. wt. 10 lbs.
$\mathbf{X P 1 5 9 3 5 - F o r ~ C a r b o n ~ M i k e ~}$
XP15920-For Crystal Mike
Your Cost, Either Type, with Tube

Phono-Radio-Mike Control Box

- Self contained Mike Current Supply
A neat compact inexpensive unit for controlling the input unit for controlling the input phonograph pichup-a radio
 input has its own mindividec impedance up to 500,000 valume control. Radio input is high pedance up to 10,000 ohms; microphone input for microphones or any input device having impedances of $200-400$ or 500 ohms. A microphone button current battery is contained in the case and jacks are provided for plugging in a meter to read button current. A selector switch permits selecting any of the three inputs at will. A separate switch and pilot light controls the button current supply. Dimensions are $10 \times 71 / 4 \times 5 / /^{\prime \prime}$. Shpg. wt. 10 lbs. shielded leads. shielded
Your Cost


# UNIVERSAL E- MICROWHONIS 

## 

UNIVERSAL Model "BB"
The most popular double-button public address Microphone in America. Nearly twice as heavy as any other microphone in its class. Built to hairline precision. An idea of its ruggedness can be obtained by the fact that model "BB" is $3^{\prime \prime}$ in diameter and
$2^{\text {o }}$ thick. Built especially for voice pick-up, public address work and for amateur broadcasters, etc. Will give excellent results when used for recording purposes. Beautifully finished in highly polished chrome plate. 24 K pure gold spot centers. Frequency response 50 to 5000 cycles. 200 ohms per button. Shpg. wt. 3 Ibs. XM13405-List Price $\mathbf{\$ 2 5 . 0 0}$


UNIVERSAL Model "X"
A very fine Microphone at a very reasonable price. Available in either single-button or two-button ypes. Resistance 200 ohms per button. May be mounted in any position. Scientifically damped, asboratory tested. Duralumin diaphragm, pure gold contact points. Srequency response 100 to over 4000 cycles. Stas amateur stations, etc. Beautifully finished in polished chrome plate. Shpg. wt. 3 lbs.
$\times \mathbf{M 1 3 4 1 2}$ Single-button Model X . List Price $\$ 7.50$
Your Cost
XM13413-Double-button Mode X. List Price $\$ 10.00$ Your Cost.

## UNIVERSAL Model "LL"



Extra rugged two-button broadcast Microphone. Of high carbon steel ground to within .001 of an inch accuracy. Diaphragm is of alloy of the proper hardness and stretch to secure best repoints on each side. Materials used and precision manufacture make this model stand out as the superlative microphone, reproducing a range thick. Shpg. wt. $31 / 2 \mathrm{lbs}$.
XM13403-List Price $\$ 60.00$ Your Cost Each

## UNIVIRSAL Model "KK"

A substantial two-button Microphone with a very low hiss. It is carefully constructed of the finest materials with a 24 K pure gold spot center alloy diaphragm held under tension. Diaphragm thickness is only from 40 to well over 6000
cycles. Buttons are standard 200 ohms each. Entire microphone is finished in 24 K polished gold. It is $21 / 2^{\prime \prime}$ in diameter and $114^{\prime \prime}$ thick. Each unit is carefully tested before shipment Shpg. wt. $21 / \frac{1}{2}$ lbs.
XM13404 List Price $\$ 40.00$ \$ $\$ 3.524$.
Your Cost Each ............
UNIVERSAL Hearing Aid
 Two stage amplifier using 230 tubes, 11 in weight without batter weight without batter-
ies $5 / / 1 \mathrm{lbs}$., with batteries $5 / / 9 \mathrm{lbs}$, with batter-
les $161 / 2 \mathrm{lbs}$. Up to 10 single earphones can be connected at one time For churches, schools, etc. Utmost in quality and volume. Large size batteries permit consistent long time use, minimum of hattery upkeep expense. Comes complete vith special batteries. Prices on additional headphones quoted on request. Shpg. wt. 8 lbs .
XM13512
List $\$ 48.00$
Your Cost.

## Three Channel Mixer

A compact, portable perfectly engineered mixer to handla three two-button or single-butMicrophones, low impedance pickups, or standard telephone (remote) lines or any combination of the above. The fading or blending is accomplished by or blending is accomplished by formers (Univ. No. 1310) and three constant impedance $\mathbf{T}$ pads. Adjustment of one control does not interfere with volume or tone quality of other channels. Feeds into $400-600$ ohm line. Size $4 \times 51 / 3 \times 12^{\prime \prime}$. Shipping weight 9 lbs .
XM13449-List Price $\mathbf{\$ 3 6 . 0 0}$ Your Cost Each.

## UNIVERSAL Model "E"

Condenser Microphone
An attractive and highly profes-
sional appearing unit for use where absolute absence of hiss or other background noises is essential. Contains a two stage amplifier in a beautifully pollished chrome plated cylindrical case. Tubes used in the amplifier are non-microphonic and draw only 180 amp . at 6 volts and 4 mils. The head has automatic barometric adjustment and is completely protected. 25 ft . of shielded rubber covered cable included. Shp List $\$ 60.00$ Your
Cost


Desk Stand with clamp for tubu Shpg. wt. 25 lbs. Cost. Floor Stand chrome plat $\mathbf{X M 1 3 3 7 3 - L i s t} \$ 16.00$

s3.53
9.41

## 3 2 ,

Microphone Repairsum 5 A A of our custo has been installed for the benefit - department is now fully nequipped to repair all - makes and models of microphones, single and - double button carbon mikes, hearing aid mikes, condenser, ribbon and dynamic mikes. Each unit is scientifically adjusted and laboratory -tested before shipment. Careful handling and packing. Units polished and new screws intalled where needed.
Single Button Carbon Mikes (non-stretched diaphragm). Your Repair Cost..... $\$ 1.50$ 2-Button Carbon Mikes (non-stretched dia-
phragm). Your Repair Cost.......$\$ 2.50$ Single Button Carbon Mikes (etretched diaphragm). Your Repair Cost 2-Button Carbon Mikes (stretched diaphragm) under 23" " diameter. Your Repair Cost. 53.50 2-Button Carbon Mikes (stretched diaphragm), over 2 J " diameter. Your Repair Cost $\$ 5.00$ Condenser Heads,

UNIVERSAL Model "G"
A. C. Operated Condenser Mike


A complete Condenser Microphone operating entirely from A. C. Requires no batteries. Simply attach to any $110 \mathrm{~V} .50-60$ cycle A. C. outlet and it is ready to use. Output is - 40 db .; greater than that of a carbon microphone. Absolutely no hum or ripple, guaranteed as quiet as batteries. Frequency response from 70 to 7,000 cycles. All features such as barometric adjustment, temperature compensator, shielded diaphragm, etc. Brown crackle finish, 25 ft. rubber covered shielded cable furnished. Tubes not included. Shpg. XM13516-List $\$ 84.00 \leqslant 403\}$

## UNIVERSAL Handi-Mike



An excellent microphone for use with Transceivers and portable damped. Gold contact faces. For voice will give clear cut reproduction. On and Off switch in handle Standard impedance. 6 " long 216 " diameter head. Shpg. wt. 2 ibs. XM13409-Single 5 Button
Your Cost. ......
s8.82

## Combination Stand

## ully polished

 nickel plated combination Banquet and Floor Stand. Folds into small space. Light in weight. Eight mike springs included. Height variable from 30 to $66^{\prime \prime}$. Ring diameter $61 / 2^{\prime \prime}$. Base diameter 71/" ${ }^{\text {" }}$ Shpg. Wt. 8 lhs.Your Cost.............. $\$ .88$

## Super-Sensitive Midget Model


sensitive model, will
up sounds and conversaons even when placed in a hidden position. Particularly recommended for use where a microphone is needed. Front sce of the microphone is the
 diaphragm proper so the unit should be used in protected location and great care used in handling. Sbpg. wt. 1 lb.

Smallest protected single-button microphone manufactured. Full protection ayainst accidental contact with the diaphragm makes it particularly suited for use as a lapel microphone or wherever a compact sensitive unit is needed. Equipped with a pure gold spot diaphragm. Carbon button is of the standard 200 ohm resistance. Size $17 / 8^{"}$ in diameter, $1 / 4$ in depth. Polished case. Shpg. XM13443-

## UNIVERSAL Madel "'QRKFis

## QRQ Microphone Mounted

 on Junior Input StageAn ideal combination for amateur usage. Simple and very easy to connect. Requires one flashlight mono-cell for operation. The transformer improves both volume and quality over any direct application of microphone to detector tube. Has potentiometer volume control which also operates battery switch. When used for home entertainment, the program and speech may be returned and faded in and out by the volume control. Amplifier box finished in russet leatherette. Shpg. wt. 8 lbs.
Your Cost Each

## OMICROPHONES ANO AIIROOHONE

## PIEZO-ASTATIC Crystal Mike



Unquestionably one of the finest microphones ever developed. Has found great favor amongst both amateurs and public address system owners. It requires no field or button current-has no hiss-cannot "pack"-may be used in any position and has a high output making unnecessary any great amount of pre-amplification. Due to its high impedance it makes unnecessary the need for a matching transformer thus permitthe ampliner input tube fa be connected directly to the grid of finished in polished chromium. Diaphragm is screen protected. Complete with 6 ft. shielded cable. Shpg. wt. 2 lbs Your Cost
${ }^{\mathrm{s}} 12.60$

## "Ribbon" Microphone

These microphones have an exceptionally fine frequency response. No hiss-require no current. For best results a total gain (pre-amplifier and amplifier) (of 125 Db . must be available. The frequency response must also be good. Kit includes all necessary parts except transformer and case. Complete instructions included. XM13514 Ribbon Microphone completely assembled and factory tested. With case and R.L. transformer. List Price $\mathbf{\$ 2 5 . 0 0}$.

## Your <br> Cost

XM135i3 Ribbon Mike Kit. Shpg. wt. 4 lbs . List
 xM1350.00. Your Cost
$5<10$ $\$ 5.88$ XM13505-Case for Mike Shpg wit. 3 libs. List

Replacement Ribbons for Microphones XM13369-Standard. Package of 2 ribbons Your Cost
XM13374
Your Cost
Ribbon Microphone Transformers
Especially designed-high permeability -to match a bove microphones. XM13509-R.L. to match ribbon to line.
XM13510-R.G. to match ribbon to grid
XM13354-P.L. to match plate to line. List $\mathbf{\$ 5 . 0 0}$.
Your Cost, Any Type
s 2.94

## SHURE Carbon Microphone Model 3A Double Button

An excellent inexpensive double button carbon microphone for the Ham station or for P.A. systems used chiefly for voice reproduction. Diaphragm has gold spot contact surface. 200-ohm impedance. Frame diameter 21/2" Frame thickness $1 / 2^{\prime \prime}$. Screen protected diaphragm. Bright nickel finish. Shpg. wt. 1 lb .
Xin13517-List $\$ 6.50$
s3.82

## "Universal Joint" Microphone Stands For Crystal or Ribbon Mikes

Stand No. 1 is an $8^{\prime \prime}$ desk stand equipped with a universal ball and socket joint to fit crystal or ribbon microphones. The joint permits tilting the microphone to any desired angle. A special tightening ring permits locking the joint at any position. Finished in bright polished 1 chrome plate. Base Shpp. wt. 5 lbs. XM13526
s3.75

## BANQUET STAND

XM13527-Similar to the above but can be extended from $151 / 2^{\prime \prime}$ to $27^{\prime \prime}$. Base diameter $6^{\prime \prime}$. Shpg. wt. 7 lbs. $\$ \mathbf{S o u r}$ Cost.............. 50 FLOOR STAND
XM13528-Stand No. 3 similar to the above, but floor type. Can be extended from 37" to 67". Base $9^{\prime \prime}$ in Highly polished chrome plated. Rigid thumbserew height adjustment and swivel joint lock nut. Shp wt. 141 lbs .


## AMERICAN Dynamic Microphone

Now you can obtain all the advantages of a dynamic microphone such as-absence of hiss-elimination of exciting current-rugged construction-excellent frequency response, etc., at a reasonable price. It is ideal for high fidelity amplifier installations, for recording and for transmitting. The frequency response is substantially flat from 50 to 7400 cycles. A special composite diaphragm is used in conjunction with a grooved damping plate. The diaphragm has no resonant points and will respond only to the
 sound frequencles. Output is 200 ohms making it possible to substitute the mike readily for others at the input to the preamplifier. Output level is - 75 Db . Diameter $25 / \mathrm{K}^{\prime \prime}, 21 / 2^{\prime \prime}$ long. Complete with plug.
XM13397-Shpg, wt. 6 Ibs. List $\$ 42.50$.
Your Cost
s24.99

## SHURE Condenser Microphone

A really high quality, modern Condenser Microphone a vailable to Broadcast and Public Address Engineers a vailable to Broadcast and Public Address Engineers at a nominal price, with the high sensitivity, the true
reproduction, the freedom from hiss and the excellent reproduction, the freedom from hiss and the excellent frequency res
microphones. It consists of a high quality, air-damped, stretched diaphragm transmitter head and two stage amplifiers, using two type ' 30 tubes. The compensating diaphragm equalizes pressure and assures constant performance. Excellent frequency response from 40 to 10,000 cycles. Output level 30 Db . (approximately that of a twobutton microphone). Requires 6 volts at 60 M .A., and 180 volts at 3 M.A.from batteries or Shure 41 A Power Supply. It connects easily on carbon microphone circuits by omitting central leg of the circuit. Special terminal strip, easily accessible in the tube compartment, provides either 200 or 50 -ohm output impedance. Head is chromium plated, and case is finished in double baked black rubber-tone japan. plated, and case is finished in double baked black rubber-tone japan.
Furnished complete with 12 ft . shielded zolor coded cable. Adapter included so that unit may be suspended; bottom threaded for attaching included so that unit may be
to stand. Shpg. wt. $81 / 2$ lbs.
XM13507-Microphone complete, including tubes.
List $\$ 67.50$.
Your Cost $\ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$

## SHURE MODEL 41A POWER SUPPLY

Model 41A Power supply. Designed expressly for use with the Shure Condenser Microphone listed above. This power supply may also be used with other preamplifiers requiring the following voltages and currents. 6 volts at 60 M.A.; 200 volts at 5 M.A. Complete with plug for mike cable, A.C. cord and plug.
XM13508-List Price 540.00 .
Your Cost, With Rectifier Tube
${ }^{5} 23.52$

## Heavy Duty Plugs and Sockets

A series of heavy duty mulets made of penuine moulded bakelite with heavily armored metal caps. Very sturdily made and are excellent for use with portable public address systems. Finished in black crackie lacquer. Shpg. wt.
1 lb . Plug with Clamp.

| Stock Your |  |  |
| :---: | :---: | :---: |
| No. | Contacts | Cost |
| XL12400 | 2 | 50.42 |
| XL12401 | 4 | . 51 |
| XL12402 | 6 | . 60 |
| XL12403 | 8 | . 66 |
| XL12404 | 10 | . 75 |
| XL12405 | 12 | . 84 |
| F1 | h Socket |  |
| XL12406 | 2 | \$0.51 |
| XL12407 | 4 | . 63 |
| XL12408 | 6 | . 75 |
| XL12409 | 8 | . 90 |
| XL12410 | 10 | 1.02 |
| XL12411 | 12 | 1.17 |

Socket With Sleeve
Socket with Clamp
Stock No. Contacts Your Cost

| XL12418 | 2 | 50.63 |
| :---: | :---: | :---: |
| XL12419 | 4 | . 75 |
| XL12420 | 6 | 87 |
| XL12421 | 8 | 1.02 |
| XL12422 | 10 | 1.14 |

## 3 Way Mike Plug

d

For quickly connecting double buttonmikes or any three wire cord. Has a moulded bakelite handle. Contacts are solid brass tinned for easy soldering Shpg. wt. 11 lb . Your Cost.
3 Way Jack
For use with a bove plug. 28
XM13522-Your Cost.
3 Way Mike Connector
For use with above plug.
XM13523
Your Cost

## Trutest Carbon Granules


tria fine quality same as used in bet
ter grade microphones-not adulterated. Contains sufficient granules to refill one wo-button microphone. Care must be used in measuring amount for each button. Must not be touched with fingers. Shpg. rit. 11 lb .
Your Cost

## (سumม!

## Microphone

Springs
These microphone springs are made of the finest grade tempered steel, with formed loop ends. Set of 8 for

## Trutest

## Shielded Microphone

## Shielded Microphone Cable



First quality shielded three conductor Microphone Cable that will stand the hardest usage without becoming torn or cracked. Ends provided with suitable lugs for easy connection. Very popular forindoorinstallations. Cotton covered. Shpg. wt. for 50 ft ., $21 / 2 \mathrm{lbs}$
XQ16132
6 Ft. for
12 Ft for
S0.35 25 Ft. for
$\begin{array}{r}51.15 \\ .1 .90 \\ \hline\end{array}$
 Cable with Armored Connectors Heavy rubber covered shielded cable impervious to oil and water. Connectors heavily lamped to cable. Stock armored and No.
$\times$ Q16080

Shipping $\times \mathrm{X} 16081$
$\times 916082$
Xa16083
$\times 16084$
$\times \mathbf{~}$
Size
6
12
25
50
100
Weight
Your
THILPOt Shielded Microphone

2 lb .
51.75
2.25
3.95
3.95
5.50 9.95

## Cable <br> 

Consists of three conductors color coded in a very closely woven tinned copper shielding with $1 / 8$ " outer covering of high percentage rubber. Especially intended for outdoor use. Absolutely weather and abrasion Mroof. Shpg, wit. 10 lbs. per 100 ft 12 Ft. for 50.85 50 Ft. for | 12 Ft.for | Ft. for | 1.65 |
| :--- | :--- | :--- | 100 Ft. for $\quad \$ 5.20$



Special Value! Mike Cable Ligbt duty cable similar to the abov XQ1614s-Your Cost Per Foot
12 Ft. for $\$ 0.55$ Ft. for



Super Service Shielded Microphone Cable


7/6" outside diameter
Seven conductors of No. 14 stranded copper for 3 and 4 microphones on a mixing panel. Each conductor color coded. Unusually heavy live rubber jacket. Shpg. wt. 12 lbs .100 ft . live rubber jacket. Shpg. Wh. 12 20s. $20^{c}$
Your Cost Per Foot
50 Ft.for

"Twist Lock" Polarized Armored Connectors
A twist of the wrist and they are securely locked apartaccident pull Completely armored for protection against breakage. Equipped with clamps for cable. Will take large size wire ${ }_{1} \mathrm{up}_{\mathrm{lb}}{ }^{\text {to }}$.

Two Wire Connector

## XM13175-Male

Your Cost
XM13176-Female
Three Wire Your Cost
XM13178 - Fema
Your Cost
Four Wire
XM13179 Male
Your Cost
XM13180-Fernale
Your Cost

"Twist Lock" Receptacle
 Fits stan
let box. let box.
XM13181
3 Four Wis
"Twist Lock" Recessed and Base Mount Plugs

For mounting on apparatus and to be used paratus "Twd to be used Female Connectors. Recessed type provides flush surface and prevents accidental contacts with prongs.
 Shpg. wt. 1 lb

Two Wire Male XM13183 Base Mount 35 Your Cost Recessed XM13184
Your Cost. Three Wire Male $\underset{\text { Your Cost.................. }}{\text { XM13185- }}$ XM13186-XM13186-Recessed
Your Cost............ Four Wire Male XM13187-Base Mount $57^{c}$
Your Cost XM13188-Recessed
"Twist Lock" Female Receptacle

Made of porcelain
XM13173-2 Wire, Each. .... 45e XM13174-3 Wire, Each..... 79c


## C-H Mike Connectors

Heavy brass contacts. Three prong plug and socket. Plug has metal covel for protection. Shpy. wt. 1 lb $X$ M13399 Plug Your Cost Each XM13398-Socke $19^{\circ}$ Your Cost Each $25^{\circ}$

## 9 Ft.-3 Wire Cable <br> A three wire cable with lugs at one end for use in connecting microphones. Shpg. wt. 1 lb . <br> $\times 916142$ <br> Your Cost Each <br> $15^{\circ}$

## Armored Bakelite Microphone

 ConnectorsNo better Connectors made for use with Carbon Microphones. Bakelite throughout providing perfect insulation; spring contions insuring posive plug tions. Heavily armored Plug and Socket locks cable, pre venting individual connections from being pulled out. Diameter 1/2. Shpg. wt. 1 Ib. XM13401—Plug Your Cost Each
XM13400-Socket
Your Cost Each
XM13415 Each Wi.... 58 XM13415 3 . Wire Flush Receptacle, of a Socket No. X M13400. $\qquad$
Your Cost Each
5 Wire Rubber Covered Shielded "Mike" Cable


Re-enforced with cord, rubber covered, stranded color coded microphone cable. Heavy cotton braid outer layer, ribbon sleeve shiels, Y/ " live rubber. Excellent for Condenser Mikes. Outside diameter ${ }^{1 / 16 "}$. For all outdoor temporary or permanent jobs. Shpg. wt. 10 lbs. 100 ft .
Your Cost Per Foot
Per 100 Feet.

$58^{c}$

## PICKUPS - Phono-Motors • RECORD CHANCERS

Trutest Pick-Up


An entirely new development in
pick-ups. The pick-ups. The projecting at an projecting at an angle is placed ina fiat position bly improves the frequency response. Both he highest trebe and the lowest bass are aithfully as the record will permit Attracively finished in a beautiful dull gold with built-in volume control. Xhi47-t. 41 bs . Your Cost

COUNTERBALANCE FOR PICK-UP
Used with the above pick-up to assure correct pressure when used with 33 \% R.P.M. records. Shpg. wt. 1 lb
Your Cost
\$1.15

## AMPERITE Oxide

Crystal Pick-up
Entirely new? Requires only one stage of a mplification. Output +10 db . Suitable for either 78 or $331 /$ R.P.M. records. Easily attached to any radio receiver. Connected between plute and cath ode of preceding tube. Average resistance 100 M ohms. Shpy. Wit. 6 lbs . スA133-List $\$ 8.00$ Your Cost

PIEZO-ASTATIC Crystal Pick-Up

With this pick-up the quality of the music a vail able is limited only by the associated equip ment. The Piezo Electric Crystal is the mos efficient agent known for converting mechanica motion into electrical energy. Ball bearings and extremely light weight make possible the playing of 78 R.P.M. or slow speed records without the use of additional counterbalance weights. Available with 8 or 12 -inch arms. Uses $1 / 2$ Meg. volume control. Shpg. wt XA161-Standard 8" Arm
Your Cost
XA162 Standard i2 Arm Your Cost
9.00

UNIVERSAL Phono Motor for 110 Volte. A.C. or D.C. One of the few efficient
universal phonograph motors on the market
at the present time. equally well oneither A.C. or D.C.
 Silent operation with unvarying speed. Ideal for use in conjunction with the popular A.C.D.C. sets now being sold. Equipped with a metal parts and automatic stop switch. All metal parts rust proof. Mounted on panel by three mounting bolts. For use
records only. Shpg. wt. 11 lbs.
XA126-
${ }^{\text {s }} 14.95$

Cafayette Dual Speed Pick-Up

$331 / 3$ or 78 R.P.M.
Designed to meet the needs for playing both $331 / 3$ and 78 R.P.M. records with the same pick-up. Rubber-damped, providing absoIutely clear reproduction. A vailable in 2500 or 5000 ohms impedances. Specialimpedances to order at specisl prices on request. Specify type when ordering. Shpg, wt. 5 lhs. XA138-Complete with volume control. XA143-Same as above
except 200 ohms impedance. Cost, Either Type

LAFAYETTE PROFESSIONAL JR.
Has same general characteristics as above. Plays $16^{\prime \prime}$ records. Specify high or low imPedance. Shpg. wt. 6 dbs.
$\times A 137$
Yoér Cost Each
s9.75

## Automatic Stop for Electric Phonographs

Adjustable to operate at any point on record. Arm autocuts of current to which cuts off current to motor. can be used for antable and can be used for any type of D.C. or Battery her A.C.
 D.C. or Battery. Eliminates the need for separate ON and OFF current switch. Suitable for $p$
XA135
XA135 Cost Each.
$75^{\circ}$

## GREEN FLYER Governor Controlled

 Two SpeedMotor

$$
\begin{aligned}
& 331 / 3 \text { or } 78 \\
& \text { R. P. M. }
\end{aligned}
$$

for A. C.

## Operation



A new induction type motor that may be adjusted for either old style recordings at 78 R.P.M. or the new $331 / 3$ R.P.M. records. Gears are completely enclosed and run in oil. Silent laminated Bakelite spiral cut gears. Over-size self luhricating bearings. Will not overheat in Hard ware bronze finish Auble. Has dial and pointed needle indicator at slight extra cost. Shpg. wet. 15 lbs. XA100-Two Speed $105-120$. Wht. 15 lbs.
Your Cost.... $105-120$ volt, $50-60$ eycle A.C. . 0 XA102 Single Speed 78 R.P.M. Motor
s. 6.75

## Special 6 Volt Motors

These motors for six volt operation are of the same quality and are of the same general construction as our other models and are also made in both the dual speed and single speed types. Equipment used on sound truck installation usually receives much harder usage than normal and these motors were designed with that in mind. 6 volt operation. Your Cost YA128-Single Speed 78 R.P.M. for 6 volt operation $\$ \mathbf{T} 3.20$

## Special Recording Motor Dual Speed

This motor is specially constructed and is preferred for recording. Similar specifications to Model XA100 except that field and rotor are $1 / 2^{\prime \prime}$ longer and that the motor is much more powerful. Exclusive, Green Flyer designed governor keeps speed constant under varyingload condiShps. wt. 15 lbs . XA120-For $105-120$ volt, $50-60$ cycie A.C.
${ }^{\text {s } 11.75}$ Add 40 c
to any of the above prices if a 12 turnitable is
We can supply any voltage for additional'95c.

## GENERAL INDUSTRIES Automatic

 "Improved Type" Record Changer Powerful two speed motor will play both 78 and $33!3$ R.P.M. records Plays and changes seven $12^{\prime \prime}$ or eight $10^{\prime \prime}$ records. record. Last record re peats until turned off. Built of heavy gauge metal finished in statuary bronze. High impedance pick-up with built-in volume contro!. $15^{\prime \prime}$ wide, $14^{\prime \prime}$ across front, $5^{\prime \prime}$ above and $3 y_{4}^{\prime \prime}$ balow plate. Can be fur nished for any commercial frequency. Special impedances also a vail able. Prices upon request. For 110 volts, 60 cycles A.C. Shps
$\mathbf{~} \mathbf{\$ 1 7 7 5 4}$-List Price $\mathbf{\$ 5 2 . 5 0}$
Your Cos
XS17763 For 110 volts D.C.-List Price $\mathbf{5 0 . 5 0}$ Your Cost $\mathbf{X} \$ 17764-$ For 6 volis D.C.C.List Price $\mathbf{\$ 6 1 . 5 0}$
$\$ 3035$ Your Cost

## Dual Speed CAPEHART

## Automatic

## Record Changer

 This dual speed $331 / 3$ and 78 R.P.M. Automatic Record Changer, is the most practical device for continuous playing of $10^{\prime \prime}$ ped with the New bal ped with the New balExcellent device for the home, public address syslems, etc. Using ten long playing Victor records you can listen to our hours of music without a stop. Completely automatic, last record repeats until re-stacked or when master s witch is turned off. An encore may be had of any record. Additional equipment includes a reject device and unloading lever. Can be mounted in your own cabinet, or in our DeLuxe Cabinet, made expressly for the accommodation of this mechanism. Base, $144 / 4^{\text {"x }}$ x $41 / \mathrm{m}^{\prime \prime}$. Height above mounting board, $7 \mathrm{~L}_{\mathrm{i}}$ "; depth below $3^{13}{ }^{2}$ ". Shpg. wt. 30 lbs .$\times 51775$ Mechanism complete, less cabinet $^{2}$ Your Cost


AUDAK Electro-Chromatic Pickup
Model 2033


A moderate priced instrument ideally suited for general use in radio receivers, etc. For records up to $12^{\prime \prime}$ in diameter. Highly sensitive and a close runner-up to the model HR-33 in requency response. Standard impedance vailable. Specify impedance when ordering. Shpe able. Specity impedance when Ster XA453-Model 2033
Your Cost.........

## MODEL 433

A low priced model similar to the above. 7500 ohms standard impedance, 200 and 500 ohms also available. Specify impedance desired. Shug. wt. 5 lbs.
XA454-Model 433
Your Cost

## Genuine RCA-Victor

 Double Faced Record5Here's a real buy in genuine RCA-Victor double laced phonograph records. Two assortments of 25 records each at prices that you paid for only one record a short time ago! Public address men, you need this assortment of recordings for fill-ins. Dealers, make a hit with your customer by-giving him a half dozen records with each purchase of a phono-radio combination! They purchase of a phono-radio
cost you only 9c a piecel

## AMERICAN RECORDS

25 assorted records to a carton including such well known American artists as-Paul Whiteman, Rudy Valle, Eddie Duchin, Wayne King, Nat Shilkret, Duke Ellington, George Oisen, etc. Foxtrots, Waltzes, Vocals, Tangoes, Bands, Marches. Shpg. wt. 13 lbs.
$\times 4346$ - Carton of 25 assorted Your Cost, Special.

SPANISH RECORDS
Assortment of 25 Spanish records (Victor Discos Espanol). Late assortments of Tangoes, Cancions, Foxtrots, Paso Doble, Bolero. By DeAmaya, Escasena, Quiroga, Juan Pulido, Orchestra International, etc. Shpg. wt. 13 Ibs. XA347-Carton of 25 assorted
Your Cost, $S$ pecial. ................ 5.51

# AUDAK "Professional" 

 Electro-Chromatic Pickup

The finest pick-up made for the reproduction of electrical transcriptions in broadcasting stations, theaters, etc. Frequency range is especially wide and a needle ballast is incorporated for compensation on Crequencies below 300 cycles. Only the finest materials and workmanship are used throughout-high permeability alloys-purest Ceylon Gum dampeners, etc. The relation between the vibrating ele-
ment and the coil is fixed for maximuminductment and the coil is fixed for maximuminduct-
ance, essential if harmonics are to be reproduced. A vailable in 200,500 and 7500 ohm impedances. When ordering state impedance desired. Shpg. wt. 6 lbs. XA455 Audak Prolessional \$26.80 Your Cost

## SEMI-PR OFESSIONAL

Similar to the ahove and for records up to $18^{\prime \prime}$ in diameter. Wide frequency response, being 7500 ohms standard impedance- 200 and 500 also a vailable if desired. Shpg. wt. 6 lbs . XA456-Specify Imped- $\$ \square \square$
ance Semi-Professional Your Cost.

## Tuitest Scratch Filter

Practically eliminates the objectionable and annoying scratching caused by the needle friction. Filters out the noise frequencies. Equipped with phone tip jacks on input side to the pickup and with binding posts on output side to set or am with any phono-radio combination. Shpg, wt. 3 Ibs
XA118

s 1.75

## RCA-Victor Chromium Playback Needies

Special chromium needles that will play from 75 to 100 records. XA357-Pac
Your Cost.
$25^{\circ}$

## AUDAK Model HR-33 Electro-Chromatic Pickup



A high quality wide range pickup for use with records up to $12^{\prime \prime}$ in diameter. Equipped with needle ballast for compensation on frequencies below 300 cycles. Unquestionably one of the finest pickups made for use with records up to $12^{\prime \prime}$ in diameter. Standard impedance 7500 ohms, impedances of 200 and 500 ohms also dering. Shpg.wt. 5 lbs .
XA457-Model HR-33 Your Cost

AUDAK Duo-Disc
$331 / 3$ or 78 R.P.M.on any single speed motorbutton. No
gears. Shpg. wt. 7 lbs. Your Cost
s2.98
AUTONATOR-110 V. A. C. Generator For Your Car Operated by the fan belt on any gas driven moIt generates 110 volts alternating current for operating-signs-
radio sets-publicadradio sets-public ad-
dress systems-or any electrical appliance requiring no more than
 put of the Autonator Easily attached to car. Field current is supplied by the car generator and battery. Comes complete with $71 / 2 \mathrm{ft}$. shielded doubla cable and a double outlet same as used for home type receptacles, a plug, mounting brackets and complete instructions for installing. Shpg. wt. 30 ibs.
XY19809-50 Watt output List $\$ 32.50$
23.88 Your Cost ${ }^{\text {s }} 27.56$ XY19810-100 Watt output List $\$ 37.50$. Your Cost. 3492 X Y 19811-150 Watt outpu X Y 19812-250 Watt output $\$ 58.8$

## Cafayette Dual Speed Electric

 Portable Motor and Pickup The finest portable made today, Motor is a genuine two-speed Green Flyer with speeds of 78 and $33 \frac{1}{3}$ R.P.M. Selection of speeds is easily made with a lever. $12^{\prime \prime}$ turntable felt covfinished dull bronze. $A$ new and improved two speed Lafayette high impedance pickup with a crystal volume controlprovion. Sturdily built case covered with grained Fabrikoid. Size $171 / 4$
$13 \frac{1}{2} \times 8^{\prime \prime}$. For 110 volt 60 cycle A X Y 22031 -List $\$ 60.00$
Your Cost

Special Single Speed Portable Motor and Pickup A special value in a single speed motor and pickup. Attractive grained fabrikoid covered case. Plush covered turntable. Equipped 110 volt 60 cycle A. C. Shpg. wt. 241 bs XY 22049
Your Cost, Special.

## ROTARY CONVERTORS <br> \section*{JANETTE Rotary Converters}

For operating 110 volt 60 cycle A. C. electrical appliances, radios, Po A. systems,
etc.
from D. C. supplies. Models available etc., from D. C. supplies. Models a valiabed
for any voltage from 6 to 220 volts as listed below. All are equipped with interference filters to prevent nolse reaching the radio. If filter is not required, write for prices on model desired. Sizes are listed suitable for practically any requirement from small
midget radios up to large Public Address Systems, Transmitters, etc.


# Duall Super Recorder 



A money-maker for those who can solicit their neighborhood stores, making advertising recordings of their products and then reproducing through a public address system to several thousand persons.
These popular recording mechanisms are now still further improved and are truly the last word in instruments of this type. Designed for recording on either aluminum or celluloid blanks these instruments will make faithful reproductions of the human voice or musical compositions.
Some of the many features of the new. Duall Recorder are; a positive feed for the recording head that provides uniform spacing of lines and prevents o verlapping. Choice of either a luminum or celluloid recording heads (celluloid recommended). Piezo-electric "Crystal"" Piekup for reproduction. Cutter head, 16 or 500 ohms impedance. Specially designed 1-20 H.P. motor. Rim drive assuring constant 78 R.P.M. speed. Vibration proof mounting.
Standard Assembly consists of: motor and turntable for 78 R.P.M. overhead feed mechanism for 80-line recordings on 12 -inch records. Feed outside-in. Cutting head for celluloid (if aluminum is preferred, specify). Cutting head, 15 or 500 ohms. Driving pins for celluloid are provided-which can essily be removed when recording on aluminum. A high impedance Crystal Play-back Pickup. Motor is for 115 volt, 50 to 60 -cycle. All metal parts above, base chrome plated. Shpg. wt. 30 lbs . XY19889 List $\$ 275.00$. Your Cost
${ }^{5} 147.50$ Same equipment as above, but with two-speed motor for both 78 and $331 /$ R.P.M. recording. Complete. Shpg. wt. 341 lbs . XY19890-List 5330.00.

SI80.00

## 16-Inch Turntable and Motor Assembly

For making recordings longer than those possible on a 12 -inch record this 16 -inch modelis a vailable. Identicalin all respects to the 12 -inch modellisted above but for the turntable which is $16 \frac{1}{2}$ inches in diameter and somewhat heavier in construction. 80-line feed screws are furnished with elther inside-out or outside-in feeds as desired. When ordering specify R.P.M. and type of feed required. Celluloid
cutting head with an impedance of 15 ohms is standard-aluminum may be had at same price if desired. Play-back pickup is of the Crystal type. Shps. wt. 45 lbs.
XY19886-
Either 78 or 33 y/3 R.P.M. Specify Speed.
$\$ 180.00$
Your Cost.
Same equipment as above except that motor is dual speed and can be used at $331 / 5$ or 78 R.P.M. as desired. Shpg. Wit. 52 lbs. XY19888 Your Cost
$\$ 210.00$

## Double Turntable Assembly

For recording continuous programs on a series of records or for transeribing records a double unit is available. On a $16 \times 32 \times 7 / 8$ baseboard, two complete units consisting of the 12 -inch Super Recorders our stock No. XY19889 are mounted. The speed of both motors has been
Shpg. wt. 68 lbs.
XY19885-Your Cost
$\$ 295.00$

## Overhead Feed Mechanism

 To Attach to Your Present TurntableWe offer this device for those who desire to attach this Unit to their own turntable. Has an adjustment for proper alignment. A Motor of constant speed and rating of 1-20 H.P. minimum is recommended for this unit; be sure there is sufficient power in your motor to operate it Turntable should be flat, with about $1 /$ inch felt covering, and securely fastened to motor shaft. Equipped with $15-\mathrm{ohm}$ impedance cutterhead. Shpg. wt. 12 lbs.

XY19891-List $\$ 85.00$
Your Cost.


Extra Feed Screws for 88 96 or more lines for above overhead Feed Mechansm. Specify whether for Shpg. wt. 6 lbs aluminum X Y 19892-List $\$ 18.00$. Your
$\$ 8.00$

## NOTE

> A complete Portable Recording System, self-contained in two carrying cases, Including: a recorder, with two cutting heads (celluloid and aluminum); two feedscrews (inside-out and outside-in); a play-back pick-up in one case, and an ampliller, speaker, control panel and olume indicator, in another case, is available. Acces sories include cuting and play-back needles, and six 12-Inch records. Complete descriptive circular on request. XY19874_Your Cost............................

## Duall

## JUNIOR RECORDER



## Complete Cutting Mechanism A SemiProfessional Recording Outfit

Faithfully records either voice or musical programs with fine fidelity of tone. Anyone can install this recorder to their present turntable, provided the motor is of sufficient power for this purpose. It is a most practical semi-professional recording device for all types of recording on aluminum record blanks only. Very satisfactory recording of radio can be made In bemade ateither 78 or $33-5$ R.P.M
smalloutput no und volume can be of necessary. The amplifier can be of meedle is suggested for quality recordings. Actual room A pecial cutting needle is suggested for quality recordings. Actual recording is simple and records can be played back immediately. Shpg. wt. 8 lbs. Junior Dual Recorder. Less motor and turntable. Your Cost

## s24.75

## Genuine Diamond and Sapphire Needles

These needles are especially designed for recording purposes. being wood for 25 to 50 tionally long life. The sapphire needle being good for 25 to 50 recordings before resharpening. Your Cost.
Each.
XA359-Genujne Sapphire Needle


Your Cost, Each.
${ }^{5} 3.95$

## Acetate Coated Aluminum Record Blanks

These recording blanks are entirely differentthey have an aluminum bese and are costed with a special acetate compound. They are cut exactly the same way that celluloid is cut celluloid or aluminum blanks. The purity of celluid or aluminum blanks. The purity of the coars elinat ger 3 blanks, 3 lbs.


| Stock |  | Your Cost, | Stock |  | Your Cost. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Size | Each | No. | Size | Each |
| XA348 | $6 "$ | 50.40 | X4352 | $12^{* \prime}$ | 51.00 |
| XA349 | $8{ }^{\circ}$ | . 50 | $\times$ ¢353 | $16^{\prime \prime}$ | 1.65 |

$\times \mathrm{N} 488$
XA351
1
.80
Plain Aluminum Record Blank
For those preferring the ordinary aluminum blank we offer the following in plain and pre-grooved:


[^1]

## Genuine Sapphire Reproducing and Cutting Needles

XA192-For cutting and recording on blank aluminum. \$2.05
Your Cost.......... XA194-For recording on pregrooved composition and cellu-
loid.
Your Cost.
${ }^{\text {s } 2.45}$
XA195-For reproducing any standard record.
Your Cost
\$1.75
XA196-For cu
ing on celluloid.
ing on celluloid.
$\$ 3.75$

## DEPENDABLE Model 304 Tube Checker

For testing all tubes brought out to date, with provisions for many new ones to arrive in the future. Non-absolescence assured-spare switching capacity for three times the present number of tubes. Tests include short and leaknumber of between any two elements, pilot light age tests between any indicator for shorts, gas test, second plate test indicator for shorts, gas test, shift test and line for full wave rectifiers, biasters on panel; one voltage adjuster. Two meters on panel; one English reading accurate D Arsonval readings coil meter (accuracy 2\%) for tube reading one line voltage meter. Selector switches costs trol filament and plate voltages, short kind and tube selector. No adapters or any kind necessary. Charts giving correct readigo all present type tubions are: $9 \times 12 \times 5^{\prime \prime}$. Shpg model case dmensions are.
wt. 20 lbs. X $J 10505$ -
In counter model case Your Cost
$\times 310506-$ A Combination Portable and Counter type case with removable cover and tool carrying compartment. Shpg. wt. 18 lbs. $\mathbf{~ Y o u r ~ C o s t , ~ C a s e ~ O n l y . ~ . ~ . . . . . . . . . . . . . . . ~} 25$

## Save Money :

> A Complete Kit of Parts For Assemblling This Tester Yourself: XJ10507-A complete Kit of Parts for building the above model 304 Tube Checker. Careful design has so simplified the construction of this dester that practically anyone can successfully tester that practically anyone can successtand, instructions with clear, easy to follow, diagrams are included with each Kit. The counter model case as pictured above is included also, as are tube charts and operating instructions. Shpg Fit. 15 lbs.
> ${ }^{\text {s }} 15.35$



## Either A.C. or D.C.

A precision built Signal Generator for all R.F. and L.F. alignments. Electron Coupled, employing type 6F7 and a type 37 in a speclally designed circuit. A selfcontained sudio oscillator provides a steady and pure modulated note of 400 cycles. Operates directly from either the A.C. ( 60 cycle) or D.C. line without any switching or other adjustment. Line feed-back is completely filtered out. All important circuit components are individually shielded; entire unit enclosed in an effective leak-f:oof shield. Frequency ranges on fundamentals (not harmonics) are: 100-225 K.C.; 225-550 K.C.; 550-1500 K.C.; 1500-4000 K.C.; and 4000-10,000 K.C. In addition, there is a range of $8000-20,000$ K.C. using the second harmonic of the $4000-10,000$ K.C. range. All ranges directly calibrated on $6^{\prime \prime}$ fan shaped dial. Two selector knobs select desired Irequency ranges and control attenuation. In leatherette case $10 \times 71 / 2 \times 5{ }^{\prime \prime}$. Removable hinged plug-in type line cord. Shpg. we. 17 lhs . XN13909-All-Wave Signal Generator, Less Tubes Your Cost.

Your Cost above (1-6F7, 1-37). Your Cost

## Beat Note Oscillator

A sensative and precise form of tuning indicator for super-heterodynes. Also used to receive C.W. signals. Attached in a moment without tools or touching receiver wiring. First adjustment permanent-only operation is to snap switch on or off. Uses 24 A or 36 tube. Instructions Included. Specify name and model of set when ordering. Shpg. wt. 21 bs .
XN14035-
$\$ 3.95$


## MULTITESTER Model 403

## 2000 Ohms per Volt

Ohmmeter-Voltmeter Microammeter-Milliammeter A compact multi-range tester of exceptional sensitivity ( 2000 ohms per volt) at a truly phenomenal price. Voltmeter ranges are $0-5-50-250-750$ D.C. volts. Milliammeter range; 0-50 M.A. Microammeter range; 0-500 Ohmmeter ranges: $0-2000-200,000-2,000,000$ ohms. D'Arsonval movement $31 / 4$ " meter yuaranteed accuracy $2 \%$. Selector switch for selecting circuits and tapered compensator for battery voltage on ohmmeter. $5 \frac{3}{4} \times 83 / 4 \times 21 / 3^{\prime \prime}$ Shpg. wt. 6 lbs
$\times 10466$ Complete with batteries X $J 10467$ Knock Down Kit Model 403 K complete with instructions for assembling
Less batteries and case.
Your Cost


ST0.75

## DACO "Neon'" Tube Tester

A new and improved type of tube tester which uses a dependable, a ccurate neon tube indicator in place of a meter. English reading tests on all latest ty pe tubes, with provisions for future 8 and 9 prong sockets. Voltage range from 1.5 to 25 volts, A. C.D. C. Tests include: gas test; second plate test on all rectifiers and other dual plate tubes; cathode short test; line voltage control. Has Verichrome
 panel with two-color lettering, new design polnter knobs. Complete with operating charts and full instructlons. Housed in solid oak case $131 / 5 \times 81 / 5^{\prime \prime}$, with removable cover and built-in tool compartment. Easy to operate. Shpg. wt. 15 lbs . builtin too
Your
\$21.95

cost

## WIRELESS EGERT Signal Generators

Model 77B


A portable Signal Generator noted for its accuracy and simplicity. Covers a frequency range from 100 to 3000 KC. Ranges are printed on calib in curves which are supplied with the Calibrated accuracy $3 \%$. Calibrate a newly designed fortit mont empluctive, constant in put and outt $\quad \mathrm{m}$ pedance variable attenuator. Compl pedance variable attenuator. Compha the highest frequencies it generates. Features stage in the form of a 1 A6 tube, which used in conjunction by the 30 tube type attenuator allows the fundamental signal generated by the 30 tube to be unaffected by changes in the output circuit; two jacks on pane allow for separate 1000 cycle note for checking audio amplifiers, ete.; pure R.F. secured by merely shorting out the audio acks. Ter supply is entirele and in addition preventing any possibility of R.F. leakage avto the set via the power hine. Voltages supplied by one Burgess $221 / 2$ into the set via the power "Colt " 13 " and one 4 batteries. In metal case $6 \times 9 \times 6$ ". Uses new Micro-Vernier Dial. Shpg, wt. 7 lbs . \$ XJ10881 Model 77 B .
Your Cost

A high grade All-Wave Oscillator for
aligning all R.F., I.F. oscillator and aligning all R.F. I.F. oscillator and to $21,000 \mathrm{~K} . \mathrm{C}$. in seven steps, all on tundamentals. Uses new microvernier dial which allows user to obtain accuracies to an absolute value of one tenth of one percent of the dial setting desired. Totally shielded-no radiation at highest frequencies. New type attenuator is efficient at any point. A fixed

Model 99
 output impedance of 100 ohms is fed into the antenna of the radio receiver. The circuit employs a type 1A6 tube in a special bufter stage and a type 30 oscilator. Complete sets of calibration curves, accurate to within $3 \%$, are supplied. Blank curves also supplied to allow user to calibrate his own oscillator to an accuracy of one tenth of 1 percent. Output Calibrated in Microvolts. The instrument also supplies a separate 1000 cycle note (connections to jacks on panel) for checking audio amplifiers, coils, etc. In portable metal case with aluminumetched front panel. Size $6 \times 9 \times 6$ "overalh Comes complete who 22 teries and tubes. ShpR.Wt. 7 Ins.
$\times J 10880-$ Model 99 All-Wave Oscillator XJI $10880-\mathrm{Mr}$ Cost.
s29.50


## NEW: Model 720 Tester

This point-to-point tester is designed for fast and efficient service work. Requires minimum manipulation and is extremely flexible. So arranged that voltage and current can be measured in any tube cirured. Point-to-point plug connected to the set socket. Tester through an 8 -wire cable and according to F.M.A. standards. With this method it is unnecenged to remove set chassis to localize def this method it is unnecessary necting through the single paire defects. All ranges a vailable by con ment of different tube elements this tester wardless of future arrangement of different tube elements this tester will make all tests with A.C. and one D.C. does with present day tubes. It contains one 600 volts, $0-15$ D.C. meter. The D.C. scales are $0,15,150,300$ and 600 volts, $0-15$ and 150 milliamperes. The A.C. scale are 0 , 10 25, 150 and 750 volts. Scales are clearly lithographed on all metal dials. No mental arithmetic required. Overloading of meter is prevented as far as possible by the single
jacks for all ranges. Shpg. wt. 111 lbs .
XK11036-List $\$ 25.00$
Your Cost

1 Removable Cover 1 Choice of Meters $\checkmark$ Fully Equipped 1 Reasonably Priced

These Readrite testers are very popular service instruments with the servicoma because they are in a very low price range. They are also popular because of the accuracy they afford in lccating radio set and amplifier troubles. They are practical testers and are designed to analyze all radio set circuits and test all of the be obtained in two types. the other type uses a Triplett 1000 -ohm pes Readrite instruments throughout and are very easy to operate and easy to read. They voltrmeter. All instruments construction, and dependable for their service. Fulfils economical, rugged in ment in the home or in the shop.

## MODEL 730 TESTER

Same as a bove but with a Triplett 1000 -ohm per volt D.C. voltmeter Shpg, wt. 11 lbs. List $\$ 31.00$
.
$\$ 18.23$


XK11045-List $\$ 37.00$ Your Cost.

## Model 710 Tester

## This model is similar to the 720 Tester

 except that it has three meters. The following scales are a vailable: 0,20 $60,300,600$ volts D.C. $: 0,10,140$ 700 yolts A.C.; $0,15,150$ M.A. Shpg. Your Cost
Your Cost
16.17 Model 712 Tester is similar to a bove
except using a Triplett $1000-$ ham per volt D.C. voltmeter. A 300,000 direct scale reading ohmmeter wben used with a $41 / 2$-volt battery. Shpg. wt.
11 lhs.

## MODEL 610 TESTER

Same as the Model 710 except that it is in a rarrying tools. Shpg. wet. 10 lbs. List $\$ 35.00$ XKi1013-Your Cost
$\$ 19.40$
Mode1 612, same as Model 610, with Triplett 1000 -ohm per volt meter XK11163-List \$42.50
54.99

Tube Tester Model 410


This practical tester checks all old and newtubes. This test makes use of two plate current readings ing the coning the conworth of a test procedure for all rectifier tubes. Test card fastened complete operating instructions and is rastened in removable cover. Meter with illuminated dial, is removable for replacing pilot lamp or fuse. A selector switch provides filament voltages: $1.5,2,2.5,3.3,5,6.3,7.5,12.6$ Shpg. wr. 11 lbs . List 527 terette carrying case. Shpg. wt. 11 ibs. List $\$ 27.50$
$\times K 10981-Y$ our Cost....... $\$ \mathbf{I 7}$ TUBE TESTER MODEL 416 Same as Model 410, except using a Triplett 11 lbs . List $\$ 35.75$
${ }^{2}$ XK10983-Your Cost
$\$ 21.02$

## Utility Tester Model 900



This instru ment is designed for
servicing servicing
electrlc apelectric ap pliances cuits,shorted turns, over loads, broken insulation and under loadsare quickly located. It has the following meters: A.C. am meter reading up to 20 amperes; A.C. volt plete direct ohms, Shpg, wt. 10 lbs.
$\times K 11198$ rour Cost....... 4,5$\}$
 Limitations In space prevent the listing of all Readrite test equipment. We can supply any Readrite instrument at the standard discount. Write for the new Readrite catalog.

## All Purpose Tester Model 1000


ment. The ranzes are: $0,30,300,600$ vol D.C.: $0,30,300$ M.A., and $0,500,50,000$ $3,000,000$ ohms. Resistances up to 6 megohm can be read with external battery. A 110 -volt 60 -cycle A.C. meter is calibrated for capacities from .008 to 10 mfds . Two $221 / \mathrm{h}-\mathrm{volt}$ batteries and one flashlight cell are contained in the bie tery compartment. Complete in strong portable carrying case with removable lid covered in carrying handle. Shpg. ut. 13 lbs. XK11015-List $\$ 50.00$
Your Cost Your Cost
s29.40


POOR) as to the worth of the meter used with a rheostat for ube. The other is a Readrite A.C and grid shorts are tested with separate the line voltage. Cathode neverfail to show the slightest short or leakage. Two selector switchest are used for the different tubes and the required filament switches are used for the
Shpg. wt. 12 lbs .
XK\&104S Counter Model 421. List $\$ 40.00$
Your Cost
The portable type has an oak cover with al.........32 double snap fasteners on sides of case. Shpg. wt. 14 l bs. XK11047-Portable Model 422. List \$42.50

## Direct Reading Tube Testers

## No. 421

These models are designed to test quickly and accurately all tubes. counter models, a portable and a counter type. These new Readrite ments. One Iarge $31 /$ " ments. One large $31 / 2^{\prime \prime}$ Triplett moving coil instrument with a shaded twocolor scale reading directly (GOOD-


## All Wave OSCILLATOR <br> MODELS 553-554-556

An entirely new ALL-WAVE Oscillator that covers ALL frequencies from 110 K.C. to
18,020 K.C. Four distinet bands are covered, viz.: 110-500 K.C $500-3000$ K.C., $2000-6000 \mathrm{~K}$ and $4000-18.000 \mathrm{~K}$. C. All ranges are accurately calibrated on Celf modeulated Cely shielded. plete with shielded connecting leads, 30 type tube, $221 / 2$ volt B Batceryand 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 XK 21028 plett Output Meter. Shpg. wt. 11 lbs Your Cost
XK11027-Model 553 Oscillator. List $\$ 35.00$
Your Cost......................... 44.00
Your Cost
s 17.64
$s 20.58$
s 25.87

## Readrute <br> PORTABLE <br> TYPE METERS MODEL 85



These Readrite portable meters are made in a variety of ranges to take care of all service needs. The A. C. meters are of the repulsion type and may be used with accuracy for either A.C. or D.C. testing. Not to be confused with the ordinary vane type withits restricted application The higher reading A. C. Voltmeters have over 100 ohms per vole resistance. The D. C. voltmeters are of the polarized vane solenold highly and contain resistance up to 300 ohms per volt. All cases hapearance. polished nicke! finish and are extremely attractive in appearance. Individually colored test
D. C. Voltmeters

$3^{\prime \prime}$ case)

## Output Meters

A practical instrument for measuring output of a radio set when used in conjunction with an oscillator for aligning R.F. and I.F. circuits. Contains copper oxide rectifier. Two ranges available: $0-5$ volts for connection to voice coil, $0-50$ mounted on metal panel with jacks and test eads. Shpg. Wt. 4 lbs . 1eads. S11038 Your Cost s. 2.27 Model 575 , similar to above except in a round steel case. Shpg. wt. 4 lbs.
XK11039--Your Cost

Direct Reading Ohmmeter Model 500


Mounted in seamless steel case $4^{\text {" }}$ in diameter. Model 500 provides direct readings of ohmages up to 10,000 and 2 . C. Volts up to 4.5. Model 602 furnishes readings to 10.000 ohns on one scale and up to 40 ohms on second scale, for voice coils and shorted turns of I.F.
transformers. Both are complete transformers. Both are complete
with a small 3 cell flashlight battery with a small 3 cell flashlight
and leads. Shpg. Wt. 2 lbs. XK11020- $\$ 6.50$ List $\$ 3.82$

Model 502


Model 506
Same style as above but with Triplett voltmeter $0-11 / 5$ having resistance readings 50,000 and 500 ohms. Zero adjustment on front of meter Scales are clear and accurate.


## Flanges

Black finish, $2^{3}{ }^{4}$ diameter. Fits Complete with hardware. XK11041 Your
Cost

## Pradrit Panel Meters <br> cadritc <br> Model 55

A sturdy and reliable line of inexpensive Testing Instruments that is very popular with the Serviceman. Well made and attractively finished. Panel mounting type. Nickel plated bezels. White dials. Panel opening $25 / 4$ " Shpg. wt. 1 lb .

| Panel Type D. C. Milliammeters |  |  |  | Panel Type D. C. Ammeters |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | List | Your Cost | Stock No. Amps | List | Cost |
| $\begin{aligned} & \text { Stock } \\ & \times K 1100 \end{aligned}$ | ${ }_{0-10}^{M-A}$ | \$2.00 | \$1.18 | XK11091 0-1 |  |  |
| XK11101 | 0-15 | 1.00 |  | XK11092 0-3 |  |  |
| XK11102 | 0-25 | 1.00 |  | XK11093 0-5 | 1.00 |  |
| XK11103 | 0-50 | 1.00 |  | XK11094 0-10 | 1.00 |  |
| XK11104 | 0-100 | 1.00 |  | XK11095 $1-0-1$ | 1.00 |  |
| XK11105 | 0-150 | 1.00 |  | $\begin{array}{ll}\text { XK11096 } & 3-0-3 \\ \mathbf{X K 1 1 0 9 7} & 6-0-6\end{array}$ |  |  |
| XK11106 | $0-200$ $0-300$ | 1.00 |  | $\begin{array}{ll}\text { XK11097 } & 6-0-6 \\ \mathbf{X K 1 1 0 9 8} & 10-0-10\end{array}$ | . 00 |  |
| $\mathbf{x} \times 11107$ | $0-300$ <br> $0-400$ | 1.00 |  | XK11099 20-0-20 | 1.00 |  |
| XK11109 | 0-20/100 | 2.00 |  |  |  |  |
| XK11110 | 0-15/150 |  |  |  |  |  |
|  | Panel Type Your |  |  | Stock No. Volts | $\begin{aligned} & \text { List } \\ & \$ 2.75 \end{aligned}$ | $\begin{aligned} & u r \\ & s t \end{aligned}$ |
| No. | Range | Ohnis | Cost | $\begin{array}{ll}\text { XK11072 } & 0-4 \\ \mathbf{X K 1 1 0 7 3} & 0-6\end{array}$ | 2.75 |  |
| XK11051 | 0-1 | 30 |  | $\begin{array}{ll}\times K 111074 & 0-10\end{array}$ | 2.75 |  |
| XK11052 | $0-3$ | 175 |  | XK11075 0-15 | 2.75 |  |
| XK11053 | 0-5 | 410 |  | $\times \mathrm{XK11076} 0-150$ | 4.50 | 65 |
| XK11054 | 0-6 | 550 |  | XK11077 0-300 | 5.50 | 3.23 |
| XK11055 | ${ }_{0}^{0-8}$ | 175 |  | XK11079 0-750 | 7.75 | 4.56 |
| $\begin{aligned} & \times K 11056 \\ & \times K 11057 \end{aligned}$ | $\begin{aligned} & 0-10 \\ & 0-15 \end{aligned}$ | 2914 |  | XK11080 0-10-140 | 4.50 | 65 |
| XK11059 | 0-25 | 1625 |  | A. C. Am | mete |  |
| XK11060 | 0-25 | 7720 | 1.62 | XK11081 0 -1 | \$2.75 |  |
| XK11061 | 0-50 | 3250 | 59 | XK11082 0-3 | 2.75 |  |
| XK11062 | 0-50 | 15440 | 1.94 | XK11083 0-5 | 2.75 |  |
| XK11063 | 0-100 | 6500 | 88 | XK11084 0-10 | 2.75 |  |
| XK11064 | $0-100$ | 30888 9750 |  | XK11085 $0-50$ | 3.25 |  |
| $\begin{aligned} & \mathrm{X} K 11065 \\ & \times K 11066 \end{aligned}$ | $\begin{aligned} & 0-150 \\ & 0-150 \end{aligned}$ | $\begin{array}{r} 9750 \\ 46320 \end{array}$ |  | A. C. Millia | ammet |  |
| XK11067 | $0-300$ | 92640 | 11.94 | XK11086 0 0-25 | \$2.75 |  |
| XK11068 | - $\begin{array}{r}0-500 \\ 0-60300\end{array}$ | $154400$ | \$2.65 | $\begin{array}{ll}\text { XK11087 } & 0-50 \\ \times K 11088 & 0-100\end{array}$ | 2.75 2.75 | 1.62 |
| XK11069 $\times 10$ $\times 121070$ | $0-60-300$ $0-750$ | $\begin{array}{r} 92640 \\ 231600 \end{array}$ | 3.23 | $\begin{array}{ll}\text { XK11088 } & 0-100 \\ \mathbf{X K 1 1 0 8 9} & 0-250\end{array}$ | 2.75 |  |
| K11071 | 0-8-160 | 50/16220 | - 1.32 | XK11090 0 0-500 | 2.75 |  |
| Readrite D.C. panel meters may be obtained with zero adjustment. Additional cost 15c. Specify zero adjustment when ordering. No 2\% Transportation Allowance on Readrite and Triplett. |  |  |  |  |  |  |

## Air Cell Tester <br> Model 777

 This new tester is a scientifically designed Readrite 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 batteries. A very simple meter to operate as there are but only two leads in making connections. The meter is furnished complete nections. The meter is furnished complete with full instructions and mountedinal leads. XK11040-Model 777 Tester. Shpg. wt. 3 lbs. Your Cost.

## Resonance Tuning Meters



Front or Bottom Front or Bottom
illuminated Typc Illuminated Typc Stock Scale XK11182 $\times k 11183$


Rear Illuminated Translucent Dial Code TM102 $\begin{array}{lr}\text { Stock } & \text { Scale } \\ \text { No. } & \text { M. A. } \\ \text { XK11186 } & 0-10 \\ \mathbf{X K 1 1 1 8 7} & 0-15\end{array}$

High resistance ty pe
milliammeters used in the plate circuit in
sets for visual tuning. Mounted In strong metal case. The circuit metal case. is brought to resonance is brought to resonance when the needle swings
to its furthest position. to its furthest position.
Scale and pointer behind glass covered opening. $6^{\prime \prime}$ cable leads and attachment studs and nuts supplied.
$\left.\begin{array}{l}\text { Your Cost, } \\ \text { Any Type }\end{array}\right\}$ Each. No escutcheon included at the above price.

Escutcheons as illustrated.

XK11292-List Each
$\begin{array}{lll}\mathbf{X K 1 1 1 8 6} & 0-10 & \text { Yoc } \\ \times \times 11187 & 0-15 & \text { Your Cost.... } \boldsymbol{B}^{\circ}\end{array}$


Shadowgraph Code TM120 $\begin{array}{cr}\text { Stock } & \text { Scale } \\ \text { No. } & \text { M.A. } \\ \text { XK11295 } & 0-10 \\ \text { XK11296 } & 0-15\end{array}$ $\left\{\begin{array}{l}-\sqrt{2}+2\end{array}\right.$


Shadow Mount. Code TM108 Stock Scale No. M. A. $\begin{array}{ll}\times 1 & 0-10 \\ \times K 11190 & 0-15\end{array}$

## Resistance

Meter
 Same meter as used in the No. 500 instrument. Flange for panel mounting. Requires 3 small flashlight cells, which with resistare connected in series with meter. Used for testing resistance in radio sets and circuits. Extreme diameter, XKironpg. wt. 1 lb . XK11006-
Your Cost Each $]$ (b) 503 Resistor. 1150 ohms, with jack terminals. For use with 22.5 volt battery to increase reading of N 500 Ohmmeter to 60,000 ohms. XK11165-Your Cost
s 1.03

## Capacity Meter

 Model 8 C0 Used for testing paper condenThe A. meter reads directly in microfarads .008 to 10. upper, . 008to. 25 ; lower, Contains rheostat switch, test leads, and plug for A.C. 60 cycle connection. Metal case 41/7" in diameter, baked enamel finish. Full instructions and charts are furnished for testing from 10 to 400 henrys, and resistances of from 40 to 100,000 ohms. Shpg. wt. 2


# तR\| $\oplus \& \leqslant$ Quality Instruments at BARGAIN PRICES 

## [RIPLIETT <br> Portable Laboratory Model 1181

E00 microampere mover with that provioampere movement, both A.C. and D.C. The coper oxide rectifier is of he copper type permitting the accurate measurement of A.C. voltages. A double pole double throw switch marked A.C.-D.C., enables the use of the meter either with pure D.C. or with A.C. with equal facility. Through the use of a rotary switch the following 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. milliAmperes: $0-1500-1,500,000$ $3,000,000$ ohms. In addition to


## Tripery <br> All-Wave Oscillator Model 1151

> A well designed completely shielded All-Wave Oscillator. Toggle switch controls the generation of either a stabilized modulated or unmoduprincipal of constant level. Its principal use is to align the R.F. stages, oscillator stages, and peak the 1.F. stiges. This Oscillator is a signal generator covering frequencies from $110 \mathrm{K.C}-18,.000 \mathrm{~K} . \mathrm{C}$. These fractional frequencies are covered by an accurately divided scale. A rotary switch provides for
the selection of the four bands.

condenser shaft and screws are at ground potential and there is no radiation of signal other than through the output jacks. Attenuator is especially designed for both weak and sensitive radio receivers. Shpg. wt. 13 lbs.

No. 1150 Conventional Wave Oscillator same as above but covering
frequencies of $110-1500 \mathrm{~K} . \mathrm{C}$. only X $\mathbf{x} 10476$ - $110-1500 \mathrm{~K} . \mathrm{C}$. only.
Your Cost
$\$ 19.60$

## TRIPLETT <br> Universal Volt-Ohm Milliammeter Mode! 1125



As the first instrument to form the heart of a compr as an instrumentory take the place of an older one, no finer Universal Meter can be obtained at so low a cost. The meter tself has a 500 meter ampere movement and ampere movement and
not the usual 1 milliammeter whioh is only half meter as sensitive. The following ranges are available: A.C. and D.C. voltages of $0-15-150-750$, D.C. milliampere ranges are 0-1.5ranges are $0-15-150$. The direct reading ohmmeter has three ranges $0-1500-1.5$ megohms-3 megohms. All ranges are controlled by a selector switch. Shpg. wt. 11 lbs .
XJ10473 Model 1125 . List $\$ 30.00$
Your Cost.....
${ }^{\text {s }} 19.60$
Model 1167 is the same as the above except that it has in addition, XK10999-Model 1167 Tester. Shpg. wt. 17 lbs.
Your Cost
\$24.50


A.C. Milliami Stock No. Ranges XM11353 0-10 Your Cos $\left.\begin{array}{ll}\times K 11354 & 0-50 \\ \times K 11355 & 0-100\end{array}\right\}$ \begin{tabular}{ll}
$\mathbf{X K 1 1 3 5 6}$ \& $0-100$ <br>
\hline

 C. Ammeters $\left.\begin{array}{lll}\text { XK11357 } & 0-3 \\ \times K 11358 & 0-5\end{array}\right\} \$ \$ 10.45$ D.C. Voltmeters $\begin{array}{llll}\text { XK11359 } & 0-150 & \$ 13.07\end{array}$ 

$\mathbf{X K 1 1 3 6 0}$ \& $0-300$ \& $\$ 13.07$ <br>
\hline
\end{tabular}

D.C. Voltmeters
$\mathbf{X K 1 1 3 6 1 \quad 0 - 1 5 0 \quad \$ 1 1 . 4 2}$
$\begin{array}{lll}\mathbf{X K 1 1 3 6 2} & 0-150 & \mathbf{0 - 3 0 0} \\ \mathbf{~} \mathbf{\$ 1 2 . 7 4}\end{array}$
XK11349
$\times K 11350$
XK11351 ters
-

## 5" Case Mirror Scale

 Portable MetersThese bakelite cased, portable models in 5 " price range that have Knife-Edge Pointers price range that have Knife-Edge Pointers and Mirror Scales. The D.C. Ammeters
and D.C. Microammeters are equipped with and D.C. Microammeters are equipped with self-contained shunts. Slypg. wt. 4 Ibs.
A.C. Volimeters Stock No. A.C. Voltmeters
$0-5)^{5}$
$\left.\begin{array}{l}0-10 \\ 0-50\end{array}\right\}$
$0-30$
s 10.45
$\$ 13.40$ Stock No. Ranges Your Cost XK11363 0-1 XK11364 0-5 $\times \times 113650-5$ $\times$ K11366 0-50 D.C. Ammet XK11367 0, 0 .
 D.C. Microammeters $\times \mathrm{K} 11370 \quad 0-200 \quad 513.72$ $\begin{array}{lll}\mathbf{X K 1 1 3 7 1} & 0-500 & \$ 12.42\end{array}$

## TRIPLET

The Perpetual Tester s a combination of No. 1151 All-Wave Oscillator and No. 125 Universal Volt-Ohm- Milliammeter in same case. This tester is built for lifetime whe. It tests tubes while operating in the set.socket, by measuring the gain output. Tests set circuits and

## aigns tuning conden-

sers. Fulfills every testing requirement in the servicemaccuracy satisfies the most exacting needs of the prop. Its substantial oak case with ads up to 3 megohms. Furnished in a Shpg. wt. 20 lbs . List $\$ 45.00$ vable cover. Size $161 / 2 \times 43 / 4 \times 71 / h^{n}$ $\times 10479$ Your Cost Modeli178, Cost In an 1178, same as Model 1180, except with Model 11501001 XJ10480-Model 1178 reading up to 3 megohms. Shpg. wt 20 lbs Your Cost. Model 1178. List 540.00

## NOTE

There is no additional discount or transportation allowance

## Perpetual Tester Model 1180

Oscillator and Universal Meter


Model 1177, same as Model 1178 ,
but in a leatheretto.13 reading oill Shpe XK10998-Mbdel 1177 Your
Cost
Cost
\$23.52

## Model 1200 Dual-Meter Universal Tester <br> A new Dual-Meter Universal Test Instru.

 ment providing separate meters for both A. C. and D. C. measurements. In many instruments using a single meter the meter must be compensated in order to use it for both measurements thus considerably reducing the sensitivity. This disad vantage is therefore effectively overcome in this is therefore Trifectively overcome in thester by using two separate meter movements in a single case. The meter in this model may be tilted to any angle in direct line with the eye enabling the operator to accurately determine the correct reading on the meter and overcome parallax. 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- $1 / 1 / 2$ meg., and 3 meg ohms. A. C. scales: $0-10-100-250-500$ and 1000 V. Only three jacks are used. Two for measuring all D. C. voltages, D. C. milliamperes, D. C. resistances, A. C voltages and capacity. Third jack used when measuring output voltages, contains ${ }^{2} \times 10468$ Your Cost
Model 1210 Tube

## Tester

This model is supplied in a separate metal case with a bakelite panel An emission type tester, ha ving only four sockets for all cubes. A $3 / 2 \mathrm{~d}$ Arsonval meter is used having a scale reading directly GOOD or BAD
values of the tubes. Short and leakage tests of all tube elements. Shpg. W.t. 18 l be. $\times 10448$ Your Cost Oak case for XJ10449
Your Cost

ST 8.60
53.9217
\$21.24


## Model 1230 Signal Generator

The Model 1230 is a stabilized, all-wave continuously variable
signal generator, furnishing fresignal generator, furnishing fre-
quencies from 100 K . C. to 18,000 K. C., either modulated or unmodulated. The clear 400 cycle note is generated by a type ' 30 tube that is used. The second type 30 tube is used in the special frequency stabilized circuit to generate the radio frequency oscillation A $221 / 2$ volt and three
 flashlight batteries furnish the very small a mount of power required to operate the tubes. This permits the oscillator to be independent of line leakage. All individual parts are controlled by the band switch and frequency control knob. Through the use of three output jacks and the attequator the variation of att nualign ment, to furnish thpe generator is used for determining frequency alignment, to furnish the signal for aligning all types of broadcast
receivers. Shpg. wt. 15 lbs . receivers. Shpg. wt. 15 lbs.
Your Cost. Model 1230 Signal Generator

## 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 elements or socket contacts including chassis.
The jacks are so arranged that the source of external voltage may be applied to any tube element, this permits testing of the characteristics of the latest tubes. Complete with 6 prong plug, 4 , 5 , large 7
prong, and small 7 prong adap-XJ10478-Model 1220 Tester
Your Cost.

\$8. 16


## TRIPLET Precision Meters

 In the design of these moving coil instruments possessing the finest precision qualities, nothing has been spared to make them the leaders in the field. The finest materials; cases of 3 " and 5 " meters are of bakelite with all terminals moulded in and the bearings are genuine sapphire jewels mounted in adjustable screws. D. C. meters are of the d'Arsonval or moving coil type recognized as the most sensitive and accurate form of meter. A. C. meters are of the movable iron repulsion type giving a steady and accurate reading. Accuracy within $2 \%$. Shipping weight for 2 " and $3^{\prime \prime}$ meters is 2 lbs . and for the 5 " meter 3 lbs .


## GUPREME

## Model 333 Standard Analyzer



This is an entirely new Model 333 analyzer,featuring Supreme's latest - fan-type meter achievement with full vision scale and the exclusive Free Reference Point System of Analysis creates a new standard of value. This new Instrument, with self-contained battery, is a combination point-to-point tester and analyzer providing complete resistance, voltage and current analysis, and tube-testing from radio socket. All meter ranges, in cluding resistance and output measurements are applied through the analyzer cable so it is unnecessary
to remove the chassis of the radio or dismantle it to gain access to the circuits for point-to-point tests. All meter ranges are selected by a single 12 -position rotary switch. The four-range output meter requires no adaptors but measurements are accomplished by merely inserting the analyzer plug into one of
the power output tube sockets and setting a switch for output indications. Meter ranges are: resistance 2000-200,000 ohms, D.C mils 5-125 mils, A.C. and D.C. volts of $5-125-500-1250$ volts. Large figures are used for markings of "ohms" range so as to provide easy readibility. The low range $0-2000$ ohms is very useful for all continuity testing, the first division being 1 ohm with the $35-\mathrm{h} m \mathrm{~m}$ marking at the center of the scale. The 0200,000 -ohm rance meets practically all other
servicing requirements. A variable shunt adjustment is provided so servicing requirements. A variable shunt adjustment is provided so
that the ohmmeter remains very accurate within the useful range of the battery employed. Shpg. Wt. 121 bs .
X 110875 - Model 333 Standard Analyzer
Your Cost
${ }^{s} 29.35$

## Model 91 Analyzer



Essentially the same as the analyzer used in the AAA1 diagnometer except that it multimeter. With this analyzer it is possible to make all tests it is possible to make all tests rapidly and accurately due to
the use of a unique switching arrangement eliminating the arrangement eliminating the curate and extremely sensitive meter, with a 320 -micro-ampere movement, is used in the exclusive compensated circuit incorporating the Free Reference Point System. Meter ranges are as follows: $0-2.5-10-25-100-250 \mathrm{~A} . \mathrm{C}$. or D.C. mills.; 0 2.5-10with $-250-1000$ A.C. or D.C. volts; $0-5000-50,000-500,000$ ohms calibrated as low as .002 microfarads. Provision is made to test condenser leakage with output potential of set. Handsome hard wood case with cover. Shpg. wt. 12 Ibs. Your Cost.
s58.75

## New 1934 Standard <br> Diagnometer



Combined TUBE MEGOHMMETER SHIELDED OSCIL LATOR; CAPACITY METER and the NEW FREE REFERENCE
POINT SYSTEM AN ALYZER. The finest and most complete testing laboratory ever edged leader in the field Supreme Multimeter circuit uses the new full wave crystalline rect fer accurately calibrated for the following rances: $0-5-25-125-250$ $500-1.250$ volts A.C. and D.C.i $0-5-25-125-250-500-1,250$ D.C milliamperes. Capacity ranges are: .0025-.125-1.25-12.5 mids Resistance ranges 1 are $0-1,000-10,000-100,000$ ohms. Additiona range up to 1 megohm a vailable by using external 45 -volt battery All readings are directly on dial, no charts necessary
Exclusive Supreme FREE REFERENCE POINT S
Exclusive Supreme FREE REFERENCE POINT SYSTEM of anal ysis. All point-to-point analytical measurements are made by the use of plainly marked tip jacks. An A.C.-operated completely shielded $100 \%$ modulated oscillator with variableattenuator is employed. The oscillator of each diagnometer is individually calibrated for all tuning requirements from $100 \mathrm{~K} . \mathrm{C}$. to $21,000 \mathrm{~K} . \mathrm{C}$. ( 21 megacycles), covering all commonly used intermediate and broadeast frequency bands. Shap wit 29 Gue
XK10957-Standard Diagnometer.
Cour
s97.95

## Model 333 DeLuxe Analyzer

This new DeLuxe series uses the latest $5^{\prime \prime}$ meter in a patented circuit. The new analyzer plug used on this tester in addition to the "top cap" connection also has a to any part of the chassis. This clip is connected through the cable to a "ground" pin jack terminal so as to enable measurements with reference to the "ground" or chassis on the analyzer panel. When using the radio is spread out on the panel like a simplified diagram. A self contained fashlight battery may
 possible connected to any one of five possible grid circuits for tube testing purposes. A selector switch is of $0-5-25-125-250-500-1,250 \mathrm{mils}$; 2 D.C. Miliammeter with ranges $0-1,000-10,000-100,000-1,000,000$ ohms; ohmmeter with ranges of ranges of $0-5-25-125-250-500-1,250$ volts; $4-$ A.C. voltmeterand direct reading capacity meter with ranges of $0-5-25-125-250-500-1,250$ volts and $0-0.125-1.25-12.5$ microfarads. The lowest resistance marking on the ohms scale is 1 ohm with the 35 -ohm marking at the center of the scale. The lowest capacity marking is 0.0025 mid . A new and exclusive circuit is employed for compensating the effects of temperature variations and for utilizing a single d'Arson vas meter for A.C. potential Sho capacity measurements on a single uniformly-divided D.C. scale Xhpg. wt. 14 lbs
Model 333
Model 333 DeLuxe Analyzer
Your Cost
s39.15

## Model 180 Multiwave Signal Generator-90-25,000 K.C.

This Signal Generator is a custom-built instrument using a separately modulated stage frequency at approximately Irequency at approximately $50 \%$ at 400 cycles. Covers an extensive frequency range extending from 90 to 25,000 K.C. ( 3300 to 12 meters), and has a guaranteed accuracy of $3 / 2$ of $1 \%$. Output is calibrated in micro-volts. The circuit utilizes a type 32 tube as an oscillator and a type '30 as modulator. Two filament batteries supply the
 ament voltages, two $22 / 2$-volt " $B$ " batteries supply the necessary plate voltages. The total power consumption is only 0.315 watts. Designed for laboratory use, instrument is housed in an oak case with carrying handles. Shpg. wt. 21 lbs .
X 10878 Model 180 Multiwave Signal Generstor
Your Cost.
${ }^{\$ 58.75}$

## 5" D'Arsonval Meter



## Model 310 Meter

The new Supreme Model 310 , with an $0-1$ mil. movement, is a $5^{\prime \prime}$ d'Arsonval $^{0}$ meter; especially designed and built for universal application in radio testing equipment. The pointer moves over a range which is more than $26 \%$ longer than the usual meter scale. The meter scale has ranges of 0-5-25-125 milliamperes or volts. The fan-shaped bakelite housing is moulded for semi-flush mounting so that it may be mounted in a circular hole just as any ordinary type meter is mounted. Each meter is complete with a circuit diagram showing resistance values enabling the serviceman to construct his own point-to-point tester for A.C. or D.C. A dimensional drawing is supplied with each meter which may be used as a template for drilling a panel. A rectifier for the above may be obtained separately, as listed below.
$\times 10903$-Model 310 Meter X 10903 -Model 310 Meter.
Shpg. wt. 4 lbs
53,24
x 10904 Rectifier for above.
Your Cost
${ }_{5} 2.75$

We carry a compiete stock of all Supreme Instruments. Write for free Catalog describing and quoting prices on all Supreme models. Descriptions are much more complete than those given here due to limited space. Also quotes prices for modernizing your old Analyzer into a new Supreme model.

## 

## SUPREME Model <br> 85 Tube Tester

A complete portable Tube Tester that not only checks tubes for mutual conductance (the commonly used method) but also for leakages. Many tubes, that check good on an ordinary tube checker, have high retube checker, have high re-
sistance leaks between elesistance leaks between ele-
ments. These leaks effecments. These leaks effec-
tively shunt the input and tively shunt the input and
output circuits of the tube output circuits of the tube
and reduce the volume conand reduce the volume con-
siderably. The new model siderably. The new model
Supreme Tube Checker immediately indicates tubes
 having these faults and in
addition makes all the commonly used tests for mutual conductance, shorts between elements, presence of gas, etc. Operation is extremely simple so that even an inexperienced store clerk can readily check any type of tube quickly and accurately. A single large open faced meter s used for both checking of line voltage and for indicating tube condition as either good-bad-or doubtful. Encased in a beautifully finished hardwood carrying case with detachable cover so that the instrument may be used for portable or counter use
Shpg, wt. 15 lbi.
XK10996-Supreme Model 85 Portabl
Your Cost
Counter Model


Essentially the same instrument as the above but mounted in an attractive walnut case espe-
cially designed for use on the counter in stores, or on the bench in the laboratory. Panel is mounted at an angle for easy operation and to permit customer seeing the test made on each of his tubes. This instrument will help you sell tubes.
Shpg. wt. 22 lbs
XKi0994
Your Cost

## Model 61 All-Wave Oscillator

This new oscillator is designed to cover all utilizes the fow funcamental tuning cange of approximately 100 to 250 KC with harmonic signals to $2500 \mathrm{~K} . \mathrm{C}$. and a high furd mental tuning range from approximately 2500 K.C. to 5250 K.C. Harmonic signals to 21,000 K.C. The use of the harmonic tuning principle assures unusually sharp tuning for all adjustments. Using only the fourth harmonic of the $5250 \mathrm{~K} . \mathrm{C}$. fundamental, it is readily seen that a very atrong signal is provided as high as $21,000 \mathrm{~K} . \mathrm{C}$. Tuning is by means of a precision dial with a self-adjusting index. Each oscillator is laboratory calibrated and supplied with a hand-drawn tuning chart drawn to an assures frequency stability. Uses 1 type 31 tube. Tube used in calibration supplied with
 each instrument. The power is supplied Oscillator is completely shiepdown transforme
Oscillator is completely shielded in a cast aluminum case with a bakelite covered aluminum panel and mounted in a beautifully finished hardwood case with a leather handle. A shielded antenna and ground cable is supplled with each instrument. Shpg. wt. 17 lbs . Your Cost
.24.45

## Tube Tester Model 35

In speed of operation and accuracy of test this new checker is a remarkable value at this low price. Indlcates the true condition of all tubes in terms of "rood" or "bad" based on accurate callbration. Line voltage adjustment from 98 to 125 volts. Indicates short-circuited convits. Indicates short-circuited conditions between all elements of all
tubes. It is equipped with the new tubes. It is equipped with the new
assembly is enclosed in a quarted white oak carrying cas
Shpg. wt. 17 lbs.
XK10992
Your Cost
${ }^{s} 29.35$
$\quad$ :29.35

(0)
WESTON Photronic Cell Delivers an electric current when exposed tolight. Current varies with light intensity from microamp. on $\frac{1}{5}$ foot candle to approximately 5 mills. in daylight. "Bakelite case wt. 11 lb . Your Cost
$\qquad$
RCA 868 Photo-Cell

## Caesium type. Operates

 on 90 V. $41 / 8^{\prime \prime}$ long and $1^{3}{ }^{3}{ }^{\prime \prime}$ d diameter.XV19132
Your
Cost

## CATHODE RAY OSCILLOGRAPH

## By Standard Instruments

A complete A.C. operated Cathode Ray Oscillograph designed for Broadcast Engineers, Sound Laboratories and Amateurs. It will check harmonic content over the entire audio range. Will check percentage modulation of radio frequency transmitters. It can also be used-for locating regenerative, oscillatory or blocking conditions in audio amplifiers, etc.
It incorporates: linear sweep over entire audio range, positive frequency locking completeshielding-all aluminum, cathode ray tube shiclded withseamess cylin drical magnetic tube, variable shadow box for use in broad daylight, continuously variable high voltage, automatic power shutoff control, double fused line, and accurate meter measurements for control of
D.C. voltage and sensitivity. Uses 1-906, 1-885, 1-6D6 and $2-523$ tubes. Shpg. wit. 25 lbs . List $\$ 200.00$



## CETRON

## Photo-Cells

## The Cetron Photo Elec-

 tric Cell is the latest development in photo-cell manufacture. It is a product of years of development and the organizumanufacture employ in its thousands of electronic de- vices per day for fifteen years. They have greater sensitivity and longer life and are used as standard equip ment by many manufacturers o talking picture equipment
Type CE1 Caesium cell used in RCA Photophone, QRS DeVry. Sonofilm, Guthrie Sound Equip Your Cost 3 . 2 d. $\$ 7.50$ Type CE7-Caesium Cell used in Theater Equipment, Electric Eye Your Cost.
s7.50

## PESE Photo-Electric Cell and

## Supersensitive Relay



A photo-conductive type cell that varies its resistance from dark to bright light at a ratio of approximately 18 to 1 . Will pass cient current to operate moving coil type relays without amplification. Better results of amplification. Although suitable for many small industrial applications, these units are designed expressly for experimental usc. Relay is sensitive enough to operate with as little as 1 milliampere. Secondary contacts will handle up to 1 ampere. 3000 ohms D.C. resistance, other resistances a vailable. An extremely interesting and valuable booklet giving complete, profusely illustrated instructions for using this cell in experimental and commercisl circuit applications is included with each unit. Shpg. wit. 2 lbs. each. XN14187-Pese Photo-Electric Cell Your Cost
XN14188-Pese Supersensitive Relay
Your Cost

## RHAMSTINE "Electric Eye"



When used in conjunction with suitable "Light Source" (such as one below), the "Eye" may be used as counter, sorter, checker, in alarm systems, window displays, and many other industrial and experimental uses. Consists of a Caesium cell, a heavy duty relay which handles up to 100 watts on is contacts, and an amplifying tube. Housed in neta! case with sliding back, size $5 \times 61 / 2 \times 5 \%$. Shpg. XN14140
Complete "Electric Eye"
Your Cost
$\$ 14.10$

## Light Source

Built to match the "Electric Eye." Consists of a light bulb" $5 \times 61 / 2 \times 44 /{ }^{*}$ averall. Light bulb is adjustable for cabinet 5or use in 110 volts A.C. Comes adjustable for focusing. and plug. Shpg. wt. 6 lbs.
XN14141-Your Cost.
$\$ 6.45$

## Model 665-6 Selective Analyzer



This model analyzer consistsof two units.
One, the analyzer
proper, which is a
Model 665 Type 2
"Pin Jack Model,"
employing a series
of pin jacks in place
of a rotary switch
for the selection of ranges. It has of following ranges, A.C. and D.C. volts: $1,000,500,250,100,50,25,10,5,2.5,1$ : all with a sensitivity of 1,000 ohms per volt. The current ranges are: 1,000, amperes, D.C. only. Resistance readings may be made from 1 ohm to 1 megohm. The customary grid test, including both high and low grid tubes, can be made on the tubes. The A.C. ranges, for ordinary A.C. mersurements as well as for output readings, are obtained through the use of a copper oxide full wave bridge type rectifier. The other unlt is the Model 666 Type l-A Socket Selector consisting of a tester plug with a 4 -foot cable wired to a tube socket in the selector block. The socket terminals are connected as shown by white tracer lines to $p$ in jacks on either end of the block; jacks are also provided for cap and ground lead connection. All jacks are in duplicate except for the and large 7 -prong adaptors.
and large 7-prong adaptors. Shpg, wt. 7 lbs.
Your Cost.
${ }^{s} 40.42$ XI1058s Selector Unit Model 666, Type 1-A. Shpg. wt. 3 lbs .
List $\$ 15.00$
Your Cost
Your Cost.
Xour Cost, Per Pair
${ }^{s} 11.03$

Model 666-Type 2 Condenser Unit
.50 .56 Similar in appearance to Type 666, 1-A Selector Unit. Used to test capacities with Model 665, Type 1 or 2 Analyzers. Shpg. wt. 2 bo. X 10548 -List $\$ 10.50$. Your Cost

Model 665, Type 1 Analyzer
Similar to 665 , Type 2 Analyzer, except with rotary switch in place
of pin jacks. Shpg. wt. 8 Ibs.
$\$ 51.45$

## Model 694 Oscillator



This oscillator, having many improvements in design, gives a clear, sharp signal with approximately $30 \%$ modulation on all bands. In tuned radio frequency sets, us well as in the radio frequency stages of a superhetrodyne, correct aligning of the R.F., I.F., oscillator und detector circuits is easily accomplished, by the use of a separately modulated R.F. signal, controlled as to intensity and frequency. It can be used modulated or un modulated, as controlled by a toggle switch. This oscillator is separately modulated and covers a frequency range of $100 \mathrm{K.C}$. to $3,000 \mathrm{~K}$. C. These frequencies are all fundamentals. By using harmonics of these fundamentals, it is possible to go up to 22 megacycles. The signal from both the now and high output signal ir com both thed by the antenuator thus fording a continuously variable attenuation from a very high max-
inum to a minimum of well below 1 microvolt. mum to a minimum of well below 1 microvolt.
Tour Cost. Model 694, less case. Shpg. wt. 14. T .

## Model 663 Volt-Ohmmeter

This volt-ohmmeter has a 50 -microampere movement. It is conweted into the circuit network by means of a control switch which welects the desired range of the six available ohmmeter ranges, or as a railliammeter or voltmeter for D.C. current and voltage measurements. Phe scale of the indicating instrument is marked $0-1,000$ ohms, $0-2.5$, is 10 vilts and milliamperes. The following ranges are available: $0-5,25,250,2,500,25,000,250,000$ ohms center seale: $0200,1,000$, $10,009,100,000,1,000,000,10,000,000$ ohms full scale; $0-2,5,10,100$, 60, 600, 1,000 volts, 1000 ohms per volt; $0-1,5,25,100$ mill\}amperes full scile at about $500 \mathrm{M} . \mathrm{V}$.
XU10569 Model 663 Voit Ohmmeter. Shpg. wt. 8 lbs . \$4. IO
Your Cost, Less Case

## Model 664 Capacity Meter

Phis is a meter with a wide range of capacity and A.C. voltage measuremenis. Ranges-Microfarads: $10-200,1-20,0.1-2,01-0.2,0.0001-$ perated much like the Model 663 Volt-Ohmmeter. A main switch selects capacity or voltage ranges. Power supply is from a self-conincough a voltage adjuster. This model is complete with test leads and tistructions
${ }_{x} \mathrm{C} 10573^{-M o d e l} 664$ Capacity Meter. Shpg. wt. 9 lbs. Your Cost.
$\$ 40.42$

## The Selective Set Servicer

## Model 698

The Selective Set Servicer has included in it a Weston Universal Volt-Ohm-Millia meter, equipped with a Model 301 instrument, complete Model 666 Type 1-A Socket Selector Set; all necessary leads and a substantialleatherettecarrying case. The meter
ranges are: $750,150,15$, ranges are: $750,150,15$, 7.5 volts A.C. and D.C.
$500,000-5,000$ ohms full $500,000-5,000$ ohms full
scale, $3,500-35$ ohms center scale. (Diagram showing how to increase the voltage range and the ohmmeter range to 5 meg-


$$
\begin{aligned}
& \text { ohms, with external bat } \\
& \text { teries is included with thi }
\end{aligned}
$$

teries is included with this tester.) 75-7.5 milliamperes D.C. only. Voltage, current, resistance and continuity measurements ir ay be made in any receiver. Obsolete or Inefficient test equipment can now be replaced with a quality instrument at a moderate cost. The Serviceman's in vestment in a Model 698 will be quickly repaid, not
only in profits, but also in katisfaction and service. Complete with only in profits, but also in eatisf
instructions and tube base chart.

## XJ10598-

Shpg. wt. 11 lbs .
s33.80

## CARRYING CASES

## FOR SINGLE AND MULTIPLE UNITS

Single unit cases are available for individual units with a space for test prods and test equipment.
XJ10574-Single Unit Case. Specify type unit case to be used
Shpg. Wet. 3 Ibs
Multiple unit case are avilable for carying five unita a space for test prods and tools.
XJ10575-Multiple Unit Case.
Shpg. wt. 10 lbs.
${ }^{s} 11.03$

## Model 564 Volt-Ohmmeter



A amall compact Volt-Ohmmeter with ranges of $0,3,30,300,600$ volts and $1,000-100,000$ ohms. Supplied with self-contained battery and 50 " test leads. A control is provided to compensate for drop in battery voltage. Two compensate for drop in battery voitage. loggle switches select ohmmeter ranges and Bakelite case size $51 / 2 \times 3^{3 / 4} \times 3^{\prime \prime}$. Shpg. wt. 3 lbs. XJ10554-Model 564 Volt-Ohmmeter, Type Y. Y . Cost.
$\$ 22.05$
XJ10580-Same, with 1 Meg. range added.
Type 3B.
Type 3B.

## Model 571 Output Meter

A five-range copper-oxide rectifier type voltmeter in a bakelite case. Ranges of 150,$60 ; 15,6$ and 1.5 volts are brought out to pin jacks through a dial switch. A self-contained condenser fcr blocking any D.C. component is brought out to a separate pin jack for use when desired. Furnished with long test leads with clips for connection to speaker voice coil and an adapter for connections at the tube socket.
Shpg. wt. 31bs.
$\times 10553$ Your cost. XJ10553-Your Cost.
Model 695 Power Level and Voltmeter
This instrument was designed for power measurement work in servicing all types of sound equipment and radio receivers where readings are desired in decibels. The meter is for a 500 ohm load. The voltmeter has the following ranges: $11 / 2,6,15,60,150$ volts. The Db. scales on the meter are: $-10,-0,-6 \mathrm{Db}$. A special T. P pad with eleven positions allows a maxi mum rance of -18 to +38 Db ., or a spread of 56 Db. Shpg. wt. 6 lbs.
X $\$ 10594$
Your Cost
NOTE:


NOTE: Wo can supply special slow o



## Model 301

D. C. Instruments

Permanent magnet moving coil type. Accurate within $2 \%$. They
gre supplied as Voltmeters, Voltare supplied as Voltmeter, Volt-
Ohmmeters, Ammeters, Milliammeters and Microammeters. Weight approximately 8 ounces.

## Model 301

D. C. Voltmeters

Approximate resistance in ohms per volt: 1 to ${ }^{40}$ volts, $62 ; 50$ to 150
volts, $200 ; 200$ volts, 250 volts, 300 ; votis, 200 ; 200 volts, 250 volts, $300:$ volts, 66; above 2000 volts, 100. Extreme width $34^{\prime \prime}$. Diameter of
barrel 2 barrel 21/6".

## $\stackrel{\text { Stock }}{\mathrm{N}}$



## MODELS 301

D. C. AMMETERS

## MODELS 476

## A. C. VOLTMETERS

 Movable iron type for A. C. onlyThey are accurate within $2 \%$. Stock Approx. Ohms Your


Model 506
D. C. Voltmeter

| Stock No. | Volts | List | Net |  |  |
| :---: | :---: | :---: | ---: | :---: | :---: |
| X $J 10799$ | 10 | $\$ 7.50$ | 55.51 |  |  |
| X $\$ 10801$ | 50 | 7.50 | 6.54 |  |  |
| X 10802 | 100 | 8.50 | 6.24 |  |  |
|  | Mode 1506 |  |  |  |  |

D. C. Milliammeters


## Model 506 Ammeter



## Model 517

A. C. Voltmeters Movable iron type for A. C. oaly. Stock No. Volts List Net $\times 310844$



## (2) METEP <br> ACC

"Van" A. C. and D. C. Shunts and Multipliers

Accuracy Limits 2\%


Special VAN Multipliers for 1000 Ohm Copper Oxide Rectifiers

Measurements are calibrated at half scale on a 1 Mil. $50 \mathrm{M} . \mathrm{V}$. Weston 301 meter. 50 -volt and over ranges are read on the regular $D$. C. scale. Ranges of 5 and 10 volts require the correction markings as used on the A. C. scale of the No. 4 VAN Dial.

| Stock <br> No. | Range | Resls. <br> Ohms | Your |
| :--- | ---: | ---: | ---: |
| XK10905 | 5 V. | 3,200 |  |
| XK10906 | 10 V. | 7,500 |  |
| XK10907 | 50 V. | 41,000 | 58 |
| XK10908 | 100 V. | 84,000 | 50.73 |
| XK10909 | 250 V. | 212,000 | 0.88 |
| XK10917 | 500 V. | 425,000 | 1.18 |
|  |  |  |  |

For 1,000 V. acale use two Cat. No. XK10917 resistors in series

## Multiple Shunts



For 1. Mil. D. C. Model
$=0$

| Stock | Milli- | Stock | Milli- |
| :--- | :---: | :---: | ---: |
| No. | amps. | No. | amps |
| XK10910 | 5 | XK10913 | 50 |
| XK10911 | 10 | XK10014 | 100 |
| XK10912 | 25 | XK10915 | 500 |

For Triplett Meters, $30 \mathrm{M} . \mathrm{V}$. Each,
Your Cost
$83^{c}$

| Stock | Milli- | Stock |
| :---: | :---: | :---: |
| No. | amps. | No. |
| NK10960 | 5 | XK10963 |
| XK10961 | 10 | XK10964 |
| XK10962 | 25 | XK10965 |

For Weston 301 and Beede 50 M. V. Meters

Each
Your cost

| Stock | Milli- | Stock | Milli- |
| :--- | :---: | :---: | ---: |
| No. | amps. | No. | amps. |
| XK10918 | 5 | XK10921 | 50 |
| XK10919 | 10 | XK10922 | 100 |
| XK10920 | 25 | $\mathbf{X K 1 0 9 2 3}$ | 500 |

## Series Tapped Shunts



XK10916-For
Mil. D. C., 27 M. V
Tapped $10-100 \mathrm{mils}$.
Your
Cost ST. 47
XK10924-For Universal 301, 50 M. V. Each, Your Cost................. 5.76

Silver Plated Metal Meter Dials


Metal dials, heavily silver plated, with scales etched on in black. Will last indefinitely. For use with Jewell, Weston and Beede meters. Specify type of meter when ordering.
XK10946-Dial No. 1. XK10948-Dial No. 3. XK10947-Dial No. 2. XK10949-Dial No. 4. List Price, Each $\$ 0.75$.
Your Cost
Each.

## WESTON Rectifier Type A.C.-D.C. Meter <br> Model 301 <br> Designed for use with external resistances and shunts for measuring D.C. voltages and current and A.C. voltages. Of the permanent magnet moving coil type with a oxide rectifier for A.C. measurements. Selfand 1 mill. A. C., and 50 millivolts and 1 mill. D. C. Accurate to within $2 \%$ D. C. $-5 \%$ A. C. X List S19.00 <br> ${ }^{5} 14.25$

WESTON 0-1 MILL, D. C.METER Type 301. Same construction as the above meter. List $\$ 10.00$.
XJ10675-Your Cost
57.50

## TR1مLEET <br> $3^{\prime \prime}$ Universal <br> A. C.-D. C. Meter

Uses a copper oxide rec-
tifier in an advanced tifier in an advanced circuit that minimizes tion. With multipliers, scale readings are $0-15-150-750$ volts A. C. or D. C. at 1000 ohms per volt. resistance. D. C. miliampere readings are $15-150$. 0 hms megs. Comes complete with D.P. D.T. switch merss. changing from A. C. to D. C. Accuracy on for changing from A. C. to
D. C. $2 \%$; on A. C.- $5 \%$. D. C. $-2 \%^{2}$ List $^{515.00}$ List $\$ 15.00$ Your Cost

5000
TRIPLETTO-I Mill. D.C. Meters


## Littelfuses for Test

## Instruments

Designed to insure and
protect meters and
other expensive e juip-
ment. Are dependable
and accurate. Has many laboratory uses. Breaks circuit immediately on reaching maximum milliampere load. Length $1^{\prime \prime}$, diameter $1 / 4{ }^{n}$


## Littelfuse Mountings

These attractive mountings have a base of moulded bakelite. Are fuse clips, slotted to fuse clips, slotted to hord fuse rigid. ris phosphor bronze. Base
is $1,6 x^{3} x^{2}$ - Your Cost Each

## Littelfuse Panel Type

## Mounting

For sub-panel use. Studs are $1^{*}$ long and have 6-32 thread. For 1 * fuses only. Base of fine bakelite. Size $1^{3}$ 16x $3 / 2 x^{3} / s_{s}^{\prime \prime}$
$\times N 12382$
Your Cost Each....

## Fusible Jack

For Meter protection. Mounts
directly on binding post. Instrument Fuse mounted inside barrel easily renewable.

XN12384-
Yost
Cost.
Cost


## Fusible Binding Post

Knob is made of highly polished white essence of pearl. Fuse is replaced by unscre XN12374
Your
$45^{\circ}$

## "Taurex" Copper Oxide Rectifier

For D. C. meter conversion. Converts D. C. milliameters of 15 M. A. or less to
 A. C. milliameters.

## With proper resistors

can measure up to 1000 volts. Only $3 / 4 \times 35^{\prime \prime}$.
Full instructions included. Shpg. wt. 1 lb.
XJ10570- Each . . . . . . . . . . . . . $\$ 15$
Meter Mount for $\mathbf{3 1} / \mathbf{4}^{\prime \prime}$ Metal or Bakelite Cased Meters
This mount is a very useful device to have around the shop or laboratory. Mounts tion. Shpg. wt. 1 lb .
X $10590-2$ bizding posts. Your Cost.
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## FiUSE SOCKETI COONEETORS S

Radio and Auto Fuses
 $20,25,30 \mathrm{amp}$
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## Cartridge Fuses

 STANDARD PPROVETYPES
XM13205-20 Ampere
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Carton of 10


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## Guaranteed to act

 promptly at their rated load. Crystal mica window makes to be confused with the ordinot cheap type of plug that often comes apart when insertingXM13200-6 a mp.
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High Voltage Littelfuses


Efficient, renewable type fuses Multi-break fuse wire blows each $1 / 2$ of its length. R
at $50 \%$ a bove rating.

## For Radio Sets and Amplifiers



Designed for protection of radio receivers. Used in power supply
line. A pproved. Size $1 / \times 1$,

1000 Volt 5000 Volt Stock Your Stock Your No. Cost Amps. No. Cost

 XN12353 21c
XN
KN12362 39c
XN12363 39c XN12354 21c $1 / 2$ XN12364 39c XN12355 24c \% XN12365 39c XN12356 24c 1 XN12366 45c XN12357 24c 11/6 XN12367 45c XN12358 24c $2^{(12}$ XN12368 45c 10,000 Volt Type- $10 x^{13} /$ /r $^{\prime \prime}$ Stock No. Amps. Your Cost XL12346 XL12347 XL 12348
$\times 112349$ KL 12349
$\times 112341$

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No. Amp XN12378
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Anto Radio Fuses
Similar in appearance to the above. Are specially designed for auto seta. Have resistance of approxfard radio fuses lher than standance is very important pow resistance is very important, particularly when used to protect vibrator type eliminators

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A special fuse holder designed for use with auto radio sets. Two plece connector of heavy metal, spring contact assures perfect con spring contact assures perfect connection at all times. 21/2" long.
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 Clips only for a bove.
$\mathbf{X L 1 2 3 4 0 -}$
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For auto radio sets. Two-piece fibre ingide iner, ul spring contact inlation. Powerful spring contact insures perfect electrical connection. an ares a neat installation, and is xpic74 XR16714
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A new type o
fuse that has neon light which glowstoindicate blown fuse. The indicator lamp indicator lamp is so protected element that no current surge within the limits marked on the in dicator will injure the lamp. Noex posed "live" parts; the person re placing the defective unit cannot come in contact with the electri current. Available in 10-15-20-25 and 30 ampere sizes. Specify size When ordering
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$24^{\circ}$
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Composition base, nickel plated brass contacts. Single hole mounting. Solder lugs.
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Punched out of copper and nickel plated. Has manv uses. XL12377 Your
25


## Bakelite Cable Plugs



Long handied type. Of moulded bakelite. Body $212^{\prime \prime}$ long. Base screws ily removable. Ideal for analyzerorspeakerplug. Standard socket prongs. Standard socke
Shpg. wt. 1 lb .

$\mathbf{X K 1 1 7 1 5}$
$\times 611716$
$\times K 11717$
$\times K 11717$
$\times K 11718$
XK11718
$\begin{array}{lll} \\ \times K 11719 & 7 \mathrm{~L} \longrightarrow 2\end{array}$

## Rubber Capped

Male and Female Plugs


## NA-ALD Bakelite Tube Sockets

Base Mount Types

springs. Fitted with binding posts All connections marked. Makes a neat appearing job


Composite Sockets Moulded Eared type. ing centers Saves space.


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Each,
Any Type.

## NA-ALD ADAPTERS3

New! NA-ALD Small 7-Prong Analyzer Plug and Associated Adapters 907WLCAP


A complete cable, plug and adapter axsembly that will bring your analyzer up to date Cable has small 7 prong lateh-lock plug at one end, and an 8 contact plug at the other. Eight prong other. Eits into an 8 prong "ear type"sockprong "eartype" socket, designed to mount on analyzer panel. All
adapters marked with adapters marked with patented color rings
which instantly locate heater prongs. Cable provided is five feet long and contains eight wires (one extra lead). Shpg. wt. 1 lb .

## Speaker-Phones

## Switching Adapter

955 PSC

Tube Leakage and ShortTesterNo.9SC

## Tests 4,

Testa 4,
small and
large 7 prong large 7rong inter-element leakages up to 1 megohm and shorts. Neon
 tube glows to show defective tube, Jacks provided for using tester as continuity meter. Circuit is so ar-
ranged that test lead may be grounded without harm to instrument. Comes complete with neon lamp, cord and plug, and grid lead. For
use on 110 volts, A. C. or D. C. use on 110 volts,
Shpg. wit. 2 lbs.


## Universal Earphone

 AdapterUsed with any radio to connect earphones to power
tube or audio amplifier. Simply clip to chassis or ground, and slip
 Adapter
No. 9GT Connects in the control grid cir cuit of any tube and can be used checker to detect gassy tubes. Picks -ut those elusive "fading" tubes and erratic A. V. C. tubes by noting any change in meter reading when butKKis pressed. Shpg.wt. $11 \mathrm{lb} .88^{c}$

## Output Meter Adapter

 Used for connecting Output Meter to plate prong of any tube. 5 foot lead. Fully insulated. Tip jack one end. prong otherXK11603
Your Cost

## Tube Bases

Moulded, polished black bakelite. Standard size. Hollow brass prong, polished nicke! finish. Easy to solder leads on inside of prongs. Shpg. wt. 8 oz .
XK11599-4 prong $\left.\begin{array}{|cc|}\mathbf{X K 1 1 6 0 0} & 5 \text { prong } \\ \mathbf{X K 1 1 6 0 1} & 6 \text { prong }\end{array}\right\}$ Each XK11601-6 prong XK11602
Each.
$\mathbf{7}$ prong

Bring Your Set Up-To-
Date By Substituting
New Type Tubes


Listening-in Adapters


## Universal Testing Adapters

Have break in the plate circuit with connections by cord tip jacks. Filament, grid and cathode connections also have connections by cord tip jacks, enabling you to make many tests through the use of this adapter Many old type analyzers can be used for testing the new tubes merely by using the correct style $c$ t test adapter. They are also indispensable for use with the Universil type of A.C.-D. C. Volt-ohm-
XK11560-944PTT 4 prong. XK11561-955PTT-5 prong. XK11562-966PTT-6 prong. XK11521-977PTT-7 prong large. XK11522-977PTTA-7 prong List 90
Your Cos
Any Type.
Neutralizing Adapters
Used in balancing neutralizing condensers in sets. One flament is dead, enabling you to use Shpg. wt. 8 oz. List 60 c
XK11565-4-prong


XK11566-5-prong955 N


Your Cost Each



Universal tube checking adapter that adapts your old tube check, so that it will test over 100 new types. Tests duo-diode, Wunderlich A and B, both plates of 82 s and 83 's and many others. Comes complete with full instructions and list of tube readings. Shpg. wt. 2 lbs .
List $\$ 5.00$

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$\$ 2.94$
If your tube checker has no fila-
If your tube checker has no fila-
ment voltage switch the 954 SGL adapter must be used on the bottom of the 950XYL. Has UY top and UX bottom. List 75 c XK11615
954SGL
Your Cost
$45^{\circ}$

## $\sqrt{83}$ <br> 965-58 <br> 57-58 Tube Checker Adapter in connection with any tube tester having U socket. 8 oz . <br> List 50 c XK11592 - Your Cost 3

## 977 SM

For changing old, type large hole sockets to new small type. XK11605 977 SM . List 60c
List 60
Your
Cost.

## 977 MS

To use old type 7 prong plugs in the new small 7 prong sockets. Early model 7 prong analyzer will not fit the small sockets. XK11604-977MS.
List 60c
Your Cost


## 975-AB7

For testing small type $2 A 7$ and $2 B 7$ tubes in 24 checker socket, and 6A7 and 6B7 in 36 socket. XK11617-975. AB7 $36^{\circ}$

# Wxig aboratory Iest Drods and Accessories 


per Pair, Complete.
pring prongs at the end of prods allow changing from spade lugs to phone tips or to spring clips. Handles are $6^{*}$ long and 1/ in diameter. Needle point phone tips are used for
piercing through insulated wire for good contact. Five foot black and red flexjble wire. Comes complete with two Alligator Clips, two needle point Phone Tips, and two tapered lugs YM12971 73

## Pencil Type Test Prods

Similar to the above prods but without the interchangeable feature. Two Types - with permanently fastened Allinator Clips-and with Xermanently fastened Phone Tips. XM12882-Alligator Clips Your Cost XM12883-Phone Tips Your Cost


## Laboratory

 Test ProdsImproved type. Has bronze tip with needle point and heavy body. Answers twofold purpose of needle prod and phone tip prod. Handles 5 long and are extra heavy.
Red and black leads 6 ft. long. Shpg, wt. 8 oz
XM12978-With Spade Tips.
X M12979-With Phone Tips. Your Cost (either type) XM12980-With Spring cilips Your Cost

## Phono-Needle

 Test ProdsSturdy handles with chucks for
 one red, one hlack. Shpg. wt. 8 oz XM12975-Spade Ends. XM12976-Pin Tio Ends.
Your Cost (either), Per Pair XM12977-Spring Cilip Ends. Your Cost, Per Pair


## Short-o-Tester



Contains $23 / 2$ volt lamp and small flashlight battery. Indicates closed or open circuits when its flexible lead and pin terminal are introduced into the circuit. May also be used as trouble flashlight. Complete with battery and bulb. Shpg. wt. 1 lb . XM12984-List $\$ 1.50$
Your Cost Each.
$\because 0$
BRACH NEON Test-O-Lite

With this new Test-O-Lite you can find blownout fuses immediately' Will check any voltage between 110 and 550 volus-either A. C. or household appo check spark plugs, radio sets, household appliances, etc. Neon lamp pro-
tected by moulded bakelite case. Handy pocket size. $31 / 2^{\prime \prime}$ heavily insulated leads.
Your Cost.
$\$ 1.10$

## Trutest

Servicemen's Kit


A complete 24 piece Kit of test and repair tools including: two $6^{\prime \prime}$ bpintype wrenches ( ${ }^{\prime \prime} /^{\prime \prime}$ and $1 / /^{\prime \prime}$ ), two $9^{\text {" }}$ spintype wrenches ( $(3 /)^{\prime \prime}$ and $1 /$ " $^{\prime \prime}$ ) two 7 " "offset" spintype wrenches ( $1 / 4$ " and drivers, three assorted size flat type wrenches, one length each ( $72^{\prime \prime}$ ) red and black wire. one assortment of red and black test parts including test prods, alligator clips, etc., and one box of歽s M12888 XM12888-
Your Cost, Complete
Kit.......................

## AMERICAN Testing Kit

Combines a complete line of solderless andinterparts for all parts for all ing. Two long ing. Two long sulated test prod handles, two plug-in
 plug-in lacks.
two insulated tapered type lugs, two insulated needle point phone tips, swo insulated alligator clips. Made up in red parts for positiv Shpg. wt. 1 b Shpg. wt. I lb.
$\times 12972$ - Your Cost, Special $\$ 1.35$

1CA Neutralizing and Aligning Tool Kit


For any adjustment on all types of receivers. Contains alligator side wrench, $6^{n}$ insulated screw driver, metal nib; 3 价" and 14 "nut wrench. $33^{\prime \prime}$ square nut insulated Wrench, $1 / 6^{\prime \prime}$ hexagon metal
side wrench and $235^{\prime \prime}$ insulated screwdriver, metal nib. $1 / 4$ " hexagon slotted insulated wrench; metal screwdriver: sk" hexagon insulated nut wrench, 5 in insulated screwdriver, metal nib. $6^{\prime \prime}$ insulated screw-XP15089- Shpg. wt. 1 ib Your Cost.... \$2.35


## SUPREME Type Test Prods

Used on latest type Supreme in struments. Rubber guard ring near prod end prevents fingers slipping and touching metal and receiving a shock while testing. Sharp pointed tips. Brightly colored polished handles. Red and black. $50^{\prime \prime}$ leads. Shpg. wt.
2 lbs
XK10980-Your Cost.
$69^{\circ}$

## RCA Tuning Wand

For determining correct alignment


## Neutralizing Tool



Carried in the pocket like a fountain penhas clip for pocket. $1 / 4$ " nut wrench with key slot and neutralizing screwdriver on removable inside rod; "s nut wrench in one end of outside barrel. Madefof durable non-conductive material that will stand hard usage. Shpg. wt. 8
XP14915-
Your Cost Each
$38^{\circ}$

## Attachments for Above Neutralizing Tools <br> Baineut for Majestic Sets

Overall length $2 \% 2$
offset hex nuts that extends tool handle 11/6"
XP15085-
$27{ }^{\circ}$
For Crosley Sets Extends tool $11 / \mathrm{K}^{\prime \prime}$. Has socket in end for stis" square nuts. P15086
Your Cost
$11^{c}$ For Majestic Sets
Similar to Crosley in appearance but has hex XP15084-Your Cost. ...............


Alligator wrench with $\%$ " opening. Securely fastened to extra strong high insulation rod size $1 / 4 \times 41 / 6 "$. Hardened steel serew driver blade.
XP14921-
Your Cost

## Neutralizing Tool Set with

 Metal Nibs
## 

Polished black bakelite handles. Two tools, One consists of a $1 / 8^{\prime \prime}$ diameter $6^{\text {" }}$ long tube on each end of which are heavy brass nickel plated socket wrenches for "/ " and $1 / 3$ " hex and consists of the fits inside the first tool which has a of a ${ }^{7} \mathrm{~m}^{\prime \prime}$ solid rod, one end of Which has a strong screw driver blade, the XP15083-Your Cost .................. $5^{c}$

Four-in-One Neutralizer Compensator and "Tool Kit"


Combines in a fountain pen size compact tool that can be carried in your vest pocket, $1 / 4^{\prime \prime}$ and nut wrenches, miniature blade serew driver for neutralizing and a full size insulated handle general purpose screwdriver. Made of fine quality extra strength fiber. When closed, no sharp points are exposed to tear elothing.
XP15082
Your Cost
$75^{c}$
Neutralizing Screw Driver

Bakelite knob, diameter $1^{\prime \prime}$ fastened to $1 / /^{\prime \prime}$ hard rubber rod projecting $3 \$ / 3^{\prime \prime}$. Hardened screwdriver hlade

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each unit is furnished with a schematic diagram showing each unit is furnished with
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. Even power transformers of current model receivers using the ' 82 rectifier can be replaced with Trutest Power Transformers of the flush mounting type. For a man who is building a set, the flush type of mounting is recommended as furnishing the more finished appearance. For replacement work however the horizontal type of mounting will in general be found to be the more practical. Always order a transformer large enough to fill your needs.

Special Midget Transformer
For 4 and $\$$ Tube Sets
For Three Heater Tubes, One Power Tube and One 80 Rectifier
MOUNTING AREA: $3 \times 2$ n". $^{\circ}$.
MOUNTING DIMENSIONS: $21 / 2 \times 2^{\prime \prime}$
PRIMARY: 115 volts, 60 cycles.
SECONDARIES: 680 volts. C. T. -50 M .
2.5 volts C. T., 7 amps . (for 3 heaters and

1 power tube).
Flush voits, 2 amps, (for 80 rectifier). Flush mounting type.
Your Cost
Your Cost, Special.
5 and 6 Tube Receivers
For Three or Four $2 \frac{1}{2}$ Volt Heater Tubes,
One 21/ Volt Power Tube and One 280 or MOUNTING AREA: 282 Retifier
MOUNTING DIMENSIONS: $316 \times 21 / 2$ PRIMARY. 115 volts, $50-60$ cycles. (2) 5 volts, 2 (1) (2) 5 volts, 2 amps. (one 280 filament), or
2.5 volts, 3 amps . (one 282 filament). (3) 2.5 volts, 8.75 amps . (one 282 fila ment). 1 power tube).
Shlpping weight 6 lbs
Flush Mounting Type XC1492-Using 280 Rectifier.
XC1498-Using 82 Rectifer.
Your Cost Each...........

Type
Size $3 \times 33 \times 3 \times 3 \%$ Hontal Mounting Type XC1504 Using 280 Rectifier.
Your Cost Each
Your Cost Each.

## 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 $A^{1}$ (A modified Class B ampllfication). MOUNTING DIMENSIONS: $3 \times 3 \%{ }^{4}$. SECONDARIES: $400 / 400$ at 150 M . $21 / 2$ volts C. T. 5 Amp . $21 / 2$ volts C. T. 12 Amp.
5 volts
3 Amp. Flush mounting type. XC1517-Shpg. wt. 10 lbs . $\$ 3$

[^2]
## For the New 6.3 Volt Tubes

Up to Three Heater Type Tubes, One Power Tube and One 80 Rectifier MOUNTING AREA: $3 \times 21 /{ }^{\circ}$ ". MRIMARY: 115 volts $50-60$ : $21 / 2 \times 2^{\prime \prime}$ SRIMARY: 115 volts, $50-60$ cycles.
SECONDARIES: $300 / 300$ volts- 50
6.3 volts C. T., 2 amps, (for two or
6.3 volts C. T., 2 amps, (for two or three
heaters and

5 heaters and one power tube). Flush mounting type. XC1518-Shpg. wt. 3 lbs. Your Cost, Special
${ }^{\text {s } 1.30}$

## 6 and 7 Tube Receivers

 For Three or Four Heaters and Two Power Tubes (6.3 Heaters) or Seven Heaters (6.3) a nd Two Power Tubes (2.5) One 80 or 523 RectifierMOUNTING AREA: 34ㅈ3s"
MOUNTING DIMENSIONS: $21 / 2 \times 31 / 8 "$ PRIMARY: 115 volts, 50-60 cycles. SECONDARIES: $350 / 350$ volts-70 M. A.
6.3 volts C. T., 3 amps. (for 3 or 4 heaters
2.5 volts 2 power tubes).
2.5 volts C.T., 4 amps. (for two power tubes).

5 volts, 3 amps . (for 80 or 5 Zs rectifier). Flush mounting type. XC1519 Shpg. wt 8
Your Cost, Special.

8, 9 and 10 Tube Receivers Up to Seven Heater Type Tubes and Tw Power Tubes (All 6.3) or Ten Heaters (6.3) and Two Power Tubes (2.5), One 80 or 523 Rectifier
MOUNTING AREA: $41 / 53^{3}{ }^{4}{ }^{\prime \prime}$
MOUNTING DIMENSIONS: $31 / 8 \times 21 / 2^{\prime \prime}$ PRIMARY: 115 volta, 50-60 cycles.
6.3 volts C. T
6.3 volts C. T., 4 amps. (for 7 heaters and

2 power tubes).
2.5 volts C . T., 4 amps. (for 2 power trbes).
5 volts, 3 a mps. (for 80 or $5 Z 3$ rectifier). Flush mountings. (for 80 or $5 Z 3$ rectifier).
XC1520--Shpg. wt. 9
Your Cost, Special


For 4 Tube Midget. For 2 Heater Tubes,
1 Power Tube and 1-80 Rectifier MOUNTING AREA: $3 \times 213^{\prime \prime}$.
MOUNTING DIMENSIONS: $21 / 5 \times 2$
PRIMARY: 115 volts, $50-60$ cycles. PRIMARY: 115 volts, $50-60$ cycles.
SECONDARIES: 650 volts C
CECONDARIES: 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 ampsters
80 filament. Flush mtg.
XC1521-Shpg. wt. 4 lbs .
XC1521-Shpg. wt
Your Cost Each.


Experimenters and set builders will find in Trutest Power Transformers a solution to their long-felt wants. Compsctness, ease of wiring and genera! 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. The Flush Mount ing Types designed for use with the new' cores. The Flush Mountspecial interest to those wishing to make use of this latest typrove of

## 6 and 7 Tube Receivers

## Push-Pull Power Tubes

For Three $2 \frac{1}{3}$ Volt Heater Tubes, Two $21 /$ VoIt Power Tubes and One 280 Rectifier MOUNTING ARE : $31 / 6 \times 3^{3} 4^{\mathrm{m}}$. MOUNTING DIMENSIONS: $21 / 2$
SECONDARIES: (1) 700 volts C. T.- 70 M . A.
(2) 5 volts, 3 a mps. ( 280 filament)
(3) 2.5 volts C. T., 3.5 a mps. (2 power tubes). Shipping wolts, 7 amps . ( 3 or 4 heaters).
lush Mounting

## XC1505

Your Cost Each
${ }^{\text {s } 1.65}$
Horizontal Mounting Type Same tube characteristics as above. Mounting centers ${ }^{31 / 8 \times 15 / 3 " .}$ XC1506-
Your Cost Each

## ${ }^{\mathrm{s}} 1.75$

## 8 and 9 Tube Receivers

For Four or Five $21 / 2$ Volt Heater Tubes, Two 21/2 Volt Power Tubes and One 280 or 282 Rectifier
MOUNTING AREA: $336 \times 4 \mathrm{~N}^{\prime \prime}$
MOUNTING DIMENSIONS: $2 \% / 8 \times 31 /{ }^{2}$. PRIMARY 115 volts, $50-60$ cycles.
SECONDARIES: (1) 700 volts C. T. -90
(2) 5 . volts 3 .
(2) 5 volts, 3 amps. (one 280 filament), or (3) 2.5 volts C. 3 amps . (one 282 filament). (4) 2.5 volts. 10.5 amps . ( 5 or 6 heater tubes). Shipping weight 8 lbs . ( 5 or 6 heater tubes).
Flush Mounting Type XC1507-Using 280 Rectifier.
XC1499—Using 82 Rectifier.
Your Cost Each.........

Type Same tube characteristics as above. Mounting centers $31 / x^{\prime \prime}$.
Your Cost Each
10 and 12 Tube Receivers MOUNTING AREA: $31 / \times 41 / 2$ MOUNTING DIMENSIONS: $3 \times 33 /{ }^{\prime \prime}$. SECONDARIES: (1) 700 volts C. T. -110
(2) 5 voits at 3 amps. (280).
(4) 2.5 volts at 3.5 amps .

Shipping weight 9 ! bs.
Flush Mounting Type
XC1509
S
Your Cost.
52.40

Same tube characteristics as above. Mounting


## ZENITH

Models ZE-50, ZE-60, ZE-70 An exact dupli cate of the origj nal Zenith No. 95 67 Replacement Power Trans. former used in the above model reabove model receivers. Furnishes filament and plate voltages for the following tubes: $3-24 s ; 3-27 \mathrm{~s} ; 2$ " 45 s ; and 1 - 80 Shpg. Wit. 9 Your Cost


## ZENITH Models 91 and 92

 An exact duplicate of the original Zenith Part No. 95-100. Has three 23/2 volt windings; one for 6 heater tubes; one for the AVC tube; one for two power tubes. Separate winding for 3-4 volt Mazda pilot Jamp. Flush mounting type. No changes necessary to install. Shpg. Wt. ${ }^{9} \mathrm{lbs}$. Your Cost.s 4.25
Columbia Model S. G. 8


An exact duplicate of the original power transformer for the Screen Grid 8 model Corp. Utilizing, 3 Corp. 2-'27s; and $1-80$ t wt. 15 lb

## $\times 2305-$

GENERAL MOTORS Power


Transformers Model S1A Forchassisnumbers: 216, 217, 219 and 250. Original Part No. 1204245. For $3-35$ ' $\mathrm{s}, 1-24,2-27$ 's,
$1-47$ and 1-80. Shps. wt. 8 lbs.
$\underset{\substack{\text { Your } \\ \text { YC2521- } \\ \text { Yos }}}{ }$ For Model S3A
Chassis No. 252, 253. 254, 265, 256, 257 and 258. Original Part No. 1204179. For $3-35 \mathrm{~s}$, $1-24,3-27 \mathrm{~s}, 2-45 \mathrm{~s}$ and $1-80$. Shpg. wt. 10 lbs . XC2520-
Your Cost
$\$ 3.95$
Special Beavy Duty Transformer An upright mounting unit completely shielded in metal case. Has following secondaries: 350/350 voltes at 125 M.A. (High Voltage); 2.5 volts, C. T. at 8 amps. (For Hesters); 2.5 volts at 3 Hesters) (For Power Tubes); 5 mps. (For Power Tubes); fier). Primary tapped at 110-120 volts for $50-60$ cycles. XC2042
Your Cost.

$\$ 35$
$\times \mathrm{C} 2373$
Your Cost

## BOSCH

Model 48
Built according to the specifications of the original. For sets using 204s. 1-'27. 2-'45s and 1-'80 tubes. Shpg wit. 10 lbs.
XC2260
s3.35
Model 58


Similar in appearance to above, for sets using $4=^{\prime} 24 \mathrm{~s} ; 1$-' $^{27} ; 2$-' 45 s and 1 - $^{\prime} 80$ tubes. Shpg. wt. 10 lbs. XC2261-
Your Cost $\qquad$ s3.35
Similar in appearance to above, for sets using $5-{ }^{-2} 24 \mathrm{~s} ; 1-27$; 2 -' $^{\prime} 45 \mathrm{~s}$ and 1-80. Shpg. wt. 13

SPARTON Models 589,591,
593, and 931
593 , and 9
Sparton No. B2339
Replacement for the above models utilizing 7-C-484s, or 485s; 2-C $182 s$ or C-183s, and 1 C-280
10 lbs.
$\times 1234-$ Your
Cost. $\$ 3053$

## THORDARSON High

## Power Transformer

## For Two '50s, or '10s and Two' 81

 Cased and fully shielded and furnishes " $A$ ", " $B$ " and "C" current to 2 -'60s or ' 10 s and filament and plate voltages to a receiver. Delivers 1100 volts A. C. at 150 mils. $71 / 2$ volts at $3 \mathrm{amps}, 21 / 2$ volts at 7 amps. All connections brought out to a bakelite terminal strip at bottom. All windings are center-tapped. tested at 2500 volts. Size $5 \times 4 \times 4 \times{ }^{\prime \prime}$. Mounting


## THORDARSON T-3740



A subpanel mounting unit for heater type tubes and 245 sin pusiss follows: No. 1-2.5 Es follows: No. 1 -2. voits (5 heaters): No. C. 1 . 5 heacers). No. with C T (2945'g) No 3-750 (2-245's); C. T. at 110 milliam peres (high viltage);
No. $4-5$ volts amperes (280 at
Overall dimensions, $33 \times 3 \frac{3}{3} \times 51 / 2$
10 lbs.
XA223-Your Cost.
$\$ 3.95$

## Stromberg-Carlson POWER TRANSFORMERS



## Models 641

 642,652,654 Exact replacements built of the finest quality materials and designed according to specifications of the original part, both in electrical characteristics and size. For the models utilizing. 3-24s; 1-27; 1-45 and 1 -'80. Shpg. wt. 12 lbs . XC2257-Your Cost. $\qquad$ $1-2$5
54
For Models 846, 848
For models utilizing 3-'24s; 3 -' $^{\prime} 27 \mathrm{~s} ; 2$ 2 $^{-45 s}$, and 2-'80s. Shpg. wt. 14 lbs.
54.20

Stromberg-Carison Filter Inductor Assembly

For Models 641, 642.
652, 654
An exact duplicate of the original Stromberg-Carloriginal replacement part. son replacemet filter chokes, tapped, in one container. Shpg. wt. 6 lbs.

Models $10,11,25$ and 26
Exact duplicate of P-19489. Models 10 and 11 use $4-24 \mathrm{~s}, 2-$ 45 s ; 1-80; models 25 and 26 use 4-'24s; $1-27 ; 2^{\prime} 45 \mathrm{~s}$ and $1-80$ Shpg. Wt. 8 lbs.
XC2370
Your


Models 19 and 20
An exact duplicate of the An einal Stromberg-Carl or Power Transformer gon Power Guaranteed to give the exact specified voltages in exact specified voltages in Lo tapped primary and Lo tapped primary and four secondaries for $1-280$. $2-27 \mathrm{~s} ; 2-45 \mathrm{~s}$; and $4-35 \mathrm{~s}$.
Shpe, wit. 8 lbs .
Xc2371-
Your Cost .
Y


Models 38, 39, 40, 41
Original Part No. P-22529.
1-'57; 1-'56; 2-'55s; 2-45s and 1-'80 use 3-'58s;
12 lbs.
Your Cost
s.95

## Models 37, 38 For replacement in the above receivers; this trans former is guaranteed to give satisfaction; built along the lines of the original, except with a larger safety factor. Utilizes 4-'26s;1-'27;1-’71A;1-'80 Size $5 \times 31$ \% $\times 41 / 6^{\prime \prime}$ wt. 9 lbs. <br> Your <br> Your Cost

Atwater Kent Powzi wehrizotwzis

Models 70, 72, 75, L-1, L-2, H-1, H-2
 An exact duplicate o the original AtwaterKent Power transormer used in the above models. Has the special high voltage secondary windoriginal. Extra heavy duty filament. winding. No changes necessary to install this unit Shpg. wt. 6 lbs .
$\mathrm{XC} 2440-\mathrm{Your}$ Cost


Models 55, 550
This transformer identical to the orignal A. K. park. Uning tubes: $3-24 s ; 2$ - $^{-27 s}$ 2-45s; and 1-80. Size $-45 s$; and 1-80. Size $4 \times 5 x 4$
11 lbs. 111 bs.

XC2446-Late Model
Your Cost
Either 54.2010
Type...
For Models 60 and 60 C
Similar in appearance to above. S $\mathbf{x C 2 2 4 6}$ Your Cost............


## Brand New! Victor

## Replacement Power Transformer Models R-32, R-52, RE-45 and RE-75

This replacement transformer is conservatively rated, there is no skimping no borderline ratings. Through the liberal use of iron, copper and insulating materials, the basic materials in the makeup of this transformer, insures a 2-'45s, and 1-"80. Fully shielded in a heavy gauge case. In order to allow, fit the chassize transformer, the metal container is larger in height but will NO CHANGES NECESSARY Iug arrangement number as the original. UNIT

## Shpg. wit. 13 lbs.

XC2185-Your Cost
\$2. 65

RCA Victor Models R-50, R-55 RE-20, RAE-59 and RAE-79 General Electric (ide32, H-72 Graybar GB-100


Original replacement. Supplies voltages for 7 heater tubes: 2-'47's and 1-80. Shpg. ${ }^{\mathrm{mx}} \mathrm{C} 2190-110$-volt, 60 -cycle. Your Cost
same as above, excent on 220 -volt, 60 -eycle

4.95

## Radiola Models $80,82,86$

Graybar Models 700, 770, 900
General Electric H31, 51, 71
Westinghouse Models WRS, $6,7,8$
Part No. 8556. Genuine replacement. 50 to $60-$ eyc2156-Your Cost............. $\$ \mathbf{5}$
Part No. 8596. Genuine replaceme XC2141-Your $\operatorname{Cost} 181 \mathrm{bs}$. S2. 2.95

Victor Models 35, 39, RE57, RE73 Part No. 10917. Genuine replacement. 50 to 60 -eycle.
XC2195
Your Cost Your Cost
Part No. 10915. Genuine replacement. 25 cycle operation. Shp., wt. 181 bs.
XC2442-Your Cost.......... 95
RCA-Victor Models 140, 141, 240 ${ }_{\mathrm{G}}^{\mathrm{Genuine}} \mathrm{P}$ Part No. 9042. Shpg. wt. 7 lbs . ${ }^{x} \mathbf{C 2 0 1 0}$

## RCA-Victor Midget

 Models R-100 and R-101The Geauine RCA replacement transformer, Part No 9464 For 110 to 120 -volt, 50 to 60 cycle operation. Shpr. wit 5 lbs.
$\underset{Y \text { Your cost } \ldots 1.92}{ }$


RCA-Victor Models RII, 18 and 18A, RAE-26, R-21

## Westinghouse

 WR-15C.E. Model K-62 Graybar GB-9
Original replacement for the above sets. Part No. 7272. Shpg. wt. 9 lbs.

XC2189-
Your
Cost..... 3.95


RCA-Victor R-7 "Superette", General Electric S-22, Graybar 8 Midget


Radiola Models 17, 18, 33, 50, 51 Victor 7-11, 7-25, 7-26 Graybar 311
Part No. 8287-8335. Genuine replacement. 50 to 60 -cycle. Shpg. wit. 9 lbs .
$\times \mathbf{C z} 150$ ${ }^{\text {cout }} 1.45$ Part No. 8340. 25-cycle operation. Genuine replacement. Shpg. wt. 11 ibs.
$\underset{\text { Your cost.. }}{\mathrm{XC2151}} \mathbf{3 . 2 0}$


RCA 44, 46, 47-Graybar 500, 550 Part No. 8472. Exact duplicate of the original Shply wit. 101 lbs .
$\$ 2.65$
Part No. 8473. Exact duplicate of the original For 25-cycle, Shpg. wit. 13 lbs . \$4.25.
$\mathbf{x C 2 1 9 1 - Y o u r ~ C o s t . . . . . . . . . ~}$

RCA 60,62 Graybar Model 340
 50 to 60 cycle. Shpg duplicate of the oricina XC2153-Your Cost. Wt. 10 lbs . \$2.65 Part No. 8350. Exact For 25-cycle. Shpg. wt. 12 lbs.
$\mathbf{X C 2 1 9 1}$ Your Cost.

## Radiola 66-Graybar <br> \section*{Part No. 8483. Exact Graybar 600}

 50 to 60 cycle. Shpg. wt. 131 bs of the original XC2154-Your CostPart No. 8484. Genuine replacemen operation. Shpg. wt. 15 lbs .
XC2193-Your Cost.
Radiola 42 and 48

## Victor 14, 15, 17

Westinghouse WR-4
G.E. Model T-41

Graybar 678, RC-3 Genuine RCA Part No. 8609 for above sets. Shpg. wt. 8 xC2155-
Xour Cost.
$\$ 2.20$ Similar to a bove, for 120 volt, 25 -eycle operation.
 Shpg. wt. 11 lbs.
$\mathbf{X C 2 1 4 3 - Y o u r ~ C o s t ~}$

## s3.95

RCA-Victor R74, R76, RT7, RE-8I Goneral Electric J-105, J-107
Genuine Part No. 8932. Shpg. wt. 8 1bs. Your Cost
s3.95
RCA-Victor Madcls R37, R38, 120 General Electric K-60, K-65 Kenuine Part No. 9005. Shpg. wt. 6 Ibs. ${ }^{\text {Your Cost }}$
$\$ 2.88$
RCA-Victor, R28, RE=40, 110, 111, 215, 210, 310, G.E. K-50, K-54 Genuine Part No. 8985. Shap. wet. 6 lbs.
$\mathbf{X C 2 0 0 8 ~ Y o u r ~}$

## Replacement Power Transformers



## Majestic Model 200

Majestic Part No. 6231. Shpg. wt. 7 Ibs. Your Cost.
$\$ 3.25$

## Majestic Model $\mathbf{3 0 0}$

Majestic Part No. 7321. Shpg. wt. 7 lbs.
$\times \quad$ C2044-
Your Cost
$\$ 3.25$
Majestic Model 310A
Majestic Part No. 7846. Shpg. wt. 7 lbs. XC2045-
Your Cost.

## Majestic Model 310B

Ma jestic Part No. 8365. Shpg. wt. 71 lbs XC2046-
Your $\operatorname{Cos}$
$\$ 2.25$

## Majestic Model 330

Ma jestic Part No. 8717. Shpg. wt. 7 Ibs. XC2047Your Cost

Majestic Model 390
Majestic Part No. 916 K . Shpg. wt. 7 lbs
$\qquad$ $\$ 2.25$ Majestic Model 800 Majestic Part No. 11031. Shpg. wt. 7 lbs ${ }_{\text {Your Cost }}$
\$2.25

## Majestic Model 130A

Majestic Part No. 891. Shpg. wt. 7 lbs ${ }_{\text {Your }}^{\text {Xost }}$
\$3.65

##  Hitzox



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 ment with all wiring out of sight under the base of ight under the base
panel. Av. Shpg. wt. 8 libs. Hook-up furmished All have 110 -volt, 60 -cycle primary.

| Chassis | $\begin{aligned} & \text { Tubes Used } \\ & (1-80 \text {, and }) \end{aligned}$ | $\left\|\begin{array}{c} \text { Philco } \\ \text { Part } \end{array}\right\|$ | Stock No. |
| :---: | :---: | :---: | :---: |
| 20-220 | 3-'24s; 1-'27 ; 2-'71As | 42 | XC1955 |
| 65 |  | 8516 | X X 1956 |
| 76-77 |  | ${ }_{3}^{5117}$ | XC1957 |
| 86 |  | ${ }_{3271}^{3868}$ |  |
| 87 | 4-26s;1-27; ; 2-'45s | 3400 | XC1959 |
|  | -24s; 2-'27s; 2-'45s | 4938 | $\times \mathrm{X} 1961$ |
| 95-96 | 3-2'24s; 3-'27s; 2-45s | 3752 | XC1962 |
| $111-211$ | 4-'24s; 4-'278; 2-'45s | 4446 | - ${ }^{\mathbf{X}} \mathbf{1 9 6 3}$ |
| $111-211$ | 4-248; 4-'27s; 2-'47s | 6594 | X $\times 1954$ |
| ${ }_{71}^{50-91}$ | -'35; 1-47 | 5266 | XC1951 |
| 71-91 | '37 |  |  |
|  |  | 6804 | $\times$ C1911 |
| Any of the above models |  |  |  |

 ALL AMERICAN MOHAWK Lyric 90 ................... $\times \mathbf{\times C 2 2 0 0} \mathbf{\$ 3 . 5 0} \mathbf{3 . 7 5}$

## AMRAD 81 Bel Canto Series

$\qquad$ $\times 2281 \quad \$ 3.95$ 7191
Gloritone $26-A . . . . . . . . ~$ Gloritone 26-1 36 and 37
28-A, 29 and 31
46, 47 and 48. 46,
Case Case 80



ATWATER KENT

## 36, 37 and 38

 40, 56, 57 Complete Pack 2,44,45, 52 Complete Pack 3,46, 47,53 Complete Pack 41 D. C. Complete Pack. 55 and $55 \cdot$ C, Early Types.55 and $55-$ C. Late Types. 60 and $60-\mathrm{C}$
66 Filament Transformer. 66 Plate Transformer
82, 85
82-F, 85-F, 25 cycle
55 and $55-C$, Early, 25 cycle 55 and $55-C$. Late, 25 cycle. 60 and $60-\mathrm{C}, 25$ cycle. 80 and 83

## $80-1$

 84.4-F, 25 cycle. 89-F 25 and
70, 72, 75, L-1, L-2, Ė-1, ї-2 310

## Bosch

$28 \ldots \ldots$.
29 A.
$48 \ldots$.
$60 \ldots$
133.

Model 20

## Model 25

B-10 and B-11.............. BREMER-TULLY

S-14, S-21, S-31, S-81, S-82 25 cycle

## BRUNSWICK

2-KRO, 3-KRO, ${ }^{3-K R 6,} \times 2150 \quad \$ 1.45$ 2-KRO, 3-KRO, etc., ${ }^{25} \times 221513.20$
$\times C 2205 \$ 3.25$ $\times C 2205$
$\times 23.25$

$\times 2485$ | $\times C 2484$ |
| :--- |
| $\times 2.95$ |
| $\times 2485$ | $\times 242063$

$\times 2.45$
$\times 2201$ $\times \mathrm{X} 22073.45$ $\times 22124.40$ XC2208 3.95 $\mathrm{XC2209} 2.75$ $\begin{array}{rr}\mathrm{XC2210} & 3.95 \\ \times C 2211 & 3.40 \\ \times \mathrm{C} 280 & 3.10\end{array}$ $\times C 2480$
$\mathbf{3 . 1 0}$ $\begin{array}{ll}\times C 2480 \\ \times C 2481 \\ 4.40 \\ & \end{array}$ $\begin{array}{rr}\times C 2481 & 4.40 \\ \times C 2482 & 3.10\end{array}$ $\mathrm{XC2483} 3.45$

XC2255 $\$ 2.25$ XB1381 4.75 $\times 813764.75$
$\times 81375$ $\times 81375 \quad 4.75$

$\times 813753$ | X81383 245 |
| :--- |
| $\times 81383$ | XC2449 4.20 $\times C 2446$ $\times \mathrm{XC2246} 4.65$ $\times 2225$ $\times \mathrm{C} 2244$ XC2440 3.25

$\times 248$ $\times C 2447$

3.55 | $\mathrm{XC} 2448 \quad 5.25$ |
| :--- |
| $\mathbf{X} 23$ | $\times \mathrm{C} 2471$ $\times 24736$ $\mathrm{XC247}^{3.75}$ $\times C 2475 \quad 6.45$ $\mathrm{XC2476} 3.88$

$\times C 2477$
$\times 2.90$ $\begin{array}{ll}\mathrm{XC2477} & 5.90 \\ \times \mathrm{C} 2440 & 3.25\end{array}$ $\times C 2378$
$\times 2.95$ XC2254 $\$ 2.95$ $\times \mathrm{C} 23364.15$ XC2260 3.35 $\mathrm{XC2261} 3.35$
$\times 2262$ $\begin{array}{ll}\mathrm{XC2262} & 3.75 \\ \mathrm{XC2202} & 3.25\end{array}$ $\begin{array}{rr}\times 2132 & 3.25 \\ \times C 243\end{array}$
$\mathrm{XC2433} \quad 4.75$
XC2050 $\$ 2.95$ $\times 20514.70$

XC2220 $\$ 3.25$ XC2365 3.95 $\mathrm{XC} 2364 \quad 3.35$

XC2374 6.45 -

## Midget Replacement Power Transformer for

 4 and 5 Tube ReceiversA compact midget type power transformer that can be used for replacement purposes in practically any midget set using from 4 to 5 tubes. It is also an excellent transformer for use in
 transiormer for use in seli-powered short
wave converters and short wave receivers wave converters and short wave receivers Flush mounting type. Has the following secondary windings: 2.5 volts at 7 amps , 5 volts mary 115 volts $50 / 60$ cycle. Size $3 \times 24 \times 13 / 10$ Mounting centers, 21/2x2": Shpg. wt $4 \times$ XC2431-
Your
Cost.

## Step-Down Transformer

220 Volt to 110 Volt


Your cost
For use with Midget Receivers, Dynamic Speakers, or any'other 110 -volt appliance that draws up to 80 watts, Shpg. wt. 6 lbs. $\$ 10.10 .10$.

## RADIART 160 Watt

Variable Step-Down Transformer 200-250 V. to 110-120 V. This transformer has a variable primary. Will continuously. Comes with 16 " of
lamp cord with felamp cord with fe-
male receptacle for 110-120 volt outlet, and 5 ft. lamp cord with male plug Input. Size $33 / 4 \times 31 / 2 \times 4^{\prime \prime}$. Mounting centers $11 / 8 \times 31_{4}{ }^{\prime \prime}$. For use with large radio receivers or other electrical appliances. Permits using any 110 volt A. C. rex c1970-List $\$ 7.50$ Your Cost.

# TRAN 

 GRAYBAR_(Cont.)500 and 550,25 cycle 500 and 550,25 cycle. 340,60 cycle.
678, RC-3, 60 cycle.
$678, \mathrm{RC}-3,25$ cycle.
$678, \mathrm{RC}-3,220$ volt
600,60 cycle
700, 770, 900, 60 cycle. $700,770,900,25$ cycle $700,770,900,220$ volt Midget 8, $60^{\circ}$ cycle Midget 8,60 cycle
Midget 8,25 cycle Midget 8,25 cycle.
Midget 8,220 volt. Graybarette No. 4,60 cycle .$\times 2192 \$ 4.40$ Graybarette No. 4, 25 cycle. Graybarette No. 4, 220 volt XC2153 2.65
ycle.
GB-9, 220 volt.
GB-100, 60 cyrde. GREBE

SK-4.
AC-6.
$\times \mathrm{C} 2235 \quad \$ 3.75$


HS-4, $1-2-1 / 2$ volt Windings. 2 | $\mathrm{XC2155} 2.20$ |
| :--- |
| $\times 2143$ | $\mathrm{XC2143} 3.95$

$\times 2144$ | $\mathrm{XC2144}$ |
| :--- |
| $\times \mathrm{CC} 2154$ | $\begin{array}{r}\mathrm{XC2154} \\ \times \mathrm{C} 2156 \\ \hline\end{array}$ $\begin{array}{r}\mathrm{XC2156} 1.95 \\ \times \mathrm{C} 2141 \\ \hline\end{array}$ $\begin{array}{r}2.95 \\ \times C 2142 \\ \hline 2.25\end{array}$ | XC2187 2.50 |
| :--- | $\begin{array}{r}\mathrm{XC} 2145 \\ \mathrm{X} 2.95 \\ \hline\end{array}$ 4.10

$\times C 2188 \quad 2.25$ $C 2147 \quad 2.65$ $\begin{array}{r}\mathrm{XC2148} 3.70 \\ \times \mathrm{C} \\ \hline\end{array}$ $\begin{array}{r}3.95 \\ \times C 2149 \\ \hline\end{array}$ $\times 2069 \quad 5.25$
$\times C 2190$
$\times \mathrm{C} 21903.45$

AH-1. GULBRANSEN

Series 63, AC-6
KENNEDY
10 and 20
$\begin{array}{r}\mathrm{XC} 2359 \\ \times \mathrm{C} 2390 \\ \hline\end{array}$
KOLSTER
K-20, K-21, K-22, K-23
$\begin{array}{lll}\mathrm{K}-25, & 60 & \text { cycle. } \ldots, \ldots \\ \mathrm{K}-20 & \mathrm{~K}-21, & \mathrm{~K}-22,\end{array}$ K-25,25 cycle
$\times C 2052 \$ 4.75$
$\mathrm{K}-243$ and $\mathrm{K}-48$
K-44.
6-J and 6-K
International $\mathrm{K}-60, \mathrm{~K}-70$. International K-80, K-90. . 70, 71, 72, 7-BP6, Plate Filament, 91, 92, 9-BP6, Plate 90, 91, 92, 9-BP6, Plate 180. 8-BP6, Plate Transf. former 7-BP6. $90-\mathrm{B}$ and $100-\mathrm{B}$
$\times C 2053 \quad 5.95$
$\times \mathrm{C} 2054 \quad 5.35$
$\times 2051 \quad 4.60$
$\times \mathrm{C} 2055 \quad 5.85$
$\begin{array}{r}\text { XC2066 } 3.85 \\ \hline\end{array}$
$\times 20673$
$\times 2.90$
$\times 20683.90$
$\times C 2125 \quad 53.85$

Chassis $15: 151,153,154 \ldots$
Chassis 20:21,22, 23.
Chassis $60: 160: 61,62,163$
Chassis 50:52, $, \ldots, 132$
Chassis 130: 130, 131, 132.
200 Series
95 Series.
130,25 cycle
25,25 cycle
50,25 cycle
60,25 cycle
30, 25 cycle
210,211, $214,21 \dot{5}$.

| Series 20 Electrostatic. . $\times 2140$ |
| :--- |
| Courier $65: 651,652$ and $653 . \times 25290$ |

(1804)RCA Victor R-7 Superette

## General Electric S-22 Graybar 8 Midget

## This RCA Power Transformer used in the

 above receivers. RCA Parts No. 8679. It is sold at a price much lower than the cost of a replacement trans-former and is anteed genuine. Surplies filament and plate
 plies fiament for the followin voltages for the following tubes: $2-35 \mathrm{~s} ; 2$-" 27 s ; 1-24; 2-45s and 1-80. This transformer may also be used for other receivers having similar
tube requirements. Primary is designed for tube requirements. Primary is designed for
operation on 110 to 120 volts, 60 cycles. operation on 110
Shpg. wt. 7 lhs.
Xc2187-Your Cost
s2.50
?

Name of Radio and Model $\begin{gathered}\text { Stock } \\ \text { No. }\end{gathered}$ Your PHILCO

| 15... |
| :---: |
| 20 and 220. |
| 21 |
| 50. |
| 65. |
| 70. |
| 76 and 77 |
| 86. |
| 87. |
| 90 (2-'45s). |
| 90 (1-47). |
| 90 (2-47) |
| 91-121. |
| 95 and 96 |
| 111 and 211 |
| 112 and 212 |
| 500 Series (511). |
| RCA-RADIOLA |

$\times C 1909 \quad \$ 2.95$ $\times C 1955 \quad 2.45$ 2.45
$\times C 1910 \quad 3.50$
$\times 19513.45$ $\begin{array}{r}2.45 \\ \times C 1951 \\ \times 2.456 \\ \hline\end{array}$ $\begin{array}{r}2.45 \\ \times C 1956 \\ \times C 1957 \\ \hline 2.45\end{array}$ $\begin{array}{lr}\times C 1957 & 2.45 \\ \times C 1958 & 2.45\end{array}$
$\begin{array}{r}2.45 \\ \times C 1960 \\ \hline\end{array}$
$\begin{array}{ll}\text { XC1959 } & 2.45 \\ \times C 1961 & 2.45\end{array}$
$\begin{array}{ll}\mathrm{XC1952} & 2.60\end{array}$
XC1953 2.60
XC1911
$\times$ C1962
2.60
$\times 2.45$
2.45
$\times C 1954$
$\times C 1964$
2.60

$17,18,33,50,51 ; 25$ cycle.
$\begin{array}{r}\text { XC2150 } \\ \hline\end{array}$
4,46, 47,60 cycle cycle.
$44,46,47$; 25 cycle
60 and $62 ; 60$ cycle 60 and $62: 25$ cycle 66; 60 cycle.
66; 25 cycle. . . . . . 67 . 60 cycle.
64 and $67 ; 60$ cycle.
64 and $67 ; 25$ cycle.
64 and $67 ; 25$ cycle.
42 and $48 ; 60$ rycle.
42 and $48 ; 25$ cycle.
$80,82,86 ; 60$ cycle.
$80,82,86 ; 25$ cycle. .
$80,82,86 ; 220$ volt. . . . . . . . . .
Superette ( 8 tube), 60 cycle
Superette ( 8 tube), 25 cycle

| X |
| :--- |
| X 2151 |
| $\times \mathrm{C} 2152$ |

$\begin{array}{rr}\mathrm{X} \\ \times 2152 & 2.65 \\ \mathbf{x} 2192 & 4.40\end{array}$
$\begin{array}{rr}\mathrm{XC2153} & 2.65 \\ \times \mathrm{C} 2191 & 4.25\end{array}$
$\begin{array}{r}4.25 \\ \times C 2191 \\ \times \mathrm{C} 2154 \\ \hline\end{array}$
$\times 2154$
$\times C 2193$
$\times 2.45$
$\begin{array}{r}\mathrm{XC2193} \\ \times \mathrm{C} 2157 \\ \hline\end{array}$
$\begin{array}{rr}\times C 2198 & 12.25 \\ \times C 2155 & 2.20\end{array}$
$\begin{array}{rr}\times C 2155 & 2.20 \\ \times C 2143 & 3.95\end{array}$
$\begin{array}{rr}\times C 2143 & 3.95 \\ \times & 1.95 \\ \times 22141 & 2.95\end{array}$

| K |
| :--- |
| $\times 2.95$ |
| $\times \mathrm{C} 21412$ |

Superette (8 tube), 25 cyel. $\times$ C2187 2.50
Superette (8 tube), 220 volt $\times$ C2146 $\quad 4.95$
$\begin{array}{lll}\text { Radiolette ( } 4 \text { tube), } 60 \text { cycle. XC2188 } & \mathbf{2 . 2 5}\end{array}$
Radiolette (4 tube). 25 cycle. XC2147 2.25
Riadiolette ( 4 tube), 220 volt. XC2148 3.70
$\begin{array}{lll}\mathrm{R}-11,18 \text { and } 18-\mathrm{A} ; 60 \text { cycle } \times \mathrm{C} 2189 & 3.95 \\ \mathrm{R}-11,18 \text { and } 18-\mathrm{A} ; 25 \text { cycle } \mathrm{XC} 2149 & 5.25\end{array}$
$\mathrm{R}-11,18$ and $18-\mathrm{A} ; 25$ cycle. XC2149
$\mathrm{R}-11,18$ and $18-\mathrm{A} ; 220$ volt. XC2069
$\mathrm{R}-50, \mathrm{R}-55$ and $\mathrm{RE}-20,60$
R-8,R-10, R-12, 60 cycle ..

| $\mathrm{XC2190}$ |
| :--- |
| $\times \mathrm{C} 2112$ |
| $\mathbf{3 . 4 5}$ |

R-8,R-10, R-12, 25 cycle. . R-8, $R-10, R-12,220$ volt.
R-71, R-72
Bi-A coustic R-78 RCA $74,76,77$, RE-81.
SONORA
A-31...

## SPARTON

| AC-7, 62 and 63.......... XA229 | \$2.30 |
| :---: | :---: |
| $69,79,79-\mathrm{A}$ and $89 \ldots . . . \times$ X 230 | 3.75 |
| 930. . . . . . . . . . . . . . . . . . . XA228 | 1.85 |
| 89-A. . . . . . . . . . . . . . . . XA231 | 6.30 |
| 109 Sparks Ensemble and |  |
| DeLuxe. . . . . . . . . . . . . . X $\times 232$ | 6.90 |
| 101, 110, 111, 574 and 870 . XA233 | 4.45 |

[^3]
## Radiola Models 42 and 48

Victor Models 14, 15 and 17
Westinghouse Model WR-4
General Electric Model T-41 Graybar 678, RC-3
The genuine RCA power transformer for the above receivers, utilizing $4-24 s ;$
$2-45$ and $1-80$ tubes. Brand new and guaranteed RCA Part No. 8609. 110 volt, 60 cycle. Shpg. wt.
 For 120 volt, 25 cycle operaFor 120 volt, 25 cycle ope
tion. Shpg. wt. 11 lbs. $\times \mathrm{C} 2143-$
Your Cost


| Name of Radio and Model | Stock No. | Your Cost |
| :---: | :---: | :---: |
| SPARTON-(Cont.) |  |  |
| 589,591, 593 and 931 | XA234 | 53.85 |
| 301,564 and 570 | XA235 | 5.75 |
| $600,610,620$ and | XA236 | 3.75 |
| 410,420 | XA250 | 3.50 |
| $25,26,30$ and 45 | XA251 | 3.85 |
| 15. | XA253 | 1.75 |

SPLITDORF
M-6 Plate Transformer. . . . . $\times$ A254 $\$ 3.40$ STEINITE
$40,40-\mathrm{A}, 405$ and $45 \mathrm{~A} \ldots \ldots \times \mathrm{C} 2276$ \$3.35 261, 262, Complete Pack.... XC2494 $\quad 7.40$ STEWART-WARNER
 VICTOR

R-32, RE-45, R-52 and


## ZENITH

60 and 70 Series: ZE-50
ZE-60, ZE-70 Power Units. $\times$ C1980 $\$ 3.65$ 35PX, 35APX, 37A: ZE-18

Plate Transformer....... XC1983 3.30 Super-Het, 10, 11 and 12 , 50,60,70 Series, 25 cycle.. $\times \mathrm{C} 1981$ ZE240. XC1988 XC1978 6.25 91,92.
ZE-7 Pate Transformer. ....
ZE-11 Plate Transformer for XC1984 4.25 34-P 35-P 37 A ormer for
$\times C 19763.25$

## Special 4-Tube Midget Transformer

A midget transformer especially designed for use in the popular "cigar
box" midgets. Has the box" midgets. Has the
following windings: $21 / 2$ volts, C.T. at 3.75 amps . for two heater and one power tubes; 5 volts at 2 amps for 80 rectifier.
Primary $110-120$ volts 60 cycles. High voltage secondary delivers 650 volts, C.T. at 40 M.A. Mounting area $3 \times 21 / 2 "$. Mounting dimensions $21 / 2 \times 2$ ". Flush mounting type, for mounting on top of chassis. This building short wave converters or for uge in A.C. powered signal generators or oscillators It is also suitable for use in short weye pre. xelectcrs. Shpg. wt. 41 lbs.
 XC1521-
Your Cost, Special

# Inutequin IERSAA 

## Built for Extra Heavy Duty Service

The most complete line of universal replacement trical characteristics to be right by actual use, and power transformers, with flexible tube combinations nod adjustable mounting justments for all practical quarposes. They are so ingeniously designed and so purpertly built that there is hardly a receiver of stand expertly maike that cannot be honestly and economically ard make that cannot be honestly and economically page. We say bonestly because we know their elec-

## For New Type Sets

## 8 to 10 Tubes

For 5-227's or $2244^{\prime} \mathrm{s} ; 2-245$ 's or 247 's, 1-280. Frimary: 110 volts $50-60$ cycles.
Secondaries: (1) 700 volts C.T. 110 M.A. (plate). (2) 5 volts C.T. 2 amps . ( $1-280$ filament). (3) 2.5 volts C.T. 3.5 amps. (2-245 or 247 filament).
(4) 2.5 volts C.T. 8.75 amps . ( $5-227$ 's or 224 's flament). Shpg. wt. 6 lbs.
110 volts $50-60$ cycles.
$\times$ C1477-Your Cost........ For 110 volts 25 cycles.

Shpg.

## 10 lbs.

 XC1467-$\$ 3.95$
10 to 12 Tubes
For $7-227^{\prime}$ s, or $224^{\circ}{ }^{\circ}, 2-245^{\circ}{ }^{\circ}$ or or 2
Primary: 110 volts $50-60$ cycles. Seconduries: (1) 700 volts C.T. (plate). c) 5 volts. 2 amps . ( $1-280$ filament). (3) 2.5 volts C.T. 3.5 amps . ( $2-245$ 's or 247 's tila ment).
(4) 2.5 voles C.T. 12.25 amps. ( $7-227$ 's or 224's filament). Shpg. wt. 10 lbs. 110 volts $80-60$ cycles. xC1475-Your Cost
${ }^{\text {s } 2.55}$ For 110 volts 25 cycles. Shpg. w $\mathrm{XC1465}$
Your Cost
54.50

Power Transformers


Lehigh transformers are supplied witb side covers on each side and four specially designed removable corner mounting posts. With this
combination practically any type of mounting is possible with a choice of 32 mounting holes Leads are color coded. All have 115 volts $50-60$-cycle primaries.
Either one or both shields may be dispensed with as desired thus making it possible to mount
the transiormer above or below the chassis. XC1800-For 4 or 5 tubes. Secondaries: (1) $325-325$ volts at $50 \mathrm{M} . \mathrm{A} . ;$ (2) 5 volts at 3 Amp.; (3) 2.5 volts C.T at 8.25 Amp .;
(4) 6.3 volts C.T. at 1.70 Amp . Dimensions

XC1801-For 6 or 7 tubes. Secondaries:
(1) $350-350$ volts at 70 M.A.; (2) 5 volts at (1) $350-350$ volts at 70 M.A.; (2) 5 volts at
3 Amp.; (3) 2.5 volts C.T. at 7 Amp.; (4) 2.5 3 Amp.; (3) 2.5 volts C.T. at 7 Amp.; (4) 2.5
voits C.T. at 4 Amp.; (5) 6.3 volts C.T. at 2.7 Amp . Dimenslons $31 / 8 \times 33 / 5 \times 3^{\prime \prime}$ overall. Shpg. wt. 6 lbs
s2.85
XC1802-For 8 or 9 tubes. Secondaries (1) 350.350 at $110 \mathrm{M} . \mathrm{A}$; (2) 5 volts at 3 Amp . (3) 2.5 volts C.T. at 10.5 Amp.; (4) 2.5 volts
C.T. at 4 Amp.: (5) 6.3 volts C.T. at 3.3 Amp. Dimensions $31 / 8 \times 3 / 4 \times 3 / 6^{n}$ overall. Shpg. wt. 6 lbs.
$\$ 3.15$

## Your Cost.

XC1803-For 10 or 11 tubes.
Secondaries: (1) 350-350 volis at 125 M.A.; (2) 5 volts at 3 Amp.; (3) 2.5 volts C.T. at 14 Amp.; (4) 2.5 volts C.T. at 4 Amp ; (5) 6.3 volts at 4 Amp . Dimensions $31 / 8 \times 3 \frac{1}{4} \times 31 / 2$ overall. Shpg. wt.
6 lbs.
Your Cost.
${ }^{5} 3.27$
because we know them to be a quality product of a reputable manufacturer. One each enables you to service over 250 different sets on short notice. The very finest grade of copper, insulation, and steel is used in the manufacture of these products. No skimping, no border line ratings. Especially built over-size to afford a large safety factor. Equipped with solder-

## Physical Dimensions

## $\times$ C1463 XC1476 XC1477

Overall dimensions: $41 / 2^{3} 3^{3} \times 31 y^{\prime \prime}$. Mounting dimensions: $17 / 3^{\prime \prime}$ to $21 / 4 \times 11 / 0^{\prime \prime}$ to $23 / 8^{\prime \prime}$ : or,


## $\times \mathrm{Cl}_{1475}$

Overall dimensions: $41 / 2 \times 3^{3} 4 \times 31 / 2^{\prime \prime}$. Mounting dimensions: $17 /^{\prime \prime}$ to $2^{7}$ 你 $11 / /^{\prime \prime}$ to $27 \mathrm{~m}^{\prime \prime}$; or,
 All 25-cycle universal replacement power transformers are slightly larger in size.
The special mounting bracket on these Trutest Universal Power Transformers affords the serviceman a real high quality replacement that can be mounted in a vertical, horizontal and even a fush position. Hook-up arrangement
is printed on the transformer coil near the is printed on the transformer coil ne
respective lugs, and can not be lost.

## NOTE

We carry in stock at all times, most Complete line of every type and style of power transformers. Spccial power wansformers, requiring difierent type windings, can be supplied at a most rea-
sonable cost, to your own specifications. We will be pleased to quote on large quantities to jobbers and set manufacturers.

## For Old Type Sets

8 to 10 Tubes
For 6-226's, 1-227, 2-171A's, 1-280.
Primary: 110 volts $50-60$ cycles.
Secondaries: ( 1 ) 600 volis C.T. 80 M.A. (plate).
(2) 5 volts. 2 amps. ( $1-280$ filament).
(3) 2.5 volts C.T. 1.75 a mps. ( $1-227$ filament). (4) 5 volts C.T. $1 / 2 \mathrm{amp}$. (2-171A's filament), (5) 1.5 volts 6.3 amps . (6-226's filament). Shpg. 110 volts $50-60$ cycles. $\times$ C1476-


For 110 vol
$\times$ X1466
Your Cost
s 4.25
to 9 Tubes
 Secondaries: (1) 600 volts C.T. 70 M.A. (plate). (2) 5 volts. 2 amps. (1-280 filament)
(1) 5 volts C.T. $/ 2 \mathrm{amp}$. ( $2-171 \mathrm{~A}$ 's filament).
(4) $21 / 2$ volts C.T. 10.5 amps . ( $6-227$ 's or $2244^{\circ} \mathrm{s}$
filament). Shpg. wt. 6 lbs.
110 volts $50-60$ cycles.
XC1463-Your Cost
${ }^{s} 2.30$
For 110 volts 25 cycles. Shpg. wt. 10 lbs.
$\underset{\text { Your Cost }}{ }$
$\$ 4.25$

TMulodt "Moisture-Proof" 28 Watt Power Amplifier
 Tramsformer Designed especially for use in power amplifiers
having ratings up to 28 watts. All secondaries are full voltage. Ratings are conservative and reliable. Entire unit housed in shield can and
equipped with coded leads. Primary $110-120$ volts 60 -cycle. Secondaries; 1200 volts at 250 M.A. center tapped, 2.5 volts ht $8 \mathrm{amps} ., 2.5$ volts at 8 amps., tapped. Shpg. wt. 241 lbs . XN14599 List $\$ 16.00$.
Your Cost, Special.
57.95

15 Watt Pawer Amplifier

## Tramsformer

Though designed for smaller (up to 15 watts) ampliners than the transformer listed above this unit is every bitas reliable and as conservatively rated. Entire unit housed in shield can equipped with mounting lugs. Coded
 leads for easy identification. All secondaries are full rated voltage so essential for maximum effrciency. Prjmary: 110-120 velts 60center tapondaries: 100 at 8 amperes center tapped, 2.5 volts at 6 amperes center tapped, wt. 11 lbs

## XN14598.

Your Cost, Special.

-
5 We can supply transformers to your - specifications for any power amplifier. Write, giving full detalls, for quotations.

## Thutest $-\operatorname{Luxec}_{\mathrm{De}}^{\mathrm{P}} \mathrm{AUDIOS}$



## 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 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 never from within the winding. Coils are
layer wound and carefully tested. Failure 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 enlaboratory controled production. Our en-
gineers are responsible for factory production gineers are responsibie or factory production
as well as design. Shielded in a heavy gauge steel case, with a pleasing black shrivel finish.
Size $2^{1} 4 \times 21 / 2 \times 31 / 2^{\prime \prime}$. Average shpg, wt. 3 lbs .


## Inter-Stage Audios



## Tube-to-Line Transformers

Xc1591-Two 43, 171A, 250 or 245 type tubes to 500 ohm line, 15 ohm winding for voice coil or monitor.
Your Cost
$\$ 3.45$
$\times$ C1592-Two 18, $20,33,41,42,47,69,2$ A5 type tubes to 500 ohm line, 15 ohm winding for voice eoil or monitor.
Your Cost.
s 3.45
Xc1593-Operating out of General purpose Your Cost....................... 500.45 XC1943-Two 2A3 type tubes to a 250,500 , 1000 ohm line.

## Mixer Transformers

XC1587-Input, two button microphone, 200
ohm to grid of tube
Your Cost
52.25

XC1590-Input, two button microphone, 200 ohm to 500 ohm line
S. 75

Your Cost.
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 52.75 xc1944-Velocity ribbon microphone to a 200 and 500 ohm line. Your Cost XC1936-50, $200,600 \%$ m ohm line.
Your Cos
XC1937-Univeral line to Your
Cost.

Un
-
50,200
$\$ 2.75$

## 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 $31 / 5 \times 21 / 5 \times 21 / 4{ }^{\prime \prime}$. Shpg resistance
Wt. 3 Jbs.
$\mathbf{X C 1 5 9 4}$ $\qquad$ .
2.45

## Oatput Coupling Transformers

 XC1930-Single 171A-245-43-50 output to a dynamic speaker 2-8-15 ohm voice coil. $\$$. 2 . 4XC158-Push-pull 45-71A-43-50 output to dynamic speaker 2-8-15 ohm voice coil. Your
Cost
s2.50
XC1931-Single 18-20-33-41-42-47-59-2A5 out-
put to a high impedance magnetic speaker Your
XC1933-Single 18-20-33-41-42-47-59-2A5 output to a dynamic speaker $2-8-15$ ohm voice Your cost.
s2.95
XC158S-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
s2.50
XC1934-Push-pull 2A3-48 output to a dynamic speaker 2-8-15 ohm voice coil.
Your Cost
\$2.50
XC1947-Push-pull Class B 49s (53-79-89) (Class A 38s) to a dynamic speaker 2-8-15 ohra V.C.

Your Cost
s2.50


## Truteat Standard Replacement

## Audios and Chokes

This complete line of TRUTEST Replacement Audios Outputs and Chokes, has been very popular with the radi servicemen in their daily work of replacing defective audio parts of radio receivers. Only the best material and work manship is used in construction of these transformers TRUTEST replacement Audios and Chokes are of medium size, semi-open form, with strap mounting and bottom plate, cadmium plated. Average size $31 / 4 \times 21 / 4 \times 13^{\prime \prime}$. Mounting centers, spaced $278^{\prime \prime}$. Shipping weight 3 ibs.


## Audios

XC1550-Audio, either stage of straight audio amplification. Ratio 3:1
Your Cost
$\times$ C1551-Push-puil Input, from single to 2 grids. Ratio 2.5:1.
Your
Cost.
XC1552-Push-pull Inter-stage, between 2 plates and 2 grids. Ratio 1.75:1. \$1. 05 XC1562-Push-puli Input, Split Secondaries (isolated), between 1 plate and 2 grids. Ratio 1.75:1.

Your Cost.
${ }^{\text {s }} 1.08$

## Special Line Transformer

A special transformer with coil wound on a Frequency characteristics exceptionally fine Frequency characteristics exceptionally fine. XC1565-500
or 250 ohm line to $13-a-1.5$ $2-2.5-4-6-8-10-15 \mathrm{ohm}$ S. 5 ,
voice coil.
Your Cost, Special.........

## Matching Transformers

XC1561-Doubie Button Microphone trans former, 200 ohms each side of $\$$ center-tap.
Your Cost.

Thuteat
Midget Transformers and Chokes


An extremely compact, yet highly efficient series of transformers and chokes particularly suited for use A. C.-D. C. compact radios, They can however be used in any type of recelver or amplifier. Unshielded strap mounting type with rust resisting frame. Dimensions


## Transformers


Xc1620-Push-pull Input, ratio $13 / 4$ Your Cost
XC1607-Single Output: $45,48,71 \dot{1}, 43$, etc, to $5-15$ ohm voice coil.
Your Cost
XC1609-Single Output: $47,59,33,2 A 5,89$ $27,42,18$, etc., to $5-15$ ohm voice coil. S ? Xe1614 etc., to 5-15 ohm voice coil Your Cost
XC1615-Push-puli Output: 47.59. $89,31,20,42,18$ etc., to $5-15$
ohm voice coil. Your Cost. .

## Chokes

XC1601-10 Henry Choke. Resistance 200 ohms, 50 M. A. maximum D. Your
Xc1602 … ........................... ohms, 65 M. A. maximum D. C. Your Cost.

## 

［闌
The Public Address series of transformers de－ scribed below，are designed to satisfy the de－ mand for a popular priced quality line having the many exclusive features associated with Lafayette products．All cases are finished in black egg shell enamel to suit exacting com－ mercial standards as to appearance．Each trans－ former may be fastened to chassis or rack panel with lugs either at top or bottom．The housings are symmetrical physically and similar in con
struction．When grouped in finished equipment they present a thoroughly professional appear－ ance．Every possible check is taken to assure uniform electrical characteristics on all com－ ponents．The multiple tap windince make pos pible a wide combination of impedance cone tions with thens without impairing the audio range o irequency response of any unit．For maximum performance in any audio circuit we strongly recommend Lafayette P．A．Units．


## Overall Dimensions

Mtg．Dim．


INPUT TRANSFORMERS，CLASS B Driver plate to $49,53,79$ or 89 grids．Type mounting． mounting
XE5429－Your Cost Each
s3．30 Driver 46 or 59 plate to 46 or 69 grids．Type A mounting． XC2555 Your Cost Each．．．．．\＄3．30 Push－pull 45 or 59 plates to two 46 or 59 grids． Type A mounting．
$\$ 3.90$
Push－pull Your Cost Each
$10 \cdot 8.800$群 59 plates XC2557－
Your Cost Each
\＄4．50
Push－pull 2 A 3 or 60 plates to two 203 grids． Type B mounting． XC2558 Your Cost Each \＄5．10 OUTPUT TRANSFORMERS，CLASS B Push－pull 49，63，79， 89 plates tol $00,200,16$ ， 8.5 .3 .2
$\times D 5430$

Your Cost Each Push－pull 46 or 54 plates to 500 200．20 3 and 1.5 ohms．Type A mounting．$\$ 4.20$ MIXING AND MATCHING TRANSFORMERS
Mixing 500，200，or $50-$ ohm line to 500,200 ，


## Output Transformers，Class A

 All secondary impedances of the units listed belout are zapped for： $\mathbf{5 0 0}, 250,15$ ， isted below nre rap．Primary 8000 ohms plate to plate．Will match P．P． 50 ＇s， $45^{\circ}$ s， $433^{3}$ ．Single $211,843,842$ ， ${ }^{205 \mathrm{D}, 4{ }^{48} \text { Type } \mathrm{B} \text { mounting．} \$ 4 . \sum^{2} 0}$ Primary 5000 ohms plate to plate or 3000 ohms plate to plate．For 5000 ohms will match P．P． self bias $2 \mathrm{~A} 3 \cdot \mathrm{~s}$ ．Single 59 triode， 71 A or 2 B 6 ． For 3000 ohms will niatch P．P．2A3＇s fixed bias． Type $B$ mounting．
XC2563－Your Cost Each
$\$ 4.20$ Primary 2500 ohms plate to plate or 1500 ohms plate to plate．For 2500 ohms will match four self biased 2A3＇s in push－pull paralle！circult． For 1500 ohms will match four 2A3＇s in push－ pull parallel circuit，fixed bias．Type C mount－ ${ }_{\mathbf{X}} \mathrm{ing}$ ． 2564 Your Cost Each $\$ 6.00$ Primary 4000 ohms plate to plate．Will match Primary 4000 ohms plate to plate．Whill match
four 50 s in push－pull parallel．Type C mount－ XC2579－Your Cost Each ．．．．．\＄6．00 Primary 10,000 ohms or 6000 ohms plate to plate．For 10,000 ohms will match P．P． 69 triodes， 71 A ＇s， 2 B 6 ＇s；single $10,41,268 \mathrm{~A}, 2 \mathrm{~A} 3$. For 6000 ohms will match $\mathbf{P} . \mathbf{P} . \mathbf{S}^{4} \mathrm{~A}^{\circ} \mathrm{s}$ ，or single 31．${ }^{46}$ ． 69 pentode．Type B mounting． X＇ $\mathbf{C} 2592$ Your Cost Each． Primary 4000 ohms plate to plate 4.20 P．P． 48 triodes or pentodes．Type B XC2593
${ }_{\text {Your Cost }}$ Eac

## Input Transformers，Class A

## From one plate to one grid．Ratio 3：1．Type

 A mounting．$\$ 2.70$ From one plate to two grids．Ratio 2：1 each ${ }^{\text {side．}}{ }^{1}$ Split secondaries．Type A mounting． Your Cost Each
$\$ 3.00$
Your Cost Each
2 grids． 1.75 Primary and secondary each in two sections． Type A mounting．
XC2571－Your Cost Each
s3．60 500,200 or 50 ol．m line to single grid．Type A mounting
s3．90 $\times$ C2572－Your Cost Each
54.50 A mounting． 60 ohm line to push－p Xe2578－Your Cost Each
4.50 Single plate or pick－up and carbon mike or low mountin
XC2573－Your Cost Each
\＄4．50
Ribbon velocity mike to one or A mounting．
\＄3．90 Ribbon velocity mike to 500,200 or 50 ohm Rine．Type A mounting．
XC2575．．Your cost Each．．．．．$\$ \mathbf{3 . 9 0}$

## TUBE TO LINE TRANSFORMERS

 From a low level triode plate to 500,200 or 50 ohms．Type A mounting．$\$ 3.90$ xC2576 Your Cost Each

 JEFFERSON Transformers


AUDIOS OUTPUTS
Primary and second ary tapped so tha unit will match the output of any exist－ ing output tube to any voice coil．Full instructions for various types of tubes and voice coils included．Size 13523／7x2＂．Shpg．wt． 2 lbs Xe5432－Type 4
Identical with th
Identi with the above，but with oversized Core．Fin heav duty work．Size $2 \times 2$ ）$\times 2$ Xe5433－Type 467－176．．．．．．．．．I？ Your Cost Each．

UNIVERSAL INPUTS
Can be uspd as straight audio，P．P．input，or double P．P．input transformer．Leads and
 Your Cost Each Similar to the above，but with oversized core XE5435－Type 467－175． Your Cost Each
${ }^{5} 1.18$

## UNIVERSAL CHOKES

Nominal inductance 20 henries．Maximum D．C． 100 M ．A．Resistance 275 ohms ．Tapped ${ }^{13} 4^{3} \times 23^{3} \times 2$ ．Shpg．wt． 2 lbs． XE5436 Type 466－136
Similar to the above，guit with heavy duty Similar to the above， 5 but
COre．Size $2 \times 2^{3}$ 䢟
XE 5437 －Type $466-125$.


## SPECIAL AUDIO <br>  <br> Transformer <br> This compact audio unit can be used in any set，either A．C．or D．C． using straight audio height makes it especi－ sets suited for sub sets of brackets are provided for horizontal or high grade silicon steel．Supplied with flexible leads．Size $11 / 8{ }^{*}$ high， $23 / 8^{\prime \prime}$ wide and $21 / 8^{\prime \prime}$ deep．Shpg．wt． 2 lbs． <br> Your Cost，Special <br> $73^{\circ}$

＂STAR＂SEALED AUDIO This transformer is fully sealed in a sheet metal case that prevents opens due to moisture．Coil machine wound to insure accuracy． Core of silicon steel．Turn ratio 3：1．Size 23／4x23／8x－ minals．An excellent

transformer for uge in practically any type receiving set or amplifier．Has an unusually fine frequency response for unit so small in size．Shpg．wt． 2 lbs ．
XE5462－Type 467－113
Your Cost Each
\＄I．IE

## We can supply any Jefferson product， not shown here，at a discount of 40

 and $2 \%$ srom the list priceAUDIO UNITS
Type 467－403－Straight audio，ratio 1：3．Strap mounting．Size $2 \times 314 \mathrm{x}$－ ${ }^{17}{ }^{\prime \prime}{ }^{\prime \prime} 5443$ Shpg．wt． 2 lbs．


Your Cost Ea．
pull，in put transformer．Ratio 1：3．Strap mounting．Size $2 \times 31 / \frac{1}{4} \times 1 / 8^{\prime \prime}$ ．Shpg． XE5444．

## Your Cost Each

 pp coil．Carries $31 / 2$ watts． Size $2 \times 21 / 4 \times 11 / 8^{\prime \prime}$ ．Shpg．
## Your Cost Each

Type 467－412－Push－pull outpul Mat －P pentodes or triodes to $10-15$ ohms voice coil．Carries 10 watts． 6000 ohms C．T．Size $21 \times 4 \times 21 / 8^{\prime \prime}$ ．Shpg．wt． 3 lbs．
Your Cost Each
$14^{c}$
＂Mike＂and Line Transformers Type 467－413－Single button mike trans former．Turn ratio 1：64．Flat from 30 to 7000 cycles．Size $9 \times 31 / 41764$ Shpgev． 2 1hs XE5447－
Your Cost Each$2 x^{1 / 3} \times 2$ ．Shpg．wt． 3 Jbs．XE544\％Tyue 467－177

Your Cost Each
s． 1.47
Line to tube， 500 or 200 ohms
XE5450－Type 467－178．
s 1.47

## HORDARSON Replacement transformers

## Replacement Audio Transformers

Thordarson Audio Replacement Transformers have estab ished an enviable reputation for dependability 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.
Stock

| Size | List | Your Cost |
| :---: | :---: | :---: |
| 23/8x11/2x2" | \$1.75 | 51.03 |
| 17/8x2 $\times 21 /{ }^{\prime \prime}$ | 2.00 | 1.18 |
| 17/6x2 $\times 27 / 8{ }^{17}$ | 1.75 | 1.03 |
| $2 \times 2 \times 21 /$ | 2.00 | 1.18 |
| 21/6x23/2x3" | 3.00 | 1.75 |
| 244x21/2x3" | 3.25 | 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 coil ranging from 29 ohms to fractions of an ohm, depending on the plate impedance of the power tube used, by means of five secondaries.
$\begin{array}{cccccc}\text { Stock } & & & & \text { Your } \\ \text { No. } & \text { Type } & \text { Mount } & \text { Characteristics } & \text { List } & \text { Cost } \\ \text { XA275 } & \text { R107 } & \text { Fig. } & \text { Universa! } & \$ 2.25 & \$ 1.33 \\ \text { XA276 } & \text { T3399 } & \text { Fig. } & \text { P.P. } & \text { P5 or 71 to V.C. } & 1.75 \\ \text { XA277 } & \text { T5744 } & \text { Fig.03 }\end{array}$ $\begin{array}{llllll}\text { XA277 } & \text { T5744 } & \text { Fig. } 4 & \text { P. P. } 45 \text { or } 71 \text { to V.C. } 2.00 & \mathbf{1 . 1 8} \\ \text { XA278 } & \text { T5701 } & \text { Fig. } 2 & \text { Universa! } & 2.00 & \mathbf{1 . 1 8}\end{array}$ Sizes of above: $17 / \mathrm{T}^{2} \times 2 \times 2 \% \mathrm{~g}^{\prime \prime}$. Shpg. wit. 3 lbs .
*Types R107 and T5701 are tapped output Transformers which can be used on elther 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 P.P. 50 or 45 to V.C. $\$ 3.00 \quad \$ 1.75$ $\begin{array}{lllll}\text { XA280 } & \text { T5746 } & \text { Fig. } 4 & \mathbf{P} . \mathbf{P} .60 \text { or } 45 \text { to V.C. } 3.25 & \mathbf{1 . 9 0}\end{array}$ Sizes of above: $21 / 2 \times 21 / 2 \times 3$ ". Shpg. wt. 3 lbs V. C. means voice coil of dynamic speaker.


Fig. 1


Fig. 2


Fig. 3


## Push-Pull Input Transformers

Thordarson Pushpull Input Transformers are produced with the same skill and care characteristic 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 Mount Reu

| Stock <br> No. |  | -Mount | Ratio | Siz |  | List | Cour |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\times$ X216 | R101 | Fig. 3 | 1-3 | $17 / 8 \times 2$ | $\times 238$ | \$2.25 | \$1.33 |
| XA281 | T3391 | Fig. 2 | 1-3 | 17/8x2 | $\times 23{ }^{\text {\% }}$ | 2.00 | 1.18 |
| XA282 | T5739 | Fig. 4 | $1-3$ | $2 \times 2$ | x23/8" | 2.25 | 1.33 |
| XA283 | T5740 | Fig. 2 | 1-3 | 21/4 $\times 2$ |  | 3.50 | 2.05 |
| XA284 | T5741 | Fig. 4 | 1-3 | 23/2x23 | "3" | 3.75 | 2.20 |
| XA285 | T5742* | Fig. 2 | 1-3 | $21 / 2 \times 2$ |  | 3.50 | 2.05 |
| XA286 | T5743* | Fig. 4 | 1-3 | 21/2x2 | x3" | 3.75 | 2.20 |

*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 operating conditions.

| Stock | Type Mount Inductance Cistics |  |  |  |  | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  |  |  |  | List | Cost |
| $\times$ - 241 | K105 | Fig. 3 | 15 H | 75 M . A. | \$1.75 | \$1.03 |
| XA287 | T5751 | Fig. 2 | 12 H | $80 \mathrm{M} . \mathrm{A}$. | 1.50 | . 88 |
| XA288 | T5752 | Fig. 4 | 12 H | $80 \mathrm{M} . \mathrm{A}$. | 1.75 | 1.03 |
| XA289 | T5753 | Fig. 2 | 10.4 H | $110 \mathrm{M} . \mathrm{A}$. | 2.00 | 1.18 |
| XA290 | T5754 | Fig. 4 | 10.4 H | $110 \mathrm{M} . \mathrm{A}$. | 2.25 | 1.33 |

## Push-Pull Output Chokes

Pushpull Output Chokes were widely used in older receivers using either high impedance speakers or speakers incorporating coupling transformers.

| No |  | Mount | eristics |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| XA291 | ${ }^{\text {R102 }}$ | Fig. 3 | '45 or '71 Tube | \$2.00 | \$1.1 |
| XA292 | T5747 | Fig. 2 | '45-'46-'71, etc | 1.75 | 1.0 |
| XA293 | T5748 | Fig. 4 | '45-'46-'71, etc. | 2.00 | 1.1 |
| $\times$ X294 | T5749 | Fig. 2 | '50-'45-'46-'71 | 2.75 | 1.6 |
| XA295 | T5750 | Fig. 4 | '50-'45-'46-'71 |  |  |
|  |  |  |  |  |  |

## Type R-300 Andio Transformer

The amplification range
has been extended still has been extended still cegister, so that even the deepeat tones now may be reproduced with amazing Ehpg. wt. as R-200. K $\mathrm{A} \mathbf{2 3 9}$-List $\$ 4.00$ Your

## $\$ 2.35$

## Type R-400 Audio

Amplification curve is practically a straight ine from 30 to 8000 cycles. Suitable for either a first stage or in ut stage. Ratio 3 to 1. Size, $41 / 221 / 2 \times 3$ " high. Shpg. wt. 4 bss. XA215-List 54.00
Your Cost.


## T-4304 P.-P. Input

Ratio of 2 to 1. May be used following a screen rid power detector having parallel plate feed. Built primarily for use with $210,245,247$ and 350 types of power tubes in the push-pull stage Size 3 yy $\times 3 \times 3$ high. Shpg. Wt. 6 lbs KA243- I.ist $\$ 4.50$
Your Cost.
s2.64

## T-2408 P.-P. Input

Designed to couple a stage of straight zudio amplification into a stage of power push-pull using any of the existing types of power amplilying tubes. Ratio $1-1$. Size
$21 / x^{21 / 2 \times 3 " h i g h . S h p g . w t .4 l b s ~}$
$\times A 217$-List $\$ 4.00$. Your Cost

Type R-196 Choke
30 H. 85 MA
A lully shielded and finished product by Thordarson. D. C. resistance of 360 ohms. For filter circuits and speaker output coupling. Size, $21 / 2 \times 21 / 2 \times 3$ " high. Shpg. wt. $4 \mathrm{lbs} \$ \mathrm{SI} 76$
$\times A 242-Y$ our Cost.........

5

## Audio Transformers for the

 New Type TubesT5870 Inte
List $\$ 3.75$
XA272-Your Cost
T5872 Outp
List $\$ 3.50$
List $\$ 3.50$ Your Cost
T5873 Output 2A3 P. List $\$ 3.50$
$\times$ X274-Your Cost
T1700 Filter Choke, 28.6 henri Ioist $\$ 4.50$
XA269-Your Cost
$\$ 2.20$ T2353A Swinging Fil r Amplitiers. List $\$ 5.00$ XA259-Your Cost T5289 In put Transforme........2. 94 List $\$ 5.00$ List $\$ 5.00$ Your Cost XA296-Your Cost...............2. 94 List $\$ 5.00$
List $\$ 59.00$ Your Cost
S2.94 Tist $\leqslant 5.00$ List $\$ 5.00$
XA298 Your Cost
T5381 Line Transformer 500 ohm ohms. List $\$ 4.50$
XA299-Your Cost.
T-2357 Microphone Transformer Single Button


A Coupling Transformer for Single Button Microphones primary impedance 200 ohms. Ratio 64 to 1. Size $24 \times$
lbs.
XA257-List $\$ 3.00$
Your
51.75

## T-3020 Microphone Transformer

 Double ButtonThe windings of this Transformer closely approximate perfect balance. Designed for use with 2 Button Microphones. Primary impedance: 200 ohms each side of C. T. Ratio 2000 to 1. Size $21 / 2 \times 245 \times 3$ ". Shpg. wt. 3 lbs. XA2S3-List $\$ 5.00$
Your Cost.
2.94

## Type T-2973 P. P. Interstage

To couple two stages of push-pull amplification. Especially applicable for use in power a mplifiers for public address work to prevent tube distortion in the first stages of the audio amplifier. Size $31 / 2 \times 3 \times 33 / 4$ high. Shpg. wt. 5 lbs .
$\times \mathrm{X} 212$


## Type T-2903 P. P. Output

250 or 245 type tubes to a Dynamic Speaker, voice coil having a D. C. resistance between 4 and 8 ohms. Size $31 / 2 \times 3 \times 334^{"}$ high. Shpg. wt.
5 lbs.
$\times 4238$-List $\$ 4.00$.

## T-1892A Filter Choke

30 H. 50 MA.


Designed to filter a current of 50 mils. Inductance of 30 henries, 450 ohms D. C. resistance. Ideal for midget sistance. ${ }^{\text {receivers. }}{ }^{\text {" }}$ leads. Size, 21/2×11/4×21/3" high. Mounting centers, $31 \mathrm{~B}^{\mathrm{N}}$. Shpg.
wt. 31 bs .
XA 246 Cost.....

## Grid Modulation

## Coupling Transformers

T-6773 is for coupling a single 46 or 59 modulator tube to the grid of the R.F. amplifier. Transformer is totally shielded and is equipped with solderi
21 hs.
XA255-List $\$ 4.00$
Your Cost Each
s2.36
T-6774 is for coupling push-pull 45 or 2 A 3 modulator tubes to the grid of the R.F. amplifier Transformer is equip ped with soldering lugs and is totally shielded. Size $31 / 2 \times 3 \times 33 / 4{ }^{\prime \prime}$. Shpg. wt
$31 / 1 \mathrm{lbs}$.
XA256-List $\$ 5.00$
XA256-List $\$ 5.00$
Your Cost Each.

# UTCN linear Standard AUDIO TRANSFORMERS 

United Transformer Company "Linear Standard" Com- of audio units are linear over a frequency spectrum of ponents represent the closest approach to the ideal 9 octaves, i.e., from 20 to 20,000 cycles. No effort has transformer from the standpoint of uniform response, been spared to assure uniform characteristics on all low wave form distortion, high efficiency, thorough audio units. A special grade of high permeability iron shielding and dependability. The curve shown below is used to house them, and as a result, hum pickup has illustrates the linear frequency response of a typical been overcome. Each transformer is individually tested UTC audio output transformer. As shown, this series

## Frequency in Cycles Per Second



## PHINCO

## Exact Duplicate

 ReplacementsShipping weight 3 lbs .
Single or P. P. Input
Input


Single or P. P. Output


| Philco Models | $\\| \begin{aligned} & \text { Part } \\ & \text { No. } \end{aligned}$ | Stock No. | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 220 | 4232 | XC1738 | \$0.95 |
|  | 3537 | xC1743 | 1.10 |
| 70-270 |  |  |  |
| 76-77 | 3872 | XC1741 | 85 ${ }^{\circ}$ |
| 86-87 | 3242 | $\times \mathrm{Cl} 1740$ | 5 |
| 90-90A (2-45's) | 4952 | xC1742 | 49 |
| ${ }_{95-96-290}^{90-47)}$ | 3537 |  |  |
| 111-112(45) | ${ }_{3537}^{3537}$ | $\mathrm{XC1743}$ $\mathrm{XC1743}$ | $\$ 1.10$ |
| 500 Series |  |  |  |
| 41-42 D.C. | 3872 | CC17 | . 85 |


| $\begin{array}{\|c\|} \hline \text { Part } \\ \text { No. } \end{array}$ | Stock | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: |
| 2766 | XC1746 |  |
| 2766 | $\times \mathrm{C} 1746$ |  |
| 2673 | ${ }^{\times C 1749}$ |  |
| ${ }_{2766}^{2766}$ | XC1746 |  |
| 2766 | XC1746 | $5^{\circ}$ |
| 2673 | $\times \mathrm{C} 1749$ |  |
| 2766 | $\times \mathrm{C} 1746$ |  |
| 2766 | XC1746 |  |
|  | $\times{ }^{\text {x }}$ | x |

Chokes

## 0

Straight Audio

CROSLEY 706 P. P.

## Input and Ist Audio

 No. 5315

A replacement Audio and P. P. Input made expressly for use in Crosley Models 32,
$40,41,41 \mathrm{~A}, 42,704$ $40,41,41 \mathrm{~A}, 42,704$
and 706 . No changes and 706. No changes necessary to install actly as the original, fits the chassis the same. Shpg. wit. 3

XC1892 bs.
Your Cost, Special. \$ $\$ .90$

## CROSLEY P. P. Input

 Transformer Models 60-S, 61 -5, 62-5, 63 -5 ${ }_{7167 \text {. }}$ Crosley part No. Input Transforma er for the above receivers. Has two separate secondShpg. wt. 2 lbs.XC1848
Your Cost


CROSLEY P. P. Input

## Transformer

The genuine Crosley part used in the models $30-\mathrm{S}, 31-\mathrm{S}, 33-\mathrm{S}, 34-\mathrm{S}_{8}$ $40-\mathrm{S}, 41-\mathrm{S}, 42$-S and $82-\mathrm{S}$. Part No. 6590. Primary 2000 olhms, secondary 10,000 ohms total D. C. resistance. Housed in a metal contalner which has spade lugs for mounting. Has long leads for connections Ideal for use as a general purpise replacement transformer. Shpg.

Your Cost, Each.
$95^{\circ}$

## ZENITH Push-Pull

 Interstage AudioFor 50, 60, 70
Series

A quality replacement Audio for the Zenith models. Couples the plates of two " 27 tubes
to the grids of to the grids of
two 45 si . Shpg. ${ }^{\text {two }} 3$ ISs. XC2259
Your Cost

$\$ 2.35$

## RCg Andio Gluanesprmers

Brand New-RCA-Victor P. P. Input and Output Transformers

## For Models 80,82 and 8

G. E. H-31, H-51,H-71.
 Exact du the original replacement part No No. 61151. Consists of one pugh
pull input and one push-pull output transimpedance $8-10$ ohms. All brand impedance 8-10 ohms. All brand new merchandise is used in mak-
ing up this replacement. Shpg. Wt. 6 lbs.
XC1998-
s 1.75
Genuine Push-Pull Inter
Output Audio Assembly
RCA-Victor Models R-50, R-55, RE-20, RAE-59 and RAE-79 G. E. Models H-32 and H-72. Graybar Modef GB-100, RCA No. 8711 Consists of a push-pull inter-stage audio, primary 2300 ohms center-tapped, secondary 7600 ohms center-tapped. Output, push-pull audio, primary 600 ohms center-tapped, secondary, 10 ohms. Can be used with any receiver or power amplifier using of a dynamic speaker. Unusually small in size, $3^{3 / 4}$ of a dynamic speaker. Unusually small in size, $3^{3} 4^{\prime \prime}$ and pitched against moisture. Crimping lugg for easy mounting. $12^{\prime \prime}$ color coded leads for direct
wiring. Shpg. wt. 5 lbs .
XC2001-Your Cost.

AudioAssembly for RCA Victor Models R-7, R-9


Exact duplicate o No. 7239. Consists P.P. output transformer in a metal container. For sets using P. P. 45 S . using w. Phes, wt. 3 lbs.
$\underset{\text { Your }}{\mathrm{XCost}} \mathrm{Cl} 994$ List $56.00 \$ 2.25$

For R-7A Superette G. E. S-22A; Using P. P. $47^{\prime \prime}$ : Similar in appearance to above Exact duplicate of the original. Consists of P.P.input and output. Shpg, wt. 3 Ibs.
$\times C 2098$
Your Cost

MAJESTIC P.-P. Input models 70,71,72 90,91,92, Designed according to specifications of the origi nal Ma= jesti
 Shpg. wt. 4 lbs. Xc2109-Your Cost

## MAJESTIC Audio

Replacement for models 70 and 90 series. Straight Audio Transformer Shp wit. 4 lbs. XC2490Your Cost, Each...... 75


## Genuine SPARTON

 Replacement Audios All brand new replacements, made by Thordarson. Av. shpg. wt. 4Audio Transformers Your Models Part No. Stock No. Cost $69,79 \quad$ A-3433 $\times$ C2455 $\$ 1.18$

Input Transformers $101,110,111$ B-2495 $\times$ C2466 $\$ 4.08$ 301 B-2361 XC2467 3.53 589, 931 A-4812

A-4104 XC2468 1.76 930 A-3736 XC2469 1.18

Out put Transformers

$89,89-\mathrm{A} \quad \mathrm{B}-2117 \times \mathrm{X} 2486 \mathrm{~S} .32$ $301 \quad$ B-2430 XC2487 1.62 | $\mathbf{9 3 0}$ | $931 \quad \mathrm{~A}-3763 \times \mathrm{C} 2488$ | 1.03 |
| :--- | :--- | :--- | :--- |

## Model 67 Audio

Part No. 14640, an exact duplicate of the origi- $/$ nal A. K. part. StageA udio
and P. P. Input Transformer Shpg. wt. 5 lbs.
XC2243-
Your Cost, Each


For Models 55, 55C, 60, 60 C Similar to above. A P. P. Input and P.P. Output Transformer Shpf. wit. 5 lbs
STROMBERE CARLSON
STROMBERG CARLSON P. P. Input Transformer for Models 10-11-25-26


The exact duplicatere. placement fransformer for the origi-
nal Stromnal Stromberg Carison Purt N
P19550. Pl9550.
High grade materials struction insure a unit every bit as goud as the original part. Consists of a push-pull input transformer with split secondaries, isolated sections. Finished in wrinkle lacquer. Shpi, wt. 5 Ihs.
$\times$ C2375-Each.
\$2.90
STRAIGHT
AUDIO TRANSFORMER For Models
$641,642,652,654,846,848$ Exact duplicate of the original Stromberg Carlson part No. P18624.


臬SANGAMO Audio Transformers The opportunity for buying quality merchandise at "rock-bottom" prices is always present. No
finer example is possible than the offer of these Sangamo Audio Transformers. All Sangamo transformers are constructed of the finest grade of materials; 30 years of experience in designing goes into the production of each unit. Wholesale Radio Service Company, through its extensive purchasing power, is now able to offer you a line of these famous transformers at prices that no doubt seem ridiculously low. Each transformer is brand new and guaranteed


## Cased Audio Units

Fully shielded in heavy metal cases. Have solder lug terminals marked for easy conn
TYPE A

A straight audio transformer with a $3: 1$ ratio. Frequency curve flat over the entire tonal range. Excellent for the set builder or for replacement use. Shpg. wt. 3 lbs . XA364 List $\$ 10.00$.
Your Cost

## 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. Shpg. wt. 3 lbs. XA369-List $\mathbf{5 1 2 . 0 0 .}$ XA369-List
Your Cost
$75^{\circ}$

JEFFERSON Mike Trans former-2-Rutton


Shpg. wt. 21/2lbs. XC1929-Your Cost

$\$ 1.19$
GREBE Phono Matching Transformer
Used to match low impedance
magnetic pick-up to any type input of Radio or power amplifier. Single winding, tapped at 150, 300 and 1100 ohms D. C. resistance. $21 / \times 17 / 8 \times 21 / 4{ }^{\prime \prime}$ ${ }^{2} \mathrm{C} 2237$ - Your Cost


UNIVERSAL Output
 Transformer
Has bination taps making it possible to gle or $\mathbf{P}^{\text {sin }} \mathbf{P}$ cutput stage coil form 2 to coil fom 2 to ohm steps. Unit may be mounted on end or sides. Slots in base allow wide mounting range. Diagrams showing connections for all tube Included. Size $2 \times 23 / 8 \times 1$ ${ }^{\text {wt. }} \mathbf{3} \mathbf{3} 1 \mathrm{llis}$.
Your Cost

## Universal Input

Has the same physical specifications as the above transformer. Can be used with single, P. P. or Xe 4 liver-Your cost $\$ 1.03$

## TYPE G210

Output transformer designed to match push-pull 10 's to a 5 -1 5 -ohm voice coil of a dynamic speaker Will provide excellent tone quality Shpg. wit. 3 lbs.
XA371-List $\mathbf{\$ 1 0 . 0 0}$. Your Cost.

## TYPE H171

Push-pull output transformer to mateh a pair of 71A's, 45's, or $50^{\prime}$ to a $5-15$-ohm voice coil of a dy namic speaker. Solder lug termi Mals. Shpg. wt. 3 lbs. Your Cost.

## Strap Mounting Units

Laminations held in place by means of a heavy metal strap which provided with mounting feet. Size $2^{3} 4=2 \frac{1}{8} \times 1^{3}$.

## TYPE AX

The most popular of the famous ormers of high quality translormers. Straight audio, overall ratio 3:1. Flat response from 30 to 6000 cycles. Provided with long leads, Shpg. wt. 3 lbs.
$\times A 365-L i s t ~$
$\mathbf{1 0 . 0 0}$. Your Cost.

## TYPE HX171

Push-pull output transformer to match a pair of $71 \mathrm{~A}^{\prime} \mathrm{s}, 45^{\prime} \mathrm{s}$ or $50^{\circ} \mathrm{s}$ to a $\overline{\mathrm{E}-15 \text {-ohm }}$ voice coil of a dynamic speaker. For mounting on chassis or directly on speaker. Shpg, wt. 3 lbs.
$\mathbf{X A 3 7 4 - Y o u r ~}$

## TYPE F

Plate impedance. Used in the plate circuit of detector tube to prevent reed-back. Also used for impedance coupled amplification. Tap provided for auto-transformer coupling. Shpg. wt. 3 lbs.
XA366 List $\$ 5.00$.

TYPE BX
Push-pullinput transformer, single plate to two grids. Has extremely high primary inductance insuring maximum a mplification at low frequencies. Shpg. wt. 3 lbs.
List $\$ 6.50$
XA367
Your Cost
$95^{\circ}$

MAJESTIC Pilot Light Dimmer for Models 300, 300A and 320


An exact duplicate of the original Majestic Part No. 7785, used in as a resonance indicator. No changes necessary to install, fits ${ }^{\text {craten }}$

## BARGAINS! In Oversize Audios



Oversize
fine quality
audios at
exception-
ally low
prices
Many old
typereceiv-
ers can be
greatly im-
proved by
installing installing types large transformers. Two types avail Pull Input. Suitable and Push Pull Input. Suitable for use in radio receivers or power amplifiers. Size $2^{5}$ 秋3/: $\times 318$ " high Shpg. wt. 2 lbs.
$\times C 1932-$
Push-Pull Input.
YourCost, Special
xC1913 Straight Audio to aboveratio $3: 1$.
 chassis work. Two types avail-able-audio and push-pull input. This is an oversize transformer with a large core and provides excellent irequency response over the audio range. Shpg. wt. 2 lbs XC1840Push Pull Input. Your Cost.
 XC1841-Straight Audios
ratio 3: Each.

## Audio and P. P. Input Transformers

Well made, fully shielded transformers with excel-
lent frequency response. Especially suited for use circuits. Primaries and secondaries are wing nev heavy high prades and secondarjes are wound on project through bottom for subpanel wiring. Guaranteed against defects Your Cost
XC1914-Straiuht
Your Cost


RCA Output Trans.

## former

46-47-66 The Official R C A part No. 6019 for the above models, new and guaranteed. Can be used in R C A 106 speaker by addition of two 11 mfl 3 lbs. $\times \mathrm{C} 2170$
Your Cost

## RCA Filter Reactor

R-14-15-17
42 and 48
Part No. 8604. tapped filter choke with an inductance of approximately $\mathbf{3 0}$ h. Maximum D. C. 100 M. A. D. C. re-
sistance 315 ohms, sistance 315 ohms, Shpe wt. 4 lbs.
 ${ }^{\text {Shplowt }} 4 \mathrm{~A}$ lbs.

RCA Coupling Reactor $44 \cdot 46$ and 47


Exact duplicate of RCA Part No. 6004. Cou ples Screen Grid Detector to
power output tube. Approx inductance 700 h. ht $3 \mathrm{M} . \mathrm{A}$. D. C. resistance 6000


COLONIAL 31 Output Transformer Ceil An exact duplicate replace ment. Used on Cutting dy namic speaker Use original la minations when



Genuine Victor Filter Condenser Block Replacement for Models R-32, RE-45 R-52, RE-75
Contains: One mid., one 3 mid. one 2.5 mfd . and .5
mfd. sectionsat 600 working voltage These are all brand new condenser blocks, never been used or installed before. Housed in a metal container, $53 / 4 \times 5 \times 4^{\prime \prime}$ Shpg. wt. 8 lbs
$\times 8890$
Your Cost, Special
$55^{\circ}$
Genuine Victor Replacement for Late Models R-32, RE-45, R-52, RE-75
Contains: One 5 mfd . one 3 mfd . and one 2.5 mfd ., 600 working voltage. This is for the late. Victor models, equipped with 4 taps, but can be used for the early models by using a .5 mfd . condenser in place of the No. 5 tap
XB893 Your Cost.


RCA Model 42 and 48
Transformer and Capacitor Block
 For Victor Models 14, 15 and 17 ; G. E. T-41; Gray bar 678; RC-3; and Westinghouse WR-4. Genuine replacement No. 8608. Consists of filter condensers and coupling reactor in metal container Shpg. wt. 5 lbs.
X.B1021-List $\$ 12.00$

Your
Cost
$\$ 2.45$

## RCA-Victor <br> By-Pass Assemblies Models 17-50-60-62-64

 Genuine RCA Part No. 5681 condensers.X 3481 -Your Cost Each


For Model 41 A.C
Genuine Part No. B664. Contains one 5 mf condenser
XB484-Your Cost Each
For Models 44-46-47 Genuine Part No. 6002. Contains one .25 mfd . and one .75 mfd . condensers.
XB485-Your Cost Each
Part No. 6003. Contains three 11 mid
For Model 33 A. C
Part No. 5996. Contains one .5 mid . and three 1 mid. condensers.
XB522 Your Cost Each $\qquad$ $25^{\circ}$
For Models 18 and 51
Part No. 2241. Contains four 5 mid. $19^{c}$
$\times 8483$ Your Cost Each........
$\longrightarrow \quad$ Shipping weight 1 Ib

## Filter Condenser

Models R-50, R-55 RE-20, RAE-59
and RAE-79
The genuine RCA replacement filter condenser block part No. 8712-64906, comprising, one 2 and one .1 mid. Shpg. wt. 5 lbs.
$\times 8532$

[^4]

Genuine RCARadiola Condensers Radiola 17.50 Brunswick PR-17-8 Victor 7-25
Part No. 8289
Genuine replacement filter condenser for the above sets. Contains: Two 3.6 mid. one 3 mid., one 2 mfd ., two 1 mid . Brand new and Kuaranteed. Shpg. wt. 6 lbs . \$ \$
Yoioz List $\$ 19.20$ 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 mfd . 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.
$\$ 1.80$

## Radiola Model 60

 Graybar Model 300 Brunswick Model 5 NO Part No. 8346The original Radiola filter condenser. Con tuins: Three 2 mfd ., four .5 mfd , and output choke. Shper wt. 6 ibs.
$\times 81015$ List $\$ 16.50$ Your Cost

Graybar Model 340
Radiola Model 62 Brunswick 3NC8, 5NCB Part No. 8382 The original Radiola replacement filter condenser or the above models. Contains: One 4 mfd., two 3.5 mid., one 1 mid ., three mfd Shpg. Wit. 6 libs.
$\times 1014$ Your Cost


Auditorium Radiola-Phonograph Radiola Model 66 Graybar Model 600

Part No. 8487
Original Radiola part. Contains: Two 2 mid one 1 mfd ., one .5 mfd . and a 515 ohm outpu choke. Shpg. Wt. 6 lbs
XB1010 List $\$ 14.25$
Your Cost
$S I 23$


## Radiola Model 66

 Graybar Model 600 The genuine Radiola Part N 6021. Contains five. 5 mfd ., and two .05 mfd . condensers, and one audio transformer. Only a limited quantity available Shpg. ut. 3 lbs. XB1009Your Cost Each
$\$ 2.95$

## By-Pass Condensers

 R-80, 82, and 86Part No. 7058. Contains three 1 mfd , one .5 mfd . and one $1 . \mathrm{mfd}$. condensers. Also used in G. E. H-31, H-61 and H-71. Shpg. wt. 2 lbs
$\times B 532$ - Your Cost.... $45^{c}$


Models R-32, RE-45 R-52 and RE75 Part No. 60074. Contains two 1 mid and one 125 $\times 8478$ midensers. Your Cost Each
50 Part No. 60564. Similar to the above tains three . 1 mfd. condensers. $\times 8479$
Your Cost Each

## Radiola 18-33-51

Brunswick, 2Kro, 3Kro, 3Krg,
SKr, 5Kro, 5Kr6, Victor 7-11, 7-26
Graybar Model 311 (Part No. 8333)
Origina! filter condenser for a bove sets. Contains: Two 1 mfd one .5 mid. and output choke Guaranteed brand new Shpg. wt. 4 lbs.
XB1019-List $\$ 7.40$
Your
Cost.
$35^{\circ}$


## Radiola Model 64

Victor 9-18 and 9-54

## Part No. 8368 Filter Capacito



The Genuine Radiola Filter Condenser Bank. Conmid. one 2 mfd, and two 1 mid. These capacitors are capacitors are using 1000 volt condengers condenvery best foil and paper. Do not confuse this block with the so-called replacements on the market. Shpg, wri. 13 lbs . XB1011 List Price $\$ 30.00$ Your Cost.


Radiola Model 64

## Victor Models 9-18, 9.54

 By-Pass
## Condenser Block

Genuine RCA Part No. 5862 Contains the following capacities One 2 mid., two 1.5 mfd . and three 1 mfd . Housed in a metal container provided with solder lups and leads. Shpg. wt. 3 lbs Your Cos
Your Cost


Filter and By-pass Condenser Assembly Models R-11, R-18, R-18A and RE-21 Genuine replacement Part No. 7273, comprising one 4 mfd., one 6 mfd ., four .5 mfd. two 1 mfd ., five 1 mfd . and metal container. For $25-60$ cycle receivers. Shpg. wt. 6 lbs .
XB533-List Price $\$ 10.00$
Your Cost


Filter and By-pass Assembly Models R-7A, RE-16A Similar in appearance to above. Genuine Part No. 7256-64904. Contains five .5 mid ., one .1 mid ., one .005 mfd , and one 1 . mld condensers. Sbpg. wt. 6 lbs . $\times 81001$
Your Cost Each
$\$ 1.35$
By-Pass Assemblies Eor Models Rso, R-55, RE-20, RAE-59, RAE-79
Original Part No. 7285. Contains one 1 . mfd., one. 5 mfd ,
and two. i mid. condensers. and two 1 mid. condensers.
Has six leads. In metal conHas six leads. In metal
tainer. Shpg. wt. 2 lbs.
XB530 List 8210
$95^{c}$
Part No. 7286, similar to the
above. Contains one 1 . mid one .5 mfd . and three .1 mfd . condensers. Shpg XBS29 Your Cost.
-


| ATWATER KENT Power Units <br> Exact Duplicate of the Original <br> Heretofore servicemen have had to accept makeshift packs assembled from reclaimed and surplus material, which naturally gave poor and short lived service. By contracting for a large quantity of these units, we were able to get packs made up from brand new first quality materi- als that were made especially for the purpose. They are equal or superlor to the original units. Color coded exactly like the originals. Planograph of the hook-up furnished with each unit. <br> For Models 40, 56 and 57 <br> For Models 42, 44, 45 and 52 Shlg. wt. 17 lbs. $\$ 4.95$ $\times 81381$ Your Cost 4.9 Shpg. wt. 17 lbs. <br> X 1376 Your cost $\$ 4.95$ <br> For Model 41 D. C. <br> Complete with resistors. Shpg. wt. For Models 43, 46, 47 and 53 17 libs. <br> Your Shpg, wt. 19 lbs. $\qquad$ <br> Power Units for Models 37 and 38 <br> Exact Duplicate of the Original <br> These Trutest Replacement Blocks produce a lasting and satisfactory job-one that you will be proud of. Built especially for us from the highest grade materials. They are exact duplicates of the original units in every detail. They contain the filter condenser block and three chokes; two high voltage filter chokes and one speaker choke. No changes necessary to install in chassis. Leads color coded; diagram furnished. Shpg. wt. 7 lbs. <br> XB1378 <br> Your Cost <br> Each | MAJESTIC Power Unit <br> Condenser Blocks <br> For Early Model Receivers <br> These bocks are built to the original Ma jestic specifications from brand new, first quality merchandise, guaranteed as to quality. Constructed with new high voltage paper condensers to insure long and satisfactory service. These units are equal to or superior to the original blocks. Tinned solder lug termina is are securely riveted to a bakelite panel on top of unit. Fit chassis exactly; no changes necessary to install. <br> MAJESTIC 20 Chassis Condenser Bank and P. P. Input Transformer <br> Exact Duplicate of the Original <br> An exact duplicate replacement for the original Majestic filter block and push-pull input assembly, part No. 3887. Contains two 2 mid . and two 1 mfd . condensers and the P. P. input transformer. Fits the chassis exactly without the necessity for making any changes. Solder lug terminals are securely fas- tened on bakelite panel, and tinned for easy contened on bakelite panel, nections. Shpg. wt. 6 lbs . <br> XB1064 <br> Your Cost Each. |
| :---: | :---: |


| KOLSTER K-43 <br> The original Dubilier Type PL1 557 Filter Condenser for the Kolster K-43. 5.1 mfd . total capacity. Shpg. wt. 3 lbs. | STROMBERG-CARLSON Filter <br> Models 641, 642, $652,654$ <br> An exact duplicate Strom-berg-Carlson filter condenser. Total capacity 9 mids. Shpg. wt. 11 lbs. X8916 Your Cost. $\qquad$ |
| :---: | :---: |
|  |  |
| PLATE TRANSFORMER 70 SERIES 7 BPG Pack | PUSH-PULL OUTPUT TRANSFORMER MAJESTIC 90 Series |
| Original Majestic Part No. 67 | Original Majestic Part No. 134. Shpg. wt. 3 lbs. <br> XC2107-Your Cost |
| RANSFORMER For 8BP6 Pack | 90-B PUSH-PULL INPUT OUTPUT TRANSFORMERS |
| Exact Duplicate of the original. 9 lbs. <br> XC2169-Your Cost | $\begin{aligned} & \text { P. P. Input, Ma jeatic Part No. } 1551 \text {. } 95^{\text {C }} \\ & \text { P. P. Output, Mar Cost } \\ & \text { XC2095 Your Cost Part No. } 1552 . \end{aligned}$ |
| AMENT \& PLATE TR MAJESTIC 9BPG Powe |  |
| inal Majestic Part | CHOKE FOR 70 SERIES |
| 2100 Your Cost | Original Majestic Part No. 66. Used in 7BP6 Power Pack. Shpg. wt. 8 lbs. XC2101-Your Cost |
| MAJESTIC 90-B and 100-B |  |
|  | DOUBLE CHOKE FOR 180 SERIES Original Majestic Part No. 626. For 8 P6 Pack. Shpg. wt. 8 lbs. XC2102 <br> Your Cost |
| Shpg. wt. 15 lbs. <br> XC2127-Your Cost........... 3 . |  |
| AMENT TRANSFORMER 70 SERIES 7BP Power Packs | Your cost . . . . . . . . . . . . . . |
| Original Majestic Part No. 61. Shpg. wt. 6 Ibs. <br> $\times \mathrm{C} 2105$ <br> Your Cost | DOUBLE CHOKE FOR 90 SERIES <br> Original Majestic Part No. 281. For 9P6 Packs. Shpg. wt. 9 lbs. <br> XC2103-Your Cost |

Original MAJESTIC Condenser Blocks
For 90B and 100B Models 90, 91, 92, 93, 102 and 103
Majestic Replacement Part No. 1564, for replacement in the above sets.
Contains: Three 2 mfd . and one 1 mfd. Shpg. wt. 6 lbs.
$\times 81065$
$\mathbf{Y}$ $\left.\begin{array}{l}\text { YB1065 } \\ \text { Your } \\ \text { Cost }\end{array}\right], 0$


FADA Model 43 Condenser Block Built according to the
standards of the original Fada condenser bank No. $1865-X$. Con-
tains: 2 mfd at 600 volts, 2 mid. at 400 volts and $2-1.0 \mathrm{mfds}$. at
400 volts. lbs. XB1206 Your Cost \$3.25


Models 42, 44, 46, 47, No. 1830X Similar in appearance to the above. Contains
7.1 microfarads of condenser. $\$ 3.10$
XB1199-Your Cost............ SPARTON Models 69, 79, 89


# We werexifleatrovitic DR CONDEISHics 

## preferred By Servicemen - Engineers and Manutacturers

Trutest Dry Electrolytic Condensers offer the widest selection available. Their unusual value for replacement use results both from mechanical adaptability and the superior performance, with higher voltage protection, which are inherent features of "Trutest Unsurpassed Quality.'

The Power Factor of all Trutest Dry Electrolytic Condensers is Guaranteed to be from 4 to $8 \%$. Leakage is better than the R.M.A. rating
of 1 mills. per microfarad. Actual tests on an of . 1 mills. per microfarad. Actual tests on an
a verage Trutest 8 mid. dry electrolytic shows a leakage of .2 mills. at rated working voltage at $25^{\circ} \mathrm{C}$.

Trutest Dry Electrolytics are Guaranteed to have their actual rated capacities with R.M.A tolerance of plus or minus $10 \%$. Laboratory test invariably shows that Trutest Dry Electrolytics actually ha ve a PLUS tolerance. Efficient filtering is therefore unhesitatingly GUARANTEED


Dry Electrolytic Cartridge Condensers

Enclosed in waxed cardboard containers with metal ends and $1^{3}$ " tinned wire leads. Herture. Very sealed to prevent losses due to mois to use. Especially suited for use in the popular A. C.-D. C. sets. All conservatively rated. Stock Cap'y Working Peak Your Cost No.
$\times D 3380$
$\begin{array}{r}\text { XD3380 } \\ \times \mathbf{D} 3381 \\ \hline\end{array}$ $\begin{array}{r}\times D 3381 \\ \times D 3382 \\ \hline\end{array}$ 1
$\times$ CD3383 XD3384
CD 3295
$\times \mathrm{D} 3297$
XD 3297
$\times D 3387$
XD 3387
$\times \mathrm{D} 3388$
XD 3388
$\times D 3392$
103392
$\times D 3393$
$\times D 3394$
CD3395
$\times D 3389$
XD 3389
$\times \mathrm{D} 3390$
CD 3390
$\times \mathrm{D} 3391$
XD3290
XD3291
XD3292
1
$\times 03292$
$\times D 3293$

| Special Compact Filters for A.C.-D.C. Sets |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | 225 V. Peak |  |
|  |  |  |  |
| occupy less space than similar capacity low voltage sections, and give ample voltage protection. Will fit the majority of the midgets |  |  |  |
|  |  |  |  |
| extant. Rated with working voltage of 200 volts D C |  |  |  |
|  |  |  |  |
|  | Capacity |  | Cost |
| XD3210 | Mrd | 21/4x | Each |
| $\times \mathrm{XD3211}$ |  |  | . 40 |
| ${ }^{\times 03212}$ | 8 | 21/7x ${ }^{\text {3 }}$ x1 | . 40 |
| XD3213 | 10 | $2 / 4 \times 8 \times 1$ | . 49 |
| XD3214 | 12 | $23^{1 / 1} \times 1$ | . 52 |
| XD3215 |  | 21/x14/4x | . 57 |
| $\begin{array}{r}\text { X } \\ \times 133216 \\ \times 03217 \\ \hline\end{array}$ | 2 | 2\%/x1\%2x1 | . 65 |
| XD3217 | 25 | 21/813/4 $\times 1$ | . 68 |

## Trutest Special

 "600" Volt Peak Dry Electrolytics This new Trutest line
of " 600 " peak con-
would meet practically any service requirewould meet practically any service require-
ment. They are similar in construction and workmanship to the standard line of Trutest electrolytics but the peak voltage has been
raised to 600 volts D. C. and the working voltage to 475 volts D. C. Especlally recommended for use in sets or amplifiers where
surges of more than 500 volts occur. This series of condensers is wax impregnated and perfectly sealed in a compact cardboard box

| Stock | Cap'y | Size | Your Cost |
| :---: | :---: | :---: | :---: |
| No. | Md. | Inches | Each |
| XD3205 | 1 | 9/0x $1^{1 / 8 \times 27 / 6}$ | \$0.40 |
| XD3206 | 2 |  | . 45 |
| XD3207 | 4 | $1^{11 \times 1} \times 1 / 1 \times 2^{1 / 6}$ | . 54 |
| XD3208 | 6 | $11 / 6 \times 1^{1} \times 2$ 27 | . 62 |
| XD3209 | 8 | $13 / 8 \times 1 / 8 \times 2^{2 / 6}$ | . 65 |

This Trutest 8 mid., 500 volt, peak condenfer is used in new installations and replacements. In round aluminum can, of standard size, fits hole for studs. Can is insulared from the Guaranteed. Shpg. wt. 1 lb . e XD3324
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
mid. condenser has a heavily waxed mid. condenser has a heavily waxed
cardboard container and a peak voltage rate of 500 volts. Size $41 / 4 \times 1$ /60
XD3348-List $\$ 1.00$
Your Cost

## 0) Plain Cardboard Filter

## Compact Dry Electrolytic

Filter Units 525 V. Peak
pact filter condenser conservatively rated with 525 volt peak and general replacement purposes.

| Stock | Capy | Size | Your Cost |
| :---: | :---: | :---: | :---: |
| No. | Mid. | Inches | Each |
| XD3223 | 1 |  | S0.27 |
| XD3219 | 2 | $2^{36 \times 11 / 6 \times 1 / 2}$ | . 32 |
| XD3220 | 4 | 23/8011/8x ${ }^{\text {b }}$ | . 40 |
| XD3221 | 6 | 23/8x1 4 x ${ }^{7 / 8}$ | . 49 |
| XD3222 | 8 | 2\% $\%$ x11/6x | . 52 |



## Single 8 Mfd. Can





These multiple section condensers are used for sub-base and sub panel mounting. The sections are separate terminals are brought out from each section. Capacity is practically constant over a wide frequency range. Overall height $42 \%$. Conservatively rated at 500 volts D. C. peak. Ideal for A.C.

Capacity

| Stock | Caparity | Working | Vour Cost |
| :---: | :---: | :---: | :---: |
| No. | Mrds. | Voltage | Each |
| XD3361 | $4-\frac{1}{2}$ | 200 | $\mathbf{S 0 . 4 8}$ |
| XD3362 | $6-5$ | 35 | .44 |

Plain cardboard, multiple sections. 500 volts
D. C. peak.

| Stock | Capacity | Size | Your Cost |
| :---: | :---: | :---: | :---: |
| No. | Mids. | Inches | Each |
| $\times 13337$ | 4-4 | 11/8×19/8×41/8 | \$0.53 |
| XD3339 | 4-8 | $11 / 8 \times 1 / 18 \times 41 / 8$ | . 65 |
| $\times 13341$ | 6.8 | $176 \times 1 \% 16 \times 41 / 6$ | . 70 |
| XD3342 | 8-8 | 17/6x1\%行 $\times 4$ | . 72 |
| $\times$ D3366 | 8-8-8 | $11 / 2 \times 2 \times 418$ | 1.05 |
| XD3307* | 8-8-8 | $21 / 8 \times 17$ 宪 | 1.27 |

and General By Pass Units Suitable for use in the manufacture of radio sets or for replacemaper condenser blocks. They are light and compact and can be mounted in any position Free from trouble even under operation at unusually high temperatures tions, cathode, and
 ners




[^5]
#  

All Trutest Products are guaranteed to be within RMA tolerance

+ or - $\mathbf{1 0 \%}$

| Single Unit By-Pass |  |  |  |
| :---: | :---: | :---: | :---: |
| Universal <br> mounting <br> types, and <br> for general purpose metically <br> sealed in drawn aluminum cans. Each condenser unit tested at 1000 volts D.C. Assuring you of a quality replacement. |  |  |  |
|  | Cap. | Volt. 200 | Your Cost 50.17 |
| $\times \mathbf{} \times 3261$ | . 25 | 200 | 50. 20 |
| XD3262 |  | 200 | . 24 |
| $\times \mathrm{X} 3263$ | 1.0 | 200 | . 32 |
| X03264 | 2.0 | 200 | . 52 |
| X03265 |  | 300 | . 21 |
| $\times \mathrm{X} 3266$ | . 25 | 300 | . 28 |
| X03267 | . 5 | 300 | . 32 |
| $\times 03268$ $\times 03269$ | 1.0 | 300 400 | . 22 |
| X03270 | . 28 | 400 | . 26 |
| $\times 83271$ $\times 03272$ | . 5 | 400 400 | . 33 |
| Multi-Unit By-Pass |  |  |  |
| Stock | Cap. | Volt. | Your Cost |
| X03273 | .1-1 | 200 | 50.32 |
| $\begin{array}{r}\mathbf{X} \\ \times 83273 \\ \times 83275 \\ \times \mathbf{0} 3275 \\ \hline\end{array}$ | $\frac{.1-1-1}{.25-25}$ | 200 | $\begin{array}{r}\text { 50.32 } \\ \hline .36\end{array}$ |
| X03276 | .5-.5 | 200 | . 47 |
| XD3281 |  | 300 | . 36 |
|  | .25-. 25 | 300 | . 34 |
| - | -5.5 | 300 | . 32 |
| X $\times 12327$ $\times 03278$ | $\xrightarrow{.1-1}$ | 400 400 | . 32 |
| - $\times 13279$ | . $25-25$ | 400 | . 40 |
| X03280 | .5-5 | 400 | . 55 |



## Truteat Midget Cartridge Condensers

These condensers are very com pact, half the size of a verage cart-
ridge condensers. Especially adaptridge condensers. Especially adapt-
able to AC. - D.C. sets, or where able to AC.-D.C. sets, or where leads cannot pull out.

| Stock | Cap. | Work. Your | Stock | Cap. | Work. Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | MId. | Volt. Cost | No. | Mdd. | Volt. Cost |
| XD3173 | . 01 | 200 \$0.06 | XD3185 | . 002 | 600) 50.07 |
| XD3175 | . 05 | 200.07 | XD3186 | . 006 | 600 ) |
| XD3176 | . 1 | 200 - | XD3187 | . 01 | 600.09 |
| XD3177 | . 25 | 200 d | X03188 | . 02 | 600.08 |
| XD3178 | . 5 | 200.15 | XD3189 | . 05 | 600.09 |
| XD3179 | . 01 | 400.06 | XD3190 | . 1 | 600.11 |
| XD3180 | . 02 | $400-9$ | XD3191 | . 25 | 600.17 |
| XD3181 | . 5 | 400 \} | X03192 | . $05-.05$ | $20015^{\text {c }}$ |
| XD3182 | . 1 | 400.09 | X03193 | . 1-. 1 | 200 |
| XD3183 | . 25 | 400.13 | XD3194 | .28-. 25 | 200.18 |
| $\times$ X 3174 | . 5 | 400.18 | $\times 193195$ | . $05-.05$ | 400.16 |
| X D3184 | . 001 | 600 . 07 | X03196 | .1-. 1 | 400.17 |

## 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 te hung over the service bench and refilled as used up. This eliminates searching through box for a neededsize. Contains one of each of the following condensers:

| Strip "A" |  |  |  | Strip "B" |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . 1 | 200 volts | . 01 | 600 volts | . 05 | 200 volts | . 002 | 600 volts |
| . 5 | 200 volts | . 02 | 600 volts | . 25 | 200 volts | . 05 | 600 volts |
| . 01 | 400 volts | . 1 | 600 volts | . 05 | 400 volts | . 1 | 600 voits |
| . 05 | 400 volts | . 25 | 600 volts | . 02 | 400 volts | .1-1 | 200 volts |
| . 1 | 400 volts | .05-. 05 | 200 volts | . 25 | 400 volts | .25- | 200 volts |
| . 00 | 600 volts | .1-. 1 | 400 volts | . 001 | 600 volts | . 05 | 400 volts |
| XD | St |  | - | $\times{ }^{1}$ | Str |  | 35 |

## Trutest Assorted <br> By-Pass Condensers


very handy assortment for the Serviceman. Contains twelve of the most popular capacities in drawn metal cans; asso
lows. Shpg, wt. 3 lbs.
The following capacities at 200 volis: one 1 , one .25 , two .5 two .1; 300 volts: one .1 , one .25 ,
one .5 , one $1 ; 400$ volts: one .5 , One 1.
$\times$ D3289
Your Cost

## Thutest Cartridge

 Condenser KitContains 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 ratinse: Units Cup. Volts 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 |


| 4 | .1 | 200 | 2 | .25 | 400 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | .1 | 600 | 2 | .5 | 200 |
| 2 | .006 | 600 |  |  |  |

Xhpgist. Complete kit of 25. Your
Cost
\$2.59

## SPARTON Tubular

 CondensersNew and improved type, fully shielded in a metal shell. Made expressly for Sparton replacement. XBS45 . 25 mfd.
Your Cost $32^{c}$
Each..... XB546 5 mid . Your Cost $37^{c}$ XB547 1.0 mid . Your Cost $43^{c}$

Cardboard Container Xes $511-.25 \mathrm{mfd} . \times B 512 \ldots .0 \mathrm{~m} / \mathrm{d}$.
XB513 $1.0 \mathrm{mfd}$.
Your Cost,
Either Type...........


Just the thing you have always wanted-a completeselection of eeded in radio service work. Contained in a rugged metal ase a place for everything ndeverything place. Case x23/4". Contains the follow-densers-two $8-\mathrm{mld}$. and
Metal Cased By-Pass) two 25 mfd , two $.5 \mathrm{~m} / \mathrm{d}$. and one 1.0 mfl . (all 400 -volt). Tubular 8y-Pass Condensers-three .1 mld . 400 -volt, one .05 mid . 200 -volt. Mica Condensers-one .00025 mfd ., one .0005 mld . and one .0025 mid. Wire Wound Resistors one 2000 -ohm, 25 -watt; one $5000-$ ohm, 25 watt; one 20 -ohm C.T. The following 1-Watt Carbon $1-20,000,2-25,000,2 \cdot 50,000$ 2-100,000, 2-250,000, 1-750,000, 1-1 meg. 1-2 meg., and 1-5 meg.
Also contains the following parts: one 20 amp . plug fuse; five $3-\mathrm{amp}$ cartridge fuses (radio): one G. E. twin tap; one 4 and one 5 -prong wafer sockets; one male plug; three feet of bronze dial cable; one short ghank and one long shank toggle switch;
one RMA color code chart. Shpg. wt. 12 lbs . XD3285-Complete Kit. Your Cost
SANGAMO
1005-Volt
Mica
Condensers

Finest ruby mies dielectric. Moulded bakelite cases

| bakelite cases. |  |  |  |
| :---: | :---: | :---: | :---: |
| Stock | Cap. | Cap. | Your |
| No. | Mfd. | Mid. | Cost |
| $\times \mathrm{C} 3050$ | . 00004 | 40 | s0.15 |
| $\times \mathrm{C} 3051$ | . 00005 | 50 | 23 |
| $\times 03053$ | . 0001 | 100 | . 16 |
| $\times 03054$ | . 00015 | 150 | 23 |
| $\times \mathrm{C} 3055$ | . 0002 | 200) |  |
| XD3056 | . 00025 | 250 |  |
| $\times \mathrm{C} 3058$ | . 00035 | 350 |  |
| XD3060 | . 0005 | 500 |  |
| $\times$ O3048 | . 0007 | 700 | . 15 |
| $\times \mathrm{C} 3061$ | . 001 | 1000 | . 20 |
| XD3074 | . 012 | 1200 | . 48 |
| XD3063 | 0015 | 1500 |  |
| XD3064 | . 002 | 2000 |  |
| XD3066 | . 003 | 3000 | c |
| XD3068 | . 004 | 4000 |  |
| XD3069 | . 005 | 5000 | . 41 |
| X03070 | . 006 | 6000 | . 50 |
| XD3072 | . 008 | 8000 | . 59 |
| X03073 | . 01 | 1000 | 67 |
| XD3075 | . 015 | 1500 | . 72 |
| $\times \mathrm{C} 3049$ | Resist | Clips, | r. . 06 |

# Even RNTL The PIONFER condenser 

The Cornell-Dubilier Condenser Corporation, one of the oldest and most respected manufacturers in the field, is now offering to the radio trade the most comprehensive line of filter and by-pass units ever assembled by one manufacturer at the lowest prices in the history of the company. Each and every one of the millions of units made by them each year undergo many severe tests in production so as to assure the consumer a condenser that is as nearly perfect as it is humanly possible to make. Capacities are constant over a wide frequency and temperature range, and the power factor remains low under the most severe operating con
ditions. In final assembly, each unit is thoroughly impreqnated and made moisture proof. For these reasons, together with the fact that over 140 manufacturers of radio sets and equipment ure Cornell condensers for all their requirements, you can rest assured that each unit you pur chase is the finest obtainable. Wholesale Radio Service Company, one o the few select authorized distributors appointed by the Cornell-Dubilier Corporation, unqualifiedly guarantees and endorses each and every Cornell condenser to give long and satisfactory service under the operating conditions for which it was designed.

## Cardboard Cased Filter and By-Pass Units TYPE EE

Cornell-Dubilier dry electrolytic condensers embody the latest improvements in condenser design. They are used as standard equipment by a great number of se light, compart and can be mounted ingt, compart and can be mounted
in any position. Will give trouble free service even under operation at unusually high temperatures. Capacity is constant over a wide frequency range, with low power use. Solder lug terminals becurely riveted to the containers and will not pull out. Entire condenser is heavily waxed and thoroughly moisture-proofed. An excellent condenser for general replacement use.

$$
525 \text { Volts Peak }
$$

| Stock No. | $\begin{gathered} \text { Cap'y } \\ \text { Mid. } \end{gathered}$ | L | Difensions | D | Your Cost Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\times \mathrm{D} 3618$ | 2 | 436 | 13\% | 13/6" | \$0.39 |
| $\times \mathrm{C} 3619$ | 4 | 41/8" | 13 " | $11 /{ }^{\circ}$ | . 45 |
| XD3620 | 6 | 41/8" | 13 \% | 150" | . 54 |
| $\times \mathrm{X} 3621$ | 8 | 416 " | $13 \%$ | $15 /{ }^{\prime \prime}$ | . 57 |
| $\times 03622$ | 10 | 43\%" | 1\%" | 13\%* | . 69 |
| XD3623 | 12 | 4 \%" | $1 \%^{\prime \prime}{ }^{\prime \prime}$ | 11\%" | . 78 |
| XD3699 | 16 | 41\%" | $1216{ }^{\circ}$ | 1 \%/5 | . 87 |

## Multiple Section Units

 TYPE EGThese condensers are similar to the above but consist of a number of individual units within a single container. Available with from 2 to 4 units. This ty pe simplifies mounting and saves densers are used in one receiver or amplifier. 525 VoltsPeak


## Single and Dual Sections with Mounting Flanges

TYPE EH
These condensers are the rame electrically as the Type EG units described below, with the exception that they are encased in cardboard boxes
 which are provided with mounting flanges. Mounting holes are strengthened with eyelets. Individual soldering lugs brought out from case on all dual units. Peak voltage 525 volts; Stock Cap'y Dimensions Yourcost No. Mid. L W D Each $\times 03624$ X03625 $\times 03626$
$\times 03625$ XD3627 $\times D 3628$ $\times D 362$
$\times 03629$ $\times 03630$
$\times 03631$
$\times \mathbf{~} 3631$ $\begin{array}{r}\text { XD3631 } \\ \mathbf{6 - 8} \\ \times D 36328 \\ \hline\end{array}$

## Special Compact Filters 525 V. Peak 450 V. Working TYPE RHNO

were designed primarily to mand for good filter units that could be used in the "cipar-box" midgets. Type RHM condensers are provided with stift wire leads so that the units are sell-supporting, and since they are only $21 /{ }^{\prime \prime}$ long, they will fit
in the smallest of these sets. Rated with 525 volt peak, 450 volts D. C. working voltage. Stock Cap'y
No. Mid. Wize List Corr Crice Each
 $\times D 3615$
$\times \mathbf{D} 3616$ $\times 17$ $\qquad$ $\begin{array}{r}.75 \\ . .95 \\ \hline\end{array}$ .39
.45
.57

## RHM "Plandy-Mike" Kit

 Contains two each of the units shown in listing above. ${ }^{8}$ units in all.XD3696-Complete Kit.
Your cose
5340
6HI-Mike" Cartridge Type Electrolytics


## TYPE FD

 Self-supportingwith wireleads that

Very compact. Hermetically sealed pull out. losses due to moisture. Size Your Cost
Stock Cap'y Wkg. Size Stock Cap'y Wkg.
No. Mdd. Volts XD3600
$\times D 3601$ $\times D 3601$
$\times D 3602$ XD3602
$\times D 3603$ $\times D 3603$
$\times D 3604$ $\times D 3604$
$\times D 3605$
$\times \quad 1$
 $\times 03607$
$\times 03608$
$\times \mathbf{~}$

## $\times 03608$ $\times 03610$ $\times 03611$

$\times D 36011$
$\times D 3611$
$\times D 3612$
$\times 03613$
$\times 03$

## Junior "Handy-Mike" Kit

The Junior kit contains a selection of 10 low voltage pacities designed to take care of a great portion placement requirements of the average service call. Each of the tubular units has stiff-wire leads and is as compact as possible. Especially suited for
 use in the popular
A. C.-D. C. midget set $\qquad$ All $288^{11}$ long. Shpg. wt. 2 lbs.

| No. of Units | Cap'y Mfd. | Peak Volts | Wkg. Volts | List Each |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 4 | 300 | 250 | \$0.65 |
| 2 | 8 | 300 | 250 | . 85 |
| 2 | 10 | 300 | 250 | . 95 |
| 2 | 10 | 35 | 25 | . 50 |
| 2 | 12 | 300 | 250 | 1.05 |
| XD369 <br> Kit. <br> Your | $\begin{aligned} & \text { Comple } \\ & \$ 8.00 \text {. } \end{aligned}$ | Junio |  |  |

## "Hi-Mike" Round Metal Can Condensers Type EA

For use in amplifiers, power units and other equipment where sturdy, neat other equipment where sturdy, neat
appearing single section units are reappearing single section units are re-
quired. Can is negative. 525 volts quired, Can is negative. 525
peak; 450 volts D. C. working.

| Stock | Cap'y | Size |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Mid. | L | D | ac |
| $\times$ 13640 | 2 | 21/2" | $13 / 8{ }^{\prime \prime}$ | \$0.45 |
| $\times$ X3641 | 4 | $21 / 2$ | $13{ }^{\prime \prime}$ | . 51 |
| XD3642 | 6 | 48 | $1 \%{ }^{\prime \prime}$ | . 60 |
| XD3643 | 8 | 438 | 12 | 63 |
| $\times \mathrm{C} 3644$ | 10 | 4 | 13/* | 75 |
| XD3645 | 12 | 43 | 11 |  |

## Dual and Multiple Sections Type EA

These dual and multiple section units are so designed that they can be mounted in upright, horizontal, or any other position without aflecting operation. All provided with mounting rings. Can is negative. Rated peak voltage 525; working voltage 450 volts D. C.

| Stock | Cap'y | Dimensions |  | Your |
| :---: | :---: | :---: | :---: | :---: |
| Cost |  |  |  |  |

Inverted Can Type With Leads
Similar to type EA, but for inverted mounting,
Provided with pusitlve and negative leads, both insulated from can. Peak voltage 525, working voltage 450

| Stock | Cap'y | Size |  | Cost |
| :---: | :---: | :---: | :---: | :---: |
| No. | Mid. | L | D | Each |
| XD3683 | 2 | 21/2" | 1980 | \$0.45 |
| XD3646 | 4 | 21/2" | $138^{\prime \prime}$ | . 51 |
| XD3647 | 6 | 43 \% ${ }^{\text {a }}$ | 13/8" | . 60 |
| XD3648 | 8 | 43** | $13 \%$ | . 63 |
| XD3649 | 10 | $43 \%$ | 138" | . 75 |

Inverted Can Type with Lug Similar to the above, but with solder lug terminal. Can negative

| Stock | Cap'y |  | Size |  |
| :---: | :---: | :---: | :---: | ---: |
| No. | Mid. | Your |  |  |
| Cost |  |  |  |  |

High Capacity

"Cub" Cartridge Condensers


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 manufacturers. Units are wound on nated, and cased in cardboard containers. Stifl wire leads are fastened to metal caps which are gouged into the core so that they cannot lonsen. Stock Cap'y Diam. Wkg. Your
No. Mfd. In. Volts Cost XD3734
$\times \mathbf{D} 3724$ $\mathbf{X D 3 7 2 4}$
$\times \mathbf{D} 3725$ $\times 03725$
$\times 03726$ XD3727
$\times \mathbf{X D 3 7 2 8}$

| 1 | 8 | 400 |
| :---: | :---: | :---: |
| 25 | $3 / 4$ | 400 |
| 5 | 1 | 400 |
| 1.0 | 1 | 400 |
| , | $3 / 4$ | 600 |
| 5 |  | 600 |


| $\times D 3729$ | $.01-.01$ | $1 / 2$ | 400 | .24 |
| :--- | :--- | :--- | :--- | :--- |
| $\times D 3730$ |  |  |  |  | XD3730 .05-.05

 $\begin{array}{r}\mathbf{5 0 . 1 8} \\ \hline 24\end{array}$ | XD3732 | $.05-.05$ | 3 | 600 | .27 |
| :--- | :--- | :--- | :--- | :--- |
| $\times 200$ | .36 |  |  |  | $\times$ X3733

"Dwar£ Tiger" Units $\Longrightarrow \sqrt{N-\quad 1}$
Developed to meet the demand for an extremely low cost condenser especially suited for use in small They are light in weight, and can easily be connected between points by means of their leads only. Your Stock Cap'y Diam. Work. Your
No. Mfd. In. Volts Cost $\begin{array}{lll}\text { XD3735 .01 } & .440 & 400 \\ \times D 3736 & 02\end{array}$

 $\begin{array}{lllll}\text { XD3737 } & .05 & .440400 & \mathbf{- 1 5} \\ \text { XD3738 } & .1 & .578 & 400 & .18 \\ \text { XD3739 } & 25 & .688 & 400 & .27\end{array}$ | XD3739 | .25 | .688 | 400 |
| :--- | :--- | :--- | :--- |
| $\times 10$ | .27 |  |  |
| XD3740 | .5 | .813 | 400 |
| XD3 | .30 |  |  |

 $\begin{array}{llll}\text { XD3741 } & .0005 & .440 & 600 \\ \text { XD3742 } & .001 & .440 & 600\end{array}$ $\times 03743.002-440600$ $\begin{array}{llll}\times D 3744 & .002 & .4440 & 600 \\ \times 1\end{array}$ XD3745 .01 $\quad .440600$ $\begin{array}{lll}\mathbf{X D 3 7 4 6} & .02 & .440600 \\ \times 03747.05 & .578 & 600 \\ \times 03748.1 & .688600\end{array}$
 $\begin{array}{lrr}\text { XD3749 } & .25 & .875 \\ \times 1.000 \\ \times 000\end{array}$

## Cornell "Cub" Condenser Kit

This kit consists of a careful selection of 60 of the capacities and voltage ratings which have been found to most nearly fill practically all replacement requirements on service calls. Used most frequently by over 135 set manufacturers. Contains the following:
Units Cap'y Volts Units Cap'y Volts


## Single and Multiple Units in Metal Cans

These single and multiple section condensers are Non-Inductive. Housed in one-piece drawn metal cans, and thoroughly plated to prevent corrosion. Terminals are securely riveted to corrosion. Terminals are securely riveted to bskelite panels to prevent suriace leakage. All
units are hermetically sealed against moisture. Dual units have common terminal; triple units have common grounded to can.

| SINGLE SECTIONS |  |  |  | Stock | Cap'y | Working | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Cap'y | Working | Your | No. | Mid. | Voits | Cost |
| No. | M 1 d. | Volts | Cost | XD4076 | 1.0 | 600 | . 90 |
| $\times \mathrm{X} 4067$ | . 05 | 400 | 50.27 | MULTIPLE SECTIONS |  |  |  |
| XD4068 | . 1 | 400 | . 30 |  |  |  |  |
| XD4069 | 25 | 400 | . 36 | XD4077 | .1-. 1 | 400 | \$0.39 |
| XD4070 | 5 | 400 | . 45 | XD4078 | . $25-.25$ | 400 | . 48 |
| XD4072 | 1.0 | 400 | . 60 | XD4079 | .5-. 5 | 400 | . 60 |
| XD4072 | 2.0 | 400 | . 93 | XD4080 | .1-.1-. 1 | 400 | . 51 |
| XD4073 | . 1 | 600 | . 36 | XD4081 | 1-1 | 600 | . 42 |
| XD4074 | . 25 | 600 | -42 | XD4082 | .25-. 25 | 600 | . 60 |
| XD4075 | . 5 | 600 | . 57 | XD4034 | .1-.1-.1 | 600 | 72 |



Midget Receiving Micas


These units consist of careful assemblies of selected mica and foil subjected to predetermined pressure for exact capacity. Provided with soldering lug or wire lead terminals. Used extensively by set manufacturers. 1000 volt test.
$\left.\begin{array}{|cccc}\begin{array}{cc}\text { Stock }\end{array} & \text { No. } & \text { Cap'y } & \text { Your } \\ \text { Lugs } & \text { Leads } & \text { Mld. } & \text { Cost } \\ \text { XD3715 } & \text { XD3870 } & .00005 \\ \text { XD3716 } & \text { XD3678 } & .0001\end{array}\right\}$

## Uncased Renewal

## Sections

Oil treated, hermetically sealed units that stand up under continuous duty. oughly im pregnated, and covered by a paper wrapper. These units are ideal for use in replacing defective single sections of condenser blocks. Have insulated wire leads. securely ansulated wire leads. secund color chored to the sections and color coded according to the voltage Sizes listed below cover a great

| Stock <br> No. | Cap'y <br> Mld. | Wkg. <br> Volts | Your <br> Cost |
| :--- | :---: | :---: | ---: |
| XD4035 | .5 | 400 | 50.33 |
| XD4036 | 1.0 | 400 | .45 |
| XD3981 | 2.0 | 400 | .69 |
| XD3982 | .25 | 600 | .33 |
| XD4037 | .5 | 600 | .39 |
| XD4038 | 1.0 | 600 | .60 |
| XD3983 | 2.0 | 600 | .84 |
| XD3984 | 4.0 | 600 | 1.56 |
| XD4039 | 1.0 | 1000 | .93 |
| XD4040 | 2.0 | 1000 | 1.53 |

## Peplacement Condensers por A.C.-D.C. Nidirets



# ONE Standard VOHAGE for ALh <br> Capacities of Condensers 



## Upright Can Type Dry Electrolytics

 For general replacement use, or for use by the set builder.Mounted in cylindrical aluminum cans. Larger sizes have bolt and nut terminals, smahler complete with mounting Come that permits mounting condenser in any position desired. Macimum surge voltage 600 volts. Cap. Size, In. Your


Conde"
Condensers and Emergency Kits

Stock $\times 02600$ $\times 2601$ $\times 02601$
$\times D 2602$ XD 2602
$\times D 2603$ 102603
$\times D 2604$ $\times D 2604$
$\times 02605$ $\times 02606$ $\times 02607$ $\times 02608$ $\times 02609$ $\times 02610$ KD2611 $\begin{array}{r}\times D 2611 \\ \times \\ \hline\end{array}$

## $\times 02613$

 XD2614 $\times \mathrm{D} 2615$Tubuler Condensers

These cardboard tube condensersare very compact in size and are rated peak surge voltage Long tinned leads per mit easy mounting and
These compact high voltage ( 600 volt peak) dry electrolytics have a guaranteed power factor of less than $10 \%$


Cardboard Type Dry Electrolytics


Mounted in waxed cardboard containers with mounting lugs and have color coded leads for easy identification. Maximum peal surge voltage 600 volts. Stock Cap. Size. Ins. Your $\times 02646$
$\times 02647$ 12647
$\times D 2648$ $\begin{array}{lll}\text { XD2648 } & 6 & 41 / \times 1 / 8 \times 1 / 5 \\ \times D 2649 & 8 & 41\end{array}$
 $\begin{array}{lll}\text { XD2651 } & 4-4 & 41 / 8 \times 13 / 3 \times 1\end{array}$ 16652
$\times D 2653$ $X D 2654$
$\times D 2655$
$\times 02656$ $\begin{array}{r}6-6 \\ \times 02656 \\ \hline 8-8 \\ \hline\end{array}$
connecting. Can be used for both by-pass and
filter circuits on A.C. or D. Cil
f.

| Stock | Cap. | Size, Ins. Your |
| :---: | :---: | :---: |
| No. | Mfds. | L D Cost |
| $\times \mathrm{D} 2627$ | . 0001 | $3 \times 4 \times 8$ |
| XO2628 | . 00025 | $88 \times 8$ |
| $\times 02629$ | . 0004 | $8 \times 3$ |
| X02630 | . 0005 | $3 \times 8$ |
| XD2631 | . 001 | $3 / 4 \times 1 / 8$ |
| XD2632 | . 002 | $1 \mathrm{x}^{3} \mathrm{~K}$ |
| XD2633 | . 003 | $1 \mathrm{x}^{3 / 6}$ |
| $\times \mathrm{D} 2634$ | . 004 | 1 x \% |
| $\times \mathrm{D} 2635$ | . 005 | $1 \mathrm{x}^{1 / 8}$ |
| XD2636 | . 006 | 1 x |
| XD2637 | . 01 | $11 / 8 \times$ |
| $\times 02638$ | . 02 | 11/8x/6 Oc |
| XD2639 | . 05 | 114x,6 6 |
| $\times \mathrm{D} 2640$ | . 06 | $11 / 4 \times 7 / 8 \rightarrow C$ |
| $\times \mathrm{D} 2641$ | . 1 | $11 / 8 x^{3 / 8}$-1 |
| $\times \mathrm{D} 2642$ | . 25 | $13.3 \times 3150.27$ |
| XD2643 | . 5 | $13.4314{ }^{3} \quad 36$ |

## Midget Condensers



Extremely Tested to compact in size Stock withstand 1000 volts Stock
No.

## 102657

 $\times 02658$ $\times 02658$$\times 02659$ XD2660 $\times D 2661$ $\times D 2662$
$\times D 2663$ $\times D 2663$ 102664
$\times 02655$ 102665
$\times 02666$ XD2666 $\times D 2667$
$\times D 2668$ XD2668
$\times \mathbf{D 2} 669$
$\begin{array}{ll}\text { Cap. } & \text { Your } \\ \text { Mrds. } & \text { Cost }\end{array}$
.00025
.0004
.0005
.001 $\rightarrow$

Capable of standing up under 1500 volis. Housedin metal can with tab mounting, ug. Pig taillead for con$\times$ N1427c Extremely compact. CN14277-.02 Mfd. KN14278-.04 Mfd
YN14279 . 05 Mfd .

27

## CAPACITY INDICATOR

"It Chirps on Overloads" The new patented Sprague Surge Arrestor buitit into this new Caparity Indicator chirps when voitages over 475 volts are applied. Indicator
checks capacities from 00025 to 16 mfds , in two ranges; from 00025 to .5 and from 1 to 16 mlds. Capacities switches of the self-cleaning wiping contact type. Entire unit housed in
fine bakelite case Terminals marked for casy connections. Complete with test leads and instructions.
Shpl. Wit 7 . ibs.
XMIO41
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, andfare absolutely impervious to moisture. Extremely smal size allows them to mounted anywhere. They are light woinht and to supporting. Provided with insulated leads, push-back Stock $\begin{array}{cc}\text { Stock } & \text { Cap'y } \\ \text { No. } & \text { Mfd. } \\ \times 02916 & 1 \\ \text { XD2917 } & 2 \\ \text { XD2918 } & 4 \\ \text { XD2919 } & 6 \\ \text { XD2920 } & 8 \\ \text { XD2921 } & 4-4 \\ \text { XD2922 } & 8-8\end{array}$ DimenI'
$21^{\prime \prime}$
$2 \%^{\prime \prime}$
$21 "^{\prime \prime}$
$21 "^{\prime \prime}$
$21 / "^{\prime \prime}$
$21 \%^{\prime \prime}$
$212^{\prime \prime}$ Diam
11
11
$2 / 8$
18
15
17
13

our Cost Each
50.33

## Sorar Oomalomion (ohaturt



## Amplex <br> Capacity Indicator



A practical yet inexpensive test instrument which checks capacicies from 0001 to 12 Microfarads in two separate
ranges. By-pass condenranges. By-pass conden-
sers from 0001 to 1 Mfd . are checked on one range; filter condensers from 2 to 12 Mids. are checked on the other range. s wo bi-polar
switches of the positive contact, self-cleaning type are used to select the desired ranges. 600 volt peak condensers used throughout assure a lasting unit. Instrument serves three purposes: it checks open condensers; it indicates shorted condensers; it indicates the proper sized condenser to be used in any circuit for proper performance. All scales are etched on front panel in white. Two analyzer type pointer knobs are for easy identification, are mounted on front panel. Comes complete with fult instructions and a pair of test leads. Entire assembly is housed in a fine black bakelite case measuring " long, $416^{\prime \prime}$ wide and 11 " " deep. Compact $^{\prime}$ long, $4 / 2$ wide and lod deep. Compact weight 5 lbs . XJ 10452
Your Cost

SPARTON By-Pass Condenser Models 9A.
 410 and 420
An exact duplicatereplacement for the original Sparton Part No. A6. Contains four sections, 3 to be equal to if not superior to the original. Shyg. wt. 8 oz

## RCA By-Pass Condensers

Midget units, in metal cases, provided with ribbon leads. May be used in any receiver as oscillator grid condensers, padders, etc. Part No. 2269 is used in RCA Models 21, 22, 60,62 $64,28,28 \mathrm{P}, 37,38$, RE40P, 120,330 and 331 Part No. 2734 is used in Models $80,82,86, R 7$, $8,9,10,11$, RE18, RAE26, RAE68, R21, 74, $76,77,110,111,115,210$ and 310 . XB539 Part No. 2269. 720 Mmf XB540-Part No. 2734. 745 Mmf. Your Cost, Either Type

## EVEREADY 50 By-Pass

Exact duplicate of the original Eveready Part No. 2822. Contains three .5 mfd .400 volt condensers. Can negative. Can be used us a general replacement part. Shpg. wt.
1 lb .
$\times 8541$ Your Cost 75

(111)
Condenser Analyzer


Tests paper mica, and
oil djelectric ondensers by the methring the D. C.resistance underanapplicd voltage. The re ultant mi current is means of al special Neon Glow Tube Indicator. Three simply operated controls adjust the circuit for the allowable electrical characteristics of the condenser under test. Checks opens, shorts, leakages, and intermittent condensers. Unit contains built-in power supply for operation on 110 volts, 60 cycles A. C. Voltages up to 700 volts D. C. available at terminals. An ' 01 A tube is used for the rectifier. In heavy metal case $33 / 4 \times 43 / 2 \times 71 / 2$ ". Case is finished in durable black lacquer for protection against rust. All switches, binding posts, etc., are clearly labeled on the etched front panel. Shpg. Wt. 8 lbs. Neon Tube but less '01A $\$$..... $\$$ IS

## ABSOLUTELY DRY ELECTROLYTIC CONDENSERS



Cardboard Container Single and Dual Sections The cardboard box type of dry electrolytic condenser offers the maximum mid. capacity combined with minimumsize and weight. It and lends itself most readily to any position of mounting. Ideal for
replacing blown paper condensers by simply slipping in to the original containers. D.C. Working Voltage -450; Maximum Surge Voltage

Stock
$\times D 2775$
XD2776
$\times \mathrm{XD} 2777$
XD2778
$\times D 2779$
$\times D 2780$
XD 2780
$\times \mathrm{D} 2782$
XD 2782
$\times \mathrm{XD} 2783$

## Tubular Cartridge Dry Electrolytic

Tubular dry electrolytics completely sealed by special metal caps in each end and impregnated with special insulating wax, insuring long and satisfactory life. Are $23 / 4$ " Jong: diameter given below. Shpg. wit. 1 lh .

Ca
electro
by sp
dand im
nsulatin
d satisf
diam
ilh.
Dimension

## Stock

 No.$\times \mathbf{N D 2 7 8 6}$
$\times \mathbf{~} 2787$ XD 2787
$\times \mathrm{D} 2784$
$\times 2788$ $\mathbf{X D 2 7 8 4}$
$\times \mathrm{D} 2788$
$\times$
XD 2788
$\times \mathrm{D} 2797$
$\times$
$\times D 2797$
$\times 02799$
X
$\times \mathrm{D} 2789$
$\times \mathrm{D} 2790$
$\times D 2798$
$\times D 2790$
$\times \quad 2791$
$\times D 2792$
XD 2791
$\times{ }^{2} 2792$
XD 2792
$\times \mathrm{O} 2793$
XD2793
57
 Upright Can Type
Furnished in
round aluminum round aluminum cans with solder
lug terminals. All negative terminals are grounded to the container. Can be mounted in any position. Working voltage 500 V. D.C.; peak high. Average
 high. Average
shpg. wt. 2 lbs.

## IRC Vacuum Relay Protected <br> Volt-Ohmeter

## An extremely accurate Volt-Ohmeter

 incorporating a vacuum relay which prevents burnouts due to accidental ontacts. Relay automatically opens immediately closes when overload is removed. Unlike a fuse, it does not require replacement. Uses Westinghouse $0-1$ mill. meter with ranges of: -3-30-300.600 volts; 0-1000-100,000 ohms with self contained battery (to 1 meg. with external battery). Rotary selector switch is used to govern rangesesired. Case is of moulded bakelite 7
 IRC precision $1 \%$ resistors used throupholong, $3^{\prime \prime}$ deep and $4^{\prime \prime}$ wide.


## NEW: 1 IC

## Fused Dual Resistor Indicator



[^6] Two scales used: low 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 ball-bearing slider. Scales quickly selected by flipping contact knob from one side to the cther. Comes complete with new type narrow-jaw alligator teat Leads. Size $7 \times 11 / 2 \times 23 /{ }^{\prime \prime}$. Shpg. wt. 2 lbs, List $\$ 4.50$
KE5295 Fused Dual Resistor Indicator
Your Cost..........................................................

## IRC

## Metallized

## Resistor Kits <br> \section*{Certified Kit No. I}

 tested units. Shpg, wt. 2 lbs.XE5272-List $\$ 4.00$
Your Cost.

## Rectangular Metal Can Type Single and Dual Sections

 These single and dual section electrolytic condensers are housed in rectangular metal cans with mountingflanges. The ease and rapidity with which they can be installed makes them preferred by servicemen. Have solder lug terminals, all sections insulated from the can. Working voltage
450 volts D.C.; Peak 500 volts. All containers 4/5/2 high. Terminals marked for
ease of identification. Shpg.


## Cardboard By-pass

The cardhoard By-pass type is to provide the serviceman with a dry electrolytic condenser smaller in size than the paper condensers originally used. High capacity units
ideally suited for by-passing eathideally suited for by-passing eath-
ode circuits. Size $2 \% / 8 \times 1^{\prime}$ is ${ }^{*}$. Shpg. wt. 1 lb .

|  | Wap. | D.C. |  |
| :---: | :---: | :---: | ---: |
| Stock | Cark | Your |  |
| No. | Mid. | Volts | Cost |
| ND2766 | .25 | 450 | $\mathbf{5 0 . 3 0}$ |
| XD2767 | .50 | 450 | .33 |
| XD2781 | .75 | 450 | .33 |
| XD2768 | 1.0 | 450 | .33 |
| XD2769 | 2.0 | 450 | .39 |
| XD2770 | 4.0 | 200 | .39 |
| XD2771 | 10.0 | 100 | .42 |
| XD2772 | 25.0 | 50 | .48 |
| XD2773 | 10.0 | 25 | .30 |
| XD2774 | 25.0 | 25 | .39 |
| XD2798 | 50.0 | 25 | .57 |

The original I.R.C. Kit that proved so popular with Service Men Contains twenty 1 watt Metallized Units ranging from 500 ohms tw 3 megohms. The certified seal insures factory guarantee and factorym
s2.40

## Certified Kit No. 2

Contains an assortment of twenty type F-2. Two Watt Resistors. Made for Service Men requiring units of higher wattage. Values range from 500 ohms to $1 / 2$ megohm. Factory sealed, factory tested and factory guaranteed. Shpg. wt. 3 lbs.
XF5272-Li
Your Cost.
s 3.60

Certified Kit No. 3
Midget receivers have brought into existence midget resistors Kit consists of the most popular values used by radio set manufacturers. Kit contains 20 Typ F-1/2 (1/2 watt) resistors from 5 H ohms to 3 megohms. Shpg. wt. 3 lbs.
Xe5258-List \$4.00 \$2.49

## NEW! Handy Grid-Bias Kit

10 assorted resistors of F-1, F-2 and Power Wire Wound (5 watt) types required to bias the following tubes: $24,26,27,71 \mathrm{~A}, 10,46,50$, 47, etc. Can also be used as grid-suppressors. Complete information on the proper biasing of radio tubes, together with wiring diagrams with each kit. Shpg. wt. 2 lbs
XE5274-List \$2.60
Your Cost

# Power Wire <br> Precision Wire Wound Resistors 

Wound Resistors


Tolerance 5\％
Power Wire Wound Resistors con－ tinue their leadership with these new high wattage unitw．They are （at $250^{\circ} \mathbf{C}$ ．）and moderate in price All machine－wound on non－hygro－ scopic cores．Ha ve molded end con－ tacts．Select desired size from list－ ing．Prices of various types given in columns below．

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: |
| 1 | 500 | 4000 | 15000 |
| 5 | 750 | 4500 | 000 |
| 10 | 100 | 5000 | 25000 |
| 25 | 1250 | 6000 | 30000 |
| 50 | 1500 | 7000 | 35000 |
| 75 | 2000 | 7200 | 4000 |
| 100 | 2250 | 7500 | 000 |
| 150 | 2500 | 10000 | 60000 |
| 0 | 3000 | 12000 | 75000 |
| 250 | 3500 | 12500 | 100000 |

10－Watt Rating（Max．） 13／＂long by 5／0＂diameter．Range up to $25,000 \mathrm{ohms}$（see list）． XE5210 List $\$ 0.35$ Your Cost Each $\qquad$ $21^{\circ}$ Type＂PC＂
20－Watt Rating（Max．） $2^{\prime \prime}$ long by ${ }^{90} \mathbf{D N}^{n}$ diam．Range up to 50,000 ohms（see list）

| No． | From | To | Each |
| :---: | ---: | :---: | :---: |
| XE5211 | 1 | 9900 | 50.30 |
| $\times \mathbf{X E 5 2 1 2}$ | 10,000 | 50,000 | .39 | XE5212 $\qquad$ 50，000

Type＂PD＂
30－Watt Rating（Max．） $3^{3}$＂long by 9 ＂．＂diam．Range up to Stock Range Ohms Cost Xe5213 From To Each $\begin{array}{lrrr}\text { XE5213 } & 1 & 1,500 & 50.39 \\ \text { XE5214 } & 5,000 & 15,000 & .45\end{array}$ XE5215 20,000 15，000 XE5216 $20,000 \quad 75,000$ 100,000


23／8＂L．$\times$ 疗＂ WW1 Guaranteed Accuracy
$1 \%$ WW1

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Res． Ohms | Cur． M.A. | Your Cost | $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Res． Ohms | Cur． M．A． | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XE5150 | 1 | 1，000 |  | XE5148 | 15，000 | 8.15 |  |
| XE5151 | 2 | 707 |  | XE5171 | 20，000 | 7.05 |  |
| XE5152 | 3 | 577 |  | XE5149 | 22，500 | 6.64 |  |
| XE5153 | 4 | 500 |  | XE5172 | 25，000 | ${ }^{6.32}$ | $98{ }^{\text {c }}$ |
| XE5154 | 5 | 448 |  | XE5173 | 30，000 | 5.75 | 90 |
| XE5155 | 6 | 407 |  | XE5174 | 35，000 | 5.35 |  |
| XE5156 | 7 | 377 |  | XE5175 | 40，000 | 5.00 |  |
| XE5157 | 8 | 353 |  | XE5176 | 50，000 | 4.47 |  |
| XE5158 | 9 | 333 |  | XE5177 | 60，000 | 4.08 | 14 |
| XE5159 | 10 | 316 |  | XE5178 | 75，000 | 3.64 |  |
| XE5160 | 25 | ${ }_{141}^{200}$ |  | XES189 | 80，000 | 3．53 | 1.30 |
| XE5161 | 50 100 | 141 | $81^{c}$ | XE5179 | 100,000 125,000 | 3.16 2.82 |  |
| XE5163 | 150 | 81 |  | XE5181 | 150，000 | 2.58 | 46 |
| XE5164 | 200 | 71 |  | XE5182 | 175，000 | 2.46 | 163 |
| XE5165 | 500 | 4.6 |  | X ${ }^{\text {K }} 18183$ | 200，000 | 2.23 |  |
| XE5186 | 1，000 | 31.6 |  | XE5184 | 225，000 | 2.11 | 1.79 |
| XE5143 | 1,500 | 25.7 |  | XE5185 | 250，000 | 2.00 | 1.75 |
| XE5144 | 2，000 | 22.4 |  | XE5190 | 275，000 | 1.90 | 1.95 |
| XE5167 | 2,500 | 20.0 18.2 |  | X ${ }^{\text {X }}$ | 300,000 | 1.83 |  |
| X $\times 14145$ | 3,000 5,000 | 18.2 14.1 |  | X | 350,000 400,000 | 1.69 1.58 1 | 2.28 |
| XE5146 | 7，000 | 11.8 |  | XE5192 | 450，000 | 1.49 | 60 |
| XES147 | 7,500 10,000 | 11.4 10.0 | $88^{c}$ | XE5188 $\mathbf{X E 5 1 9 3}$ | 500,000 75000 |  | d |
| （ | 12，500 | 10.7 <br> 8 | 08 | XE5193 $\mathbf{X E 5 1 9 4}$ $\mathbf{X}$ | ${ }_{1}^{750,000}$ | 1.11 1.00 | 2.93 3.25 |
|  |  |  |  | XE5195 | $1 / \frac{\text { Mes．}}{}$ | ． 89 | 4．88 |

## WW3

 XE5125 200 XE5131 10，000 $\quad 72 \mathrm{C}$ XE5337 35．000 $\times E 5126300 \times 5513212,500$ XE5124 500 5gc XE5133 15，000 XES124
$\times 1,000$
$\times 129$
C XES5134 20,000 XES127 1，000
XES128 2，500
XES128 2，500
$\times \quad 51295,000$
XE5130 7，500

## Cement Coated Adjustable Resistors

100 Watt Size［Max．］


Combining all the adjustable features with the standard I．R．C．power wire－ wound quality，these units are idend for service and amateur radio requirements． By moving the metal contact band along the exposed track of resistance wire，practically any desired resistance up to the maximum value of the resistor may be obtained and proper voltages determined experimentally．May be used as bleeders across amateur power supplies，as grid leaks，or anywhere a quality resistor of these ratings is required．By use of more than one contact band，units can be used as multi－section voltage dividers．Come complete with one slider amd mounting brackets．Size 61ミ＂凤新＂

| 100－Watt Resistors（Max．） |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No． | Res． Ohms | Cur． <br> M．A． | Your Cost | Stock No． | Res． Ohms | Cur． <br> M．A | Your Cost |
| XE5104 | 100 | 1，000 |  | XE5114 | 7，500 | 115 | \＄1．20 |
| XE5105 | 200 | 815 | \＄1．08 | XE5115 | 10，000 | 100 | 1.35 |
| XE5106 | 400 | 500 | 1.00 | $\times$ XE5116 | 15，000 | 80 | 141 |
| XE5107 | 500 | 447 |  | XE5117 | 20，000 | 70 |  |
| XE5108 | 750 | 365 |  | XE5118 | 25，000 | 63 | 1.50 |
| XE5109 | 1，000 | 315 |  | XE5119 | 50，000 | 44 | 159 |
| XE5110 | 1，500 | 250 | 114 | XE5120 | 75，000 | 36 | 1.71 |
| X 55111 | 2，000 | 220 | 1.14 | XE5121 | 100，000 | 31 |  |
| X C 5112 | 2，500 | 200 |  | $\times$ XE5122 | 125，000 | 28 | 77 |
| XE5113 | 5，000 | 140 |  | XE5123 | 150，000 | 25 |  |
| Extra Band Sliders．Your Cost Each ．．．．．．．．．．．．．．．．． 50.12 |  | Your Cost Each ．．．．．．．．．．．．．．．．． s0．12 |  |  |  |  |  |

## Heavy Duty Transmitting Resistors

100 Watt Size［Max．］
Theee sturdy，high wattage resistors， designed for amateur transmitting， experimental，broadcasting and in－
dustrial use，meet the demand for
units able to dissipate large a mounts
of power．Accurately wound on non－hygroscopic ceramic bases and protected by the new I．R．C．cement coating．All ratings based on NEMA standards．Units provided with solder lug terminals．Other reatures include：Low co－efficient of expansion；high resistance to oxidation ；rapid heat dissipation；permanent resistance value．Come complete with mounting brackets．Tolerance plus or minus $5 \%$ ．Size $61 /{ }^{\text {＂}}$ long， $11 /{ }^{*}$ diameter

| 100－Watt Resistors（Max．） |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No． | Res． Ohms | Cur．Your <br> M．A．Cost | Stock No． | Res． <br> Ohms | Cur． <br> M．A | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| XE5217 | 100 | 1，000 | XE5228 | 5，000 | 140 | \＄0．78 |
| XE5218 | 250 | 632 | XE5229 | 7，500 | 115 |  |
| $\times$ X 5219 | 400 | 500 | XE5230 | 10，000 | 100 | $84^{\circ}$ |
| XE5220 | 500 | 447 | XE5231 | 15，000 | 80 |  |
| XE5221 | 750 | 365 72c | XE5232 | 20，000 | 70 | $90{ }^{c}$ |
| X $\times 5222$ | 1，000 | 315 | XE5233 | 25，000 | 63 | 90 |
| XE5223 | 1，250 | 280 | XE5234 | 50,000 | 44 | 1.02 |
| XE5224 | 1，500 | 220 | $\times \mathrm{C} 235$ | 75，000 | 36 | 1.20 |
| XES225 | 2，000 | 220 | $\times 55236$ | 100，000 | 31 | 1.38 |
| $\times \mathrm{C} 5226$ | 2.500 | 200 | $\times \mathrm{C} 5237$ | 125，000 | 28 | 150 |
| XE5227 | 4，000 | 155 | XES238 | 150，000 | 25 | 1.65 |



## Handy Resistance Kits <br> 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, neatly mounted on a pair of strips. Have hole at one end for hanging on a nail or hook By retilling them from our By retiling them from our are used, you are equipned with 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 all) $200,400,500,600,700,800,1250$, $1500,2000,2500,3000,3500,4000,5000$, $6000,7500,8000,10000,12500$ and 15000 ohms.
XE4436-One each of the following resistances (20 in all) $17500,20000,25000,30000,40000$, $50000,60000,70000,75000,100000,125000$ $150000,200000,250000,300000,500000$, 1 Meg., $11 / 2$ Meg., 2 Meg., $21 / 2$ Meg.

## I-Watt Kits

Two Strips [20 Resistorstoakit] XE4430-One each of the following resistances (20 in all), 200, 400, 500, 600, 800, 1000, 1500, $2000,2500,3000,4000,5000,6000,8000$ 25000 XE4431-One each of the following resistances ( 20 in all), $30000,40000,50000,60000,75000$, $100000,125000250000,500000,750000$ ohms: $1,1.5,2,3,4,5,6,7,8$ and 10 Meg .

## 2-Watt Kits

Two Strips [12 Resistors toakit] XE4443-One each of the following resistances ( 12 in all), 200, $500,1000,1500,2000,2500$, $3000,4000,5000,6000,8000,10000$ ohnis. 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 hove kit,
$\$ 5.31$

1. 1 WITH EACH PURCHASE OF (1) 3 OR MORE THuTQAE RESISTORS, A SERVICEABLE QOCHET SIZE
COLOE COQE

\section*{1/2-Watt, 1-Wist <br> Cost <br> Each <br> Per Dozen 75c <br> 

Per Hundred $\$ 5.9$


GENERAL REPLACEMENT RESISTORS
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 jdentification and are made o the finest material and workmanship. Guar anteed accuracy, $10 \%$ plus or minus. The a verage are within $5 \%$. Resistance values read approximately the same at any normal voltage -most important for resistance service work. No moisture can possibly penetrate, so age cannot change the resistance value. Great mechanical strength eliminates any chance of accidental breaksge.

PRECISION MANUFACTURING-Care fully calibrated resistance material is moulded in a solid form and fired at a high temperature so that no ordinary service or overload tem perature can damage the resistor. Tinned wire leads are forced onto the caps under great pressure to insure a perfect, noiseless connection.

| Resistance Ohms | 12-Watt Stock No. | 1-Watt Stock No. | 2-Watt Stock No. | Resistance Ohms | 1/2-Watt Stock: No. | 1-Watt Stock No. | 2-Watt Stock No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 200 | XE4250 | XE4300 | XE4450 | 20000 | XE4273 | XE4323 | XE4473 |
| 300 | XE4245 | XE4348 |  | 25000 | XE4274 | XE4324 | XE4474 |
| 400 | XE4251 | XE43C1 | XE4451 | 30000 | XE4275 | XE4325 | XE4475 |
| 500 | XE4252 | XE4302 | XE4452 | 40000 | XE4276 | XE4326 | XE4476 |
| 600 | XE4253 | XE4303 | XE4453 | 50000 | XE4277 | XE4327 | XE4477 |
|  |  |  |  | 60000 | XE4278 | XE4328 | XE4478 |
| 700 | XE4254 | XE4304 | XE4454 | 70000 | XE4279 | XE4329 | XE4479 |
| 800 | XE4255 | XE4305 | XE4435 | 75000 | XE4280 | XE4330 | XE4480 |
| 1000 | XE4256 | $\times E 4306$ | XE4456 | 100000 | XE4281 | XE4331 | XE4481 |
| 1250 | XE4257 | XE4307 | XE4457 | 125000 | XE4282 | XE4332 | XE4482 |
| 1500 | XE4258 | XE4308 | XE4458 |  |  |  |  |
|  |  |  |  | 150000 | XE4283 | XE4333 | XE4489 |
|  |  |  |  | 200000 | XE4284 | XE4334 | XE4484 |
| 2000 | XE4259 | XE4309 | $\times \mathrm{E} 4459$ | 250000 | XE4285 | XE4335 | XE4485 |
| 2500 | XE4260 | XE4310 | XE4460 | 300000 | XE4286 | XE4336 | XE4486 |
| 3000 | XE4261 | XE4311 | XE4461 | 400000 | XE4247 | XE4350 |  |
| 3500 | XE4262 | XE4312 | XE4462 | 500000 | XE4287 | XE4337 | XE4487 |
| 4000 | XE4263 | XE4313 | XE4463 |  |  |  |  |
|  |  |  |  | Megohms |  |  |  |
| 5000 | XE4264 | XE4314 | XE4464 | $\begin{aligned} & 1.5 \end{aligned}$ | XE4288 | XE4338 |  |
| 6000 | XE4265 | XE4315 | XE4465 | 2.5 | $\begin{array}{r} \text { XE4248 } \\ \times E 4289 \end{array}$ | $\begin{aligned} & \text { XE4351 } \\ & \times E 4339 \end{aligned}$ |  |
| 7000 | XE4266 | XE4316 | XE4466 | 2.5 | XE4249 | $\begin{aligned} & \text { XE4339 } \\ & \text { XE4352 } \end{aligned}$ |  |
| 7500 | XE4267 | XE4317 | XE4467 | 3.5 | $\begin{aligned} \text { XE4249 } \\ \text { XE4290 } \end{aligned}$ | $\begin{array}{r} \text { XE4352 } \\ \times E 4340 \end{array}$ |  |
| 8000 | XE4268 | XE4318 | X=4468 | 4 | $\begin{array}{r} \text { XE4290 } \\ \times \leq 4291 \end{array}$ | $\begin{aligned} & \text { XE4340 } \\ & \text { XE4341 } \end{aligned}$ |  |
| 9000 | XE4246 | XE4349 |  | 5 | XE4292 | XE4342 |  |
| 10000 | XE4269 | XE4319 | XE4469 | 6 | XE4293 | XE4343 |  |
| 12000 | XE4270 | XE4320 | XE4470 | 7 | XE4294 | XE4344 |  |
| 15000 | XE4271 | XE4321 | XE4471 | 8 | XE4295 | XE4345 | $\square$ |
| 17000 | XE4272 | XE4322 | XE4472 | 9 10 | XE4296 $\times \times E 4297$ | XE4346 |  |

## 2-Watt Your <br> Your Cost

Cost


50 For $\$ 5.25$

## s 1.98

Net
R. M. A.

Color Coded Resistors n Sturdy metal Boxwith Hinged Cover

## Free! <br> Color Code <br> Chart

## Trutest Carbon Resistor Kits

## For the Serviceman's Tool Kit or Workbench

Twenty-five Certilied Trutest R. M. A. Forty-eight Certified Trutest R. M. A. color coded 1 -watt resistors in a neat and color coded resistors ot the most popular alzes durable finished metal case measuring $41 / 8 \mathrm{x}$ in a substantial metal case. Size $101 / 4 \times 41 / 4 \mathrm{x}$ $61 \mathrm{x}-$ " deep. The handiest arrancement ever 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 $200 \quad 1000 \quad 10000 \quad 30000 \quad 100000$ $\begin{array}{lllll}400 & 2000 & 12500 & 40000 & 250000 \\ 500 & 3000 & 15000 & 50000 & 500000\end{array}$ $\begin{array}{lllll}500 & 3000 & 15000 & 50000 & 500000 \\ 700 & 4000 & 20000 & 60000 & 1 \text { Meg. } \\ 800 & 6000 & 35000 & 75000 & 2 \text { Meg. }\end{array}$ XE4432-Shpg. wt. $11 / \mathrm{I}$ lbs. $\$$ I. 98
$3 \mathrm{f}^{\prime \prime}$ deep. Contains one each of the following high grade resistors:

| 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 Meg. |
| 1-2500 | 1-15000 |  |  |
| XE4433 | Shippin | eight |  |

## TIuctest Eitreous Resistors

## Trutent VITREOUS-ENAMELED FIXED RESISTORS



All resistances are guaranteed to be within plus or minus $10 \%$ of their rated value, most are within $5 \%$.

| 2/bx13/ Isolantite Tube 10-Watt Rating |  |  |  |  | $1 / 2 \times 2^{\prime \prime}$ Isolantite Tube, 20-Watt Rating |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock |  | Milli- |  | Your | Stock No. | Ohms. | Millia mps. | Volts | Your Cost |
| No. | Ohms | amps. | Voles | Cost | XE4910 | 25 | 895 | 22 |  |
| XE4850 | 1 | 13150 | 3 |  | XE4911 | 50 | 633 | 32 |  |
| XE4851 | 2 | 22200 | 4.5 |  | XE4912 | 75 | 517 | 38 |  |
| XE4854 | 5 | 51400 | 7 |  | XE4913 | 100 | 447 | 44 | 190 |
| XE4856 | 10 | 1000 | 10 |  | XE4915 | 200 | 316 | 63 | 18 |
| XE4858 | 15 | 5800 | 12 |  | XE4916 | 250 | 282 | 70 |  |
| XE4859 | 20 | - 700 | 14 |  | XE4917 | 300 | 258 | 77 |  |
| XE4860 | 25 | 630 | 16 |  | XE4919 | 400 | 224 | 90 |  |
| XE4861 | 30 | - 570 | 17 |  | XE4920 | 500 | 200 | 100 |  |
| XE 4863 | 40 | 500 | 20 |  | XE4923 | 750 | 163 | 122 |  |
| XE4864 | 50 | - 450 | 22 |  | XE4925 | 850 | 153 | 130 |  |
| XE4866 | 100 | - 315 | 31 |  | XE4926 | 1000 | 141 | 141 |  |
| XE4868 | 150 | 260 | 39 |  | XE4929 | 1250 | 126 | 157 | $23^{\circ}$ |
| XE4869 | 200 | 220 | 45 |  | XE4930 | 1500 | 115 | 173 | 3 |
| XE4870 | 250 | 200 | 50 | 7 c | XE4933 | 2000 | 100 | 200 |  |
| XE4872 | 400 | 158 | 63 |  | XE4934 | 2250 | 94 | 211 |  |
| XE4873 | 500 | 141 | 70 |  | XE4935 | 2400 | 91 | 218 |  |
| XE4875 | 750 | 115 | 85 |  | XE4936 | 2500 | 89 | 222 |  |
| XE4876 | 1000 | 100 | 100 |  | XE4938 | 3000 | 81 | 240 |  |
| XE4878 | 1500 | -81 | 122 |  | XE4940 | 4000 | 71 | 284 |  |
| XE4879 | 2000 | - 70 | :41 |  | XE4942 | 5000 | 63 | 315 |  |
| XE4880 | 2500 | - 63 | 158 |  | XE4943 | 6000 | 57 | 342 | 20 |
| XE4881 | 3000 | - 56 | 173 |  | XE4946 | 8000 | 50 | 400 | 7 |
| XE4883 | 5000 | - 45 | 222 |  | XE4947 | 10000 | 44 | 440 |  |
| XE4886 | 10000 | 31 | 316 | List | XE4948 | 12500 | 40 | 500 |  |
| XE4888 | 15000 | - 26 | 388 | Price | XE4949 | 15000 | 37 | 550 |  |
| XE4889 | 20000 | - 22 | 440 | Each | XE4950 | 25000 | 28 | 700 | 32 c |
| XE4890 | 25000 | - 20 | 500 | \$0.35 | XE4951 | 35000 | 24 | 850 | 32 |


| \% $4^{\prime \prime}$ " Isolantite Tube 50-Watt Rating |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock |  | Milli- |  | Your | Stock |  | Milli- |  | Your |
| No. | Ohms | amps. | Volts | Cost | No | Ohms | ampa. | Volts | Cost |
| XE4955 | 10 | 2230 | 22 |  | XE4973 | 7500 | 81 | 610 | \$0.38 |
| XE4956 | 20 | 1581 | 36 |  | XE4976 | 10000 | 70 | 700 | .42 |
| XE4958 | 100 | 707 | 70 |  | XE4978 | 12500 | 63 | 790 | $45^{\text {c }}$ |
| XE4959 | 250 | 447 | 111 | c | XE4979 | 15000 | 57 | 850 | 3 |
| XE4960 | 500 | 316 | 157 |  | XE4981 | 20000 | 50 | 1000 |  |
| XE4962 | 750 | 258 | 192 |  | XE4982 | 25000 | 44 | 1100 |  |
| XE4963 | 1000 | 223 | 200 |  | XE4983 | 30000 | 41 | 1200 |  |
| XE4964 | 1500 | 182 | 275 |  | XE4984 | 40000 | 35 | 1400 |  |
| XE4965 | 2000 | 158 | 315 |  | XE4985 | 50000 |  | 1550 |  |
| XE4969 | 4000 | 111 | 450 | - | XE4986 | 60000 | 29 | 1750 | .53 |
| XE4970 | 5000 | 100 | 500 |  | XE4987 | 75000 |  | 1950 | 7 c |
| XE4971 | 6000 | 91 | 540 |  | XE4988 | 100000 | 22 | 2200 |  |

## Trutest VITREOUS ENAMELED SEMI-VARIABLE RESISTORS



All provided with one sliding contact. Special contact button shorts out very little resistance. Accuracy within $10 \%$. 25 Watts (2"Longx ${ }^{\prime \prime}{ }^{\prime \prime}$ o. d.)
Stock Resist. Max. Jist Your
No. Ohms Current PriceCost

in M.A. |  |  |  |  |
| :--- | ---: | ---: | ---: |
| $\times \times 20740$ | 1 | in M.A. |  |
| $\times 2000$ | $\$ 0.85$ |  |  |
| $\times \times 20741$ | 2 | 3500 | .85 |
| $\times \times 20742$ | 3 | 2800 | .85 |
| $\times \times 20743$ | 5 | 2225 | .85 |
| $\times \times 20744$ | 10 | 1500 | .85 |
| $\times \times 20745$ | 20 | 1100 | .85 |
| $\times \times 20746$ | 50 | 700 | .85 |
| $\times \times 20747$ | 100 | 500 | .85 |
| $\times \times 20748$ | 200 | 353 | .85 |
| $\times \times 20750$ | 500 | 224 | .85 |
| $\times \times 20751$ | 750 | 182 | .85 |
| $\times \times 20752$ | 800 | 177 | .85 |
| $\times \times 20753$ | 1000 | 158 | .85 |
| $\times \times 20754$ | 1500 | 129 | .85 |
| $\times \times 20755$ | 2000 | 112 | .85 |
| $\times \times 20757$ | 2500 | 100 | .85 |
| $\times \times 20759$ | 4000 | 79 | .85 |
| $\times \times 20760$ | 5000 | 71 | .85 |
| $\times \times 20761$ | 6000 | 64 | .85 |
| $\times \times 20762$ | 7000 | 60 | .85 |
| $\times \times 20763$ | 8000 | 56 | .85 |
| $\times \times 20765$ | 10000 | 50 | .85 |
| $\times \times 20795$ | 15000 | 41 | .85 |
| $\times \times 20796$ | 20000 | 35 | .85 |
| $\times \times 20797$ | 25000 | 32 | .85 |

50 Watts ( 4 Long x 5 o. d.)
Stock Resist. Max. List Your
No. Ohms Current Price Cost No. Ohms Current Price Cost
$\times \times 20770$
$\times 100$
$\times \mathbf{~ i n ~} . A$.

$\times 20771$ | $\times \times 20770$ | 100 | 700 | $\$ 1.30$ |
| :---: | :---: | :---: | :---: |
| $\times \times 20771$ | 200 | 500 | 1.30 |
| $\times \times 20772$ | 300 | 406 | 1.30 |
| $\times \times 20773$ | 400 | 353 | 1.30 |
| $\times \times 20774$ | 500 | 316 | 1.30 | $\begin{array}{rrrr}\times \times 20775 & 800 & 252 & 1.30 \\ \times \times 20776 & 1000 & 224 & 1.30\end{array}$ $\begin{array}{rrrr}\times 20776 & 1000 & 224 & 1.30 \\ \times \times 20777 & 1500 & 182 & 1.30 \\ \times \times 20778 & 2000 & 158 & 1.30\end{array}$ $\times 20778$

$\times \times 20779$
$\times \times 2$ $\begin{array}{llll}\times \times 20779 & 2500 & 141 & 1.30 \\ \times \times 20780 & 3000 & 129 & 1.30 \\ \times \times 20781 & 4000 & 112 & 1.30 \\ \times \times 20782 & 5000 & 100 & 1.30\end{array}$ $\times \times 2$
$\times \times 2$
$\times \times 2$ $\times 20784$
$\times \times 20785$
$\times \times 20786$ $\times 20786 \quad 9000$
$\times \times 20787 \quad 1000$ $\times \times 207871000$
$\times \times 2078812000$ $\times 2078915000$
$\times \times 2079020000$ 2079125000
$\times \times 2000$ $\times 2079230000$
$\times \times 2079340000$ $\times 2079450000$

Trutest 5 Watt Pigtail Resistors-Tolerance Within $2 \%$


These Trutest resistors are wound with gen-
uine nichrome wire on fine porcelain tubes. Guaranteed accuracy within $2 \%$. Pigtail connections are solidly anchored. Will stand considerable overload without burnine out Stock XE4390 XE4391
$\times \mathbf{X E} 4392$


| Stock No. | Res. Ohms | Stock No. | Res. Ohms | Stock No. | Req. Ohms | Stock No. | Res. Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XE4402 | 500 | XE4469 | 1750 | XE4416 | 5000 | XE4423 | 15000 |
| XE4403 | 600 | XE4410 | 2000 | XE4417 | 6000 | XE4424 | 17500 |
| XE4404 | 750 | XE4411 | 2250 | XE4418 | 7000 | XE4425 | 20000 |
| XE4405 | 900 | XE4412 | 2500 | XE4419 | 8000 | XE4426 | 22500 |
| XE4406 | 1000 | XE4413 | 2750 | XE4420 | 9000 | $\times$ X ${ }^{\text {2 }} 4427$ | 25000 |
| XE4407 | 1250 | XE4414 | 3000 | XE4421 | 10000 |  |  |
| XE4408 | 1500 | XE4415 | 4000 | XE4422 | 12500 |  |  |
| Your Cos <br> Any Siz | Eac |  |  |  |  |  |  |

## Thutest Ohm Indicator

[^7]

Enameled Voltage Dividers
Can be used in $90 \%$ of Receiters
Wound with the finest kind of resistance wire on porcelain tubes coated with vitreous enamel except for a narrow strip along the side where the sliders make contact. Come complete with easily attached mountE brackets. shpg. w. 1 ib.
50 wath 3 人 $x 4^{\prime \prime}$ long Taps
Equipped with 5 Variable Taps
$\times \times 20732$
$\times 20733$
$\times \times 20734$
$\times \times 25$
$\times \times 20735$

25000 ohms $\$ 1.29$ $\left.\begin{array}{l}36000 \text { ohms } \\ 41000 \text { ohms }\end{array}\right\} \$ 135$ 45000 hms


| Name and Model | Resistance | Stock No. | Your Cost | Name and Model | Resistance | Stock No. | Your $\operatorname{Cos}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL AM. MOHAWK |  |  |  | Crosley |  |  |  |
| A, B, C, D, E, F, G, H. | 2000-2000-1000-300-900 | $\times \times 20402$ | \$0.90 | 704AC | 3475-1525 | $\times \times 20485$ | \$0.48 |
| C-6 | 3000-2000-2500-900 | $\times \times 20403$ | . 90 | 77, 77-1, 120. | 1750-2000-225-320 | $\times \times 20486$ | . 90 |
| Lyric K........ | $\begin{aligned} & 908-150-650-40-250- \\ & 2000-1700 \end{aligned}$ | X $\times 20404$ | . 90 | DAYFAN |  | K $\times 20488$ | 70 |
| APEX |  |  |  | 5050 Power Unit. |  | KX20488 | . 70 |
| 10. | 500-1000-1800-600-425 | $\times \times 20407$ $\times \times 20409$ | . 83 |  | 180-650 | $\times 20489$ | 1.15 |
| 26.1 | $1000-2640$ $640-360-2640$ | P $\times \times 20409$ $\times \times 20410$ | . 65 | 5080 Power Unit. | 1100-100-2000-3300-950 | X $\times 20490$ | 1.10 |
| 27. | 4700-8400-10700 | $\times \times 20411$ | .73 | EARL |  |  |  |
| 48 | 700-2200-70 | $\times \times 20413$ | . 75 | 31,31S, 32, 32S, 41,33,33S | 4000-0-750 | $\times \times 20491$ | . 48 |
| ARGUS |  |  |  | EDISON |  |  |  |
| B-195. | 4000-0-460-700-65-0-280 | $\times \times 20415$ |  | R-1, R-2, C-2 | 12500 | $\times 20492$ | . 49 |
|  |  |  |  | R-4, R-5, C-4 | 10000 | $\times 20493$ | . 40 |
| B ALKEIT |  |  |  | All Models. | $750-750$ | + $\times 20495$ | . 62 |
|  | 4500-650 | $\times \times 20423$ | . 55 |  |  |  |  |
| BOSCH |  |  |  | 42, 44, 41, 46, 47. | 800-300-100 | X $\times 20497$ | . 65 |
| 28 | 5000 | $\times \times 20427$ | . 55 | FEDERAL |  |  |  |
| 29-8 | 10000-10000 | $\times \times 20428$ | . 85 | D. E. F. G. Units. | 135-2000-300-350 | $\times \times 20499$ | . 95 |
| 29-825 | 2000 | $\times \times 20429$ | . 24 | H Unit.......... | 3500-13000 | $\times \times 20500$ | . 80 |
| 48 | 950-1450-2000 | $\times 20431$ | . 65 | FREED |  |  |  |
| $\begin{aligned} & 49 \because 0 \dot{D} \\ & 540 \end{aligned}$ | $1650-800-1950$ 22 ohms | $\begin{aligned} & \times \times 20432 \\ & \times \times 20435 \end{aligned}$ | . 65 | 78, 78S, 79, 79 S , 90. |  |  |  |
| 62, 63 AC | 1400-2600-250 | $\times \times 20437$ | .70 | $85,65$. | 4000-0-750 | $\times \times 20491$ | . 55 |
| ANDES |  |  |  | FRESHMAN |  |  |  |
| B-10... | 5600-0-1800-1 40-1000 | $\times 20439$ | . 38 | N-11, N-12. | 2200-6600-3300-4500- | $\times \times<0508$ | . 60 |
| B-11 | 1800-0-450-45-2500 | $\times \times 20440$ | . 88 | "G | 2100-3000-4300-1250-300 | $\times \times 20509$ | . 65 |
| B-15, B-16. | 2500-45-410 | $\times \times 20441$ | . 80 | M60-S | 10000-12500 | $\times \times 20534$ | . 75 |
| BREMER-TULLY |  |  |  |  | 9300 | $\times \times 20535$ | . 75 |
|  | 3000-560-6500-5 |  |  |  | 20, 300 | $\times \times 20536$ | . 75 |
|  | 1660 | $\times \times 20442$ | . 74 | GENERAL MOTORS |  |  |  |
| 8-20, 8-21. | 4900-5500-3000 | $\times \times 20443$ | . 70 | "A" Chassis, 120, 130 |  |  |  |
| BRUNSWICK |  |  |  |  | 180-650 | $\times \times 20510$ | 1.05 |
| B-17, PR-17-8. | 1690-205-2140-3750-410 | $\times \times 20444$ | . 20 |  | 800-59-1862-2000-465 | $\times \times 20511$ | 1.05 |
| 5-KR, 3-KR, 2-KR, ete | 1600-1900-440 | X×20445 | . 49 |  | 6900-7600-4800 | $\times 20512$ | 1.05 |
| 3NC8, 5NC8. | 400-350-350-190 (Bias) | $\times \times 20446$ | . 20 | M. A. Little General 252 | . 150-18000-14550 | $\times \times 20527$ | . 55 |
| $3 \mathrm{NC8}, 5 \mathrm{5C8}$. | 2250 (Plate IReristor) | $\times \times 20447$ | . 20 | 251 (S2A \& S2B) ..... | 4800-7600-6900 | X×20528 | . 95 |
| $3 \mathrm{KR8} 8$ (AP-736). | 7230 ohms | $\times \times 20448$ | . 92 | GRAYBAR |  |  |  |
| 3, 8, 10, 11, 13. | 4920-900-700-90-40-120 | $\times \times 20453$ | . 90 |  | 1690-205-21 40-3750-410 | $\times 20444$ | . 20 |
| COLONIAL |  |  |  | 500, 550 | 2800-900-3600-110 |  |  |
| 28 | $8500-7000$ | $\times \times 20458$ | . 70 |  | (No. 1) | X $\times 20563$ | . 89 |
| 28. | 2200-4000-1000 | $\times \times 20459$ | . 70 | 600, 650. | (No. 2) |  |  |
| 32 AC | 100-40 | $\times \times 20461$ | . 50 |  | $1600-1900-440$ | $\times \times 20445$ | . 49 |
| 32 AC | 210-210 | $\times \times 20462$ | .55 | 340 | 400-350-350-190 (Bias) | - $\times 20446$ | . 20 |
| 32 DC | 34.9 ohms 1.43 ohms | P $\times 20466$ $\times \times 20467$ | . 90 | 340. | 2250 (Plate Resistor) | $\times \times 20447$ | . 20 |
| 32 DC | 5.7 ohms | - $\times 20468$ | . 35 | 600 | 375-90 (Bias) | $\times \times 20513$ | . 40 |
| 36 DC | 1.83-17.6-68 | $\times \times 20463$ | .95 | 600 | 4800 (Plate Resistor) | $\times 20514$ | . 29 |
|  |  |  |  | 678 | .3200-830-12J-715 | $\times \times 20639$ | . 60 |
| Lumbia ra |  |  |  | GREBE |  |  |  |
| Screen-Grid 8 | 7500-10000 | $\times \times 20470$ | . 70 | SK-4 | 677-2200-62 | $\times \times 20515$ | . 80 |
| COLUMBIA (Kolster) |  |  |  | SK-4 | 7000-10000-1500 | $\times 20516$ | . 88 |
| C-1, C-3. .......... | 3000-3000-220-60-840 | $\times \times 20471$ | . 75 | AC-6 | 750-2800-59.30 | $\times \times 20517$ | . 70 |
| C-2, C-4 | $900-120-90$ | $\times \times 20472$ | .60 | ${ }^{\mathrm{AC}} \mathrm{AC}$ | 6300-95-695 | + $\times 20518$ | . 65 |
| C-5, 961 (205) | 7200-60-90-700 | X×20473 | . 70 | AC-7. | 20000-6000 | $\times \times 20519$ | . 80 |
| C-5 (310). | $\begin{aligned} & 3400-3800-55-80-140- \\ & 360 \end{aligned}$ | $\times \times 20474$ |  | $\mathrm{AC}-8$ | 3100-9473-1 1250-150 | $\times \times 20520$ | . 95 |
| 930-300. | 2000-1 40-500 | $\times \times 20475$ | . 49 | HAMMARLUND |  |  |  |
| C-500 | 2000-135-500 | $\times \times 20476$ | . 45 | Hi-Q 30. | 800-2000-1 490-3000- |  |  |
| 902, 930, 980 | 2100-120-430 | $\times \times 20477$ | . 70 |  | 2000 | $\times \times 20521$ | . 75 |
| 920 | 1650-410 | $\times \times 20478$ | . 70 | Hi-Q 31 | 2400-2800-1350-3750- |  |  |
| 931 | 6000-2200-135-700 | $\times 20479$ | . 70 |  | 850 | $\times \times 20522$ | . 88 |
| 940 | 2500-45-410 | X×20480 | . 85 | HOWARD |  |  |  |
| 950 | .9000-3200-140-70-700 | $\times \times 20481$ | . 70 | 135AC. | 1600-12000 | $\times \times 20523$ | . 90 |
| 950 | . 30000-20000 | $\times \times 20482$ | . 70 | KELLOGG |  |  |  |
| 980. | . 6000-55-100 | $\times \times 20483$ | . 70 | 523, 528 | 1000-3000-1 500-1000-130 | $\times \times 20537$ | 1.69 |

## ATWATER-KENT Filament Resistors

For Models 61 D. C. and 70 D. C.


Exactly duplicate the original units, both physically and electrically. Metal bases, resistance wire wound on asbestus. Duplicate of A.-K. Part No. 16433-Filament Resistor No. 1. Has resistance XF6794 Your Cost Each Duplicate of A.-K. Part No. 16432. Filament Resistor No. 2. Has resistance of $250-35$ ohms.
Dr6793 Your Cost Each
Duplicate of A.-K. Part No. 16434. A. F. Filament Shunt Resistor. XF6795-Your Cost
Per Set of Three
$35_{95 c}^{c}$

## Tritiest Filament and C.T. Resistances

## 

Trutest Filament Resistances

## (No Center Tap)

Wire wound filament resistances. Dependable construction; run true to rating. Resistance values of $1,2,3,4,5,6,7,8,9,10,15,25$, $30,40,50$ and 60 ohms.
When ordering state resistance wanted.
XD3997-List 15c
Your Cost Each.

Resistance values of 100,200, $300,400,500,600,700,800,900$, 1000 and 1500 ohms.
XD3998-List 25c
Your Cost Each
$8^{\circ}$

## Center Tap Resistances

Same as above, but tapped at the electrical center. Available in 10, $20,30,40,50,60,100$ and 200 ohms. When ordering state resistance wanted.
XD3999-List $30 c$
Kour Cost Each.

VOLTAGE DIVIDERS [Continued]

## KOLSTER

6J, 6K, 6R
K-20, 22, 25, 27
K-21, K-23.
K-24.
K-38.
K-42.
K-44, $\mathfrak{K}-45$
K-48.
K-50.
K-60, K-62.
K-90, 92, 80, 82
$\begin{array}{lrr}3000-3000-220-900 & \times \times 20538 & 50.69 \\ 500-5000-940 & \times \times 20539 & .64 \\ 840-60-220-3000-3000 & \times \times 20540 & .72 \\ 90-125-900 & \times \times 20524 & .55 \\ 3400-3800-55-80-140-360 & \times \times 20541 & .75 \\ 3600-55-75-700 & \times \times 20542 & .70 \\ 840-140-2600 & \times \times 20543 & .79 \\ 1600-1000-380 & \times \times 20544 & .79 \\ 1450-650-200-350 & \times \times 20545 & .75 \\ 1500-2000-100-2000 & \times \times 20546 & .70 \\ 1525-2500-280-400 & \times \times 20547 & .90 \\ 4000-1500-1500-200 & \times \times 20548 & .88 \\ 3000-3000-2000-200 & \times \times 20549 & .88 \\ 6000-7000-3000-250 & \times \times 20533 & .88\end{array}$
MAJESTIC
20.
$130-\mathrm{A}$

PHILCO
20, 20-A....
65, 77, 77-A
$76,77,77-A$

76
87

## RCA-RADIOLA

17, 50
18
30
30
$30-\mathrm{A}$
$30-\mathrm{A}$
32 .
32.

33 D. C
41 (Receptor) 41 (Sterling) 44.

46, 47
$46,47.0 .$. C
44, 46 D. C
42 and 48 .
60, 62.
60,6
64.

64, 67.
66.
67.

104 Loudspeaker
104 Loudspeaker
105 Loudspeaker
105 Loudspeaker
105 Loudspeaker
Duo-Rectron Amplifier Uni-Rectron Amplifier

Uni-Rectron Amplifies

SILVER-MARSHALL
 10-300 ohms Divide
3000-0-1250-1250

2200-70
SPARTON
AC-7, 62, 63. 110 DeLuxe
Sparks Ensemble
SAMSON "APAM"
Pam Model 210.
SONORA
B-80, B-31. 880

## SPLITDORF


$\times \times 20492$
$\begin{array}{rr}\times \times 20493 & -29 \\ \times \times 20495 & -29\end{array}$

$\times 20600$
$\times 20601$
Kス20601
$\times \times 20603$
$\times \times 20604$
$\times \times 20605$
.78
.65
.90
.88
.95
.68

## STROMBERG

## 10, 11 <br> $12,14$. <br> $12,14$. <br> 403-B. <br> 403-B. <br> 635,636 <br> 635, <br> 846,848 <br> 846,848 <br> 846,848 <br> \section*{TEMPLE}

403, 403-A
$641,642,652,654$
$641,642,652,654$
641, 642, 652, 654
$641,642,652,654$
Early 10, 11
Early 10, 11
Early 10, 11
Early 10,11
Early 10,11
D. C.

7-60, $7-80$
8-60, 80-90

## THORDARSON

R-171 Power Unit.

## VICTOR

$7-11,7-26,7-26$
9-18, 9-54
$9-18,9-54$
$9-18,9-54$
$9-18,9-54$
-18, RE-45, $310-3850-310$ (Bias)
$14,15,17$, R-52, RE-75
WESTINGHOUSE ELECTRIC
3200-830-120-715
.60

## ZENITH

ZE-10, ZE-12, ZE-13
ZE-15, ZE-16 Power Únits. 6000-7800-8000-2500 $\times \times 20635$ ZE-18 Power Unit. . . . . . . 13000-11000-9500-1800 ZE-11 Power Unit. ZE-50, ZE-60, 2E-70 Series
Power Units. . . . . . . . . . . .2800-2350-850 $\times \times 20638$
$8000-1600-8000-4000$
900-5200-750
.70
.80
.90
.75
.70
.70
.70
.82
.85
.70
.70
.40
.82
.78
.75
.28
.90
.90
.90
.70
.70
.70

.60
$\times \times 20607$ $\times 20608$ $\times 20609$ $\begin{array}{r}\times 2069 \\ \times \times 20610 \\ \hline\end{array}$ $\times \times 20611$ $\times \times 20612$ $\times 20613$
$\times \times 20614$
$\times 1$ $\times \times 20615$
$\times 20616$
$\times \times 20617$
$\times \times 20617$
$\times \times 20618$
$\times \times 20647$
$\times \times 20619$
$\times \times 20620$
$\times \times 20$
$\times 20621$
$\times 20222$
$\times 20623$
$\begin{array}{r}\times 20624 \\ \times \quad 20625 \\ \hline \times 2023\end{array}$
$\times \times 20625$
XX20627
$\mathbf{X X 2 0 6 2 8}$
$\times \times 20629$
$\mathbf{\times 2 0 6 3 0}$

| 10 Watts-13/4" ${ }^{\prime \prime}$ / $8^{\prime \prime}$ |  |  |  |  |  |  | 20 Watts-2" $2^{\prime \prime}$ (1/2 ${ }^{\prime \prime}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | Res. Ohms |  | Stock No. | Res. Ohms | Cur rent M.A. |  |  | shown | in the | cing below | w. If sp |  |
|  |  | M.A. |  |  |  | Nethe Tbe standard radio | he sizes shown in the listing below. If special resistance values are desired we will be glad |  |  |  |  |  |
| XE5051 | 1 | 3,150 | XE5065 | 1,000 | 100 | n) placement resistors |  |  |  | livery | dates |  |
| XE5052 | 2 | 2,280 | XE5066 | 1,500 | 81 | ey are the only units | request. | When | Wr | state | perm |  |
| XE5053 |  | 1,410 | XE5067 | 1,750 | 75 | pable of withstanding |  |  |  |  |  |  |
| XE5054 | 10 | 1,000 | XE5068 | 2,000 | 70 | the Heat Test in which |  |  | rent | Stock | Res. |  |
| XE5055 $\times \mathbf{C E 5 0 5 6}$ | 15 20 | 815 | XE5069 $\times E 5070$ | $\begin{aligned} & 2,500 \\ & \mathbf{3}, 000 \end{aligned}$ | 63 57 | pates FIFTY watts. Red Devils are wire | No. | Ohms |  | Stock | Ohms |  |
| X X 5057 | 25 | 630 | X 55071 | 4,000 | 50 | wound, over a porcela in core, and covered with | XE5078 | 30,000 | 25 | XE5086 | 70,000 |  |
| XE5058 | 50 | 447 | XE5072 | 5,000 | 44 | a special high temperature refractory cement | XE5079 | 35,000 | 23 | XE5087 | 75,000 |  |
| XE5059 | 100 | 315 | XE5073 | 7.500 | 36 | which protects the wire from injury even | XE5080 | 40,000 | 22 | $\times \mathrm{C} 088$ | 80,000 |  |
| XE5060 | 200 | 223 | $\times$ X 5074 | 10,000 | 31 | though a red heat is reached. All have lugs and | XE5081 | 45,000 | 21 | $\times \mathrm{X} 5089$ | 85,000 |  |
| XE5061 | 250 | 200 | XE5075 | 15,000 | 25 | 11/2" ${ }^{\prime \prime}$ tinned leads. | XE5082 | 50,000 | 20 | XE5090 | 90,000 |  |
| XE5062 | 400 | 158 | X $\times 5076$ | 20,000 | 22 | Red Devils are made in two sizes-ten watt, | XE5083 | 55,000 | 19 | XE5091 | 95,000 |  |
| XE5063 | 500 | 141 | X 55077 | 25,000 | 20 | From 1 ohm, through to 25,000 ohms, and | XE5084 | 60,000 | 18 | XE5092 | 100,000 |  |
| XE5064 | 750 | 115 |  |  |  | twenty watt, from 30,000 through to 100,000 | XE5085 | 65,000 |  |  |  |  |
|  | st Ea |  |  |  |  | ohms. Ten watt dimensions are $13,4 \times 1 /{ }^{\prime \prime}$. Twenty watt dimensions are $2 \times 1 / 6^{\prime \prime}$ " | Your Cos Any Siz | Cost Each |  |  |  |  |



TYPE A-10 WATTS *" $\times 1^{3} 3^{\prime \prime}$


## 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 adjustable cilp has been redesigned to aford more effective Cesistance and unique end brackets are supplied with each D , C, and Dype resistor. A new protective ingulating 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.



## ELECTRAD

Variable Voltage Dividers


13,000 Ohms 50 Watts This voltage divider has 4 sliding taps that enables the serviceman and set builder to obtain various
voltages. XG7318-Your Cost.

78
25,000 Ohms 50 Watts Also has 4 variable taps. $78^{c}$
$\times \quad \mathbf{G 7 3 1 9 - Y o u r ~ C o s t . . . . . ~}$ 25,000 Ohms-75 Watts Special Heavy Duty tapped voltage divider
$\mathbf{X G 7 3 2 0}$ $\qquad$ $\$ 1.25$
41,000 Ohms-75 Watts Ideal for Public Address and Phonograph amplifiers. Has 6 sliding con tacts for all necessary voltages.
Shpg. wt. 8 oz.
XG7321-Your Cost.. $\$$ I.
C. T. Resistors Small, compact and covered by moisture-proof moisture-proof racy $1 \%$. In the following sizes: $10,15,20,30,50,75,100$ and 200 XG7322_Your Cost $S$

## 515 C E BAD <br> Precision Wire Wound 1 Watt Resistors

One watt precision wire wound resistors accurate to within plus or minus $1 \%$. Each reslarly suited for use as multipled Parth voltmeters and other laborators with voltmeters and other luboratory test 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 pronf
compound. Resistors supplied less ferrules for pigtail mounting, compound. Resistors supplied
ferrules, extra, as priced below.

Ferrule Type
Convert the above to screw terminals. Ferrules only
Your Cost, Per Pair
$15^{c}$

| Stock No. | Res. Ohms | Current M.A. | Your Cost | Stock No. | Res. Ohms | Current M.A. | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XE5002 |  | 1225 |  | XE5020 | 25000 | 7.7 |  |
| XE5003 | 5 | 548 |  | + $\times$ +5021 | 30000 35000 | 6.5 |  |
| XE5004 | 10 | 387 |  | - | 40000 | 6.1 |  |
| XE5005 | 25 | 245 |  | XE5024 | 50000 | 5.5 |  |
| XES006 | 50 100 | 173 |  | XE5025 | 60000 | 5 |  |
|  |  |  |  |  |  |  |  |
| X 55008 | 150 | 100 |  | $\begin{aligned} & \text { XE5026 } \\ & \text { XE5027 } \end{aligned}$ | $\begin{array}{r} 75000 \\ 100000 \end{array}$ |  |  |
| XE5009 | 200 | 86 |  | - $\times$ ¢ 5028 | 125000 |  |  |
| XE5010 | 500 | 55 |  | X $\mathbf{X} 5029$ | 150000 | 8.1 |  |
| XE5011 | 1000 | 38 | 47 c | XE5030 | 175000 | 2.9 |  |
| XE5012 <br> XES013 | 2500 4500 | 18 |  | X 55031 | 200000 | 2.7 |  |
|  |  |  |  |  |  |  |  |
| XE5014 | 5000 | 17 |  | XE5032 | $\begin{aligned} & 225000 \\ & 250000 \end{aligned}$ | $2.5\}$ |  |
| XE5015 | 7500 | 14 | c | XE5034 | 300000 | 2.2 |  |
| XE5016 | 10000 | 12 |  | XE5035 | 400000 | 2.2 |  |
| XE5017 | 12500 | 11 | c | X $\times 5036$ | 500000 | 1.5 | 1.91 |
| XE5018 $\times \mathbf{X E 5 0 1 9}$ | 15000 20000 | 10. |  | - | 750000 | 1.0 | 2.35 |
| XE5019 | 20000 | 8.6 | 73 c | XE5038 | 1 Meg. |  | 2.94 |

## Standard Filament Drop Resistors for A.C. to D.C. Conversions <br> 

Heavy duty resistors for use as line hallasts in D.C. receivers and amplifiers. Can also be used for other purposes provided rating is not exceeded.
Type A 20-Ohm Edison Base resistor rated at 60 watts. Shpg. wt. 3 lbs.
X $\times 20719$ - Your Cost Each. 75 c Type B 60 -ohm, 200-watt resistor Will stand considerable overload. Size $8 \frac{1}{1} \times 7^{\prime \prime}$. Shpg, wt. 3 lbs.
$\mathbf{X} \times 20720$ - Your Cost Each . .95c Similar to the above, but 60 ohms, 300 waits. Size $113 / 1 \times 7$. Shpg wt. 4 lbs .
XX20721-Your Cost Each. .98c
Type C (not illustrated)-Consists of a 60 -ohm. 200-watt vitreous enameled resistor like Type $\mathbf{B}$, mounted in a pressed steel cage. Cage is provided with female receptable to take line plug. Ideal for use in midget receivers. Shpg. wt. 5 lbs.
X $\times 20722$ - Your Cost Each.. $\$ 1.95$
Similar to the above caged resistor but with 60 -ohm 300 -watt tube. Shpg. wt. 61 bs.

## YAXLEY Radio

 Convenience Outlets Antenna and Ground No. 156 Outlet jacks marked "Ant" and "Gnd" Comes complete with tip plugs. Shpg. wt. 1 lb .
XF6406-Brass
XF6407 Bakelite
List $\$ 0.75$
Your Cost Each

## Aerial,

Ground and
Duplex A.C.
No. 256 -II as two pin tip jacks
receptacles. Furnished complete with two tip plugs. Shpg. wt. 1 lb . XFG414-Brass
$\times F 6415$ Bas
XF6415 Bakelite
List $\$ 1.50$
Your Cost Each
$68^{\circ}$
Seven Conductor Jack
 No. 137-For Multiple Connections. Ideal for use with battery cables.
Used in hotels and hosUsed in hotels and hospitals for loud speaker
connections. Shpg. wt. 1 lb .
XF6410-Brass
XF6411-Bakelite List $\$ 2.50$
Your Cost Each.... \$1.47



## Resistance Units

Small, accurate, provided with lug.
lug. $\quad 0 \mathrm{bms}$
XF6330 1
XF $6331-2$
XF6332-
$\times F 6333-4$
XF6334-5
XF6335-6
XF6336-8
List Each 25
List

YAXLEY Grid Resistors

Wire wound for the grid line. Mount directly to socket. Illustrated above.


Made of fine aluminum aluminum smooth finish. Hole in center designed to fit over ${ }^{3}$. " bushing. Numbers etched on face
Plates with "OFF" position are designed especially for use with Yaxley gang switches listed on page 153. Other plates may be page with any selector switch, with used with any selector s .
step

| Stock No. | Marking | Your Cost Each |
| :---: | :---: | :---: |
| XF6224 | 1 to 2 |  |
| XF6225 | 1 to 3 |  |
| XF6226 | 1 to 4 |  |
| XFF227 | 1 to 5 |  |
| XF6228 | 1 to 6 |  |
| XF6239 | 1 to 7 |  |
| XF 6230 | 1 to 8 |  |
| XF6231 | 1 to 9 |  |
| XF6232 | 1 to 10 |  |
| XF6233 | 1 to 11 |  |
| XF 6234 | 1 to 12 |  |
| XF6235 | "OFF"-1 to 3 |  |
| XF6236 | "OFF"-1 ${ }^{\text {co }} 4$ |  |
| XF6237 | "OFF"-1 to 5 |  |
| $\begin{array}{r} \text { XF6238 } \\ \times F 6239 \end{array}$ | "OFF"-1 to 6 |  |
| XF6240 | "OFF"-1 1 to ${ }^{7}$ |  |
| XF6241 | "OFF"-1 1 to 9 |  |
| XF6242 | "OFF"-1 1 to 10 |  |

## Mnsulated Tip Jack



No. 422-Bakelite Cap. Redand and Negative. Phone tip nests all the way in jack. Mounts in $1 / 6$ " XF6467-Per Pair. YaxleyTip Jacks No. 416-One of the most popular types used. XF6437-List $15 c$
Your Cost Each ${ }^{c}$ Per Dozen


Tip Jack
Tip Jack with pusitive single conductor con-
tact, is used for test panels, instruments, battery leads, and in sets for aerial and ground, battery and speaker connections, etc. Hole $3 / 8$ ". Easy and Convenient to mount.

## XF644-Each

## Double Phone Plugs



Bakelife insulation, tip insulated rom sleeve. Equipped with screw terminals with coin slot. Will take 1 or 2 phones or speakers or a com-
XF6295 Your Cost Each $29{ }^{\text {c }}$
gereresNOTEmereses
We can supply any Yaxley product not listed here at a discount of 40 and $2^{c} \%$ from the list price. Other Yaxley items will be found listed on pages 140,141 and 153.

4.73
03
43

## Bakelite

## Insulated Jacks

No. 407-These Jacks have attractively colored Bakelite caps; Red for
Positive, Black Positive, Black for Negaway in the jack. These caps lessen danger of shorting. Mounts in ${ }^{5} / \sqrt{6}{ }^{*}$ hole up to panel thickness. One-Black; One-Red.
XF6445 List per Pair 35c 2T C
Your Cost


## Featuring Bakelite

 positive spring contacts, losening of pins or springs in soldering. Polarized plugs; plainly marked terminalsXF6375-No.635-Pin enver-7 conducto List Price $\$$ XF6376 No.625-P cover- 12 conductor List Price $\$ 1.25$ Your Cost
Broadcasting stations. aut receivers and other electrical and radio equipment have general use for these cable connectors.

## Receptacle Plugs

Designed for easily and quickly making or breaking multiple connections. Are used in radio and other electrical equipment

## Ring Type

XF6379-No. 645-Receptacle plug Yist Price 51.00
Your Cost- 7 conducto
$59^{\circ}$

YAXLEY Extension Shafts

For use on volume controls and switehes where longer shaft
required. All are 4 "long.
XF6561- $/$ "diam. XF6562 ${ }^{2 / 3}$ " diam., ${ }^{2 / 2 / 2 "}$ flat Your Cost Each Any Size.......

## YAXLEY Cables and Connectors



Brings battery wires to set in one compact cable, easily disconnected for cleaning. Can not be connected improperly. RMA color coded; tagged cables. Sub-panel types have bracket type male and round Bakelite female plugs. Shpg wt .2 lbs.
$\times F 64 \mathrm{co}$
XF6400-No. 660-7 conductor cables 5 feet long for sub-panel mounting.
Xr.64C1 cost.
\$1.76 cable 4 feet long for sub-pane mounting Your Cost.
$\$ 2.94$


XF6380-No. 615-Receptacle plug with cover. List Price $\$ 1.25$ Your Cost


## Yaxley Midget Jack

## Switches

No. 10-Midget Jack Switch reon panel. Black Knob, Pointerand Knob, Pointerand name plate. Single pole, single XF6446_List 50c
Your Cost.........
No. 11 -Single pole, double throw. XY6447-List 65 c
Your Cost.............. 38

YAXLEY Junior Jacks


Much smaller and requiring less mounting space than the long jack, they are used where space is at a premium. Extends only $1 / / /^{\prime \prime}$ behind panel. Shpg. wt. 6 ozs.
XF6450-No. 701 Open circuit. List 4Ce. Your Cost.......23c XF6451-No. 702-Circuit closing.
List 55c. Your Cost. ...... 32 c XF6449 No. 702A-Two circuit List SEc Your Cost...........32c XF6452 No. 703-Sin. Cir. Fil. Control. List 65 c . Your Cost 38 c XF6453-No. 704 -Interstage.
List 75c. Your Cost...... 44 e List 75c. Your Cost
XF6448 No. 706-Interstage Fil.
Control. List 95c. Your Cost 56 c

# ELECTRAD Volume Controls - 2 with nsw <br> NOISELESS GRAPHITE <br> self Cleaning- <br> CONTACT SHOE <br> ANCHORED LUG $\rightarrow$ CONTACTS 

The new Electrad Volume Controls are housed in Molded Bakelite Cases, with metal end covers. All have aluminum shafts which may easily be cut to any desired length. The resistance element is applied and baked at a high temperature to the fat outer surface of a Bakelite ring. This provides full 300 -degree rotation, making a smoother control. The contact shoe is a highly polished alloy, held by a long bronze tension spring. It is self-aligning, self-cleaning, and continuously polishes the resistance element to a smoothness and quietness which increases with
use. The new Power Switch (approved by Underwriters), may be readily added or detached. The standard end cover is held rigidly to the case by means of a single screw; by morely lonfening this screw, the end cover may be removed and the power switch substituted and secured by the same screw. Both end cover and switch cover are shaped and tapped identically, so that no adjustments are necessary when interchanging.


## ELECTRAD Volume Controls scmems



## YAXLEY MOUME CONTROLS

A Minimum Bias Adjustment. On All Bias Controls.
B 4-inch Shaft of Special Alloy.
C Power Switch (Apers) Easily Attached to Any Control.


## D Knob Adapter. Allows Shaft to Take Any Type

 of Knob; Set Screw, Spring or Philco Type.E Extension Bushing. May be Added To Any Control. Extends Through a $5 / 8^{\prime \prime}$ Panel.


## YAXLEY Volume Controls



## Name and Model

A. C. Dayton Co.

## A. C. Dayton <br> All-American Mohawk

## 70, 73, 75-Special <br> "H"' Series.

"J" Series.
Atwater Kent Mfg. Co. 33 Serles Filament, 84.
$61,61 \mathrm{C}, 72,66, \mathrm{H1}, \mathrm{H} 2$
© Special, 67 C , Batt. Set 222 tubes 82 8. ${ }^{82} \mathrm{~F}$ " Series, $\mathrm{L}-\mathrm{P}$ or $75 \mathrm{Q}-2$ Serie
L2D., $84 \mathrm{D}, 84 \mathrm{Q}$ Batt., 89 89F, SW Type 188, 228, $260,467,246,266$, 612, 627, 812, 448. 480. 480 Auto
4690,5580 636.

Belmont Radio Corp. ( 600 Late. 70 Series.

## Bosch

80-Auto Receiver "Special" 48 and 4
54, 56
68, 62 "Special"
54-DC "Special
5A, 5B, 7A, 73, 133
60,61,63 "Special".
20, 81, 32 .
73, 74.
48, 49, Early Models-Spe cial Control.
250, 260, Tone.
Bremer-Tully Mfg. Co.
$14,21,31,81 \mathrm{~A} .$.
$85,36 . .28$
S-81, S-82, 81, 82
$7-\mathrm{A}, 7-\mathrm{B}, \mathrm{W} 81 \ldots$

A-B ,81.
Brunswick-Balke-C 14,21,31.
S-32 Cavac
$11,12,16,33$
Colonlal Radio Corp. 31 DC.
SG-32AC, 33AC "Special ${ }^{\circ}$. 40, 43, 44, 47, 47E Tone Contro

Columbia Radio Corp.
Screen Grid 8
SG-5, SG-7
SG-5.


## Combination <br> "L"Pad

Bakelite Case $2 x^{8 / 4}$
Threaded Bushing $3 / \cos ^{2}$ long. Shaft $1 / 4 \times 1 / 2^{\mathrm{N}}$ long. Shaft grounded to series resistance.
A wire-wound and tapered graphite control providing constant impedsnce to the line. Recommended for low impedance systems, such as output control of moderate power not exceeding 4 watts and in put to small public address systems.
Illustrated above without cover to show construction. Stock controls have metal cover. Stock
No.
XH8975
XH8956
$\mathbf{X H 8 9 5 5}$
XH8959
XH8958
XH 8976
$\mathbf{X H 8 9 5 7}$
$\mathbf{X H}$

| XH8957 |
| :--- |
| $\mathbf{X H} \mathbf{~} 8954$ |

No5s4

Stock Your
No. Cost

XH8843 $\$ 0.59$
XH8858 $\quad .59$

XH8931
XH 8912
$\mathrm{XH8872}$
XH 8872
$\times H 863$

XH8863
XH8723
XH8862
XH8902
XH8912
XH8808
XH8808
XH8791
XH8698
XH8863
$\times H 8697$
Freshman)
$\times H 8808$
$\times H 8816$
XH8819
XH8832
XH8895
$\times H 88913$
$\times H 8913$
XH8888
XH8910
XH8961
$\times H 8887$
$\times H 8872$
XH8887
XH8803
XH8774
XH8794
XH8812
XH8794
XH8794

## nder Co.

XH8811
$\times \mathrm{H} 8794$
XH 8804
$\times H 8793$
$\mathrm{XH8793}$
$\times H 8863$
XH8758
$\mathbf{X H 8 7 1 9}$
$\mathbf{1} 73$
XH8740
XH8961
 XH8874 XH8858 Volume Control Guide will be sent with
orders of three or more CRL Cotrols. Thers of three or more CRL Cotrols. The revised listing of Centralab volume contrals that the serviceman has been waiting for. This list consists of "Specials" that are manufactured and built or the particular set that it is intended for, no changes necessary to install these units. You may order by our stock numif you wish. A complete tine of Centralab volume controls and by-products carried instock.

## Columbia-Kolster


Models and 71-A
$40 \mathrm{~S}, 41 \mathrm{~S}, 42 \mathrm{~S}, 82 \mathrm{~S}$. Late Models Specify CRL No. $30 \mathrm{~S}, 31 \mathrm{~S}, 33 \mathrm{~S}, 34 \mathrm{~S}, 40 \mathrm{~S}, 41 \mathrm{~S}$, Single Control AC7, AC7C.
20, 21, 22 Battery 53. 54, 57 (New Buddy) $400,410,420$ Midget 48.
Johnny Smoker, Super Buddy 122.

126, $5 \overline{5}$, Long Shat, "Spe52, 26, Long Shaft, "Special" 55, Short Shaft 56 , Short Shaft 75
120
120

## 124, 125 Midget Super S w

 ту5, 615,625127, Tone 128 , Tone 126-1 Tone 127.
48.
141., S
141.
133.
146.
146.
$146-1$

Edison \& Splitdorf
R4, R5, C4, Special Twin, R6, R7, Early Models, C. Control. Special. Control, Special. Models, Twin Control Eveready
${ }_{30}, 2,3$
30, 40 Series.
50 Series, Original
Stock Your

XH8847 1.22
XH8896 1.22
XH8851
XH8876
XH 8876
$\times H 8840$
XH8840
$\times H 8869$
XH8869 .59
$\begin{array}{ll}\text { XH886S } & -59 \\ \times H 8931 & \end{array}$
XH8859
XH8855 $\mathbf{X H 8 8 5 3}$ XH8862 XH8861 XH8854 XH8961

XH8793
XH8852
$\mathrm{XH8852}$
$\times H 8824$
KH 884
$\times H 8874$
XH 8874
$\times \mathrm{H} 8794$
XH 8794
$\times H 8879$
XH 8879
$\times H 8813$
$\mathrm{XH8813}$
$\times \mathrm{H} 8873$
$\times H 8873$
$\times H 8859$
$\mathrm{XH8859}$
$\times H 8696$
$\times H 8696$
$\times H 8696$
XH8696

## Fada <br> Name and Model <br> 35C, 35B, 40AC, Original

 Control. $25,2 ヶ \mathrm{Z}, 15 \mathrm{M}, 15 \mathrm{MZ}$, Specia 20, 20Z, Special Shaft . ......
$75,77,35,35 Z$, Special Shat $75,77,35,35 Z$, Special Shuft. .
$43,762 . \mathrm{KF}$, KG............ 122-KE KA-41, 42, 44, 46, 47, 86 DC $\mathrm{KW}-48,49$, Sw. Type.
$\mathrm{K} . \mathrm{U}, 45,51,53,57, ~$ Type...........
RC $78,79 .$.
RL Fadalette

## General Electric Co.


$\begin{array}{rr}\mathrm{XH8867} & .59 \\ \times H 8867 & .59\end{array}$
General Motors Radio
A Chassis, Models 120, 130, M. A. Midget, $110,190 \ldots .$.
M. A. Midget, 110,190, Tone Control......... 120 140, 150, 160 Tone Control. S9A, 211, S9B... S10A, S10B, 220 S2B, 251, S2A................ S2A, S2B, 251, Tone Control 216, 217, 219, 250, Midget Set, 1931 . S1A,216,217,219,250,1932. S3A,S3B, 252,253,254,255, 256, 257, 258

Graybar Electric Co.

| 700, 770, 900, 8-Midget | XH8867 | 59 |
| :---: | :---: | :---: |
| 678 | XH8905 | 1.22 |
| Graybarette. | XH8860 | . 59 |

A. H. Grebe \& Co. Inc.

controls for
(for Majestic sets cxactly duplicate the original, both physically and electrically. No changes neccssary to install.
Grigsby-Grunow (Majestic)

| 60, 70, 70B. . . . . . . . . . . . . . . . XH8972 | . 62 |
| :---: | :---: |
| 180, 181 . . . . . . . . . . . . . . . . XH8766 | . 98 |
| 50 Series . . . . . . . . . . . . . . X18903 | . 98 |
| 90, 91, 92, 180, 181, 321. |  |
| Equalizer on Condenser. . . . XH8930 | . 83 |
| 90 Series, 9P6-3 . . . . . . . . . XH8767 | . 62 |
| 30,31, 131, 132, 233 . . . . . X 48923 | 1.22 |
| 100 Series, 100 B . . . . . . . . . XH8768 | . 98 |
| 130A. . . . . . . . . . . . . . . . . . XH8660 | . 62 |
| 230A . . . . . . . . . . . . . . . . . . XH8923 | . 98 |
| 20 Series. . . . . . . . . . . . . . . XM8659 | . 83 |
| 60 Series, 160...... . . . . . . . XH8769 | . 61 |
| 120 Series. . . . . . . . . . . . . . . . . X 1 H8770 | . 98 |

# Volume Controis 

$\left.\begin{array}{c}\text { Name and Model }\end{array} \begin{array}{c}\text { Stock } \\ \text { No. }\end{array} \begin{array}{r}\text { Your } \\ \text { Cost }\end{array}\right\}$

## Colin B. Kennedy Corp.

| cial | XH8928 | 1 |
| :---: | :---: | :---: |
| 'Roy | XH8863 | . 59 |
| 34, 30 and 32, 50-52-86 | XH8872 | . 59 |

Kolster Radio Corp. (Columbia Phono.)

| $\mathrm{K} 20,22,25,27$ | H8838 | ) |
| :---: | :---: | :---: |
| K-21, 24, 28, 23, K30, 32 | XH8860 | . 59 |
| 60 Series. | XH8813 | . 83 |
| 70, 80, 90 Series AVC | XH8818 | . 83 |
| 100 Series | XH8807 | . 83 |
| K42, K43, K | XH8926 | 1.47 |
| Montgomery-Ward |  |  |
| 1522, 1562 | XH8931 | 59 |
| 2955, 2957 | XH8913 | 1.22 |
| Philco |  |  |
|  | XH886 | . 59 |
| 511, 512, 513, 514, 515, 521, |  |  |
| 531, 541, 551, 561, 571 |  |  |
| 82, 86, 87 | XH9015 | . 73 |
| 76, 77, 77 A | XH8913 | 1.22 |
| $20,20 \mathrm{~A}, 220$ | XH8771 | . 93 |
| $30,96,96 \mathrm{~A}, 11,11 \mathrm{~A}, 211$, |  |  |
| 211A,296, 296A, 111, 112,212. | XH9014 | . 63 |
| 51, 52, 551 | XH9017 | .49 |
| 71, 91, 121, | X 48772 | . 49 |
| 80-Midge | XH8773 | . 59 |
| 95 | XH9016 | . 73 |
| R. C. A. Victor |  |  |
| 42, 48, R14, R15, RE-17 | XH8905 | 1.22 |
| R32, RE45, R52, RE75 | XH8911 | 1.22 |
| RE35, RE39, RE57, RE73 | XH8904 | 1.22 |
| R7, R7A | XH8867 | . 59 |
| R7A, R11, RE18, Tone Con- |  |  |
|  |  |  |
| trol. | XH8880 | . 59 |
| R-50, R55 | X 48861 | . 59 |
| R50, R55, Tone Con | XH8863 | . 59 |
| R57, 82, 86, Tone Contr | XH8875 | . 59 |
| 80, 82, 86 | XH8867 | . 59 |
| R74, R76, R77, R72, RE20 | XH8875 | . 59 |
| Tone RC21, RE20 | XH8863 | . 59 |
| R4, R6 | XH8868 | . 59 |
| Tone R4, R6, Tone R8, R12 | XH8820 | . 83 |
| R8, R12 | XH8693 | . 73 |
| R11, R18, RE18A, RE19 | XH8693 | . 73 |

## CENTRALAB

## Power Rheostats

Ideal for use as motor speed controls, charging rate regu lators, ete. All metal rame and core insulated with
treated asbestos. All $2^{"}$ in
 treated a.
diameter.

| Stock | 25-Watt |  | Units |  | Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Res. Ohms | Your Cost | Stock | Res. Ohms |  |
| $\times \mathrm{H} 8977$ | 2 |  | X H 8981 | Ohms 150 |  |
| XH8978 | 6 | 50.98 | XH8982 | 400 | \$0.98 |
| XH8979 | 15 |  | XH8983 | 1000 |  |
| XH8980 | 50 |  | XH8984 | 5000 |  |
| Stock No. <br> XH8987 <br> XH8988 <br> XH8989 | 50-Watt |  | Units | Res. | Your |
|  | Res. | Your | Stock |  |  |
|  | Ohrns | - | No. | Ohms | Cost |
|  | 25 |  | XH8990 | 500 |  |
|  | 60 | \$1.22 | $\times \mathrm{X} 8991$ | 1000 | \$1.22 |
|  | 150 |  | XH8992 | 5000 | \$1.35 |
| XH8989 | 75-watt |  | Units |  |  |
| XH8995 | 50 |  | XH8998 |  |  |
| XH8996 | 150 | \$1.47 | XH8999 | 1000 | 1.47 |
| XH8997 | 300 | \$1.47 |  |  |  |

## Name and Model Tone R11, R26...... R26. R-17M <br> R-18W <br> R22. <br> R28P. <br> Tone R37, Ris8, Tone $\mathbf{~ R 7 0 ~}$ R37, R38, Special RE40P <br> Silver-Marshall Inc. <br> 630 <br> 4, SM-730 Around the World <br> 71 <br> $30 \mathrm{~B}, 60 \mathrm{~B}, 75 \mathrm{~B}, 95 \mathrm{~B}$ <br> 710, SM690 <br> $37,38,39,782$. $683, A, F, D, E G, J, 716,773$ R5 <br> Stock Your XH8824. 50.83 XH8693 XH8691 <br> XH8691 <br> XH8813 <br> XH8891 $\times H 8811$ <br> XH 8811 $\times H 8808$ XH 8808 $\times H 8690$ XH 8690 $\times H 8811$ XH8843 <br> XH8762 <br> XH8840 $\times H 8866$ $X H 8843$ XH8843 XH8843 XH8844 XH8863 XH8868 XH8807

Sparks Withington Co. 62, 63, 110, 110 De Luxe, Sparks Ensemble, 600, 610 , $620,89 \mathrm{~A}$
931, 301.
101-103-55-109
$301,589,574,737$ 591-593

## Steinite Radio Co.

Midget 21, 23 .
Midget.
421,425 or $21,203,600,605$ $630,635,642,643$
Stewart-Warner Corp.

| $500,520,525,806 .$ $530,535$ <br> 700, 705, 710, 900 Series, "Special" |
| :---: |
|  |  |
|  |  |

## Stromberg-Carlson Tel. Mfg. Co.

## 523, 524, 734B, 744 B

$635,636,601,602,633,634$ Long Shaft
$601,602,633,634,635,636$. 638, Double Shaft

KH8841
XH8839
XH8727
$\times \mathrm{K} 8860$
$\times H 8840$
XH 8913
$\mathbf{X H 8 8 7 6}$
XH8876
XH8808
XH8875
XH
$\times \mathrm{H} 8875$
$\mathbf{X}$
XH8825
XH8816
XH8809

XH8861
XH8885
XH888

XH8840
XH8844
XH 8865
$\times H 8931$
XH8931
XH8793

XH8790 XH8840

XH8961
.98
.73
3

## Westinghouse

| Gloritone 26 | XH8871 | 59 |
| :---: | :---: | :---: |
| 26-B, P-20M | XH8871 | 59 |
|  | XH8931 | . 59 |
| 31 Series | XH8793 | . 83 |
| Midget 32-32A, 32 | XH8873 | . 5 |
| 28 Series | XH8876 | 52 |
| 7-A and 7-B | XH8863 | . 59 |
| 8 and 10 Series | XH8874 | . 59 |
| Midget 27 Series, Inte | XH8961 | . 83 |
| 46, 46A, 47, 47A, 48, 48A | XH8876 | 59 |
| Westinghouse |  |  |
| WR-4 | XH8905 | 1.22 |
| WR-5, 6, | XH8867 | . 59 |
|  | XH8877 | . 5 |

## Zenith Radio Corp.

$52,522,53,532,54,542,57$
50 Series, 70, 102, 112, 212, $70^{\prime}$ Series, $50,60,70,71,72$ $73,77,712,722,732,772$ (Later types) Special(Dual).
"Zenette" AH, CH, RH, No. $10,11,12,102,112,212,70$. 2009. 70X, 80
L. P...

Tone 70 Series 2012
Tone 75, 2047, 2051
Tone 2017, 2018, 2022
Tone 2014.
2024, 2022, 2047,2050 2014.

2014, 2017 Nois
2014, 2017 Noise
2044,
XH8802 . 99

XH8924 1.47
XH 8793
$\times H 8802$
XH8802

| XH |
| :--- |
| $\times \mathrm{H} 8803$ |

$\times \mathrm{X} 8861$ XH8793 XH8874 XH8875
XH8863
XH 8841
$\times \mathrm{H} 8793$
XH 8793
$\times H 8793$
XH 8793
$\times \mathbf{X 8 8 2 4}$
XH 8824
$\times H 8682$
XH 8882
$\times H 8681$
XH8681
$\times H 8865$
$\times 18865$
$\times H 8694$

Stock No. Your $\mathbf{X H 8 8 6 5 ~} \$ 0.59$ XH8863 . 59

XH8883 . 73
XH8884 XH8687 XH8686 XH8808 XH
$\times H 8685$
$\times H 8885$ XH8825 .73
.73
.73
.83
.83
.83

## Transformer Corp. of America

 (Clarion)| 55. | 84 | . 33 |
| :---: | :---: | :---: |
| 56, 260, 25-260 | XH8819 | ¢ |
| Tone 25-240, 260, 25-260 | XH8825 | . 59 |
| Tone 360, 300, Tone 220 | XH8825 | . 83 |
| 94, 25-94. | X $\mathrm{H8821}$ | . 83 |
| Tone 94, 25 | XH8817 | . 83 |
| 100. G102. | X 18788 | . 83 |
| 160, 25-160 | XH8810 | . 83 |
| 220. | XH8838 | . 59 |
| 241, 240, 25-240, 360. | XH8874 | . 59 |
|  |  |  |

U. S. Radio \& Television (Apex)

## CENTRALAB

Phonograph Pick-up Fader for Two-Turn Tables
This control is made up of a potentiometer with an the center of the resistance. It provides both volume control and a fade-over switch for two phonograph pickups and turntables. The resistances catalogued are the resistance of each half of the control rather than
 the total resistance of the potentiometer. Enclosed in dustproof bakelite case $21 / 4 \times 1 / 2^{\prime \prime}$. Shaft is $1 / 4 \times 1 / 2^{\prime \prime}$ long. Bushing cose $16^{w}$ long. Shaft and bushing fully insulated from all terminals. Single hole mounting. from all terminals. Single hole mounting.
This unit can also be used for fading any two This unit can also be used for fading anyy
inputs into a mixer or amplifier providing inputs into a mixer or amplifier providing
the correct control is chosen according to the the correct control is chosen accor
impedance of the input devices.
impedance of the input devices.
XH8829-100,000 ohms Resistance of each
$\begin{array}{lr}\text { XH8829 } & 100,000 \mathrm{ohms} \\ \mathbf{X H 8 8 2 7} & 50,000 \mathrm{ohms} \\ \mathbf{X H} & \begin{array}{l}\text { Resistance of eac } \\ \text { half of }\end{array}\end{array}$
XH882t-25,000 ohms
Your Cost
Each.
the Control
${ }^{\mathbf{s}} \mathbf{1 . 9 5}$
voticm
Filtermatic


## Octave

 Tone Control$\qquad$ Grid circuit type eliminating danger of current breakdown.
Quieter in operation Quieter in operation than plate circuit type
where variable resistor is used. Capacity varie from 50 mmfd . to .006 mfd . in seven gradual steps producing a smooth one taper from a high brilliant treble to a low booming bass. Sturdily constructed using bronze plates, mica dielectric and bakelite case. For a single are it is connected across the sec ondary of the audio transformer; in a push-pull stage across the two rrios; in the case of resistance or mpedance coupled a mplifiers across the grid leak. Shpg. wit. 8 o XF6840-Without switch Your Cost. XF6841-With switch. Your Cest $39^{\circ}$
$58^{\circ}$

Octave Tone Control Table Model In this unit, the Octave
tone control is enclosed in a crystalline finish metal case. Size $31 z^{\prime \prime}$ in diamHas $36^{n}$ well insulated flexible braided leads Socket leads. Socket wafer and are supplie and are supplied either ${ }^{4}$ or 5 -prong tubes. Instruction furnished. Shpg, wt. 2 lbs XF6839Your Cost
$86^{\circ}$

## RADIOLA

## Volume Control Strips

Repair the old volume control by installing a new resistance strip in place of the defective one. For Models 18, 33 and 51
X G7570-2000 ohms.
For Models 44, 46, 47, 64.
XG7671-3000 ohms
For Models 60 and 62.
X G7672-450 ohms. XG7673-550 X G7673- 550 ohms. XG7674-1250. XG7674-1250 oh Your Cost Each


## In Dozen Lots. . . . . . . . . . . . $\$ 2.50$



# Trutent 

TRU-TAPER
POTENTIOMETERS


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 satisfactory service. Each and every unit, as the name "TruTaper" implies, is correctly tapered for the circuit for which it was
designed. Shafts extend $1^{3}$ " from control. Provided with "y" designed. Shafts extend $1^{3 / 4}$ from control. Provided with ${ }^{3 / 4}$ 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 | $\times \mathrm{H} 9084$ | 10000 | Antennis Shunt, "C" Bias and A |
| XH9074 | XH9085 | 25000 | Antenna Shunt, "C' 'Bias and A |
| 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 |

## Genuine Controls for@RADIOLA Receivers



Tone Control for Victor Model RE-73

The genuine Victor replacement part No. 10813. Tone control with mounting nuts. Shpg wt. 8 oz.
XF6787-
XF6787-
Your Cost

Genuine Radiola Controls
RCA Model 16
Part No. 5666, Filament Rheostat.
XF6775
Models 44-46-47
Part No. 6005, 2900 ohms
Volume Control. Special slotted sha XF6776
Your Cost


Models 60 and 62
Part No. 5811, 450 ohms, Volume Control
XF6777- $\qquad$ $75^{\circ}$
Part No. 6027, 550 ohms, Volume Control. XF6778
Your

## 

Sh Your Cos Your Cost

## Original Control for RCA 42.48 Victor

 R14, R15, RE17 GE T41, Graybar 678, Westinghouse WRA, RC3This control is a big wire wound dual unit and was furnished by RCA as a replacement for as furnished by original carbon strip type. It is used with the bridging brown and Part No. 2334, 2750 ohms, Sensitivity Control. XF6779 Your Cost Part No. 2336, 1250 ohms, Volume Control.
XF6780
Your Cost


# STANDARD TYPE YOLUME CONTROLS 

## Centralab

## 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 wirewound or carbon. Radiohms employ the patented non-rubbing contact that always turns smooth without wear. No other control out wear. No other control
gives you resistance tapers gives you resistance tapers
so carefully adjusted for proper attenuation. Case diameter of all units $18 / k$ "; extend "is" hehind panel. Shart $21 /$ long, milled flat. Power switch, made by $\mathrm{C}-\mathrm{H}$, is approved by the Underwriters Laboraturies.


## CLAROSTAT Ad-A-Switch

 Wire Wound Volume Controls
## and Switch Coverplates



The plain dust-guard coverplate can be pried off, ard a switch coverplate put in its place to convert to a switch type un,

| Stock No. | Resist. Ohms | Current Carrying Cap.Ma | Tapered For, or Suggested Ures | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| XF7099 | 50 | 250 | Standard potentiometer |  |
| XF7098 | 100 | 180 | Standard potentiometer |  |
| XF7097 | 200 | 125 | Standard potentiometer |  |
| XF7096 | 300 | 100 | Standard potentiometer |  |
| XF7095 | 400 | 85 | Standard potentiometer |  |
| XF7094 | 500 | 80 | Standard potentiometer |  |
| XF7093 | 750 | 65 | Standard potentiometer |  |
| XF7092 | 1000 | 65 | Standard potentiometer |  |
| XF7091 | 1000 | 40 | For untuned antenna control |  |
| XF7090 | 2000 | 40 | Standard potentiometer |  |
| XF7089 | 2000 | 25 | For untuned antenna control |  |
| XF7088 | 2000 | 25 | For "C" bias control |  |
| XF7087 | 3000 | 30 | Standard potentiometer |  |
| XF7086 | 3000 | 20 | For combined ant. and " C " bias |  |
| XF7085 | 8000 | 20 | For "C" bias control |  |
| XF7084 | 5000 | 25 | Standard potentiometer |  |
| XF7083 | 5000 | 17 | For combined ant. and "C" bias |  |
| XF7082 | 5000 | 17 | For "C" bias control |  |
| XF7081 | 7500 | 20 | Standard potentiometer |  |
| XF7080 | 7500 | 14 | For combined ant. and "C" bias |  |
| XF7079 | 7500 | 14 | For "C" bias control |  |
| XF7078 | 10000 | 17 | Standard potentiometer |  |
| XF7077 | 10000 | 12 | For ant. or R.F. coil control |  |
| XF7076 | 10000 | 12 | For combined ant. and "C" bias |  |
| XF7075 | 10000 | 12 | For "C" bias control |  |
| XF7974 | 10000 | 12 | For screen grid voltage |  |
| XF7073 | 15000 | 14 | Standiard polentiometer |  |
| XF7072 | 15000 | 11 | For combined ant. and "C' bias |  |
| XF7071 | 15000 | 11 | For acreen grid voltage |  |
| XF7070 | 20000 | 12 | Standard potentiometer |  |
| XF7069 | 20000 | 10 | For "C' bias control |  |
| XF7068 | 25000 | 11 | Standard potentiometer |  |
| XF7067 | 30000 | 11 | Standard potentiometer |  |
| XF7066 | 40000 | 10 | Standard potentiometer |  |
| XF7065 | 50000 | 9 | Standard potentiometer |  |
|  | Switch | Type | Coverplate . . . . . . . . . . . 50.25 |  |

Ohms Cap.Mg. Tapered For, or Suggested Lecs Cost

XF7099
$\times F 7097$
XF7096
XFF095
XF7094
XF7093
XF7092
XF7090
XF7089
XF7088
XF7087
XF7086
XF7085
$\times 7084$
XF70
XFF7081
XF7080
-
XF7077
XF7076
XFF7n7
XF707
XF7072
XF7071
XF7070
XF7069
XF7068
$\times F 7066$
$\times F 7065$

Standard potentiometer
Standard potentiometer
Standard potentiometer
Standard potentiometer
Standard potentiometer
potentiometer
For untuned antenna control
For untuned antenna control
or "C bias control
For combined ant. and "C" bias " bias control
tandard potentiometer

Standard potentiomete
or bias
tandard potentiomete
For ant. or R.F. coil control

For "C" bias control
For tereen grid voltage
For combined ant. and Standard potentiometer For "C" bias control ometer tandard potentiometer Standard potentiometer
50.25

## NCN ELECTRAD volume

These new Electrad units are superior in principle, design and performance to the old style contrcls. The newly perfected graphite resistance element is baked at high temperature to the flat outer surface of a molded Bakelite ring. This provides a solid base and rigid anchorage for the resistance element which cannot fiex or warp out of line with the contact arm. The element is highly resisiant to humidity, and is thus ideal for use in damp climates. The contact shoe is a highly polished alloy, held by a long bronze tension spring. All controls are housed in Mouljed Bakelite Cascs, with Mctal End Covers and Aluminum Shafts. They are more compact than the old style units, extending only $1 / 2^{\prime \prime}$ inside the panel mounting.

The new type power switch, Approved by the Underwriters may be readily added or detached. By merely removing the screw holding the end cover, the cover is removed and the switch placed on in the Stock Mfrs.
$\begin{array}{lll}\text { No. Mrs. } & \text { Taper Readings in Ohms } \\ \text { No. Start }\end{array}$
XG7905
$\begin{array}{llll}\text { XG7905 } & 20.4 w^{*} \text { Open-10 } & 8 & 5\end{array}$
XG88072
$\times G 8128$
$\times G 8129$
$\times 68129$
$\times 68068$
272w
272w
$\begin{array}{ll}273 w & 0 \\ 274 w & 0\end{array}$
XC7917 282w 0 ....
$\times 67909$ 276w .... Uniform
Uniform
Uniform
Uniform
Uniform
$277 w$
$\times 67911$
$234 w$
XG7920 $278 \quad 0 \quad 300$

| 34 | Figish |
| :---: | ---: |
| 2.5 | 0 |
| $\cdots \cdots$ | 20 |
| $\cdots \cdots$ | 30 |
| $\cdots \cdots$ | 100 |
| $\cdots \cdots$ | 000 |
| $\cdots \cdots$ | 400 |
| $\cdots \cdots$ | 600 |
| $\cdots \cdots$ | 800 |
| $\cdots \cdots$ | 2,000 |
| $\cdots \cdots$ | 3,000 |
| $\cdots \cdots$ | 4,000 |
| $\cdots, 500$ | 5,000 |
| 2,000 |  |


| Stock No. | Mfrs. No. | Start | Taper | adings in 1/2 | 3/4 | Finish |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\times 68083$ | 560 | 0 | 350 | 1,500 | 3,750 | 7,500 |
| X G7924 | 283 | 0 |  | Uniform |  | 10,000 |
| $\times 67912$ | 240 | 0 | 20 | 2,000 | 9,000 | 10,000 |
| XG8091 | 573 | 12,000 | 5,000 | 1,000 | 200 | 0 |
| $\times 67902$ | 201 | 0 | 100 | 2,000 | 10,000 | 15,000 |
| XG7921 | 279 | 0 |  | Uniform |  | 25,000 |
| XG7922 | 280 | 0 | 1,500 | 6,000 | 12,500 | 25,000 |
| X67913 | 241 | 0 | 800 | 2,000 | 15,000 | 30,000 |
| X G7906 | 205 | 0 |  | Uniform |  | 50,000 |
| X67903 | 202 | 75,000 | 25,000 | 2,000 | 200 | 0 |
| XG7914 | 242 | 0 | 6,000 | 25,000 | 50,000 | 100,000 |
| X G8125 | 281 | 0 |  | Uniform |  | 200,000 |
| XG7908 | 208 | 0 | 15,000 | 60,000 | 125.000 | 250,000 |
| XG7904 | 203 | 0 | 2,000 | 20,000 | 200,000 | 500,000 |
| XG7907 | 206 | 0 | 60,000 | 250,000 | 500,000 | 1,000,000 |
| Your Cos Any Typ |  |  |  |  |  |  |
| Switch O Fits All | y. ypes |  |  |  |  | Te |

## Tritest super-Het coll KITs

5 Tube Long Wave \& Broadcast Superheterodyne Kit -200 to 600 \& 1000 to 2000 Meters For A.C.-D.C. Operation Uses 6A7, 6D6, 75, 43, 2525


A Superhet Coil Kit especially designed for European customers and those domestic customers interested in foreign reception in the 1000 to 2000 meter band. Incorporates such advanced features as A. C.-D. C. operation, Pre-Selection, AVC, etc. Circuit employs the latest tubes, including a type 6A7, a 6 D6, a 75 , a 43 and a type 2525 rectifier. Kit consists of a Composite Input I. F. and Broadcast Oscillator Coil, an condensers. All leads color coded. Both schematic and pictorial diagrams included in kit, so that practically anyone can assemble this highly efficient receiver. Shpg. wt. 3 lbs.
XH10152 Complete Coil Kit, less variable condenser. Your Cost
XH10153
XH10153-Same as above, but with Special Tritest 3 Gang Variable Condenser. Shag. wt. 6 lbs.

## 5 Tube Broadcast Super-Het Essential Coil Kit-200-6C0 Meters

 pre-selection stage tuned by one section of the three gang condenser. It is mounted in a shield can $3^{\prime \prime}$ high by $17^{\prime \prime}$ in diameter. A combined oscillator and input I. F. transformer is housed in a similar can. The output I. F. transformer is housed in a can $2^{2} 3^{\prime \prime}$ high by $1^{3} 3^{\prime \prime}$ in dianeter. All leads are color coded for easy identification. The finished receiver, using the type tubes shown above, will afford exceptional selectivity (approximately $10 \mathrm{~K} . \mathrm{C}$.) and sensitivity. Power output is a full 3 watts, enough to fill the largest room with music. Output nay easily be inc ceased by adding another 2 A 5 tube to make a push-pull output be inc reased by adding another $2 A 5$ tube to make a push-pull output
stage; receiver will then have a power output of approximately 6 watts. stage; receiver will then have a power output of approximately 6 watts.
Both schematic and pictorial diagrams included so that practiBoth schematic and pictorial diagrams included so that practi-
call anyone canassemble this receiver. Shpg. Wt. 31 lbs.
XH10156 Essential Coil Kit as described. XH10156 Essential Coil Kit as described. Your Cost XH10157-Kit as above but including Special Trutest Variable Condenser. Shag. wt. 6 lbs . Your Cost

## 8 Tube De Luxe All Wave Super-Het <br> 15 to 550 \& 850 to 2000 Meters

Uses 2.58's, 1.55, 1-57, 1-56, 2-2A5's, 1.80

$\$ 6.65$

Uses 2-57's, 1-58,

1-2A5, 1-80 Tubes
A straight Broadcast type SuperHer using five of the latest type tubes. An unusual feature of this Kit is the completeshielding of all Kit is the completeshielding of all
coils. The antenna coil includes a
$\$ 3.95$
5.40

This kit is one of the most up-to-date
superheterodyne kits ever offered to
5 Tube Short Wave \& Broadcast Superheterodyne Kit-18 to 55 \& 200 to 600 Meters For A.C. Operation Uses 2A7,58, 2A6, 2A5, 80


This kit is simple to build-easy to operate-highly satisfactory in performance; truly an unusual combination in a kit of this type. The broadcast band covers the standard American Broadcast frequencies; the Short Wave band, from 18 to 55 meters, covers the important European broadcast stations and also several popular American short wave stations. Thus practically every important broadcast station Irequency is covered. This method of "band coverage" makes this an unusually simple receiver to build, and accounts for its excellent performance. Circuit employs a 2A6, a 58 , a 2 A7, a 2 A 5 and an 80 rectifier. Includes the following coils: 1 specially designed Input I. F. Transformer; 1 special Output I. F. Transformer; 1 special Broadcast and Short Wave An dna Coil; 1 special Broadcast and Short Wave Oscilgator Coil; three trimmer condensers. Both schematic and pictorial diagrams included. Shpt. wt. 4 lbs
XH10154 Complete Kit, less variable condenser
Your Cost
$52,-5$
XH10155 -Complete Kit with Special Trutest Two
Condenser. Shag. wt. 6 lbs.
s 4.95

## 5 Tube TRF Coil Kit

Extremely Compact-A. C. Operation

$$
\begin{aligned}
& \text { Uses } 2-58 ' s, 1-57, \\
& 1-47,1-80 \text { Tubes }
\end{aligned}
$$

(a)


Many custom set builders prefer the TRF circuit because of its better tone quality and greater ease of construction. This new Trutest TRF Kit has a newly deTrutest TRF Kit has a newly de-
The antenna coil of the inductively coupled type is housed in a shield can only $13 / \mathrm{m}^{\text {" high by }} 13 \mathrm{~s}^{*}$ square. The RF coils housed in exactly the same size cans are of the choke primary, capacity coupled type. In constructing this receiver, the set-builder will find that selectivity is ample for average use. Sensitivity is exceptionally fine for this type of receiver due to the use of special high gain coils in each stage. Power output, using the tube combination shown above, will be 2.7 watts This may easily be increased to approximately 5.4 watts by adding another 47 pentode to make a push-pull output stage. Schematic and pictorial diagrams included. Sher. wt. 2 lbs. XH10158-5 Tube TRF Essential Coil Kit as described above
s. 75

Your Cost.
XH10159 -Same Kit as above but including Special Trutest Three Gang Varia
$\$ 3.10$

## 7 Tube DeLuxe Short Wave and Broadcast Superheterodyne

 13 to $200 \& 200$ to 550 Meters
## Uses 3.58 's, I-2A6, I-56 I-5\%, $\mathbf{I}$-80 Rectifier

 the set builder. It is complete in every detail. Essential coil kit consists of the following units: One apecia antenna coil; one special ascilater coil; two completely shielded high gain titers for the first two stages (Isoformers for the first two stages (Isolantite double tuned); one high gain Litz wire wound single tuned C.T.1.F. transformer for the third stage; one
special trimmer condenser and five special padding condensers. The set covers the entire short wave, standard American broadcast, and European long wa we bands. The completed set will be found to have sufficient selectivity over the entire range, due to the precision with which the coils are made. Comes complete XH10032 -Complete Kit, less variable condenser. St
XH10033-Complete All-Wave Superheterodyne Coil

This kit can be built up into an ex heterodyne. Its range covers the entire short wave band (in four steps) from 12 to 207 meters, and the A merican broadcast band from 192 to 560 meters. Essential kit contains: three special high gain Isolantite double tuned Litz wire wound I. F. transformers; one special short wave antenna coil; one special broadcast ansenna coll; one special combination short wave and broadcast oscillator
coil; one R. F. choke; one special trimmer condenser and one padding condenser. Kit may be built by any-
one having the least knowledge of rio. Complete with schematic
 wt. 41 lbs .
$\mathbf{X H 1 0 1 6 0}$

Complete Kit, less variable condenser. Your Cost
5.95

Superheterodyne Coil Kit de-
scribed above, with Special Trutest High Shield Two-Gang Vari-- able Condenser (ball-bearlng rotor). Shag. wt.
7 los.
Your Cost..... All Truest coil kits come complete with both blue print chematic diagrams and pictorial lay-out diagrams. In addition, complete lists of all parts necessary to build the complete receiver are shown. Thus those having the least bit of radio experience are enabled to construct these efficient receivers without trouble of any kind. Kit, 16 to 2000 meters as deHigh Shield Two-Gang Variable Condenser. The use of this conis especially designed for the kit. Shag. wt $7 \mathrm{lbs} . \$ 8$
Your Your
Cost

## Super.Het \& T.R.F. COILS

## Trutest

Shielded R.F. Colls


These coils are used as standard equipment by a large number of set manufarturers. Due to their precision winding, exceptionally high gain is provided. Very sensitive 00035 with all S.G. tubes with .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 turns No. 30 enamel. Mounted in shield cans $215 \times 22^{3 /}$ high. Shpg. Wh XH10087-
and 1 Ant.
Your Cost. Your Cost.
XH10088-Set of 3 R.F. and
Your. Cost........ 1.51
XH10019-Ant. Coil only
XH10020-R.F. Coil only
Your Cost,
Either Type
Shielded Pre-Selector


Long Wave R.F. Coil
 A recent development in coil winding for long wave transformers or any application requiring large inductance values. Banked four meters to i200 Range 550 with .00035 mfd . con denser; up to 2000 Size $27 / \mathrm{fxl}^{1}$. Shpo condenser. Whisicc91-Your Cost ....698

## Composite Oscillator Detector I.F.-175 Kc.

 High grade composite coll used as oscillatorand first I.F. transformer. Elimi-nates the use of ne tube with no oss in efficiency. Top tuniug. Factory peaked at 175 Kc . No padding necessary as
 $t$ is made for the pecial tracking oscillator section of ariable condensers of .00036 mfd Enclosed and fully shielded in square sluminum can $3^{\prime \prime}$ high and $2^{\circ}$ square. Has two spade bolts for mounting. long leads for direct wiring. Shpg. wt. 3 lbs . Your Cost Each.

Truteat Litz Wire I.F. Transformers Isolantite Double Tuned


## Midget Coils

High quality Litz wire used throughout. Employs 2-in-1 isol antite base trimmer. Two bronze springs hold entire unit in the shield. Can size $13 / 2 x$ $23 /^{\prime \prime}$ high. Has full length leads for direct wiring. Shpg. wt 8 oz .
XH10021-175 Kc
XH10022-456 K
Your Cost,
$82^{\circ}$ Either Type
Similar ype
Senter to the above, but with Center tapped secondary for Wund
tubes.
XH1002
$\mathbf{X H 1 0 0 2}$
XH10024- 456 Kc
Your Cost,
Either Type
 direct wiring. Shpg. $\mathbf{X H 1 0 0 7 5 - 1 7 5 ~ K c}$
$\mathbf{X H 9 7 0 9}-456 \mathrm{Kc}$ Your Cost, Either Type $32^{c}$ Similar to the above, but with Center tapped secondary for tubes.

## Special "Ultra High Gain'" Short Wave I.F. Transformer Peaked at 456 Kc .

This newly developed I.F. coil is far superior to any other on the market at present. Has a gain conservatively rated at 180. Selectivity at 100 times 80 Kc. Primary 1 isolantite base trimmer; top tuning. Fully shielded in round aluminum can $4^{\text {" }}$ high, $1 \mu_{2}{ }^{\text {"ing diameter. Provided }}$ round aluminum can "high, $1 /_{2}$ in diameter. Provided with long color coded leads for direct wirin XH9969

5102


NOTE: The above coil is identical to those used in the new "ALL STAR" kit listed on page 41.

Midget Trimmers Extremely compact on bakelite strips. Ideal for use in short wave sets.
Have solder lug Have solder lug
terminals. Capacity range from 3 to 30 mmid . XH9775 Each Similar Dual Trimmers Similar to the above, but two trimmers mounted on single bakelite strip. Range $3-30 \mathrm{mmfd}$. each ${ }^{\text {trimmer. }}$
Your Cost Each
$19^{c}$

Compact Isolantite Padding Condensers
Highly efficient due to their extremely istics. Minimum capacities very low, tuning range wide, Mounted on isolantite bases.


Stock Nos. Range Your Cost Single Dual Mmfd. Single Dual $\begin{array}{lllll}\text { XH9767 } & \text { XH9771 } & 7-80 & 50.26 & \$ 0.42\end{array}$
 $\begin{array}{lllll}\text { XH9769 } & \text { XH9773 } & 38-325 & 29 & .49 \\ \text { XH9770 } & \text { XH9774 } & 94-419 & .31 & .54\end{array}$

## MAJESTIC Replacement I.F.Transformers

 Models Io and 60

## Models

 Exactlyduplicate the original units perior electrically. Contain 600 volt working voltage plate bypass condensers. Peaked at 175 Kc. Each unit guaranteed against defects. Shpg.| Stock | Model |  | Yo |
| :---: | :---: | :---: | :---: |
| No. | No. | Stage | Cost |
| XC2496 | 20 | 1st | \$150 |
| XC2497 | 20 | 2nd | 0 |
| XC2498 | 60 | 1st |  |
| XC2499 | 60 | 2nd $\}$ | 0 |



## MAJESTIC 460 I.F. Transformers

Exact duplicates of the original Majestic parts. No changes necessary to install. First I.F. comes completely mounted in aluminum shield can. Shpg. wt. 2 lbs .
XC2451-1st
\$
C2452-2nd I.F.
Your Cost............. $65^{c}$
T.R.F. Coil Kits

Litz Wire Bank Wound


Litz wire coils on ${ }^{15} /$ n " $^{\prime \prime}$ diameter forms, $21 / /^{\prime \prime}$ long. Mounted in shields $1^{\prime \prime}$ diameter, $2 \psi_{2}^{\prime \prime}$ long. Have mounting lugs. Designed for use with a .00036 mfd . condenser Blue print furnished with each kit For 4-Tube Set 2 Coils, 1 Ant., 1 R.F. XH10045-List $\$ 1.75$ $93^{\circ}$ For 5-Tube Set 3 Coils, 1 Antenna, 2 R.F.
$\times H 10046$ -XH10046-
List $\$ 2.60$

## For 6-Tube Set <br> 4 Coils, 1 Antenna, 3 R.F.

XH10c47-
List $\$ 3.25$
Your Cost
Your Cost
Cobs XH10090-R.F. Coil
Your Cost,
Either Type

## Shielded Oscillator

 Coilfor the New 2 A7 or 6 A7 Tubes lator coil, thoroughly mpregnated and housed in a metal shield. For 175 Kc . with a 1000 mmid. padding condenser and .000365 variable special cut section of variable condenser. Has solder lug terminals. Size $15 / 8^{\prime \prime}$ high, $11 / 8$ " in diameter. Shpg. wt. 8 oz .
Shpg. wit. ${ }^{8}$
Your Cost Each
$58^{\circ}$
Similar to the above, but for 456 Kc. I.F. Made to track with a 500 mmf . padding condenser and cial cut variable condenser or spedenser. Shpg. wt. 8 oz . XH10C31-
Your Cost Each
Untuned Asserrbiy
A combination of transformer peaked at 550 Kc . and a plate choke coil. Finds choke coil. Finds
popular use as an popular use as an
additional radio frequency stage in 4,5
 both for home use and automobile receivers. Since no external tuning is necessary, the only expense involved is for the assembly itself and the extra tube. Size $11 / 2^{\prime \prime}$ high and $11 / 2$ in diameter. Shpg. wt. 8 oz . XH10094

[^8]
## Truteat Variable Compact Short Wave and Broadcast Condensers



These Trutest Tuning Condensers are of the very latest design. Greater variety of capacities, and smaller physical sizes. Fully shielded between sections. Rigid construction. Positive electrical contacts. Trimmers are rigid and retain their settings after adjustments. Ball bearings, self-aligning and smooth in action. Heavy alusmooth in action. Heary alates. Shaft and frame of steel, cadmium plated. All aingle section $1 / 4^{\prime \prime}$; all multiple $3 / /^{\prime \prime}$ diameter shafts. Bakelite insulation Mounting holes, spaced $1^{11} / 2$

Short-Wave Compact Condensers


## Compact Junior Condensers for

Short Wave and Broadcast
An exceptionally compact yet highly efficient variable condenser suitable for short-wave or broadcast use. Ball bearings. Shafts $1 / 4^{n}$ diameter, 114 long. Aluminum plates-heavily plated steel frame with plate supports of brass. Special three-gang short-wave condenser for
use in TRF or Super-het circuits. use in TRF or Super-het circuits.



## Truten Míget Condensers

Light weight, strong and compact, smooth
 in operation. Low minimum capacity, low loss, bakelite insulation, non-corrosive aluminum plates. For single-hole mounting, $11^{n}$ shaft. Each unit individually packed with knob.

| acked | Min | Max | Your |
| :---: | :---: | :---: | :---: |
| No. | Cap'y | Capy | Cost |
| XH9724 | 3 | 15 | \$0.32 |
| XH9728 | 4 | 30 | . 32 |
| XH9729 | 5 | 40 | . 40 |
| X H 9731 | 6 | 80 | . 45 |
| XH9727 | 7 | 100 | . 48 |
| X 49714 | 8 | 140 | . 65 |

"Precision" Condensers for Superhets
and T.R.F.
 Contribute a marked improvement to the Super heterodyne by eliminating the necessity for a su-called "padder" circuit. Units consist of one or more preselector condenser section mounted on the same shaft with a tracking condenser for the oscillator. Heavy in construction, with ball-bearing shafts. Have mountings for trimmers on either side. Aluminum Plates slotted.

| Stock <br> No. |  |  |  |  |  |  | Shpg. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gangs Cap. Shaft | Size, Inches | Wht. | List | Your |  |  |  |
| Cost |  |  |  |  |  |  |  |

## Precision Condensers for T.R.F. Circuits

Same construction as above Condensers except that all sections, are identical in capacity curve; the correct type for T.R.F. sets.

| XH9703 | 2 | . 00036 |  | $42 \times 3 \times 2$ | $21 / 2 \mathrm{lbs}$. | \$6.00 | \$1.03 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XH9704 | 3 | . 00036 |  | 4)/1 $\times 31 / 2 \times 4$ | 3 lbs . | 8.25 | 1.52 |
| XH9705 | 4 | . 00036 | 8 | $41 / 4 \times 31 / 2=53$ | lbs. | 11.00 | 2.03 |


stawr is one inch. Contact to rotor is made through a specially designed cupped spring wasber having a large contact area with both noiseless stator, thereby assuring shafts, lock nuts to lock shaft in fixed position and screw driver slot fixed position and screw driver slot adjustment if desired make this a truly un
wt. 1 lb.

Stock Cap. Spac-
No. Mmids.
ing
> $\times \mathrm{H} 9752$
> $\begin{array}{rr}15 & .026^{\prime \prime} \\ 25 & .026^{\prime \prime} \\ 50 & .026^{\prime \prime} \\ 120 & .026^{\prime \prime} \\ 140 & .026^{\prime \prime} \\ 35 & .077^{\prime \prime} \\ 50 & .077^{\prime \prime}\end{array}$ XH9754 XH9755 XH9756 XH9756 XH9757*


For use as vernier or regeneration controls, antenna couplings, etc. Bakelite frames and brass plates. Depth behind panel 1 to $13 / 4^{\prime \prime}$ de pending on caparity. $1 / 4$ "shaft.
Stock Cap. Your Cost
No.
$\times H 10204$

| XH10204 | 15 |  |
| :--- | :--- | :--- |
| XH10205 | 25 |  |
| $\times H 10206$ | 50 | .54 | $\begin{array}{ll}\text { XH10207 } & 100 \\ \times M 10229 & 140\end{array}$

inis

## Wood Radio

 KnobsA complete selection of beautiful wood knobs for all types of radio receivers. Type J are black with chsomium inlay. Types E and G are twots. assure perfectalignment. Steel set screws grip firmly. All 1/4" shaft.

|  | Large $11 / 10$ | Medium $1{ }^{\prime \prime}$ | Small $7 /{ }^{\prime \prime}$ |
| :---: | :---: | :---: | :---: |
| Type | Each \$0.10 | Each \$0.09 | Each ${ }^{\text {SH0.09 }}$ |
| B | X X 9861 |  | - $\times$ H9864 |
| C | XH9862 |  | XH9866 |
| D | XH9863 |  | XH9867 |
| E | ......... | XH9942 | XH9947 |
| F | ......... | XH9943 | XH9948 |
| G | ........ | XH9944 | XH9949 |
| H |  | XH9945 | XH9950 |
| J |  | XH9946 | XH9951 |

ozen...S1.00 Per Dozen...S0.95 Per Dozen... 50.95

*Transmitting types for neutralizng and tuning.

## Knobs for Midget Radio Receivers

Radio knobs that will enhance the appearance of your radio, or control panel. Furnished with $1 / 4$ hole, and set screw.
per dozen knobs, 1 lb .
No. 242-11名" Orna-郎 H 9890 - Each . $7 c$
$\$ 0.75$ 12 for. No. 17 1\% " Arrow Each
12 for ............ $\$ 0.48$
No. 18-Same as a
but 11 ²" $^{\prime \prime}$-Each.
XH9886-E
12 for


These knobs have been designed for use on the popular AC-DC recei vers. No. 148 is $1^{\prime \prime}$ in diameter 23/4" high and has a $1 / 4^{\prime \prime}$ plain hole $10 / 4{ }^{10}$ deep.
No. 246 is $135^{\prime \prime}$ in diameter, $13 / h^{\prime \prime}$ high and has a $34^{\prime \prime}$ hole $3 / 8^{\prime \prime}$ deep Both are equipped with set screws. Shpg. wt. per dozen, 1 lb.
No. 148-Pointer Knob XH9931

## Each.



No. 246-Knob with Indicatink Dot.
Each. $5^{c}$
No. 98-1
8", 2-T
-Tone,
7 XH9891-Each 12 for.


No. $101-\mathrm{S}$ a
12 for..


## RADIO FREOUENCY CHOKES

## Hammarlund



Genuine helical winding in a moulded form. Large induct ance with minimum of disity, For prate ericulitand prid pass 60 M. A. $85 \mathrm{M} . \mathrm{H}$. , a capacity ${ }^{\circ} \mathrm{H}$ H 8525 . Your Cost
$\$ 1.17$ 250 M. H. a capacity of 2 mmf . ${ }_{\mathbf{D} . \mathrm{C}} \mathbf{C 5} 52 \mathrm{res}$ XH8526-
Your Cost
$\$ 1.32$


Low loss choke designed chiefly for short wave receivers and trans-
mitters. No metal screw passes through choke to increase losses and distributed capacity; size $13 / 6 x$ 7/8". Inductance 8 millihenries. tributed current 125 mils .
XH8524
Your Cost Each
$65^{\text {c }}$
Improved Shielded
R. F. Choke


This choke is completely shielded in an aluminum shell. Size $11 / 2 \times 13 /^{n}$
diameter. Connections on the side of the can.
Inductance $10 \mathrm{M} . \mathrm{H}$. D. C. resiatance 65 rent 100 mils. Code CH-10-S.
XH8523 Your Cost


COLUMBIA RF Choke Especially designed Columbia Screen Grid 8 receiver. Fibre form 8 receiver. Fibre for
with lug terminals. XH10145 Your


## montent R.F.CHOKEG



## Chokes

 R. F. chokes are essential to the proper operation of radio frequency circuits. Together densers they keep the par rents in their proper paths, thus helping to prevent feed-back and sta bilizing the circuits. All lattice wound on wood spools. Easily mounted.XH10100-8 Millihenries $22^{\circ}$
XH10101 if Millihenries $27 c$
Your Cost Each
$27^{\circ}$

Mounted Chokes


Lattice wound
bobbins and provided with soldering lugs. Extremely low distributed ca-
pacity. In sizes pacity. In sizes
XH10104-6 Mill Your Cost Each XH10105-2.2 Mi
XH10102 5.5 M
XH10102 5.5 Mil
Your Cost Each.
$\qquad$ $17^{\circ}$

Pie-Wound "Hy-Freq" R. F. Chokes


These chokes are especially designed for use in all types of high frequency receivers and in low power trans
mitters. Consist of a continuous four pie winding on a genuine Isotex spool. Extremely low distributed capacity. Heavy strap leads permit numerous ways of mounting. A vailable in sizes shown below: Stock No. M. H. Your Cost $\begin{array}{lrr}\mathbf{X H 1 0 1 4 2} & 2.5 & \$ 0.44 \\ \mathbf{X H 1 0 1 4 3} & 5.5 & .50 \\ \mathbf{X H 1 0 1 4} & \end{array}$ $\times \mathrm{XH} 10143$ XH10149
$\mathbf{X H}$

$$
\begin{aligned}
& 10 \\
& 60
\end{aligned}
$$



## R. "Crolite" Chokes

Wound on a new and highly efficiterial known as Crolite. Extreme-
ly low distributed
capacity Can be mounted many positions without the need for shielding. Solder lug terminals. XH10138-2.5 Millihenries $29^{\circ}$
Your Cost Each. XH10139 5 Millihenries $37 c$ Your Cost Each XH10140 10 Millihenrie Your Cost Each. XH10141-25 Millihenries
Your Cosf Each....... $.5 c ~$


## S. W. Choke


ohms. Dis
tributed capacity 1 mm ; inductance 2.5 millihenries; current carrying capacity 125 M . XHi0106́
Your Cost
$33{ }^{\circ}$

## -



A whiches
many uses in radio circuits. Have wood cores and are provided with
tinned leads for easy solder continned leads for easy solder con-
nections. Minimum distributed nections. Minimum distributed XH10146-2 M. H.,
Type B
Your Cost Each


XH10147 M.
Your Cost Each
Your Cost Each.
H.,
H.,

Type
$88^{c}$
$4^{c}$



Short Wave R.F. Choke
 An excellent
chokefor use in receivers or in
low powered transmitters. Wound in 4 sections on isolantite
ductance $21 / 2$ millihenries;D.C.resistance 50 ohms; distributed ca pacity 1 mmid .; rating
XN14429-LList
75 c Your
Cost
$45^{\circ}$

work. Shpg. wt. 6 ozs.
$\times \mathrm{N} 14422$
Yout Cost
$75^{\circ}$
Short-wave choke. National No.
92 . Rated inductance 5.2 millihenries. Fully shielded. Mounts with single screw. Solder lug terminals.
$\times N 14423$
XN14423
Your Cost Each.

XH20122
Your Cost Each
Per Dozen.

## RCA-RADIOLA

R. F. Filter Coil

## with Condensers

Models 44-46-47
Genuine replacement Part No. 6000. Comprising Micarta strip with 3 terminals, 2 bypass condensers, 1 R. $F$. Filter Coil and mounting bracket. Can be used in any receiver especially suitable for Screen Grid Audio Coupler units. Srpg. WC2004 Your Cost.

## RCAIron Core Choke

 Original RCA PartNo. 7387 used as No. 7387 used as
tone reactor, models RE18, 18A, 26, 59 and 79. Inductance
 resistance only 3.9 ohms. Suitable for use in any low impedance circuit
XH10137-
Your Cost Each
$14^{\circ}$
Victor R. F. Input TransSormer Cor Models R-32 RE45, R-52, RE75


The original placement Part No. 10422. Consists of a primary and secondary on a bakelite spool.

I ${ }^{c}$


## VICTOR

 Antenna Choke Models R32, RE45, R52, RE75Victor Part No. 10444.
150 turns No. 34 wire
wound on wooden
$\$ 1.60$

Transmitting Choke
 Isolantite mounted choke for medium and transmitters. Contur pered sections for efficient lated for 10,000 volts. Induct ance 4 millihenries; distributed capacity 1 mmid.; D. C. resistance 10 ohms; continuous current rating . 6 amps ; intermittent .8 XN14399 List $\$ 2.25$
Your
${ }^{\$} 1.35$
500 Ma.R.F.Choke
朝 platecircuits
carying not over 500 mills continuously or 750 intermittentdistributed capacity; 2.5 millihenries; 1.5 mmfd .

XH8522 List $\$ 1.75$ \$

Adjustable Drilling

## Tempiate

 A tool of man uses in the shop. Indicates the exact location holes in panel or baseboard of The adjustable template fits perfectly on any part and is then locked in position by the thumb nut. Eliminates the possibility of wrong drilling. Complete with full instructions for operating. Shpg. wit. 1 lb . XPLi935--Your Cost Your Cost

## Bakelite

 Tubing

Will not shrink at $125^{\circ} \mathrm{F}$ ! This is genuine bakelite tubing. Wall $1 / 4$ thick.

|  |  | our Cost |
| :---: | :---: | :---: |
| Stock No. | $\underset{1^{\prime \prime}}{\text { Dia. }}$ | $\begin{aligned} & \text { per Inch } \\ & \$ 0.04 \end{aligned}$ |
| XM13151 | 11/2" | . 05 |
| XM13152 | 2 " | . 06 |
| XM13153 | 21/2" | . 07 |
| XM13154 | $3{ }^{\prime \prime}$ | . 08 |

## 1/8" Bakelite Panels

These are genuine black bakelite panels 1/ "thick. It is only because of a cortunate purchase that we can offer these pan XWi9734-7×10

## Your Cost

XW19737-7x12"
Your Cost
XW19738-7x14"
Your Cost
XW19739-7x18
Your Cost



## Insulating Shaft Couplings


reducer.
reducer.
reducer.
124
.$\$ 1.05$


Coupline and Extenders For mounting two or more condensers, rheostats or awitches. Extend ers for lengthening shafts of same XP15004-1/4 $\times 1 / 4^{2}$ shaft extender. XP15005 Notillustrated, Shaft extender to change $1 / 4$ " diameter shaft to 8 " shaft
$10^{c}$


## Aluminum Shielding Cans

Shipped knocked down. Corner posts drilled for "/o"screws. 1/40"
Stock No. stock. Size $\quad$ Each

## Radio Tube Shield Jacket

This shield represents a new departure in tube shielding. They can be used with regular tubes to replace spray shield tubes and will function here perfectly Made in two types: ST12 to fit the dome type tubes, and S14 to fit the 24,35 , and 51 types. Shpg. wt. 1 lb .


Aluminum Corner Posts
$6^{\prime \prime}$ Jong, grooved to fit $1 / 6^{\prime \prime}$ thick aluminum. Tapped at each end to fit on"

## Blank Radio Chassis <br> Cadmium Plated

## These chassis are made of stiff metal that

 is easy to drill and work and have spotwelded corners that will not loosen. Strongly built-will not wobble. Excellent for use in building receivers or amplifiers A verage shpg. wt. 6 lbs.
## XM12810-10×17×3"

Your Cost
$85^{\circ}$
$05^{\circ}$
XM12609 $12 \times 6 \times 21 / 2^{\prime \prime}$ XP14954 Your Cost, Each.

## 5

 Three slots on bottom of shields for direct wiring. Size $4 \%$ high, $21 / 8$ " in
dinmeter. Removable base. Shpg. wt.

## 1 lb .

XM13259
Your
Cose
Cost. $\qquad$ Second section hasslot for screen grid wire. Size 53/8 high, $13 / 8 "$
diameter. Comes complete with mounting pluds attached to bottom section. Shpg. $\underset{\text { Your Cost... T2 }}{\substack{\text { XM1 } \\ \text { You }}}$


## Special Tube Shields

 diameter. Your Cost Per Dozen
"S" Type Tube Shields This Tube Shield will
give that custom-built appearance to your set. Made of heavy metal with a heavy Copper.plated finish. Made in three pieces; top, base and barrel.
Perforated for adequate ${ }^{\text {n }}$ ventilation. Size 5 " high, 21/4"

"ST" Type Tube Shields
For $56,57,58$, etc., type tubes. Made in three pieces: Cap, barrel and hase. Both long (covering the whole tube) and short (leaving cap projecting) types. Barrel diameter $18 /{ }^{\prime \prime}$. Sturdily made of hard drawn aluminum in natural bright finish. Shpg. wt. 1 lb .
XM13265-Lo
Each Cost,
Each.
10. Each
$12^{c}$


XM13266-Short Type 35/8" high.
Lour of 10 Each
National Aluminum Coil Shields One piece, rugged aluminum, die. drawn. Size 3 , " " high, $23 / 2$ diam-
eter. Mounting flange, holes space,



KURTZ-KASCH DIALS
Made of molded Bakelite. Requires only one hole for condenser shaft and two small holes to secure dial to panel. Dial ratio 8 to 1. No back-luah. Fits $1<{ }^{\prime \prime}$ shaft. Shag. wt. 1 lb .


## Full Vision Dial!

Designed for use with standard broadcast receivers. $5 \frac{3}{3}{ }^{3}{ }^{3}{ }^{3}$ high, shaft. Knob shaft 3 haft. K" Celluloid scale 0-100 clockwise. Double friction drive. Complete with escutcheon plate. the condensectly on XH9816Your Cost . $5^{\circ}$
 socket included. Shag

He d Dial and Escutcheon, less $65^{\circ}$

## Panel Mount Midget Dial

 A new tuning dial with vernier with the present martially for use with the present A. C-D. D .midget rets. Makes it possible midget sets. Makes it possible
to convert various sets from direct to vernier control from tractively finished in dull bronze. Mounts directly on front panel. Ships. wt. 1 lb .
XH9818- Cost Each our Cost Each
$75^{c}$

## Genuine G. E. MAZDA

## Pilot Bulbs

Used for radio dial lamps, indicators, Shag. wt. 8 oz ., per box of 10.
Stock Volts Amps Your Cost $\begin{array}{llll} & \text { Volts Amps. Each } & \text { No ur } 10 \text { For } \\ \times 112250 & 2.5 & 0.50 & \end{array}$ $\left.\begin{array}{lll}\text { XL12251 } & 3.2 & 0.45 \\ \times L 12252 & 6-8 & 0.50\end{array}\right\}$

COLORED MAZDA BULBS In red, preen amber, and blue. Similar to the above. Specify color desired.
Stock No. Volts Amps. Your

 | XL12270 | 6.3 | $0.50 \quad 10$ for 85 c |
| :--- | :--- | :--- | :--- | Round bulb, miniature base. G-8 volts, 0.15 amps. Small size

2273-10 for $85 c$
Your Cost Each
$10^{c}$
SPECIAL AIR CELL BULB Tubular bulb, miniature base. 2 volts, 0.06 amps. Has lowest current drain of any bulb Your Cost Each 1.75.

VICTOR-MAZDA PILOT BULB Intermediate base, frosted bulb. 110 volts. XL12253-Carton


~~~~~


Make of Set Model Stock No. Net Atwater Kent Atwater Kent Atwater Kent Atwater Kent
Atwater Kent
Arad Bosch Bosch Bosch Balkeit Brunswick 15 Brunswick
Colonial Colonial Columbia Crosley Emerson Freed-Eisemann NR60 XH9841 \(\quad .25\)

Best quality c
very strong
XH9881
Your Cost
Per Foot.


Midget Airplane Dial


Has \(3^{\prime \prime}\) dial. Double geared drive, free from backlash. pointer and condenser travel in pointer and condenser travel in knob. Face protected by glass cover. Provided with \(37 / 6^{\prime \prime}\)
bronze bezel. Shpt, wt. 1 ib
XHSad4 Your Cost Each
\(\$ 1.49\)

\section*{Special Airplane Dial}

A full vision airplane dial! with a reduction drive
ratio of \(6: 1\) in \(270^{\circ}\). Totally free from back-lash or play. Has \(21 / 2^{\prime \prime}\) dial of amber translucent material, covered by a convex glass lens. Figures in black, indicated by a Lower scale graduated in kilocycles; upper scale from zero to ten. Mounts mounted on supporting Pilot light socket mounted on supporting bracket. Provided With 312
Your Cost Each


Shpge wit. 2 lbs
Your Cost Each
\({ }^{\mathrm{s} 2.94}\)

\section*{New Improved Drum Dial}

Extra heavy die cast white metal construction. Illusminted.
Celluloid scale 0-100 counterhigh \(3 y /{ }^{n}\) deration. Size \(512^{n}\) high, \(33 /{ }^{\prime \prime}\) deep, \(1^{3}{ }^{\text {K }}\) " wide. Knob shaft
luthern
Size
\(3 / 8134^{\prime \prime}\). wt. 2 lbs .
wither
XHe809 -Dial only for \(1 /{ }^{\prime \prime}\)
XH9810-Dial only for 3 s"
shaft. Cost
Your Cither Type..... Either Type... Each...............
XH6476 -Insulated
Light
Each.

\(8^{\circ}\)
A new \(3^{\prime \prime}\) dial designed for use with short wave receivers, laboratory instruments, etc. Dial can be accurately read to. 1 double edged for clockrise or counter-clockrise or counter-clock-
wise readings. Provides a spread of \(270^{\circ}\) for \(180^{\circ}\) condenser rotation. Dial ratio 16:1, free from backlash. Scale and pointer made of metal to prevent inaccuracies. Hub in-


Outside diameter dial Knobshaft \({ }^{4}{ }^{4}\) shaft. Celluloid scale. 0-100 counter-clockwise. Has pilot light socket. Eshigh, plate \(2^{3} 3^{4}\) high. 2ga" wide,
Shag. wt. \(1 / 2\) been Shag. wt. I 1/2 lbs. XH9813-Dial Only. \(47^{\circ}\) XH9814- EscutchExtra. Each \(12{ }^{\circ}\)

Pilot Light Bracket Pilot bulb lights attractive jewel.
number. amber.
\(\times 76436\) XF6436-
\(\square\)

EGERT Precision Tuning Dial With Vernier Control

c

?


For all
Radio Sets

\section*{\(4 \pi 5\)
50
\(\times 0\) \\ HAMMARLUND Isolantite Sockets}

Soc

\section*{Constan}
resistivity of isolantite and perfect

eliminate noise and give lowest losses. Glazed top and sides, rust proof side gripping contacts. Subpanel or base mounting. Four, five, six and seven-prong types \(21 / 4\) "long by \(15 /{ }^{\prime \prime}\) " wide. XH8496 4 -prong. Y H8496 4 -prong XH8497-5-prong. Your Cost Each.


For the New Tubes
XH8498-6-prong.
Your Cost Each.
XH8499-7-prong, large. Your Cost Each. XH8530-7-prong, small
Your Cost Each........ \(3^{\text {c }}\)

ISOTEX Sockets


Recom mended for use as tube sockets, coll crysta holder
ings, transmitter sockets, etc., in high and ultra-high gain circuits. Made of lsotex, top and sides glazed to resist moisture. Reenforced springs give perfect contact and eliminate noise. Size \(210^{\prime \prime}\) long, 1 s/" wide. Mounting hole centers \(119 / /^{\prime \prime}\). Grooved top. XM13064-4-prong. Your Cost Each.. XM13065-5-prong. Your Cost Each XM13066-6-prong Your Cost Each. XM13067-7-prong Your Cost Each


NA-ALD Sub-Panel
Sockets
A small-sized
A-prongal-sizecket
of black insulating Makalot.
 or midget sets. Now offered at the lowest price. Stock up on them. XK11625-No. 425. 5-prong. 8 c


Jacks
Three brass shells mounted on his hignplate. The cord tipslocatecen naturally. Shells have two contac springs, Supplied plain, no Marking

\section*{Screw Binding Post}

Two knurled head \({ }^{\circ}\) screws mounted on \(2^{\prime \prime}\) bakelite plate
Non-removable Solder lugs are tinned. Mounting centers 10 化". Plain.

\section*{NATIONAL Isolantite Sockets}

These Isolan-
duce losses to a minimum. Suitable for either stand-
ard subpanel
or baseboard mounting. Made in standard 4, 5, 6, 7-prong styles as well as a special 6 -prong type for National plug-in coils. Prongs are self-cleaning type and grip securely.
XN14425-4-prong
XN14426-5-prong.
XN14427-6-prong.
XN14439-7-prong
XN14428-Special 6-prong type or National coils.
List Price \(\mathbf{\$ 0 . 6 0 .}\)
Your Cost,
Either Type.
\(36^{\text {c }}\)
Wafer Sockets


For sub-panel mounting. Made of laminated bakelite, with onepiece contact springs, cadmium olated, to prevent oxidation. State marking desired.
XM13070 4-prong, plain or 2A3, 5Z3,230,231,232,245, 250, 171A, 280, 281, 82, 83.
Our Cost Each
In lots of 12 for
50.50

XM13078-5-prong, plain, or 644, \(224,227,233,235,236,237,238\), \(239,43,46,247,56\)
Your Cost Each
In lots of 12 for
S0.50
XM13071-6-prong, plain or 1 A 6 ,
\(2 A 5,2 A 6,2525,41,42,48,55,57\),
\(58,75,77,78,79,85,89\).
Your Cost Each
In lots of 12 for
XM13069-7-prong .........s0.65 arge, in plain or \(2 \mathrm{~A} 7,2 \mathrm{B7}\) and 6B7, 6F7,53, 59. Your Cost Eacls
In lots of 12 for

\section*{JONES Bakelite Terminal Strip} Assemblies


Screw and collar terminals mounted on \(1 /{ }^{\prime \prime}\) " bakelite strips, \(7 /{ }^{\prime \prime}\) wide. Hardware is nickel plated. Terminals spaced \(1 / 2^{\prime \prime}\) a part. Ideal fo. use as speaker connection terminals, "Ant" and "Gnd" strips etc. Collar and lugs cannot loosen or pull out.
Stock
No.
Ter- Mtg. Your
XM13140
\(\times \mathrm{XM13141}\)
XM13142
XM13143
\(\times M 13144\)


\section*{Lug Terminal Strips}

These strips are radio set chassis dynamic speakers, for holding voltage divider resistors, bias resistors and grid leaks. lougs lite strips, and are tinned. Makes neat appearing jobs.
\begin{tabular}{cccr} 
Stock & No. of & Your Cost \\
No. & Lugs & Each & 10 For \\
XM13133 & 2 & 50.04 & 50.35 \\
XM13134 & 3 & .04 & .35 \\
XM13135 & 4 & .06 & .55 \\
XM13136 & 5 & .06 & .55 \\
XM13137 & 6 & .08 & .70
\end{tabular}

Bakelite Combination Base or Panel Mount


Sockets Constructed of moulded black bakeliteand provided withgenuine phosphor ronze contacts. Top is grooved for tube guide.

Stock No.

\section*{XM13090} XM13091
XM13092
XM13093
Prongs Your Cost
\(4 \quad 50.14\)
\begin{tabular}{l|l}
.15 \\
.17
\end{tabular}
7, large

\section*{Combination Sockets}

Ideal for use in tube testers, analyzers and
other test intruments Moulded bakelite forms.
XM13095-Combination 4, 5, and 6-prong.
Your Cost Each


23
(M2305-Combination 5, 6, and small 7 -prong
Your Cost
Each


Base Mount Sockets
Constructed of moulded
black bakelite. Have
grooved tops for easy
grooved tops for easy
tube insertion. Mount
easily and securely by
means of a single by center hole Ideal ferew through ments and midget receivers
Stock No. Prongs Your Cost
XM13166
XM13167
XM13168
XM13169
XM13170

New Clip-Tite Bakelite Sockets A new type sturdy socket mad e of
moulted bakelite. Has long contacts which grip tube pins firmly. Socket mounts in special adapter plate and is held in place by a locking ring. Slotted mounting holes perfrom 1 1/ to 2 -inch mounting having Stock Stock
No. Prong3 No. Prongs \(\begin{array}{lllll}\text { XM13057 } & 4 & \text { XM13060 } & \text { 7, large }\end{array}\) \(\begin{array}{llll}\text { XM13058 } & 5 & \text { XM13061 } & \text { 7, small } \\ \text { XM13059 } & 6 & & \text { C }\end{array}\) Your Cost Each,

7

\section*{Tube Shield Base}

A new type metal shield base which locks bet ween socket and adapter plate. Fits standard 1\%/4" shield.
\(\times \mathrm{M13}\)
XM13233-Shield Base only. Each.
 In lots of 10 ior


\section*{BENJAMIN} Sockets
The popular long Iire socket. Positive side-wiping contacts insure perfect connections at all times. Ideal for use on sets or test equipment using bread board type of mounting. Constructed of
Moulded Bakelite. Solder lugs for easy cunnections. XM13110-4-prong. Your Cost Each
XM13111 5-prong.

Spring Ciamp Binding Posts Insulated top. Spring clamp holds wire securely under pressure contact. "\%" screw projects \(1 / 4 \mathrm{~m}\). Overall blank tops or marker "ANT" or "Gnd
These posts are excellent for use where connections must be made and changed quickly and easily
XM13046-Blank.
XM13047-"Ant."
XM13048-"Gnd.
Your Cost Each


Spring Clamp
Binding Post Assembly
एक \(\frac{11}{11}\)

Tivo automatic spring clamp binding posts with insulated tops. Posts mounted on bakelite strip \(2^{\prime \prime}\) long, \(11 / /^{\prime \prime}\) wide. Mounting hole centers 1 "1/6". Equipped with soldering lugs, one grounded to chassis. "Posts marked and "Gnd.
\(\times M 13049\).
Your Cost Each.
\(12^{\circ}\)

\section*{EBY Binding Posts Non-Removable Tops}

Made of composition insulatirg material. Tops non-removable. Bases specially designed for use on metal chassis. Stuil has hole.
XM13083-Ensign Post.

\begin{tabular}{l} 
Has \&stud, \\
Your Cost \\
XM13084 \\
Has 'astud, \\
Your Cose \\
\hline Eby Twi \\
En m
\end{tabular} " long. \(12^{c}\) XM13084-Comman ach......... I \(^{c}\) XM13062
Your Cost Each
Consists of two standard Eby posts mounted on lami-
nated strips. Marked ANT"and"GND."

Triple Post Units


Similar to the above, but with three posts marked "LANT," "S.ANT" and "GND."
XM13063-
Your Cost Each

\title{
Miniature
}

\section*{CUTLER:HAMMER SWItches}

\section*{Bakelite \\ Knife Switches}

Nickel plated metal parts. Single pole types \(11 / /^{\prime \prime}\) long, double pole \(21 / 2^{\prime \prime}\).
\begin{tabular}{|c|c|c|c|}
\hline Stock No. & Poles & Throw & Net \\
\hline X 1616830 & 1 & S & S0. 25 \\
\hline \(\times \mathrm{XR16831}\) & 1 & D & . 32 \\
\hline & 2 & & . 36 \\
\hline XR16833 & 2 & D & . 44 \\
\hline XR16834 & 3 & S & . 62 \\
\hline XR16835 & 3 & D & . 65 \\
\hline XR16836 & 4 & & . 73 \\
\hline XR16837 & 4 & D & . 79 \\
\hline XR16838 & 5 & S & 95 \\
\hline XR16839 & 5 & D & 110 \\
\hline
\end{tabular}

\section*{Porcelain Base Knife}

Pwith
For many radio andes, especially suitablefor ground. Copper contacts and blades.


MUTER Midget
Knife Throw Switches
Adapted for either base or panel mounting. Has ve black bakelite bases.
Highly nickeled brass parts with insulated handles. Single pole types \(11_{4}\) " " ling and \(1 / /^{\prime \prime}\) wide; double pole \(13 / 4^{\prime \prime}\) iong and \(1^{\prime \prime}\) wide.
XR16842-S. P.S. T.
Your Cost Each
XR16843-S. P. D. T
Your Cost Each
XR16844 D. P. D. T.
Your Cost Each.


JEWELL Rotary

\section*{Switches}

Supplied as 12,24 or 36 point switches and can be made in any number of decks desired. Each deck con sticutes a rotary mem . Standard switch supplied for a panel leknea with sitch Bar hande included with switch. Double wiping contacts of phosphor bronze. Shpg. wt. 4 lbs.
Stock
\({ }^{\mathrm{X}} \mathrm{N} 10335\)
\(\mathrm{X} J 10336\)
\(\times 110337\)
\(\begin{array}{r}\mathrm{X} \\ \times 10337 \\ \times 10338 \\ \hline\end{array}\)
X 103338
\(\mathbf{X} \quad 10339\)
\(\times 110340\)
Deck


Other switch combingtions supplied on special order.


\section*{WESTON \\ Bi-Polar} Switches
Dial has openings or index markings. Shpg. wt. 2 lbs.
XJ10557-24 Position \(\$ 6.62\)
Your Cost............ X \(\$ 10556-10\) Position
32.75

Your Cost.

Nickel-plated toggle switches. 3 Amps.,
125 volts. Single Pole, 125 volts. Sing XM12836 Your Cost Each.
Per Doz.
XM12835
XM12835 1" Shaft
Your Cost Each
Per Doz.
Single Pole-Double Throw
XM12834- \(12^{\prime \prime}\) Shaft.
Your Cos
 Single Pole-
Exposed type. Dead center position. \(1 / \mathrm{I}^{\prime \prime}\) shaft. XM12831-55
Each
Per dozen.
Single Po Similar to XM12832 Per Doz. \(\$ 2.75\) Yer Cos. 52.75 25

\section*{CUTLER-HAMMEI}
S.P.S.T. 5 Amp., 250 volts. For
motors up to \(1 / 3 \mathrm{H}\). P. Bushing \({ }^{15}\) M12813 XM12813 Your Cos
D.P.S.T.

Similar to the above, but double pole.
XM12814
Your Cost Eac

Your Cost Ean

Tool Handle Switch Single pole, single throw togzle. Flush mounting. Rated 6 amps., 125 volts.
For use on electrical appliances such as drills, irons, ete Screw terminal. XM12850
Your Cos

S.P.S.T. motors up to \({ }^{3} / \mathrm{H}\). For Bushing \({ }^{18}{ }^{\text {an }}\)
Yourcost D.P.S.T.


\section*{New! YAXLEY Gang Switches}

These new gang switches are far superior to any other on the market now. Contact members ar heavily silver plated, and given a smooth hard finish. Contact shoe, of the self-cleaning type is of pure silver. All switches are provided with one permanent stop and one adjustable stop, thus a ingle switch may be used as a \(2,3,4,5,6\) (up to front of switch to number of poing the stop on Bushings sic" and extend on ". Baints required. supplied. These switches are suitable for use either in radio receiyers or test instruments. Dials and extension shafts are listed on page 137.

SINGLE GANG SWITCHES
\(\qquad\) Shorting
Type XF6247

XF 6247
XF 6248
XF 6249
XF 6250
XF 6250
\(\times F 6251\)
XF6252
XF6253
XF6254
XF6255
XF6256
\(\mathbf{X F} 6257\)
\(\times F 6258\)
XF6258
XF6259
XF6260
XF6261
XF6662

Shortin


1 Circuit. 1 to 6 points


Your
Cost
SO. 59
.68
.68
.73
.79
TWO GANG SWITCHES
\(\times\) XF6268 2 Circuit. 1 to 6 points each.

\section*{XF6269 2 Circuit. 1 to 11 points each.} XF6271 6 Circuit. 1 to 5 points each. XF6272 8 Circuit. 1 to 2 points each.

THREE GANG SWITCHES

\section*{XF6273 3 Circuit. 1 to 6 points each} XF6274 3 Circuit. 1 to 11 points each 6 Circuit. 1 to 5 points each
FOUR GANG SWITCHES

1.30
1.38
1.47
1.62
1.76
2.06

 lies parallel with
panel. complete with Black Knob; on-of plate. Mounts in \(1 / \mathrm{m}^{\prime \prime}\) panel hole, up to \(14^{\prime \prime}\) thick. Is \(11 / 6^{\prime \prime}\) deep.

Two-Position Switches XF6471-No. 730. Single pole, double throw.
\(50^{\circ}\)
XF6472-No. 740. Double pole, ingle throw.
List 95c. Net XF6473-No. 745. Five Spring. XF6474-No. 760. Double pole, double throw.
List \(\$ 1.25\). Net
\(73^{\circ}\)
XF6475-No. 733. 3 pole, single throw. List \$1.25. Net.......73c XF6469-No. 744. 4-pole, single throw. List \$1.60. Net. . . . . . 94 c

Three-Position Switches
XF6440-No. 732. Single pole, double throw, center off. S
List 85 c. Net. XF6441-No. 762. Double pole double throw, center off List \(\$ 1.20\). Net. throw, center off List \(\$ 1.55\). Net. XF6443-No. 764. 4-pole, double throw, center off
List \(\$ 1.95\). Net
\(\$ 2.15\)

\section*{YAXLEY Push} Button Switches

\(\rightarrow\)
 Nonlocking Types Furnished complete
with black knob. Mounts in single 2/8" hole, on panels up to \(1 / 4{ }^{n}\) thick
XF6460-No. 2001. Make contact. List 90c. Your Cost Each...53c XF6461-No. 2002. Break contact. List 90c. Your Cost Each...53c XF6462-No. 2003. Single Pole, double thr
Yaur Cost Each
\(59^{\circ}\)
XF6457 \(\rightarrow\) No. 2004. 2-pole, 2-ctet. List \$1.20. Your Cost Each..71c XF6464-No. 2005. 2-pole, brk. 2ctet. List \(\$ 1.20\).
Your Cost Each
\(71^{\text {c }}\)
XF6465-No. 2006. 2-pole, double throw. List \$1.50.

88
XF6463-No. 2007. Mk-2, brk-1 List \(\$ 1.30\). Your Cost Each. 76 c XF6468-No. 2008. 2-pole, double throw. Make before break
List \$1.65. Your Cost Each. .97e

\section*{FEDERAL AntiCapacity Switches \\ \((1) \sqrt{4}+2\)}

XM12850 4 P.D.T. ST, 1 XM12851-D.P.D.T. ST. 5


Alligator Test Clips


Head of clip long thin debarrel and made to fit plug in prongs. has firm spring grip. Ideal for meters, test
boxes, etc. Size XM1295s
Your Cost Each
Per dozen.


Screen-Grid Clip
Wwin Manufacturers type.
0 solderi

Your Cost, Each
Pour cosen
Per Gross.
YAXLEY

(5)Terminal clips ubsy convenientand tin dipped for Hot soldering. Often used as Antenns and Ground connections and power terminals. Furnished complete with two screws.
XP14938 of 5 Clips.
Mounsing Lugs


\section*{For lanchoring}
hield of cadmium plated Made Flatend with hole to fit end size \(6-32\) XP1495s
Your Cost per 10.
Your Cost per 100

\section*{MIDGET}

\section*{Short Jacks}

Bakelite insulation KFbitg hole
Circuit.
XF6549
Your Cost.
Either Type

\section*{Metal Binding Posts}


XMM13020-Type A. Nickeled brass. Bolt and nut mounting. Knurled screw top. Heavy duty type.
\(\times \mathrm{min}\)
XMM13021-Type B. Nickeled brass. Removable wood screw mounting. Can be mounted with \(10-32\) holt.
XMM23022-Type C. Brass finished. 10-32 mounting bolt. Knurled screw top
XMM13024 Type F. Same as C but nickeled. Heavy duty type. Your Cost, 10 for 50 c . Any Type, Each
XMM13023-Type D. Nickeled brass Midget type. Nickeled mounting bolt. Slotted screw top 10 for \(25 c\).

\section*{10 for \(25 c\). \\ Your Cost, Each}

XMM13019-Type E. screws. Flat top with knurled edge for any above posts. 10 for 8 c .
Your Cost,
Each.

The insulation on the various items listed below is available in the following attractive colors: Red, Black, Blue, Green, Purple, or Yellow. When ordering state color desired.


These fine quality fittings add immeasurably to the attractiveness of your test instruments, etc. The bright colors provide an easy means of terminal identification.
1. \({ }^{4}\)

\section*{XM12910}

Your Cost, Each
2. Insulated Alligator teat prod or any ban Clip to fit XM12911
Your Cost, Each
3. Short Test Prod, \(21 / 2^{\prime}\) ion

XM12912
Your Cost, Each
4. Insulated needle point
tip plug to fit test prods.
XM12913
Your Cost, Each
5. Insulated Plug
with
\(6^{\circ}\)
X X M12914
Your Cost, Each
Laboratory Test Prods
Sharp-pointed tip mounted in \(4^{\prime \prime}\) heavy composition handle. Brass nickel plated tip removable from handle for easy connection. Solderless. In Red, Black, Green, Blue, Yellow, or Purple. XM12881-
Your Cost, Each.. I \(5{ }^{\circ}\)

\section*{Meter Binding Post}

Colored composition top and heavy nickel plated
ferrule. Mounts with ferrule. Mounts with
single screw. Specify Color. \({ }^{2} 163\)
Your Cost, Each.

Insulated Piug
Type Binding Post
Hole in top fits hanana
plug. Hole in stem for
\begin{tabular}{l} 
Wie. \\
Your Cost, Each..
\end{tabular}


Insulated Banana 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 \(1 /{ }^{\prime \prime}\) hole. Excellent for making quick sure connections without any chance of shorting. Specify color desired. XM12915-Insulated Banana PMiks. \(\mathbf{X} 2916\)-Insulated Banana Jacks.
Your Cost, Each Either Type


\section*{Insulated Tip Jacks}

Have new type springs which provide sure grip contact. Tip nests all the way in jack. Mounts in \({ }^{3}\) "砹 hole. Caps lessen danger of shorting. All colors.
XM12879
Your Cost, Each
Per Dozen
\(6^{c}\)

\section*{Sr. Insulated Plug}


A positivecontact plug of the solderlesstype, fits all standard tip jacks. Used for test leads on meters, analyzers, etc. Specify color desired.
XM12973
Your Cost, Each
Per Dozen

\section*{Jr. Insulated Piug}

Similar to the
above but only
above but only
\(132^{\prime \prime}\) tong. All Colors.
Your Cost, Each Per Dozen


Used nickel plated.
Used with banana plugs. \(1^{1 "}\) long
XM12923-
Each.
Per Dozen.


Tinned spring brass plugs for above jacks. \(11 / 8\) " long
XM12919
Your Cost, Each.
\(.4{ }_{50.45}^{c}\)

\section*{Tip Jacks}

Nickel plated. Powerful
bronze spring. \(1 / /^{\prime \prime} \mathrm{mtg}\).
hole.
XM12918
Your Cost, Each.. \(4^{c}\)
Per Dozen.
50.45

cmex Senior
All metal tip lug for tip jack use.
Solderleas connection.
XM12943.
Your Cost, Each
Per Dozen.
50.42

\section*{Junior Tip Plug \\ As above, but only 1 " long. \\ Your Cost, Each}


Easy
Solder Type
Hole in side for
easy solderiag
\(\underset{\text { Per Dozen.. }}{\text { XP14882 }}\)


Heavy Duty Metal
Binding Post Especially designed for high amperage work. Nickel plated brass Approximately \(1^{\prime \prime}\) high XM12946 Your Cost.
Per Dozen.


Grid Caps
Heavily insulated. By using various colors for differant tubes no other socket identifiComplete with 8 " leads.
XP14712
Your Cost, Each
\(8^{c}\)
Insulated Plug Connectors


For connecting two banana type plugs together.! Positive contact. Connector is \(11 / 2^{\prime \prime}\) long. State color desired.
XM12347
\(9 c\)
Your Cost, Each


\section*{Flush Type Tip Jacks}

Heavy contact spring. Will take both plain and solderless tips. Mount in \(\mathrm{L}^{\prime \prime}\) holes. Nickeled.
XM12948-
Your Cost,


\section*{EBY Twin Jacks}

Bakelite moulded strip for standard
phone tips. Mounting hole centers


XM13030-Phono. XM13031-Speaker. Your Cost, Each Either Type Per Dozen

EBY Twin Posts

Bakelitestrip, brass posts. One gnd., one ant, mounting, centers. Ideal or the set A handy item for the serviceman to carry at all times in his kit XM13025 -
\begin{tabular}{l} 
Your \\
10 for. \\
\hline
\end{tabular}
 in his kit
\(\ldots\)
\(-13^{c}\)
\(\qquad\) . \(\$ 1.1\)

Nickel Plated Brass Nuts， ก 1 Screws and Washers

害貣貣 Screw
6－32 Round Head
\begin{tabular}{|c|c|c|c|}
\hline Stock No． & Length & Doz． & Gross \\
\hline XP14750 & \(88^{\prime \prime}\) & 3 c & c \\
\hline \(\times \mathrm{P} 14751\) & & 4 c & 38 c \\
\hline XP14752 & & 5 c & c \\
\hline XP14753 & & 5 c & \\
\hline XP14754 & 1 & 6 & \(65 c\) \\
\hline 8－32 & Round & Head & \\
\hline XP14755 & & 4 C & 40 c \\
\hline XP14756 & & 5 c & 48c \\
\hline 6－32 Flat & Head M & ne & crew \\
\hline \(\times \mathrm{P14760}\) & 3／8＂ & 3 c & c \\
\hline XP14761 & & 4 c & 38 c \\
\hline XP14762 & & 5 c ） & \({ }^{c}\) \\
\hline XP14763 & & 5 c & \\
\hline XP14764 & \(11 /{ }^{\prime \prime}\) & 6 c & 60c \\
\hline 6－32 Oval & Mead & hine & ws \\
\hline XP14770 & 17＊ & 3 c & 30c \\
\hline XP14771 & & 4 c & 38 c \\
\hline XP14772 & & 5 c & c \\
\hline XP14773 & & 5 c & \\
\hline XP14774 & 13／ & Gc & 60 c \\
\hline
\end{tabular}

Hex Nuts，Knurled Nuts

\section*{3 （3） 5 Washers}
\begin{tabular}{|c|}
\hline \multirow{9}{*}{} \\
\hline \\
\hline \\
\hline \\
\hline \\
\hline \\
\hline \\
\hline \\
\hline \\
\hline
\end{tabular}

\section*{Machine Screw Nut and Washer} Assortments
Each assortment contains 12 Each assortment contains 12 nuts and 12 washers．Brass nickel plated．Shipping weight 6 oz．

\({ }^{\times P 14802-632 \times 10}\)
Your Cost Per Box
 Any Asst．．
Any Ass

\section*{Fancy Head Bronze} Fimish Screws
For Mounting Speakers， ctc．
tock No．Size Length Doz．Gross \(\left.\begin{array}{llll}\text { XP14580 } & 6-32 & 3 / 4 & 9 \mathrm{c} \\ \text { XP14681 } & 6-32 & 1^{\prime \prime} & 9 \mathrm{c}\end{array}\right) 5^{\mathrm{c}}\) \(\begin{array}{llllll}\text { XP14682 } & 6-32 & 11 / /^{\prime \prime} & 10 \mathrm{c} \\ \times \text { XP14 }\end{array}\) \(\times\) XP14683 8 8－32
XP14685 8－32 1 K＂10c

\section*{Badio Hardware}


Adjustable
Bracket Type
Slot in bracket for
adjusting．
Xpis007－
Each Cost
Per Dozen．．．．．55c


Tinned Brass Lugs


All have No． 8 hole which will
fit either No． 6 or 8 screws．Shpg． fil either
XP14812－Style No． 1 Your XP14813－Style No． 2 XP14814－Style No． 3

\section*{Solderless．}

XP14816－Style No．
XP1481
T／＂10ng

Shakeproof Washers XP14758－To pass No． XP14759－To pass No．
8 serew． Either Type Envelope of 25 Net

\section*{Self Tapping Machine Screws}

Used in practically all sets made today．Save time and labor in building your own receiver．
Drill a hole and drive them in．No tapping of holes necessary

HEXAGON HEAD
Stock No．Size Length Doz．Gross

\section*{\(\begin{array}{llll}\text { XP14650 } & 4 & 1 / 8 & 6 c \\ \times P 14651 & 6 & 14 & 6 c \\ \text { XP14652 } & 6 & 3 / 8 & 6 c\end{array} \quad 0\)}

ROUND HEAD
Stock No．Size Length Doz．Gross


Machite and Wood Screw Assortments Each assort－ ment contains 85 steel 6－32 sorted as fol－ lows：

\section*{\(30-3 / 6^{\prime \prime}\)
\(20-1 / 2^{\prime \prime}\)}

－P14835－10－1＂
XP14836－Flat Head．
XP14837－Oval Head．
XP14837－Oval Head． \(25^{\circ}\)
100－Piece Screw Assortment Contains 100 assorted round head machine screws，nuts and washers， size 6－32．
XP14847－Your Cost．．．．． 25


This assortment is composed of machine screws，wood screws，hex nuts，brass washers，fibre washers， rubber grommets，terminal lugs， screen grid caps，fibre pieces and fibre bushings．Approximately 225 pieces to the box．Shpg．wt． 1 lb ． XP14803－Your Cost Each
.95
Handy Hardware
Assortment
\(45^{\circ}\)
2 1b．
Kit

A big assortment for the service－ man，of assorted screws，nuts， washers，eyelets，lugs，brackets， etc．（ 3 3，pounds）．Something of everything in the way of small parts used in radio receivers．An indis－ pensable and economical assort－ ment that no serviceman can afford to be
5 lbs ．
5 lbs Same as above but contains 21 be． of hardware．Shpg．wt． 3 lbs． XP14844－
Your Cost
\(45^{\circ}\)
Fibre Washers


A bandy assort－ the serv－ icekit． various
sizes of sizes of
b ot \(h\)
shoul shoul－ plain fibre washers in cardboard box． 100 pieces．Shpg．wt． 8 oz
XP14832－
Your Cost Per Box．
\(24^{\circ}\)
Angie Bracket Assortment
Contains
most pop－
most pop－
gles and
brackets
brackets
used on
age radio
set．Solid
brass neatly nickel plated．A very handy assortment that no service－ man should be without．Shpg．wt． \({ }^{1}\) lbP14838－Your CostEach \(235^{c}\)

Switch Points and Stops XP1478s－Points． XP14785－Stopts． Tither
Type
Per Doz

\title{
BATTERIES \＆BATTERY chargers
}


\section*{BEN HUPR Dry Batteries made by BURGESS}

\author{
anel priced LOW＇
}

A lower priced battery made by Burgess and built to the high standards that have always been kept by this manufacturer．Navy speci－ fcations，which are very strict，have been very closely adhered to，both as to quality of

X Y 19730－Standard 45 Volt＂B＂ tapped at \(221 / 2\) Volts．Shpg．wt 11 lbs．Quantities Less than Six Your Cost Each
Standard Package of Six． Your Cost Each ©3 XY19733－No． 6 Dry Cell． Shpg．wt． 3 lbs． Your Cost Each

18c

XY19731－Heavy Duty 45 Volt ＂B＂tapped at \(221 / 2\) Volts．Shps． Wt． 5 lbs．Quantities Less than Six． Your Cost Each Standard Pack－
age of Six． Your Cost Each 1.20 XY19728－41／2 V．＂C＂Battery． Your Cost．\({ }^{\text {Y19729－22 } 4 / 2} \mathrm{~V}\) ．＂B＂and＂C＂ XY197
Batter

Uniform quality insures equal current drain and low internal resistance． These batteries are ex－ ceptionally long lived． All terminals clearly

\section*{marked．}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Stock No． & Bur－ gess No． & Voits & Size，Inches Whpg． L W H Each & \begin{tabular}{l}
Unit \\
Pkg． \\
Quan
\end{tabular} & List Price & Your Cost Each & \begin{tabular}{l}
Crtn． \\
Lots， \\
Each
\end{tabular} \\
\hline \multicolumn{8}{|c|}{SUPER＂B＂BATTERIES} \\
\hline XY19850 & 21308 & 45 & \(43 / 83{ }^{3} 7816\) & 6 & \＄2．50 & 51.93 & \＄1．75 \\
\hline X Y 19851 & 22308 & &  & 6 & 1.95 & 1.51 & 1.37 \\
\hline \multicolumn{8}{|c|}{Private Car Type} \\
\hline XY19855 & 2305 & 45 & \(83 / 83^{3}\) 的 \(7^{3}\) in 11 & 6 & 1.95 & 1.51 & 1.37 \\
\hline \multicolumn{8}{|c|}{Police Radio Type} \\
\hline XY19857 & 21305 & 45 & \(4^{7} / 168^{3} 10{ }^{7}{ }^{3} 16151 / 2\) & 6 & 3.60 & 2.7 & 2.50 \\
\hline \multicolumn{8}{|c|}{STANDARD＂B＂BATTERIES} \\
\hline X Y 19859 & 10308 & 45 & \(\begin{array}{llllll}4 / 4 & 8 & 7 & 14\end{array}\) & 6 & 2.10 & 1.61 & 1.46 \\
\hline X Y 19860 & 2308 & & \(31 / 881\) 年 711 & 6 & 1.65 & 1.27 & 1.15 \\
\hline XY19861 & 5308 & 45 & 21／241／4 57／611 & & 1.20 & ． 94 & ． 85 \\
\hline X Y 19862 & 5156 & \(221 / 2\) & \(24^{41} 2^{3} 5\) & 10 & ． 90 & ． 67 & ． 61 \\
\hline XY19863 & 4156 & \(221 / 3\) & \(23^{3} 3181 / 2\) & 10 & ． 75 & ． 58 & ． 53 \\
\hline XY19878 & 2156 & 221／2 & 4 65\％ 3 & 5 & 1.50 & 1.16 & ． 05 \\
\hline \multicolumn{8}{|c|}{STANDARD＂C＂BATTERIES} \\
\hline XY19866 & 5360 & 41／2 & \(2^{7}\) 后 \({ }^{18}{ }^{15} 2^{5}\) \％ & 10 & ． 40 & ． 31 & ． 28 \\
\hline X Y19867 & 2370 & 41／2 & 1743 & 10 & ． 30 & ． 24 & ． 22 \\
\hline X Y 19868 & 5540 & 71／2 & I／6 4 27／3 31／3 & 10 & 65 & ． 48 & ． 4 \\
\hline \multicolumn{8}{|c|}{SOUND PROJECTIVE BATTERY} \\
\hline XY19872 & 22328 & & \(31 / 47^{3}\) is \(7^{1} \times 10\) \％ & \({ }^{4}\) & 2.50 & 1.95 & 1.75 \\
\hline \multicolumn{8}{|c|}{RADIO＂A＂BATTERY} \\
\hline XY19875 & 6 A & & \(13 / 26 \times 235\) & 25 & ． 40 & ． 31 & 28 \\
\hline \multicolumn{8}{|c|}{AIRCRAFT RADIO BATTERY} \\
\hline XY19877 & 5966 & 135 & 97／8 \(23 / 4{ }^{5}\) 化 9 & 1 & 7.25 & 5.10 & \\
\hline
\end{tabular}


\section*{Bungess＂A＂Batteries} Illustrated at the right is the Burgess Dry．＂A＂Pack intended for use with receivers using 2 volt tubes．It de－ ivers 3 volts and is used with a suit－ \(12^{9} 7_{6} \times 41 / 2 \times 6^{18} \%^{\prime \prime}\) ，making it compare enough to fit inside the recelver． ShDg．wit \(621 / \mathrm{lbs}\)
XY19872－Burgess 3 volt，＂A＂Pack．


> List \(\$ 3.20\) Your Cost Each Carton Lots Each（4 to a Carton） \(5230 \%\) Illustrated at the left is the Burgess No． 4 Dry Cell used for Microphone Current－Portable＂A＂supply，etc．


\section*{EVEREADY＂Air Cell Battery＂}

The new Eveready Air Cell Bat－ tery for operating two－volt tubes does not require recharging month．Ordinary drinking water is used，no distilled water is neces－ sary．Approximatelife when used with an a pproved air－cell battery eceiver is 1000 hours．Dimen kions of battery \(101 /{ }^{\prime \prime}\) high， \(131 /{ }^{\prime \prime}\)
long，and \(63 / 4^{\prime \prime}\) wide．Shpg．wt 29 lhs XV19973－
Your Cost


Radio


The finest storage battery made Leak proof moulded one piece cases． Non－warping separators．Heavy
plates carefully pasted with pure plates carefully pasted with pure active material．Four popular sizes are listed below
Stock Volts Cap．Shpg．
No．
NHR Wt．
Your
Cost
\begin{tabular}{llccr} 
No． & & AHR & Wt． & Cost \\
XY19720 & 2 & 100 & 22 & \(\$ 5.50\) \\
\(X Y 19721\) & 6 & 100 & 50 & 8.50 \\
\(X Y 1922\) & 6 & 85 & 39 & 6.95 \\
\(X Y 19723\) & 6 & 120 & 65 & 9.95
\end{tabular}


\section*{Battery Cable}

Five ft ．cables complete with terminals．
\(\times\) Q16085－ 7 Conductor Your Cost Each．．．37e XQ16086－8 Conductor． Your Cost Each．．．40 X Q16087－9 Conductor Your Cost Each 45 XQ16088－10 Conductor Your Cost Each．．．50c

\section*{Trutest}

\section*{Automobil} Battery Charger Thisefficient and in expensive charger
will keep your bat－ will keep your bat－ tery up to its full You cannot afford to be wil increased demand on your automobile battery due to the use of your auto radio and other necessities of present day cars．Attach the clamp－on receptacle to the dashboard of your car and attach the two leads from the recep－ tacle to the ammeter and your charger is ready for use．When you drive into your garage at night simply plug your charger into the receptacle and it will give your battery the necessary boost to roep it up to its full wt． 71 lbs
XN14200
Your Cost
\({ }^{\text {s }} 4.95\)

Battery Cable by the Foot A high grade，well insulated cable．Each lea a different color for easy identification．
\begin{tabular}{|c|c|c|c|}
\hline Stock & No． & Per & Per \\
\hline No． & Wires & Ft． & 100 Ft ． \\
\hline XQ16089 & 3 & 21／2c & \＄2．20 \\
\hline \(\times \mathrm{C16090}\) & 4 & 3 c & 2.60 \\
\hline \(\times \mathrm{Q} 16091\) & 5 & 31／2 & 3.10 \\
\hline XQ16092 & 6 & \(41 / 2 \mathrm{c}\) & 4.10 \\
\hline XQ16093 & 7 & 5 c & 4.40 \\
\hline XQ16094 & 8 & 51／2c & 4.95 \\
\hline XQ16095 & 9 & 6 c & 5.50 \\
\hline XQ16096 & 10 & 61／2 C & 5.95 \\
\hline
\end{tabular}

\section*{NATIONAL}

\section*{Velvet＂Bis＂Eliminator}

Operates 1 to 6－tube sets，including power
tubc．Provided with adjustable taps giving the following voltages： 22－45 for detector，45－90 for r．f．90－135 for Audio and fuil 180 volts at 35 M．A．for Fower Tube （Non－ad justa ble．）Ship ping weight 18 lhs ．Silent，Hum－free output Back erystalline case． XN14380－List \(\$ 16.50\) Your Cost Less Tube


Eydrometer

Live red rubber bulb and nozzie；beaded float． Shpg．wt． 3 lbs．
\(\times 15694\)－Your Cost Each．．．．．．．．280

\section*{\(+\left(y^{3}\right)>\) \\ Battery Clips Heavy Spring}

> XQ16062－No．240A． \(2^{\prime \prime}\) long
> 10 for 47 c ．Each．
> XQ16061－No． 480 B .2 long 10 for 28c．Each
> XQ16060－No．450， \(1^{*}\) long．
> 10 for 25c．Each
> XQ16063－No．210A． \(3^{\prime \prime}\) lons
> 10 for 80c．Each
> ＂long



\section*{Tungar 5 Amp}

\section*{Charger}

A new GE Bat tery Charger for charging any 6 volt battery at home．Delivers full 5 a mpere rate and tapers off as bat－ tery becomes charg d，thus preventing overcharging． Battery cannot discharge through charger because of
 power fallure．No switches Comes complete with recenturs to wear out． Comes complete with receptacle for attaching to car and ammeter so that battery can be connected and disconnected in a moment Not necessary to remove floor boards．Com plete with tube and all attachments．Fo operation 110 volt 60 cycle A．C．Shpg．wt 12 lbs.
XP15699
Your Cost，Complete
s9．48

Glass Enclosed Crystal Detector

\section*{Dust-proof}

Supersensitive crystal and easily adjusted catsts position. XN13916-
Your Cost
22.

Mounted Galena Crystal Carefully tested and mounted crystals. Yur Cost

\section*{Super-Sensitive Crystal}
NHARA \begin{tabular}{l} 
cets more stations be- \\
cause it's extra-sensitive. \\
XN13901- \\
Your \\
Cost
\end{tabular}

Fixed Crystal
A sensitive crystal with a permanently fixed con tact. Carefull XN13913Your
Cost \(45^{\circ}\)


Crystal Detector Ball and socket men XN13917 \({ }_{\text {Yost }}^{\text {Your }} 12^{\text {c }}\)

\section*{Crystal Receiving Set}

This little set using a specially developed crystal for detection gives surprisgives surpris-
ingly good results. Complete with erystaland catswhisker.
 Shpg. wt. 2 lbs. XN13879 Your


Ear Phone Cushions
These cushions made of soft rubber protect the ears from the pressure of headphones. Your Cost Pair \(25^{\circ}\)

\section*{RADIO SETS for the beginner}
 o operate.

1-TUBE SET
XN13880-Requires one dry "A" battery, one \(22 \mathrm{~K}_{2}\)-volt " \(\mathrm{B}^{\prime \prime}\) bat tery and one Type 230 tube headphones and aerial. Less accessories,
Your Cost
XN13881-Complete with teries and tube (no headphones or aerial). Shpg. wt. 15 lbs . Your Cost
\(\$ 5.85\)

\section*{2-TUBE SET}

XN13882-Requires two dry "A" batteries, one 45 -volt " \(B\) " battery, two Type 230 tubes; headphon Less accessories.
\({ }^{5} 5.25\) Your Cos
Com
\[
5
\] XN13883-Complete with bat teries and tubes (no headphones or aerial). Shpg. Your Cost
Each.
\(\$ 7.55\)
"Little Wonder" Crystal Sets

\(55^{\circ}\)
NET

The most inexpensive radio receiver on the market. Using no batteries of power of any kind good, clear reception can be had within 10 to 26 miles of the broadcast station, depending upon local conditiens. Shpg. wt. 1 lb
XN13889-

\section*{HEADPHONES}

\section*{Wt. 5 ozs.} These phone are efficient,
small in size; light in weight, and easily adjusted. The articulation is
clear. Shells of polished alumi num. Shpg. wt. 1 lb . ©
XN13927-2000 ohms. XN13927-
Your Cost

NATHANIEL BALDWIN Type "C"' Phones This excellent phone has held a welldeserved popularity years. Ex-
treme sensitreme sensi-
tivity and
ition rugg \({ }^{\circ}\) con-
 make them the choice of professional and amateur alike. Mica diaphragms and balanced armature construction with powerful permanent magnets. Shpg. wt. 2 lbs.
XN13920
Per Pair.
\({ }^{5} 3.65\)


FROST DX Special Phones
20,000 Ohms Impedance These phones fully meet the requirements of amateurs 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. Shells of polished aluminum with black composition caps. Equipped black composition caps. Equipped
with a five-foot flexible cord. Impedance of 20000 ohms. XN13931
our Cost
s2.50

\section*{FROST Standard}

Long a big favorite with the radio man because of their all-round high quality, lightness of weight, and ease of adjustment for perfect comfort. Carefully and scientifically made. Shpg, wt. 21 bs.
XN13932
Per Pair, 2000
Ohms I. 48
XN13933
Per Pair, 3000 ohms \(\$ 1.65\)

\section*{PHILMORE1, 2, and 3} Tube Sets

These compact little battery operated receivers have been especially designed for the beginner and for use as an extra set or 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 ind make them economical

3-TUBE SET
XN13884-Requires two dry "A" batteries, two 45 -volt " \(B\) " batteries, one \(22 L_{2}\)-volt " C " battery, two Type 230 and one Type 231 tubes. Headphones or magnetic speaker and aerial. Shpg. wt. 33 lbs
Less accessories,
Your Cost Each
57.45

XN13885-Complete with tubes and batteries (no headphones or aerial). Shps. wt. 9 lbs. Your Cost
\$1I.75

\section*{SPECIAL AERIAL AND} HEADPHONE KIT
A specially matched set of headphonesand complete aerial-ground equipment for use with any of the Philmore sets listed on this page Shpy. wt. 5 lbs.
XN13890
Your Cost
si. 38

\section*{"Selective" Crystal Set}


A more advanced type of crystal set having a tapped inductance and a variable condenser. Enclosed crystal detector and terminals for two pairs of phones
Shpg. wi. 5 lbs
XN13886
List \(\$ 5.00\)
Your Cost
s2.45

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 Ihs. 3930 - Your Cost \(\$ 1.25\)


\section*{BRANDES PHONES}

Scientifically made and designed for chose demanding a superior article. They are full-size yet are unusuaily comfortable to wear. Shells are of polshed aluminum. Resistance 2000 ohms. Adjustable. Web covered fexible steel head band. Complete with cord. Shpg. head 2 lbs .

\section*{XN13925
Per Pair.}

XN13936-Extra Caps, tinsel type. Rubber insulation with outside covering of cotton braid. Pin tipends.
\begin{tabular}{lcr} 
Stock No. & Length Your Cost \\
SN13951 & 10 & S0.30 \\
X & 13952 \\
XN13952 & 20 & .48 \\
XN13953 & 30 & .75 \\
XN13954 & 50 & \(\mathbf{1 . 1 0}\)
\end{tabular}

\section*{Extension Cord \\ Connector \\ Has two openings at either end for \\ inserting two pin \\ brown bakelite \\ XM13051 \\ Each. \\ \(8^{c}\) \\ Per dozen \\ 50.8 S}

Phone and Speaker Cords
Five-foot double cord. Spade tips one end; straight tips other. Cotton braid cover
XN13955-List 50.55
Your Cost Each
\(19^{\circ}\)
ends.
Your Cost Each.
\(19^{\circ}\)
Five-foot single cord with straight tips both ends.
XN13957
List \(\$ 0.35\)
Your Cost Each
35

\section*{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. Has tie loop.
XP14886-
XP14886-Specify color. I9

\section*{TRIMM Featherweight Phones Wt. only 4 ors.} cluding the
headband and the cord! Bakelite shell and cap. Forged cobalt steel magnet. Adjustable spring steel headband. Impedance 24000 ohms per pair. Shpg. wt. 1 lb.
XN13919-List \(\$ 10.00\) Your Cost.
Your Cos
5.95

XN13937-Extra Diaphragms. Each......... S0.08
XN13938-Extra Headband,


\section*{Extension Cords}

Double Tinsel Centers
ing braid. Ning of cotton insulatheavy current suitable for carrying Stock No. XN13945 Length Your Cost \(\begin{array}{lll}\text { XN13945 } & 10 & 50.18 \\ \mathbf{X N 1 3 9 4 6} & 20 & 24\end{array}\)
XN1346
\(\begin{array}{r}\text { XN13947 } \\ \mathbf{X N} 13948 \\ \hline\end{array}\)
XN 13948
\(\times \mathrm{N} 13949\)
N13950 100
Stranded Copper Wire \(\quad .98\) Deaigned for heavier usage than the

Line Filterette RF-2


To eliminate noise reaching the receiver through the power line. receiver. Not suitable for application to electrical appliances. We
recommend the use of the Model 33 recommend the use of the Model 33
Filterizer Kit in conjunction with this unit. Shpg. wt. 3 lbs.
\(\underset{\text { Your Cost }}{\text { XList } \$ 4.95 \$ 2.00}\)


10-PO
For suppressingradio noise caused by electric reheating pads, fruit juice ex-
adding machines, etc. Contained in a metal case \(51 / 2 \times 41 / 2 \times 31 / 2\). Receptacle and attachment plug fit all atandard wiring outlets. Maximum potential 110 volts A. C. or D. C. Maximum current 5 amperes. Approved by Underwriters Laboratories. Shpg, wt. 13 lbs .
XL12683-List \(510.50 \$ 6.18\) Your Cost

Radio Noises and Their Cure


Your

Inductive Capacitive Filterettes Designed for application to motors, generators, tained in metal cutout cubinets and ure fused for protection against overload. Models listed below are for 110 V., A. C. or D. C. operation but can be furnished for 220 V . at higher prices. XL12680-5 Ampere Size. 10x63.4 x \(31 /{ }^{1 / 2}\). Shpg.
wt. 10 lbs . List \(\$ 12.50\) wt. 10 lbs. List \(\$ 12.50 \ldots \ldots .\). Sen IS
 Your Cost. XL12682-20 Ampere Size.
Shpg. wt. 45 Jbs. List 530.00 Your Cost.


\section*{Capacitive Filterertes}


A pure capacity type that does not use rectifiers and other electrical apparatus Due to the fact that no current flows through this model it therefore has no current or wattage rating. These filters are connected acruss the line, that is, in parallel with the appliance. Contained in metal cutout boxes approved by the board of fire underwriters, \(7 \times 698 \times 31 / 8\). Has fuse block XL12670- 110 volts D.C. List 510.00 Your Cost
\begin{tabular}{|c|c|c|c|c|}
\hline Stock & Model & Voltage & & \\
\hline Stock & Model & Voltage & List &  \\
\hline XL12690 & 11 & 110 V. A. C. & \$10.00 & \$5.88 \\
\hline XL12691 & 20 & 220 V. D. C. & 15.00 & 8.82 \\
\hline XL12692 & 22 & 220 V. A. C. & 15.00 & 8.32 \\
\hline XL12693 & 23 & 3-Ph. 220 V. A. C. & 20.00 & 11.76 \\
\hline
\end{tabular}

\section*{Oil Burner Filterette OB-110}

A special model for that most difficult of all interference sources, the oil burner


\section*{Filterette Semior}


Especially recommended for port able electrical appliances causing a more interse interference than that suppressed by the Filterette, Jr. most satisfactory for use on ground en neutral wiring systems. in metal case \(2^{\prime \prime}\) dis. and \(4^{\prime \prime}\) long. It is con nected between receptacle and appliance provided with binding post
to connect return wire from Fifterto connect return wire from
ette to frame of appliance; unit may be used on A. C. or D. C. Maximum potential: 110 volts. A. C. or D. C ping weigh current
XL12600-List \(55.50 \$ 3.24\)
Your Cost Each....

\section*{Fitterette Junior}

A compact Filterette ances. Vacuum clean ers, small hair dryers fans and cash registers are easily made interference free by use of a Filterette, Jr The function of the Filterette is to pre vent the distribution along wiring circuit turbances having frequencies within the broadcast band. In a bakelite case \(1 / 2\) in diarreter and \(21 / 2\) long Is provided with binding post for connecting return wire from fif terette to frame of appliance. Maximum potential 110 volts A. C. or D. C. Shpg, wt. 1 lb. XL12601-List 52.25 \$ \(\mathbf{\$} 37\)
Your Cost Each.

Appliance Mounting Filterette J. A. Similar to above, but has flexible leads and mounting lugs, for per manent motor installations

SPECIAL CATALOG

FOR A COMPLETE LISTING OF TOBE FILTERETTES WRITE FOR SPECIAL CATALOG

\section*{CORNELL-DUBILIER} Noise Filters

()) the inductance-capacitive type Current rating 5 amperes. For use either at source of interference or at the receiver. Cuts out line noises. Suitable for appliances drawing up to 200 watts. Size \(4 \times 4 \times 5\) ". Shpg. \(\times \mathrm{D} 3553\). List \(\$ 5.00\) Your Cost


XD3554
Your Cost
Type IF-2
Pure capacity type; no current limitations. Mounting plate for insertion under foot of any motor. Size \(2 \times 13 \mathrm{x}\) x 1*. Has Fahnestock ground clip.
ground e18


A heavy duty model which filters out all man-made noises. For use on all types of sets, A. C. or D. C. \(51 / 2 \times 61 / 2 \times 31 / 2^{\prime \prime}\). Complete instruc tions furnished. Shog. wt. 8 lhs. Y L12618 List \(\$ 12.50 \$ 7.35\)

Jr. Model
Eliminates noises caused by lights, heatingla pads, etc. Plugs into power outcompact. Shpg. XL12616Your Cost


RVOLT (1)


An efficient capacity type noise eliminator. Can be installed at receiver or at source of noise. Effectively eliminates noise caused by irons, toasters, vacuum cleaners, and other motors up to \(1 / 8\) H.P. Housed in sturdy metal container. Shpg.
\(\times 212617-\)
List 54.50
Your Cost

\section*{s2.65}


Aerial Eliminators Insultenna Replace
tennas. Replaces outdoor an-
tennas. Not connected to light socket. Gives capacity of 75 ft. aerial. In bakelite Mounts anywhere. XR16166
Your Cost
TOBE No-Tenma
Connects in-
stantly. Elimi-
nates fire and
lightning hazards. Reduces distortion. Shpg, wt. 1 lb.

XL12696
Your
Cost.... 59


\section*{DUBILIER Ducon}

\section*{An improved type of ight socket serial. Elimnates unsigntly antennas and lightning haze
ard. Has Edison screw base. Very compact. Shpg. wt. \(1 \mathrm{lb} \quad \square{ }^{\text {l }}\) Your Cost \\ Your}

\title{
VOLTAGE REGULATORS
}

ELKON Rectifiers


Used on the following "A" eliminators: Majestic, Mayolian, Knapp, Elkon, Philco, Webster, Metro, Fada, Bernard, General Inst., Sentinel and Briggs and
amps. Shpg. wt. 4 lbs. XAps. Sh
XA431-
s3.73
ELKON U20 Rectifiers


Used in the early model Fada and Farrand, etc., speakers. Input 20
volts A.C.; output 12 volts D.C. volts A.C.; output 12 volts
at 1 ampere. Shpg. wt. 41 bs. XA433-
\(95^{c}\)

\section*{B-1 Rectifying Units}


For dynamic speakers, " \(A\) " powers, signaling equipment, etc. Type
B12 is for "A"eliminators such as Acme, Sterling, Arco, Stewart, France, Green-Brown, etc. Type Norden-Hauck, Tobe-Deutchman, Norden-Hauck, Tobe-Deutchman, Shpg. wt. 3 lbs.

XA436-Type B-16. List \(\$ 5.00\)
 tion. The function of the Resistovolt is to level out the supply at all times, so as to give the most efficient operating voltage. Shpg. wt. 11 b . XL12605 For sets using 6 tuhes or less. XL12506-For sets using more than 6 tubes. List 51.75 S I. 03
Your Cost, Either..

\section*{Universal Resistovolt}

\section*{Protects}


\section*{CLAROSTAT} Line Ballasts
Real compensation for line voltage changes is
available for radio sets
and amplifiers designed Ballast. The Clarostat Line Ballast will cover \({ }^{1}\) range of from 95 to 135 volts. GUARANMENTFOR THE FOLLOWING RE CEIVERS:
\(\begin{array}{cc}\text { Stock } & \text { Replacement } \\ \text { No. } & \text { For }\end{array}\) No. For \(\begin{array}{ll}\text { XF6803 } & \text { Belmont } \\ \text { XF6804 } & \text { Bremer-Tully }\end{array}\) XF6805 Brunswick XFG806 Clarion XF6807 Grebe XF6808 Grebe XF6809 Grebe XF6805 HiQ 30 XF6806 HiQ 31 XF6807 Kennedy
XF6809 Kylectron by ICA. Shpg, wt. 8 surges. Made XL12619-For sets using 6 tubes or less. XL12620-For sets using more than six tubes.

\section*{Automatic Line Voitage} Control A dependable voltage Small, neat

 compact. Fits any standard outlet. For al A. sets up to 9 tubes. Steel clad, alr-cooled. Shpg. Wt.
8 ozs. List 51.25 XR16955 Your Cost

38

\section*{READRITE A. C. Line Voltage Regulator}
 Very de-
surable for
use ahead XF6809 Kylectron
XF 6816 Majestic 70 XF68816 Majestic 70 XF6817 Majestic 72
\(\times F 6818\) Majestic 80 XF6818 Majestic 80 XF6819 Majestic
XF6820 Baldwin XF6809 Peerless XF6805 XF6805 Silver XF6820 Simplex XF6803 Starck Piano Stewart Warner Model 900-61816 XF6824 Model 950-62152 5002 XF6825 Model R100-667565003 XF6809
List 52.50
Your Cos
Each


\section*{\section*{\$1.25} \\ \(=5=2\)
 . \\  \\ 1 \\ Type
No.}


Genuine Tungar Bulbs

The Genuine G.E. Tungar. Used in battery chargers, " \(A\) " eliminators, etc. All guaranteed perfect. Tested before shipment.
Stock No. Type Your Cost \(\times 221900\) Trickle
\(\times 221901\) 2ampl \(\$ 2.72\) \(\times 2219022 \mathrm{amp}\). old
\(\times 2219035 \mathrm{amp}\).
\$5.45

\section*{Tungar Type Buibs}

First quality, thoroughly reliable units for use in chargers, A and perfect merchandise. Euch bulb is individually tested before shipment and carefully packed. Shpg. wt. 1 lb.
x221905-6/10 amp. bulb for Trickle Chargers. \(\$ 10\)
Your Cost Each.
\(\times 221906-2\) amp. hulb with tip. XZ21906-2 amp. hulb with tip.
Your Cost Your Cost
\$1.85
X221907-2 amp. bulb without
You
\(\times\) our Cost Each ... 1.85
6 amp. bulb
Your Cost
Each
s.45

\section*{Special Bit Type Rectifier Tube}


Ideal for all replacement purposes. No filament voltage required. Maximum RMS voltage per anode 350 volts at 125 M.A. At this special price, every service-man should stock a few. This type of tube has been, used in practically every popular make of elimi. nator on the market.

\section*{XZ21910}

Your Cost Each.
Special.............

\section*{New Amperite Chart}

No. Tubes Use

\title{
Improve the Set with a Real Regulator
}

\section*{Amperites}

Don't just repair-improve the set. It takes leas than an hour of high line voltage to overload condensers and resistances-making them lage consta mean elimination of crackling noises. Better pack burn outs. pack burn outs.
Amperite is a real regulating voltage control. It is the control recommended by all leading set manufacturers, such as RCAVictor, Zenith, Busch, etc. Easily installed in five minutes.

\section*{New Amperite Prices}

XV19100-List S3.00
Your Cost (specify type or
set model). XV19101-Socket for inserting Am- \(\underbrace{c}\)

\section*{AMPERITES for the New 2}

\section*{Volt Tubes}

In the new type battery receivers, employing 2 volt tubes, it is important that the battery voltage be kept constant. Avoid burnouts, breakdowns and poor reception. The follow. ing types are a vailable:
\begin{tabular}{lll}
\(6 A A\) & \(5 E 1\) & \((1 \mathrm{Al})\) \\
\hline 0 B & 30 \\
\hline
\end{tabular} XV19104-List \(\$ 3.00\)
Your Cost, Any Type
\(\$ 1.25\)

\section*{Amperite for Automobile Sets}

Storage battery of car varies 5.5 to 8 volts\(31 \%\)-depending upon speed of car and battery condition. Easily installed-gives uni-

Your Cost (Complete)

\section*{Aero Aerial Wire}

"AMERICAN" All Directional Antenna
Equal signal strength from all directions. 2 his antenna is particularly
suitable for all-wave receivers. It suitable for all-wave receivers. It
consists of a pure copper drum 14 " in diameter and is equipped with a collar for mounting to a wood or metal pole. This antenna is especially suitable for use in apartment houses where space is limited. The only wire necessary being the leadin which is quickly and easily at-
tached by means of a clip provided
 on the antenna. Many short wave enthusiasts install one of these 6 lbs in addition to their regular broadcast aerials. Shpg. wt. 6 lbs.
XR17119-All Directional Aerial List \(\$ 4.00\).
Your Cost Each
XR17118- 8 ft . metal extension mast for above aerial.

Sticktape Aerial Adhesive tape aerial.
Sticks anywhere. Sticks any where.
Highly efficient. Shpg. wt. \(80 z\).
\(\times R 16164\).
\(\begin{aligned} & 50 \mathrm{ft} \\ & \text { Your } \\ & \text { Cost }\end{aligned} \leq 3\),


\section*{Ribbon Aerial}

Consists of a gold colored metallic braid woven into a strip of fabric about \(8 / 8\) " wide. A neat and efficient Eerial for stringing above place by thumb tacks. 65 ft . to roll. Shpg. wt. 8 ozs.
Shpg. wt. 8
XR16163-
XR16163-
Your Cost.
\(\qquad\) \(29^{\circ}\)

Guaranteed greater volume and sharper tuning: non-directional. Fully assembled cages, ready
to string up. Ideal for short roofs. 5 heavy zinc spacer rings. Length 20 ft . Contains 100 ft . enameled copper wire, 25 ft . rubber covered lead-in, soldered to aerial. Shpg. wt. 5 lbs. XR17122
Your Cost
s 1.35
No. 30 -Produces great volume; ideal for all 150 sets. 5 spacer rings; length 30 ft . Contains rubber-covered lead-in. Shpe. and has 25 ft . XR17121
\({ }^{\$ 1.85}\)

\section*{Most Powerful Antenna Made} No. 60-An exceptionally powerful aerial. spacer rings; length 50 ft . Contains 250 ft , wire,
8 lh.
XR17120
Your Cost Each
s2.35

\section*{Inside or Outside "DX' Aerial}

A powerful aerial for all sets. Made of solid copper metal, fastens by means of hooks and inside in window frame back of curtain. Com plete with hooks and soldered lead-in. Stretchplete with hooks and soldered lead-in. Stretches to fit any
wt. 3 Ibs.


\section*{"DX" Cage Aerials for All Receivers}

"DE" Window Sill Aerial
For use on outside window sill, under couch or in closet. Absolutely non-directional. Especially for use with Superheterodynes. Has 10 ft . ubber covered lead-in soldered to aerial length \(31^{\prime \prime}\), height \(6^{\prime \prime}\). Shipping weight 6 KR17129-
\(\times\)
Your Cost Each
\(\$ 311\)

\section*{Window "DX' Aerial}

This is a five wire cage Aerial similar to the above, with the exception that it has two \(16^{\prime \prime}\) brackets of heavy iron to support the cage vertically outside of the window. Is especially designed for Superheterodynes, which require ansigned for Superheterodynes, which require an aerial of large capacity in a small area. It is
common knowledge that a long aerial picks up common knowledge that a long aerial picks up
considerable interference, while a short single wire antenna tunes in the noise level; thus DX Aerial tunes sharp and clear. Is weatherproofed, and has soldered lead-in. This is a unit of the highest attainable efficiency and is particularly adaptable for use on all of the new high-gain sets. is non-directional. Shipping weight 5 lhs. Length 5 feet. Complete with brackets and wood screws.
XR17126.
Your Cost

[."DX" Roof-Porch-Attic Aerial Length 5 ft . Has 10 ft . of rubber covered lead in soldered to aeria. Ideal for Super hetero dyne and new "high-gain" sets. Used by many dealers as regular equipment because of low cost, easy installation and high efficiency Fully assembled, ready to "string up." Shpg XR1712 Your Cost.

\section*{GIANT DX"ROOFAERIAL} SUPER POWER ON DISTANCE


\section*{POTFOF \(工\) STRAND COPPER WIR}

Super power on distance. Ready to string up.
25 ft . soldered lead-in. Very powerful without loss of selectivity. 10 ft . cage with 150 ft . XR17128-
Your Cost
Length 10 ft . Shpg. wt. 4 lbs .
XR17123
Your Cost

\section*{Tubular Steel Masts}

Made of welded steel tubing with black baked-on ename

MADE IN FOUR SIES

\section*{MADE IN FOUR SIZES}

XR17139-Single Section. 3 ft. Shpg. wt. \(2^{2}\), lbs.

\section*{日 Each}

XR17142-Double Section 6 ft. 9 in . Shpg. wt Your Cost Each.
XR17143-Triple Section. 9 ft. 4 in. Shpg. wt. \(6 / 4 \mathrm{lbs}\). Your Cost \(\$ 1.47\) XR17144-Quadruple Section. 12 ft .9 in . Shpg. wt. \(81 / 2 \mathrm{ibs}\). Each
s. 25

Spring Aerial


Cramped for room? Use a spring aerial. 100 ft . of brass wire coiled into a spring that can be stretched to ary length. Excelient for use with portable receivers and midget sets. Shpg. wt. \(21 / 2 \mathrm{lbs}\). YR17180
\(34^{\circ}\)

\section*{Cafayette Aerial Kits}

Everything necessary for an efficient aerial installation. All items are of the very best quality. Ideal for the dealer furnishing a Shipping weight 4 ths with radio set sales. ing: 100 ft . \(7-24\) Copper Wire 50 the followRubber Covered Lead-in Wire, 25 ft . Rubber Covered Ground Wire, 1 Approved Arrester, 1 Copper Ground Clamp, 1 Lead-in Strip, 2 Porcelain X016476, 2 Nail Knobs.
XQ16476-List \(\$ 1.50\)

\section*{Your Cost}

Standard Aerial Kit A low price kit containing all essentials for a dependable and efficient aerial system. A very good dealer item. Shipping weight 2 libs. Contains: 90 ft . 7/25 Copper Wire, 25 ft . Lead-in, 25 ft . Ground Wire, 2 Porcelain Insulators, 1 Copper Ground Clamp, 1 Lead-in Strip, 2 Nail Knobs.
Your Cost
\(48^{c}\)


Economy Aerial Kit
Especially designed for Midget Sets. The lowest price kit on the market made up of first quality merchandise. Shipping weight 2 ibs. Contains: 90 ft . 7/27 Copper Wire, 25 ft . Rubber Covered Lead-in, 1 Lead-in Strip, Ground Clamp, 2 Nail Knobs, 2 Porcela in Insulators. XQ16478-List 75 c Your Cost.

\section*{Super-Thru-Lead-1n}

Combined Radio Outlet and Aerial-Ground Fitting with Lightning Arrester. Approved by The Under nfiters Laboratories. Genuine moulded Bakelite.
XR17097-List \(\$ 1.5088\) c

Same as above except with 50 ft

\section*{New}

\section*{Ma}

Easy to use, prac tica! in design, dur able and low in price.
steel
\(3 / 8 "\)
"
with Parkerized rustproof finish. Ad just able base fits flat or sloping roofs. \(33 / 3\) ft. high. Complete with guy wire. No additional insulators needed. Shpg. wt. 217138 .
Your Cost \(^{\text {Yoch.....3 }}{ }^{\text {c }}\)
\(\$ 2.25\)
\(\$ 1.20\)

\title{
AERIAL ACCESSORIES
}

\section*{Lead-in Strips}

Copper Core with waterproof lac quered webbing. Length \(12^{\circ}\). Has new screw type terminals which make better connections and a neater appearance than most other strips Quickly installed. \(\times\) KR17100

\section*{Your Cost Each}

100 for \(\$ 4.50\)
Asabove with Fahnestock terminals. XR17101
Your Cost Each.
100 for \(\$ 2.90\)
Antenna Spring

\section*{1 L}

Takes up slack in aerial. Spring XR16980-Your Cost Each. \(7^{\text {c }}\)

\section*{Porcelain Tubes}

For lead-ins. \(8 / /^{n}\) diameter.
XR16860-5" long

Each
Per 100


\section*{Antenna Wire}

We Guarantee our wire to be First Ouality, Full Length and Standard Gauge as specified. It has been called to our attention that some houses are cutting short lengths and selling under size wire in order to quote a low price. Our prices are the very lowest, consistent with standard size, length and quality.

Bare Copper Wire \(7 / 27\) STRANDED Shpg. wt., 100 ft ., \(1 / 2 \mathrm{lb}\). Xaigi12-100 ft. coils. Lots of
Single Lots of Lots Each 25 Each 50 Each 7/26 STRANDED X Q16113-100 ft. coils.
Single Lots of Lots of
Lots Each 25 Each 50 Each
18c 16c 15c
7/24 STRANDED
\(\times\) Q16114-100 ft . coils.
Single Lots of Lots of Lots Each 25 Each 50 Each

22c \(\frac{\text { 20c }}{7 / 22 \text { STRANDED }}\)
xa16115 100 ft coils
Single Lots of Lots of Lots Each 25 Each 50 Each No. 10 SOLID ENAMELED XQ16129
Per Ft. Per 100 Ft .
\(\begin{array}{cc}1 \mathrm{ct} & \text { Per } 100 \mathrm{Ft} \\ 75 \mathrm{c}\end{array}\)

Enameled Copper Wire The very best grade enamel; will not chip or crack. Guaranteed fuil measure and size.

7/24 STRANDED
XQ16116-100 ft. coils.
Single Lots of Lole of
Lots Each 10 Each 25 Each
7/22 STRANDED
\(\times\) Q16117- 100 ft . coils.
Sisgle Lots of Lots of
Lots Each 10 Each 25 Each \(40 \mathrm{c} \quad 38 \mathrm{c} \quad \mathbf{3 5 c}\)

\section*{No. 14 SOLID}
\(\times\) W16118- 100 ft . coils.
Single Lots of Lots of \(\begin{array}{ccc}\text { Lots Each } & 10 \text { Each } & 25 \text { Each } \\ \mathbf{3 6 c} & \mathbf{3 5 c} & 32 \mathrm{c}\end{array}\)
\[
\text { No. } 12 \text { SOLID }
\]

X Q16119- 100 ft . coils.
\(\begin{array}{ccc}\text { Single } & \text { Lots of } & \text { Lots of } \\ \text { Lots Each } & 10 \text { Each } & 25 \text { Each } \\ 47 \mathrm{c} & & 46 \mathrm{c}\end{array}\)


Pipe Strips
A strip of pure copper holes at short clamp is adjustable to fit any size pipe up ter. Has spring elid for attaching round wire
Your Cost Each
Your Cost Each
10 for.... 50.25
50 for

\section*{Our Special}

\section*{Ground Clamp}

A very special value. Makes a vise grip on pipe. Hassharp pointed serew that penetrates surfacing and makes perfect contact. Has screw for connecting ground wire. XR17105
Your Cost Each
100 for.

\section*{Ground Clamp}

Standard type. Sharp teeth bites through rust or paint on pipe. Insures good connection. For pipes up to
XR17103
Your Cost
Each.
\(10{ }^{\circ}\)


\section*{Antenna Turnbuckles}

Push-Clips Envelope of 8
Your I( \(0^{\circ}\)
36 Envips. . \(\$ 2.75\)


Short Wave Antenna Kit
 ly for short wave reception, its noise reduction proper ties are also effec sive on the broad cast frequencies The Lynch S W Doublet Antenna Kit comprises the following: 15 Transposition Blocks; 8 Commercial Type In-
sulators: 1 Doublet Coupler, Line Impedance. Matching Device; and 200 ft. Enameled Short Wave Antenna Wire. Complete instructions furnished with Kit. Shap: xxhizius-Lisis s.00 s3.53

\section*{Hi-Fidelity All-Wave Kit} Includes: 1 Hi Fi Receiver Coupling Transformer, 35 leet of Giant Killer cable, 125 feet of heavy Hi-Mo wire, 3 Na vy insulators, 1 leadin tube, 2 nail-it knobs, 1 standoff insulator Shps. wt. 5 lbs
\begin{tabular}{l} 
Your \\
cost \\
cos \\
\hline
\end{tabular}


\section*{Hi-Fidelity Coupling Kit}
 Now with this new cour:in kit it is possible to use a doublet antenna with a noise reducing transmission line without in curring a loss on either the short or the broadcast waves In fact it actually shows a gain on both bands. The kit in cludes a Lynch Hi-Fi Antenna Transformer, a Hi-Fi Receiver Transformer and 50 feet of the new Giant Killer Transmission Cable.
Shpg. wt. 4 lbs.
XR17155-List \(\$ 6.75\)
s3.97
"Double-Doubiet" 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 eceiver matching transformer to match the antenna to the set, and all necessary wire, insucomplete the installation. Lightning, etcesters complete the not supplied
Servicemen-cash in on the business to be had installing this aerial. An RCA "Certified Installation Certificate" is furnished with each kit. Packed in an attractive carton with full installation instructions. S2,
Shpge. wt. 6 lbs.
XR17090-List \(\$ 6.00\) XR17090-
Your Cost
\(30 \cdot 0\)

\section*{AEMALKRIT}

Transposition Blocks


The genuine Lynchite Transposition Blocks. For Receiving or y durable yet light in weight High resistance-minimum electricallosses. Shpg. wt. 11 b XR17110
Kit of Ten


Cage Aerial Spreaders
Made of Lynchite. Rugged yet light in weight. A cage aerialis preferred by many for both receiving and transmitKR17108. Wit. 2 hs
XR17108-List \(\$ 2.75\)
Your Cost \$I.62


Pigtail Lightning Arresters
 ing Arresters provide suit ble protection for any re directly when connected ground. Double type is especially intended for use with doublet antennas. Shpg. wt. 21 lbs XL12659 - Double Arrester with moun Your
Cost.
XL12666-Single Arrester with mount
Your Cost XL12658 Single Arrester less mount Your Cost

Universal Coupler


Fixed type permits use of an ungrounded trans missicn line with any type of receiver without In order g stability. In order to obtain the et antenna, when used with an all-wave receiver, a coupler of this type is an aboolute neceasity. It is easy to attach and can be mounted XR17116-List \(\$ 1.50\)
Your Cost.

New Akaformer Noise Reducing Kits


A new Akalormer noise reducing kit that ssuitable for all wa ves between 15 and 600 meters. Consists of antenna and set, matching transformers and special twisted noise reducing transmission line. Addiormers may be attached if desired in order to operate more than one receiver. Shpg. wt. \(81 b s\).
\(\times L 12\)
XLI2628
Your Cost Complete Kit 4 Your Cost Each
\(\$ 1.32\)

\section*{\(10 \mathrm{~B}=\) Filterizer Kits}

Developed for the
 elimination of noise picked up by the leadin. Includes antenna and set couplers, and
shielded lead-in. Shpg. wt. 61 bs .
XL12603-Model 33 \(\underset{\substack{\text { Kour } \\ \text { Yost } \\ \text { Cosit }}}{\$ 1}, 1\)
Model 32 Kit is exactly the same as above but includes power line filterette. The power line filterette is included to prevent noise entering the receiver sia the power line. \(\$ 5.95\)
Your Cost.... Wt. 71 bs.

\section*{All-Wave Antenna Kit}


Equally efficient
for use with either
short wave or
broadcast receiv-
ers suitable for use with all wave re ceivers that are not provided with special antenna input circuits Provided with a special coupling device which en ables the user to use a transposed transmission line without making any changes in receiver. Kit includes the following parts: 15 Lynch trans position blocks; 8 Lynch commercial type insulators; 1 Lynch special universal coupler line impedance matching device; and 200 feet HY-M MO antenna wire. Complete instruc tions with each kit. Shpg. wt. 6 lbs . XR17117-List \(\$ 6.50\)
\(\$ 3.82\)
Your Cost


\section*{"De Luxe" Coupler}


The most efficient type of antenna coupler ever de-
signed. Completely shielded signed. Completely shielded
metal cabinet. Lightning arresters built in. Easily attached. Reduces interference, improves signal strength. Shpg. wt. 7 lbs.

TOBE All-Wave Aerial


Special antenna and receiver type antennas sure accurate impedance match. Switches on receiver transformer to adjust for broadcast or short wave reception. A special ungrounded type power line filterette prevents noise from the power line reaching the set. Shpg wt. 7 l bs.

XR17157-Model 34 Kit. Includes everything. necessary-aerial wire, insulators, filterized transmission line, ground clamp, ground wire, transmission ine, ground ciamp, ground
power line filter and a ntenna
and set transformers. and set transformers.
List 56.95 . Your Cost
XR17158-Model 35 Kit . Same as above but without line filter and aerial and ground equipment. (Coupling Kit.) List 54.95
Your Cost

\section*{Exceptional Value!}


\section*{Ceramite} Transposition Blocks

\section*{A sundard dedein ceram} ite trammimionon beear an herestorer whearcd of


XR17089- 12 for 50 C
Your Cost Each
Shielded Transmission Cable


A special two-wire shielded eable for use as a transmission line for Short Wave Doublet Antenna systems. Wires are transposed within the cable and are hea vily rubber covered. Cable is built up to a fairly large diameter so as to is built up to a fairly large diameter so as to
provide considerable space between the wires and the shield, thereby reducing losses to a minimum.
XQ20860 Per Foot.
50 Ft. S4.25. 100 Ft .57 .95
1 Wire Transmission Cable A single wire shielded cable with considerable space bet ween wire and shield as in the above cable. \(1 / 2^{n}\) in diameter.

"Giant Killer" Cable
A new type of transmission cable for use with doublet aerials. Farbetter than twisted lamp cord which is often used ity porcelain smoothly glazed. Shpg. wet. 11b.
Your Cost
Each


\section*{Airplane}

Insulator A \(1 y / 2^{\prime \prime}\) strain insu lator especially designed for use where apace and weight is a XR17175
Your Cost
Each.
Per doze
Cost ose. Heavy rubber for this purpos. Heavy rube in-
 XR17177-50 ft. coil..... \(\$ 1.80\) XR17178-100 ft. coil ..... 3.60 Perfoot

\section*{\(6^{7}\) Feeder} Spreader

\section*{5-} Fo eeders Cepp" insulating value. XR17176 Per Dozen

\section*{Kits}
\(4.0 \%\)
\$230 0
JOHNSON "Q" Antennas
For 10, 20, 40, 80, 160 Meters


The ideal Amateur Transmitting Antenna Systems Will provide \(100 \%\) more radiation with the same power than the ordinary doublet antenna. Matched impedance throughout. Negligible Insses in entire system. Practically zero radiation from transmis critical overall feederlengths-line may be sev eral thousand feet long if desired.
An accurate impedance match is obtained through the use of a ( \(90 \%\) ) quarter-wave line made of half inch aluminum tubing. Spacers of highly-vitrified glazed porcelain are equipped with adjustable clamps. Enameled copperclad steel wire for antenna and feeders prevents stretching.
Kits include; suspension insulator assembly. copper clad steel antenna wire, two lengths of 12 " diameter aluminum tubing, a supply of spacing bars, a template for lining up tubing and full instructions. Antenna insulators are not included-they should be chosen according to power used. Shpg, wt. 5 lbs \(\$\)
\(\times R 17162 \quad 10\) Meter Kit.
XR27163-20 Meter Kit. \(\$\)
Your Cost
XR17164 40 Meter Kit.
Your Cost Your Cost
\(\times\) R17165 XR17165 80 Meter Kit.
Your Cost
XR17166 160 Meter Kit.
Your Cost


Give your X'mitter or receiver a chance to show what it can do. Install a REAL aerial. Listed on this page are all the parts you need

Thutest "Low Ohm" Wire


\section*{For Aerials and}

\section*{Transposed Lead-ins} Especially designed to have a low resistance at high frequeneies. Hard enough to prevent unduestretching yet soft enough to be easily worked. The heavy grades are intended for the aerial proper and long transmission lines-the light for shorter lines. In 100 ft . coils or by the foot any length. Shps. Wt. 3 lbs.
XQ16264-Heavy Bare
Your Cost Per 100 Foot Coil Your Cost Perfoot

JOHNSON 5 Meter " \(Q\) "


The " \(Q\) " syatem applied to 5 meter work provides an antenna system that is highly efficient and very compact. Can be attached directly to the transmitter cr supported at a distance and connected with a transmission line. Shpg. wt XR17167 Complete Antenna insulin Complete Antenna with porcelain List 56.50
\({ }^{s} 3.82\) Your Cost XR17168 As above with Mycalex insu
Your Cost List \(\$ 9.50\). Your Cost.
\(\$ 1.18\)
List \(\$ 2.00\). Your Cost
XR17170-Lug Terminal Strip.
51.00. Your Cost .........59c

JOHNSON Transposition Blocks
Unique shape
prevents twist eton construc

\section*{high leakage}
 path. Glazed.
\({ }^{1} \mathrm{X}^{\prime 2} \times 217171^{\prime \prime}\) - Shpg. wt. of \(10-2 \mathrm{lhs}\). YourCost Each
10 for

\section*{Special Transmission Line}

A ten-strand wire covered with live rubber lacquered cotton braid and a woven tinned shield. Wire tinned for easy soldering. This wire is the same type as used in many filtered wire is the same type as used in many filtered
aerial systems such as Tobe, Lynch, etc.
\(\times Q 16240\)
50 Ft
100 Ft .

500 Ft

\section*{All-Wave Coupler}

XQ16265-Heavy Enameled
Your Cost Per 100 Foot Coil Your Cost

\section*{Per Foot}

XQ16266 Light Enameled
Your Cost Per 100 Foot Coil
Your
\(35 c\)
\(1 / 2 c\)

A doublet antenna using either twisted pair or a transposed leadin must be correctly matched to the receiver. This coupler provides a correct match at all wa lengths. Comes complete with instructions Shpg. wt. 1 lb.
\(\times\) R17172-Your Cost

Best Grade Lead-in Wire A heavier and better grade of ead-in wire. No. 14 tinned copper covered with a layer of rubber compound and a layer of weatherproof braid. Strips clean. XQ16203-25 Ft. 50 Ft .100 Ft . \begin{tabular}{llll} 
SingleLots, & 24 c & 45 c & 78 c \\
\hline
\end{tabular} \(\begin{array}{lll}\text { Lotsof } 10 \mathrm{Fa.23c} & 43 \mathrm{c} & 75 \mathrm{c} \\ \text { Lots of } 25 \mathrm{Ea.22c} & 40 \mathrm{c} & 70 \mathrm{c}\end{array}\) Shpg. wt.lbs. 1/2


\section*{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 Skined copper braid over-all
XQ16212- 50 Ft .100 Ft .

\section*{Lead-in Wire}

Very good quality. No. 17 copper well insu\(\times\) Q16200- \(\quad 25 \mathrm{Ft}\). 50 Ft . 100 Ft Shpg. wit.lbs.
easy soldering. Ehach . Single Lots. Lots of 10 Each


10 c

17 c


Heavy Daty
Stranded Copper


Forty strands No. 29; 14 Gauge. Layer of heavy cotton under covering of live rubber. Tinned. Ideal for heavy duty filament in transmitting apparatus. Shpg. wt. 25 ft., 1 lb . XQ16121Per Foot. \({ }_{25} 25 \mathrm{Ft}\). \(\qquad\)
\(2{ }^{\text {c }}\)

\section*{Extra Rieavy}

\section*{Stranded Copper}

Sixty-five strands No. 29. Tinned. Twelve gauge, insulated with pliable rubber. Would make an ideal antenna for D. X. fans. Will handle 10 a mps. at \(21 / 2\) volts. Shpg. wt. 25 ft . coil, 1 ib. One piece coils. \(\times 5 \mathrm{Ft}\)
\begin{tabular}{ccc}
25 Ft & \(50 \mathrm{Ft}\). & 100 Ft. \\
48 c & 90 c & 51.75
\end{tabular}

\section*{Service Wire Kit}


A real money saver. This assortment contains practically every type ot wire useful for Radio Service. t. in lengths varying from 4 to \(24^{\text {n }}\). Various wires are pushback R. C. hookup shielded, twisted and paralhol lamp cord, heavy A. C. leads, lel amp cord, heavy A. C. leads,
spaghetti, etc. Shpg, wt. 5 lbs. spaghetti, etc. Shpg. wt. 5 lbs.
\(\times \mathrm{c} 16299\) XR16299
Your Cost.
\(25^{c}\)

\section*{Couh Coack Wire}

\section*{Stranded} Push Back Wire

For those who prefer stranded to solid, we offer this old standby in black 19 gauge tinned copper hook-up wire. This type of wire is very flexible. Green or red. Specily color. Shpg. wt. for 100 ft., 2 lbs.
XR16321
Your Cost 100 Ft. Coil. \(39^{c}\)
Your Cost 500 Ft. Spools. 51.90 Your Cost 1000 Ft. Spools. 3.45

\section*{Solid Push Back Wire}

This 19-gauge solid wire has the popular black push back insulation. No stripping necessary Green or red. Specity color. Shpg.

\section*{\({ }^{\text {wit. } 2} 2\) lbs. \\ XR16320}

Your Cost, 100-ft. Coll.. \(34^{\mathrm{c}}\)
Your Cost, 500-ft. Spool... 51.60
Your Cost, 1000-ft. Spoof. 3.10
Best Grade
Push-Back Wire Double Cotton Braid


Size 19 copper wire, tinned for easy soldering. Extra heavy insulation slips back easily. Very fine quality Colors:red or black. One plece coils.
X Q16327-25 Ft. 50 Ft .100 Ft .
Your Cost 17c 33c 65c
Stranded Push Back The same high quality as the above. Size 18. Stranded and ainned. Red or black. One piece tinned.
coils.
<Q16330-25 Ft. 50 Ft .100 Ft

\section*{Spaghetti}

The best quality. High grade cambric tubing impregnated with transparent varnish of great insulating properties. Colors: red, yellow, green, or black. Specify color wanted. 30 lengths.
\({ }_{\text {Per Length }}\)
12 Lengths 12 Lengths \(73^{c}\) Bus Wire
Round, Tinned Copper, 2 ft . Lgths. X \(015965-10\) Lgths. \(\mathrm{Y}_{\text {our Cost }}{ }^{10} \frac{\text { Lgths. }}{12 \mathrm{c}} 100\) Igths. X Q15966 SIZE 12 Your Cost 26 c 100 Igths. Shpg. wt., Ibs. 1 I
Your Cost 17c 33c 65c


\section*{Wire Stripper}

Strips wire easily and cleanSaves time. Cutting edge of tempered steel that willretain its hardness. XP15044
Your Cost.
\(10^{\circ}\)

\section*{Extra Quality!}

\section*{Litz Wire}

\section*{Genuine Litz wire is} diffecult to obtain and ticularly pleased to be able to offer this extra fine quality Litz at
 such unusually low prices. For chokes-1. F. coils-R. F. coils loop aerials-etc., no finer wire could be desired since its R. F. resistance is considerably lower than that of solid wire. Green silk covered.
\(\underset{\text { Yourcost }}{\text { Xa15152-100 ft. coil }} \mathbf{I 2} \mathbf{2}^{\text {c }}\) \(\underset{\text { Your Cost }}{\text { Xa16 }} 100\) it. coil \(\$ 1.05\)

Special Indoor Aerial


\section*{Wire}

A special grade of flexible wire designed for indoor aerials. Consists of a number of fine tinned copper strands covered by a closely woven cotton braid. Can be coiled or twisted without danger of breaking. In Red, White or Yellow. Shpg. wt. 4 lbs. Your Cost................75 \(\mathbf{5}^{\text {c }}\)

Twisted Pair

\section*{For Filaments}


20 gauge. 16 strands No. 29 . Tinned. Rubber insulation covered with cotton braid. Color: black. Shpg. wt. 25 ft. coil, 12 oz. One piece coils. \(\times 916278{ }^{-}\)
25 Yit Your Cost
25 Ft . 50 Ft .
100 Ft .
\(\$ 1.15\)

\section*{aber}

Rubber insulated cotton braid Lacquered braid which prevents the wire from fraying as easily as ordinary wire. Put up on spools of 250 ft. Shpg. wt. 51 bs.
\(\times R 16345\)-Your Cost... 4 Spools (Assorted Colors). . 53.15

Colored Rubber Wire


No. 18 stranded and tinned copper wire covered with colored rubber compound. Solders instantly, 25 green; stata colors wanted. Shpg. green ; stata color
wt. per coil, 6 oz . W Q16275-10 coils.
Your Cost
Per Coil 25 ft .
\(\begin{array}{r}\$ 1.10 \\ \hline\end{array}\)
\(12{ }^{\circ}\)

16-gauge stranded rubber covered hook-up wire. Especially made heavy current. A vailable in black, red, green and white. Specify color.
\begin{tabular}{ccc}
50 & 100 & 500 \\
KQ16280-Ft. & Ft. & Ft. \\
Your Cost 30 c & 55 c & \(\mathbf{\$ 2 . 6 5}\) \\
\hline
\end{tabular}
22-Gauge Stranded



Stock
\(\times \times 20962\)
\(\times \times 20963\)
\(\times \times 20964\)
\(\times \times 20965\)
\(\times \times 20966\)
\(\times \times 20967\)
\(\times \times 20968\)
\(\times \times 20969\)
\(\times \times 20970\)
\(\times \times 20971\)

Double Silk

Seven strands of No. 29 wire. Cotton and rubber under waxed braid covering. Tinned. Colors: Black, Yellow, Red, Green. Shpg.
\begin{tabular}{l}
\(\mathrm{Wt} .25 \mathrm{ft} . c o i l, 6 \mathrm{oz}\). \\
X \\
Q \\
\hline \(16276-25 \mathrm{Ft} .50\)
\end{tabular}
31
4000 V. Hook-up Wire
18-gauge hook-up wire with guttapercha insulation that has a safety factor of 4000 volts. Shpg. wt. 50 ft ., 11 lb .
 Solid \(\quad \$ 0.17 \quad 50.35 \quad \$ 0.68 \quad \$ 5.75\) Stranded \(\begin{array}{lllll}\text { Colors: Black } & 19 & .40 & .75 & 6.25\end{array}\)

Table Showing Feet Per Pound of Above Magnet Wire
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Gauge & D.C.C. & \[
\begin{aligned}
& \text { Enam- } \\
& \text { eled }
\end{aligned}
\] & D.S.C. & Gauge & D.C.C. & Enameled & D.S.C. \\
\hline 16 & 122 & 125 & 125 & 28 & 1630 & 2030 & 1910 \\
\hline 18 & 192 & 202 & 199 & 30 & 2420 & 3220 & 2960 \\
\hline 20 & 298 & 319 & 314 & 32 & 3500 & 5100 & 4570 \\
\hline 22 & 464 & 506 & 494 & 34 & 4920 & 8080 & 6980 \\
\hline 24 & 711 & 804 & 778 & 36 & 6660 & 12800 & 10500 \\
\hline 26 & 1080 & 1280 & 1220 & 38 & & 20300 & 15500 \\
\hline
\end{tabular}

\title{
UNBEATABLE PRICES
}

C

\section*{Twisted Pair}

\section*{Silk Covered}

Twisted 18 Gauge 1/ar. C. Colors: Maroon, Brush Brass, Old Gold, Blue, White, Brown. (Specify color). Shpg. wt. 3 lbs. 100 ft . XY20939-Your Cost: Per Ft. 100 Ft .250 Ft \(\$ 1.50 \quad \$ 2.25 \quad \$ 3.95\)

\section*{Cotton Covered}

Twisted 14 Gauge \(1 / 2\) R. C. Black only.
XY20927-Your Cost: \(\begin{array}{ccc}\text { Per Ft. } & 100 \mathrm{Ft} . & 250 \mathrm{Ft} \\ 11 / 2 \mathrm{c} & \$ 1.25 & \$ 3.25\end{array}\)

Twisted 14 Gauge \(1 / 4\) R. C. Black with red tracer only. XY20890-Your Cost:
Per Ft.
100 Ft
\(\$ 1.75\)

DOWN GOES THE PRICE OF WIRE!
Wholesale's tremendous purchasing power again makes possible astounding bargains in fine quality wire. Fresh live rubber-a wide variety of colors-silk and cottonsingle, parallel and twisted pair-are all available.

\section*{Single Fixture Wir}

18 Gauge \(1 / 4\) R. C.
Silk Colors-Old Gold, Brass, Ma roon, White with Red tracer, Black Green.
CottonColors:-Black, Tan Brown Brass, Green with tracer. (Specify color and covering desired.
100 Ft . 500 Ft . 1000 Ft
Cotton 18 Gaugc 1/ar. C.
Cotton only in Black with Red XY20915-Your Cost:
100 Ft .
500 Ft
\(\$ 185\)
1000 Ft .

16 G \(\$ 1.85\)
53.50

16 Gauge 1/a R.C.
Cotton :- Brown with Red tracer Cotlon Color: Brown with Red tracer. (Specify silk or cotion.)
\(\mathbf{X Y 2 0 9 1 7 - Y o u r ~ C o s t : ~}\) 100 Ft . 500 Ft
\$2.10.
1000 Ft.
\(\$ 3.85\)


\section*{Parallel Cord}

This is the most commonly used type of wire for connecting radio receivers, lamps, etc. When order ing specify color desired.

\section*{Silk 18 Gauge \(1 / 4\) R. C.}

New Code inner braid. Colors:Brown, White, Green, Old Gold, Black. (Specify color desired). XY20937-Your Cost:
11/2c
100 FL
500 Ft .

Cotton 18 Gauge \(/ 4\) R. C. Colors:-Black, Tan. (Specify). X Y20935- Per Ft. 100 Ft
Your Cost: \(1 \mathrm{c} \quad 85 \mathrm{c}\)
Cotton 18 Gauge \(1 / 6\) R. C.
Colors:-13lack, Yellow. (Specify)
XY20936 PerFt. 100 F
Your Cost: 11/2c
95 c
Heavy Duty Cord Type S


The thick belt of flezible rubber that covers the conductor is made of smooth oil-resisting, a brasion-proof high quality rubber. This flexible waterproof, oil-resisting, non-kink-
ing cord is just the thing for hard service. Especially suitable for outdoor work, garages, portable devices; In fact on any job where abilfactor. Shpg. wt. 7 lbs. to 100 ft .
\begin{tabular}{cccc} 
Stock & & & Pcr \\
No. & Size & Ft. & Ft. \\
Ft \\
XY20945 & \(18-2\)-wire & 4 c & 53.50 \\
XY20946 & \(16-2\)-wire & \(5 c\) & 4.25 \\
XY20947 & \(14-2\)-wire & \(7 c\) & 6.00 \\
XY20948 & \(18-3\)-wire & \(5 c\) & 4.50
\end{tabular}

\section*{SPECIAL Wire Offer}

The prices on the wire listed below are far below the market prices This is due solely to the fact that our tremendous purchasing power enables us to buy the factory surplus of some of the largest of the is one continuous jength of wire is one continuou

\section*{COTTON}

XY20875 \(200 \mathrm{Ft} .181 / \mathrm{i}\) Single conductor for Aerial, Ground and general use.
X Y 20862 - 150 Ft .22 Twisted Pair. Conductor for drop cords, extensions, etc.
XY20863-100 Ft. \({ }^{183}\) § Paralle! with cotton overbraid. For lamp cords, extensions, etc

\section*{SILK}

XY20864-150 Ft. 2014 Parallel, for installations, etc. XY20865-200 Ft. 181/í Single. For Your Your
Each Coil
Assortment 6 Coils.
Your Cost

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 Your Cost
Stock No. 1 Ft .100 FHt
 \(\begin{array}{lll}\mathrm{XQ} 20857 & 3 \text {-Cond. } 21 / 2 \mathrm{c} & \mathbf{2 . 1 0}\end{array}\)

\section*{Auto Ignition Wire \\  \\ Standard 7 mm . black lacquered braided wire for use in automobile
ignition and high tension work Shpg. wt. 4 lbs.
\(\times Y 20852-100\) \\ \section*{XY20852-100 ft. Your Cost}}
\$1.95
9 mm . wire specially designed for Neon sign use. Shpg. wit. 4 lbs .
XY20853-100 ft . \(\$ 2.25\) Your Cost.


Heavy asbestos covered Rayon or cotton covered -specify which is desired. Shpg. wt. 3 liss.
XV20931-Your Cost:
Per Ft.
100 Ft
S 1.75
500 Ft

\section*{Shielded Loom}


Standard Loom with a tinned braided shield on the outside. For shielding and protecting wiring in autos, etc. Will pass heavy wire. Shpg. wt. 1 lb .10 ft .
\begin{tabular}{|c|c|c|c|}
\hline Stock & Diam. & \multicolumn{2}{|l|}{Your Cost} \\
\hline No. & in. & 10 Ft . & Cos \\
\hline \(\times 016146\) & \(3 / 8\) & 73 c & \$3 \\
\hline XQ16147 & & 83 c & 3.95 \\
\hline XQ16148 & & 93 c & 4. \\
\hline
\end{tabular}

\section*{New Type Parallel Lamp Cord}

Due to the great demand for 3 (3) and waterproof, this wire has been made available. It is similar in size and appearance to the regular cotton or silk covered lamp cord The two rubber covered wires are contained in a jacket of extremely tough live rubber. The rubber is put on by a new electrolytic process which makes for a perfect seamless covering. This wire is approved by the underwriters and can be had in black, green, ivory and brown Specify color when ordering. Shpg wt. 3 lbs. to 100 ft .
XY20920-18 gauge. Your Cost: Per Ft. 100 Ft . 500 Ft .
\[
2^{c}{ }^{5} 1.85 \$ 8.90
\]

Special Value! Cotton Twisted Pair


\section*{APPROVED Fixture and Appliance Wire}

ALL APPROVED wire for resale purposes is marked with a special label every 5 feet. The wire listed here has these labels and is resh stock of the finest quality. The use of UNAPPROVED wire may mean a delay in nsurance settlement in case of fire. We therefore recommend that for your own protection you use only approved wire. This recommendation is made in keeping with WHOLESALE'S policy of telling the TRUTH about the merchandise it sells.

\section*{Parallel Silk Cord
} New code insulation lamp cord. Consists of two conductors laid parallel and covered with braided silk. Has inner braid. The neatest cord for portable lamps, extension
lights, etc., a yailable in the following popular colors: White. brown, maroon, old gold, black.
Specify color Specify color when ordering.
Shpg. wt. 3 lbs . to 100 ft . Shpg. wt. 3 lbs to 100 ft .
18 Gauke \(1 / 4 \mathrm{R} . \mathrm{C}\).
XY20923-Your Cost:
Per Ft. 100 Ft .
Per Ft.
18 G c
18 c
500 Ft
56.50 18 Gauge 1/ar. C. \begin{tabular}{lll} 
Per Ft. & \(100 \mathrm{Ft}\). & \(500 \mathrm{Ft}\). \\
2 e & \(\$ 1.75\) & \(\$ 7.90\) \\
\hline
\end{tabular}

\section*{Reinforced Cord
}

Used indoors for portable machines and drop cords, insulated with belt of seamless rubber and covered with smooth cotton braid. size No. 18. (Black only.) Shpg. wt. 6 lbs. to 100 ft Heavy Reinforced \(1 / \begin{aligned} & \text { R. } \\ & \text { C }\end{aligned}\) XY20943- Per Ft. 250 Ft Your Cost: 21 C \$5.25 XY20944. Per Ft. 250 Ft


18 Gauge, \(1 / 4\) R. C. wire with a
glazed coton covering. Two colglazed cotton covering. Two col-
ors white or yellow and green mixture. Specify which.
XY20902-Your Cost:
\(\begin{array}{cc}\text { Per Ft. } & 100 \mathrm{Ft} \text {. } \\ 1 \mathrm{c} & \mathrm{SO} .95\end{array}\)
250 Ft .
\(\$ 1.95\)

Parallel Cotton Cord Ef=xumphothory
A popular number with the serviceman. For hooking up radios, extensions, etc., available in white, brown, maroon. Specify color when ordering. Shpg. wt. 3 lbs. to 100 ft .
2 Conductor 18 Gauge \({ }^{1}\) 的 R.C.
XY20941-Your Cost:
Per Ft. 100 Ft . 500 Ft 11/ \(\mathrm{c} \quad \$ 1.45 \quad \$ 6.90\) 2 Conductor 18 Gauge \(1 / 2 \mathrm{R}\). C. X Y 20942 -Your Cost: \begin{tabular}{ccc} 
Per Ft. & 100 Ft & 500 Ft \\
2 c & \(\$ 1.75\) & \(\$ 7.10\) \\
\hline
\end{tabular}

Single Fixture Wire C-2 Silk or cotton. For aerial and ground as well as for general fix-
ture use. Silks in white, old gold ture use. Silks in white, old gold,
maroon and brown. Cotton in mayoon and brown. Cotton in white and brown only. Specify color when ordering.
18 Gauge 1/6R. C.
\begin{tabular}{|c|c|c|}
\hline & Silk & Cotton \\
\hline 100 Ft . & 50.70 & S0.55 \\
\hline 500 Ft . & 3.50 & 2.50 \\
\hline 1000 Ft . & 6.40 & 4.90 \\
\hline \multicolumn{3}{|l|}{\multirow[t]{2}{*}{\[
\begin{aligned}
& 18 \text { Gauge } 1 / \text { R. C. } \\
& \text { X Y2093 - Your Cost: }
\end{aligned}
\]}} \\
\hline & & \\
\hline & Silk & Cotton \\
\hline 100 Ft . & \$0.85 & \$0.72 \\
\hline 500 Ft . & 4.05 & 3.40 \\
\hline 1000 Ft . & 7.90 & 6.60 \\
\hline
\end{tabular}

\section*{BELDENRAOIO PRODUCTS \\ 曊}

\section*{BELDEN "Airman" Auto Radio Wire}

\section*{}

Especially designed for automobile and aeroplane installations. Makes an excellent shielded lead-in wire where nois
No. 12 (65 strands of No. 30 tinned). Cambric wrapped with heavy tinned shielding. For all heavy duty work. Shpg. Wt. per 100 ft , 41 bs .
\(\times\) Q16223
\({ }^{10}\) Your cost.
100 ft Similar to strands of No. 30 tinned). ft .31 lbs.
10 ft . Your cost........ \(\&\}_{\$ 3.75}^{c}\) No. 16 ( 26 strands of No. 30 tinned) Shpg. wt. per 100 ft .3 lbs. X 016219
10 ft . Your Cost. 10 ft . Your Cost........
100 ft.
No. 18 ( 16 strands of No. 30 tinned) Shpg. wt. per 100 ft .3 lbs X Qi6224-
10 it.
Your cost.
100 ft..
.

\section*{BELDEN}

Twisted Lead-In Wire


Especially designed for use wit doublet antenna systems. Used extensively as the transmission line for Philco and other receivers. Consists of two No. 18 rubber covered conductors covered by a weatherproof cotton outer braid. Especially recommended because it is both inexpensive and efficient. Shpg. wt 100 ft .4 lbs b \(\left.\begin{array}{l}\text { XQ16172- } \\ \text { 100ft.coil. } \\ \text { Your Cost. }\end{array}\right]\) Xal6173-500 ft. coil
Your Cost


\section*{Beldenamel Aerial Wire} Beldenamel aerial wire has long been known as the finest wire available for permanentan-tennainstallations. This wire, of the finest grade copper, is very heavily enameled with a permanent compound, and will stand up indefipound, and will stand up indefithe severest weather conditions. the severest weather conditions.
Each coil is attractively boxed, and the 1000 ft . length is wound on a heavy steel spool. Shpg. wt per \(100 \mathrm{ft},. 41 \mathrm{bs}\).
\(\times\) Q16232- \(7 \times 20\) Beldenamel. Especially suited for short-wave aerial systems; doublet antennas. 100 ft . Your Cost. ..... \(\$ 0.93\) 1000 ft. Your Cost. ...... 9.00 XQ16229 \(7 \times 22\) Beldenamel.
75 ft Your Cost.
100 ft Your Cost.
150 ft . Your Cost.
1000 ft Your Cost.
1000 Solid Beldent...iei
\(\times 016233\) No. 10
1000 ft . Your Cost. XQ26230 No. 12
100 ft . Your Cost 1000 ft . Your Cost XQ16231-No. 14
BELDEN Tinned Aerial

\section*{Wire}

An old standby. Very popular where good installations are wanted. \(7 \times 22\). Shpg. wt. per 100
ft. 41 hs.
\(\times Q^{2} 6228-100 \mathrm{ft}\). per
coil. Your Cost. coil. Your Cost
Your Cost.
.54 .20

BELDEN Shielded Anto Ignition Wire


7 Millimeter
This standard 7 mm . Belden shielded auto ignition cable is now being offered at the lowest prices ever quoted. Ideal for use in auto radio installations for aerial, battery,
high and low tension leads. Conhigh and low tension leads. Consists of a standard 7 mm . lacquered braided wire covered by a tinned copper shield, which is closely 41 bs
\(\times\) P1622 Per Foot (1) XQ16222-100ft.spool.S
Your Cost, Special..


BELDEN Push-Back Wire Solid No. 20 solid inned copper push-back insulation. No essary. In green, blue, red, yellow or black. Specify color when ordering.
XQ16066
25 ft. coil.
25 ft . coil.


XQ16067-1000 ft. coil

\section*{Your Cost}

Stranded Push-Back Wire Similar to the above, but with No. 20 stranded wire. Same colors as bove. Specify color desired when ordering. when ordering.
XQ16068 Your Cost
\(23^{\text {c }}\) XQ16069-10

1000
Your Cost.................. 56.10


Effective in reducing man-made static. Stranded core witha hea yy braid of fine tinned copper wire which serves as a shield. Fasy-
strip rubber insulation. In servstrip rubber insulation. In se
ice the shielding is grounded. SIZE 14
XQ16208- 50 ft .100 ft .250 ft. Your Cost..S2.30 \(52.50 \quad \$ 6.45\) Shpg. wt. lbs.
XQ16210- 50 ft .100 ft .250 ft. Your Cost.. \(\$ 0.75\) \$1.45 \$3.50
\(\qquad\)
\(36^{c}\)
XR16159-500 ft. spool
56.75


A thoroughly reliable protector designed for either outdoor or indoor use. Listed as standard by the National Board of Underwriters. Bakelite case. Resistor type. Each furnished with \(\$ 100\) guarantee XR16750-List 25 c. Your Cost
\(15^{\circ}\)

\section*{NOTE...........}

We can supply special Belden coil winding machines for all types of radio coils. Prices on request.

\section*{BELDEN}

Tinned Copper Shielding


The finest copper shielding available. Fine mesh closely woven per 100 ft ., 4 lbs
XQ16214-Inside diam. \({ }^{13 / 4}{ }^{\prime \prime}\)
Perft. cost.
Per 100 ft .
XQ16215-Inside diam. \(8 / 8^{\prime \prime}\)
Perft. Your Cost.
Per 100 ft .
X Q16216-Inside diam. "5/2"
Per ft. Your Cost.
Per 100 ft .

\(\$ 2.30\)
\(3^{c}\)
S1.95
\(8{ }^{c}\)
57.50

BELDEN All-Rubber Lead-in Wire Well known for its sperial rubits special rub-
ber compound ber compound
covering which strips quickly
and easily. Big time saver for quick splicing. Shipping wt. per \(100 \mathrm{ft} ., 3 \mathrm{lbs}\). XQ16225-No. 14 Seven-Strand. 50 ft . per carton. Your Cost.. 50.50 250 ft . per spool.. Your Cost.. 2.45 \(\times\) Q16226-No. 16 Seven-Strand. 50 ft. per carton. Your Cost.. 50.33 250 f. per spool. Your Cost.. 1.30 500 ft . per spool. Your Cost.. 2.40
XQ16227-No. 18 Seven-Strand. XQ16227-No. 18 Seven-Strand.
500 ft. per spool. Your Cost. \(\$ 1.95\)

Special Two Conductor Shielded Lead-in Wire


This special wire was designed exclusively for use by Kolster in their Rejectostat" antenna system. Also used by A. K. Consists of two No. 18 stranded rubber covered conductors covered by a tightly woven copper shield with an outer covering of tough live rubber. Conductors are transposed inside the shield. Fully weather proof. Nothing finer for use as doublet antenna lead-in wire. Shpg. wt. per \(100 \mathrm{ft} ., 4\) lbs. \(\times\) Q16143 100 ft . coil. \(\times\) Q16144-
s3.75
Your Cost.
.\(\$ 17.50\)

\section*{BELDEN}

Indoor
Aerial
and Litz
Wire
This specially covered wire is ideal for indoor
 winding radio loops, and is easily concealed on a picture moulding or window frame. Shpg. wt. per spool,
\(\times Q 16125\) Brown Rayon \(9 \mathbf{c}^{\text {e }}\)
125 ft Your Cost......
Brown Cotton 60 ft 3
x Q16127-Brown Cotton
1000 ft .
Your Cost
\(\$ 4.20\)
XQ16128 100 ft . Litz Wire \(20-38\) stranded Beldenamel with two servings of green silk
Your Cost,
Per Spool


BDLDEN Hook-up Wire
No. 18 Stranded Tinned Copper, insulated with " Belden colorubber.
able in green, blue, red, brown or yellow. Shpg. wt. 8 oz .
\(\times\) Q16290


Your Cost........ailable in natura! brown or red. Shpg. wt. 15 lbs. \(\underset{\text { Your Cost }}{\text { XQ16291 }}\)
(Specify color when ordering).

\section*{BELDEN Shielded Hook-up Wire}

Same wire as above but with closely woven tinned copper shielding for wt. 3 lbs.
\(\times\) X16294
Xa16294
100 ft Your Cost
s1.08
BELDEN Lead-in Strips

Tough Coorubber insulation over thin, flat strip. Clips riveted and soldered at both ends. \(12^{\prime \prime}\) long. XR17099
Your
Cost.

\section*{JACKSON Electric Soldering Irons}

This is a full size
soldering iron.
11 in length: Black enamel handie and
nickel plated nickel plated metal case. Removable tip "/ \({ }^{\prime \prime}\) "
in diameter. 50 watt iron Shial in diameter. 50 watt iron. Shipping weight \({ }^{2} 1 \mathrm{bs} 8\).
XP14850-List SL25
Your Cost


\section*{Heavy}

\section*{Duty Irons}

\section*{ESICO Soldering Irons \\ }

Esico Soldering Irons are amongst the finest irons made today and are preferred by profes irons made today and are preferred by profer-
sional and amateur alike. "Constant Duty" sional and amateur alike. "Constant Duty"
irons have replaceable elements wound with nickel chrome wire and are insulated with the finest quality mica obtalnable. "Midget" and "Junior" models are wound with Grade A aichrome wire. All models have heavy stee cases and heat proof handles. Shpg. wt. 3 lbs. MIDGET MODEL

\section*{XP14848-}

65 Watt, 11
Your Cost.
\({ }^{\text {s }} 1.25\)
JUNIOR MODEL
XP14854 85 Watt, 110 Volt
Your Cost
s 1.88

\section*{CONSTANT DUTY MODELS}


\section*{ESICO "Special" Iron}


A genuine Esico Iron at an exceptionally low price. This is an excellertiron for those having only occasional use for a soldering iron. Heat ing element is of nichrome wire. Handie is of black wood. Steel shank and brass ferrule Consumes 55 watts. Shpg. wt. 3 lhs. XP14849

70

\section*{Truteat De Luxe}

\section*{Electric Soldering Irons}

cures as-gun
core- une-nichrome element wound on stee
core-mica insulation both on core and be
\[
\begin{aligned}
& \text { tween element and barrel- epring cord pro- } \\
& \text { tector-approved wire and rupler nluy-fibre }
\end{aligned}
\]
tector approved wire and rupling cord plug- fibre
terminal with cord tied to terminal (not knotted
\[
\begin{aligned}
& \text { or taped). Shpg. wt. } 3 \text { lbs } \\
& \text { Xp15180 } 75 \text { Watt, } 110 \text { Volt } \$ \\
& \text { Your Cost..........in }
\end{aligned}
\]
\[
\begin{aligned}
& \text { XP15182- } 100 \text { Watt, } 110 \text { Volt } \\
& \text { Your Cost } \\
& \text { Yp1 } 519 .
\end{aligned}
\]
\[
\text { XP15198-Same for } 220 \text { volt. }
\]
\[
\begin{aligned}
& \text { XP15184-150 Watt, } 110 \text { Volt } \\
& \text { Your Cost. }
\end{aligned}
\]
\[
\text { XP15199-Same for } 220 \text { Volt. }
\]
\$3.45

\section*{ALUMAWELD Solder}


A new solder and flux that makes possible the successiful soldering at low temperatures of Aluminum-Pot Metal-Cast Iron and all other metals. Herent last is a solder that will repair broken aluminum shields, brackets, chassis etc., and that will make a repair that is strong and clean. Kits contain special solder flux, wire brush, illustrated instructions. Xp15200 Small Kit. Shpg. wt. \(1 \mathrm{lb} ._{\text {Your Cost }^{c}}\) XP15201-Medium Kit.
\(\$ 1.80\) Your Cost
XP15202-Large Kit. Shpg. wit. 3 lbs.
Your Cost.


\section*{KESTER Aluminum} Solder

\section*{At last Kester has} brought out a good, lux filed a luminum solder. Packed in home sized contain-
ers, with cleaning material and sull instructions included for light or heavy repair work. This is an inheavy repair work. This is an in-
dispensable article for garages, redispensable article for garages, re-
pairshops in allines, and the home. pairshopsinallines, and the home. num. Shpg. Wit. 2 lbs.
XP14876. Your Cost...\(I C\) Carton of Ten

\section*{Sealo Quick-Seal Cement} Apply to all your electric plugs or wherever wire connections are made.
Wire cannot short or puli out.
XP14711-
Your Cost
Carton of 28 Tubes \(\$ 2.75\)
 MAGIC 而mbossing E Engraving Pencils
Engraving Pencll 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. A piece of prepared foil is placed on top of the articie to be lettered and the design traced on it with the pencil. When the foil is removed the lettering is left on the article. XP15158-Engra ving Pencil for 110 Volt. Shpg. wt. \(21 \mathrm{bs} . \quad \$ 1\), I 5 XP15157-Embossing Pencil with Foil. Shpg. wt. 2 lbs \(83^{c}\)


Approved by all leading radio engineers. Makes low lors joints. Esch tin contains a coil of solder. Will
not spatter.


\section*{ELECTRICAL APPLIANCES}

\section*{Outlet Box Receptacles}


Finest receptacles made. The wide a wake serviceman will find many customers willing to pay for replacing their single with dual receptacles, Fit standard outlet box. Comes in two types single and dual. Underwriters approved type. Compact and very easy to wire. Shpg. wt. 1 lb . \(\times\) M13328-Single
Your Cost Each
XM133 XM13329-Duai

\section*{Welds All}

Mends china, glass, marble, tile, wood, leather. Solders aluminum, iron lead, tin, etc.

\(\$ 1.65\)


\section*{BURGESS Flashlight} A new large focusing two-
cell flashlight at an excepcellally low price. Throws a 400 it. bear. Brass case nickel plated. Sliding switch and flat lens. Complete with 2 cells. Shpg. wt. 31 hs. XP15048
Your Cost.......34 Uni-Cells XV18200-No. 1 Small Size XV18201-No. 2 Large
\(61 / 2^{c}\)

\section*{Emergency Light}

Plugs into any receptacle. Works on 110 Gives soft, mellow light of about \({ }^{2}\) candle power. Made of porceComes complety color. Comes complete with XM13228.
\({\text { Your Cost Ea. } 25^{c}}^{c}\) Extra Bulbs Each

Fixture Connectors


Does a way with
soldering and blow torch. To connect wires for lighting un to 4 H P P leads Only one screw. Packed 100 to box X 13224 Your Cost Each.

\section*{Pin Type Extension} Socket
Edison screw base receptacle and pin type
connector. For use in connector. For use in XM13225
Each.......... \({ }^{25}\) for..........

Nichrome Wire


For General Repairs
Three standard sizes furnished on one spool, to take care of all repair work. 10 ft . of coiled, 100 ft . colled
3 lbs.
\(\times\) M13226
Your Cost Each
s3.45

Brass Sockets
Key \begin{tabular}{l} 
Brush brass \\
finished sock- \\
et black com- \\
position key.
\end{tabular}

> Adjustabie Candle Socket
> For use with imitation cardboard candles. Height of socket is adjustable to fit size of candle used. Threaded
to fit standard to fit XVi3323-
Your Cost Each.
> Carton of \(25 \ldots \$ 1.60\)

Pull Chain Brush brass finish with Pull Chain. Positive rugged Standard \(1 / 8^{" ~}\) cap. Threaded for shade holder.
XM13322
Your Cost
Your Cost \(2 \boldsymbol{Z}^{\text {c }}\)
Carton of 25 . . 54.95


\section*{Porcelain Flat Base \\ Socket \\ Particularly suitable for
use in tempo use in tempotions where socket is proaccidental contact. Shpg \\ XM13327-Your Cost Each \(9^{c}\) Per 25. \\ \(\$ 2.00\)}

lain Pull Chain Socket
Suitable for use in bathrooms, kitchens, cel-
lars, etc. Semi-weatherproof. Will fit round or hexagon box covers of the \(3,3^{1} / 2\) or \(4^{\prime \prime}\) type. The positive switch action and the overall ruggedness of this item makes it able to withstand a great deal of use. Excellent part for emergency replacement purposes. Shpg. XVM13332-Your Cost Each. Per 10.
\(25^{\circ}\)
. 52.25
 way of providing separate switches Comes complete with tassel and cord which can be cut at any length desired.
Positive rugged Positive rugged acand will well made and will stand a great deal of use. Shpg. wt. 1 ib
XM13338-
Each. \(55^{c}\)
Carton of 10.54 .75


\section*{Luminous Button} Easily attached to any wall switch. Your Cost Your
25 for.


Two Wire Fuse Blocks With Switch
Two fuses with double pole switch. Genuine porcelain and pure copper construction. Shpg. XM13210-Each. \(55^{\circ}\)

Two Wire Fuse Blocks Withorit Switch

Protects both leads. Rugged construction. Underwriters' approved type. Shpg. wt. \(11 / 2 \mathrm{lbs}\) XM13211
Your Cost Each
\(20^{c}\)


Adjus*able silver contacts and heavier construction than the average. Battery or transformer operation. Shpg. wt. 31 bs . XM13242-Bell 23/2"
\begin{tabular}{|c|c|}
\hline gong & \multirow[t]{4}{*}{} \\
\hline Cost Each. & \\
\hline XM13243-Buzzer & \\
\hline Your Cost Each & \\
\hline
\end{tabular}


GAYNOR
Bells
and
Buzzers
Exceptionally neat and very compact. For battery or bell ringing transformer operation. White enamel finish, nickeled gong. Shpg. XM13240-Bell \(21 / 2^{\prime \prime}\)
\(\qquad\) Cost
XN13241-Buzzer
Your Cost
\(24^{c}\)

\section*{BELDEN A11-Rubber Extension Cord}

Eliminates the nuisance of frayed and dirty lamp cords. All smooth rubber insulation is provided in bronze or black finishes with Belden Unbreakable Soft Rubber Plug to match. Bakelite connector caps included; no solder, tape or tools required. Cord 61/2 ft. long. No. 18 conductors. Shpg. Wt. 1 lb.
XM13222
Your Cost Each
\(35^{\circ}\)

\section*{BELDEN Heater Cord}

Seven feet of No. Heater Cord with Wear" heavy cotton twine braid. Has Belden unbreakable soft rubber flug, and
special heavy duty appliance plug. Each in individual cellophane wrapped boxes Shpg. XM13227-Your Cost Ea..424

\section*{Insulated Staples}


Combination Outlet Box Receptacle and "On-Off"

\section*{Switch}

Consists of a \(10 \mathrm{am}-\) pere, 125 volt "onoff" switch and a bakelite plug recepporcelain base that fits any standard outlet box. Heavy duty let box. Heavy duty frass contacts. withirons, fans, and other electrical appliances. Shpg. wht. \({ }^{11 \mathrm{lb}}\).

\section*{- -hiqhest quality-lowest prices!}
\begin{tabular}{|c|c|}
\hline TRING DEVCC & Bell Ringlit dovices \\
\hline \begin{tabular}{l}
Bakelite Baseboard Outlet \\
This handy device en ablall you outlet in
\end{tabular} &  \\
\hline brown part of the house. Made &  \\
\hline  & (en \({ }^{\text {a }}\) \\
\hline \({ }^{\text {P }}\) &  \\
\hline lite Surface Switch & Carton of 20 \\
\hline \multirow[t]{2}{*}{Bakelite cover will} & \multirow[t]{2}{*}{Single} \\
\hline & \\
\hline provides perfect insulation. & Bakelite \\
\hline  &  \\
\hline Your cost \({ }^{\text {coston of 10. } 51.75}\) & Your \\
\hline Soft Rubber & X \\
\hline Socket & c \\
\hline Weatherproor. & \\
\hline & \\
\hline  & \\
\hline  & Your cost E \\
\hline & Carton of 10_........ 53.50 \\
\hline  & Your cost Each ...... 24 \({ }^{\text {c }}\) \\
\hline on of \(20 \ldots \ldots \ldots . . .52 .25\) & Carton of 10.............. \({ }^{\text {S }}\) 2 \\
\hline Miniature Receptacle & Bell Ringing Transformer \\
\hline \multirow[t]{4}{*}{} & Pri \\
\hline & -8 \\
\hline & on primary,
on secondary \\
\hline & \\
\hline \multirow[b]{2}{*}{Feed-Thru Switch} & \\
\hline & \\
\hline \multirow[t]{2}{*}{} & \\
\hline & \\
\hline \multirow[t]{2}{*}{} & XM13284-Each \\
\hline & \\
\hline
\end{tabular}

ATTACHMENT PLUGS
\begin{tabular}{|c|c|}
\hline \begin{tabular}{l}
Spring Action Caps \\
Tight gripping prongs, bakeX
\[
\begin{aligned}
& \text { XM13008 } \\
& \text { Dozen.....40c }
\end{aligned}
\] \\
Each
\end{tabular} &  \\
\hline  & ( Bakelite Heater Piug \({ }^{\text {Smand }}\) \\
\hline Bakelite Plug & \\
\hline With handle prevents pulling out X M13281- & \begin{tabular}{l}
XM13290- \\
Your Cost \\
Each \\
Carton of 10 \\
80c
\end{tabular} \\
\hline Each & Arn \\
\hline Fused Triple Outlet Plug Prozects ap
ances, etc. vents main fuses from blowing. & \begin{tabular}{l}
Cold moulded black composition. Heavy nickelplated steel sleeve protects plup from breakage. XM13291 - \\
Each. \\
Carton of 10
\end{tabular} \\
\hline  & Switch Plug Bakelite plug with built \\
\hline Fused Cord Plug ached directly to cord. & in switch and Kool Pull
apring. Especially made \\
\hline cis229- \(6^{\text {c }}\) & nat irons. \\
\hline \(\mathrm{XM13246}^{\text {M }}\) - Box of 4 fuses. I \({ }^{\text {c }}\) &  \\
\hline r Cost. ........... & 缃 Carton of 10. . \(\$ 1.95\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline REPLACEMEN & NT ELEMENTS \\
\hline  &  \\
\hline Electric Heater Elements &  \\
\hline Best grade Resiststandard base to XM13304 Xous304-Cone Shape \(22^{c}\) & Cigar Lighter Unit Replaces burned out elements. Con verts regXM1328C \(\qquad\) \\
\hline Your cost Each ....... \(\mathbf{S c}^{29.10}\) &  \\
\hline YM13305-Straight Type \(\boldsymbol{2 .}^{\text {c }}\)
Your Cost Each
Carton of 10........... 52.70 & carton of 10_..........s.1.10 \\
\hline Trio Plug Lex & \begin{tabular}{l}
Toaster Element \\
Can be ad
\end{tabular} \\
\hline  &  \\
\hline Each...... & \({ }^{\text {XM1 } 13320}\) \\
\hline  & \({ }^{\text {Youst }} 75^{\text {c }}\) \\
\hline \multicolumn{2}{|l|}{Midget Cord Connector \({ }^{\text {co }}\)} \\
\hline Flat black & Pearl Push Button \\
\hline with it
blades. & Attractive push but- \\
\hline \(\underset{\text { Your Cost Each }}{\substack{\text { YM13276 }}}\) & \\
\hline Carton of 10............s1.42 &  \\
\hline
\end{tabular}

\section*{Socket ATTACHMENTS}

\section*{Socket Extension}

Makns it possible to use under shadeskets and taps XM13267-s.
Your Cost Ea Carton of 25
Twin Lite Socket Genuine brown Bake-
lite. One piece con-
struction. XM13279Your Cost Your

\section*{I2}

Carton of 10 . ............... 52.00
Hakelite Angle Socket
 Permits bulb to hang can be used. 2e
\(\times M 13269-2\) Cost Each

I2
Puil Chain Angle Socket

\section*{Same as above}
except tha straight pull chain. XM13268
Cost 26c
Carton
of 10 . . . \(\$ 2.20\)


\section*{Current Tap}

\section*{Straight socket combined} with two cap outlets. Xrish278 Cost Each. \(123^{\text {c }}\) Carton of 10.


Extension cord with bakelite handle capand trio tap.
XM13293-6 ft.
Each...... Each \({ }^{\text {Each }} 1396\) - 15 ft . Trio Tap
Tap only, sarne as used on above XM13283-Each.
\(10^{c}\)
Carton of 25

\section*{Heater Cord Set}

Bakelite Plug
enationesion
rimo
and Cap. 6 foot
Rayon covered
\(\mathbf{~ h e a t e r ~ c o r d . ~}\)
Your
Your
Cost
Each
Armored Cord Set Same as above but with armored


\section*{Switch Plug Set}

Heater cord set using the handle cap and Kool pull Switch Plug as finest heater cord set made. The XM13316-Cost Each.

A very serviceable vise for the Radio man. Good steel, carefully machined. Finished in red enamel with highly polished jaws and handle. Accurately cut spindle thread. Will clamp to board or bench up to 2 ins. thick. Has anvil behind jaw. Made in two sizes. XP14727-Jaws, \(21 / 2^{\prime \prime}\) wide. Ship-
ping weight 7 lbs.
List \(\$ 2.00\). List \(\$ 2.00\).
\(92^{\circ}\)

XP14728-Jaws, \(31 / 2\) " wide. Shpg. wt. 10 lbs.
List \(\$ 3.00\)
Your Cost \(\ldots . .\).

G. M. Co. Electric Hand Drill A sturdy \(1 / 4-\mathrm{in}\). hand drill with GENERAL ELECTRIC A. C.D.C. MOTOR and BALL THRUST BEARING in spindle. 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 "gafl" of heavy use and should not be confused with cheap, licht hand drills. Shpg. wt. 10 lbs.
\(\times P 14726\) List, \(\$ 25.00\). Your Cost, Each
\({ }^{5} 14.85\)

\section*{Motor-Driven Buffer and Grinder}


Not a toy, but a real electric motor driven buffer and grinder for the workshop with a pulley on each end of motor shaft for driving other apparatus. High speed \(1 / 50 \mathrm{~h}\). p. motor, revolves 5000 R . P. M. On and of toggle switch on end of motor. Does work in a few minutes that otherwise would take several hours. Grinds, sharpens, polishes and drives other tools. Mounted on a strong cast base with four mounting holes. Complete buffer and two pulleys. Equipped with durable cord and attach-
\(\$ 6.95\)


\section*{Motor Arbors}

Arbors fit directly on to shaft of any place of pulley. Equipped with flange and locking nut to hold flange and locking nut to hold
grinding wheels, saws, etc. Has Krinding wheels, saws, etc. Has jaws. Shpg. wt. 2 lbs .
\begin{tabular}{|c|c|c|c|}
\hline Stocl: No. & Unit No. & Motor Bore & Your Cost \\
\hline XP15095 & 495 & 1/4" & 52c \\
\hline XP15096 & 490 & & \\
\hline XP15097 & 490-A & 1/2" \(\}\) & \\
\hline XP15098 & 490-B & 8 & 89 c \\
\hline
\end{tabular}
G. M. Co. Geared Chuck

7 to 1 geared chuck to use driils up to \(1 / 2^{\prime \prime}\) in your small electric drill. Gearing increases power. Drive chuck. Shpg. wt drill into
XP14698
Your Cost
Your Cost
s. 4.25

\section*{Yankee Radio Tool Set No. 106}


In Mandsome Kood Box This combined Tool Set No. 105 and Radio Drill No. 1431 is especially designed for radio work. A beautifully balanced drill, with a 4 to 1 gear ratio. Special Radio Chuck "告" capacity, length \(916^{\prime \prime}\). With this combination tonl set, of the ratchet हcrewdriverand blades, mechanical work can he taken mechanical work of The handsome mahogany finished tool chest has compartments for each tool. Packed partments in cardboard box. Shpg. wt. one in card board box. Shpg. wt.
wt. 5 lbs.
XP15025-
Your Cost....

\section*{Yankee Radio Tool Set No. 105}

Set contains 1 No. 230 Ratchet Screw Driver ( \(611^{\prime \prime}\) overall) right and left hand and rigid.
Blades \(515 x^{3}\) " Blades \(53 / 2 x^{3} 16{ }^{\prime \prime}\) for long reach, between wires, etc. Blades \(31 / 2 \times 3 y^{\prime \prime}\) (or small screws on dials. Blades \(2 \operatorname{linx}^{1}{ }^{\prime \prime}\) for heavy serews, acrial work, etc. Counter-sink, for counter-winling heads of screws. Sockets (two) 3 " "and "n "hex with 4" shank. Cover all small nuts. Reamer for enlarging holes in panel, \(\frac{1}{1}\) " \(\left.10 \frac{1}{2}\right|^{*}\). Wrench, one end "H" for square or hex., the other \(1 / 2\) "hex. for jacks, etc. Wire Bender for making loops and bending wire.
 sinks: runs up nuts, bends and loops wire, and
has wrench for jacks and nuts. A touch on shifter gives right and left ratchet and rigid. Packed one set in
\(\mathbf{X P 1 5 0 2 6}\).
Your Cost for Complete Set.


A complete clamp-to-bench outfit with a 10 to 1 gear ratio consisting of a \(4^{\text {² }}\) grinding wheel, steel chuck for twist drills up to \(1 / 4^{n}, 4^{\prime \prime}\) circular saw, \(4^{\text {" }}\) buffing wheel and wire brush. Vise handle bench clamp fits tables up to \(17 / \mathbf{g}^{\circ}\) thick. Adjustable guide. Two-inch spindle bearing with oil fitting. Body finished in red enamel. Shpg. wt. 8 lbs.
\(\times\) P14744-List \(\$ 4.00 \$ 2\) Your Cost.

\section*{Circular}

\section*{Saws}

Combination type -rip or cutof. \(1 / 2\) center hole.
\begin{tabular}{cccr} 
Stock & & Ship. & Your \\
No. & Din. & Wt. & Cost \\
\(\times\) P15216 & \(4^{\prime \prime}\) & 1 lb. & \(\$ 0.69\) \\
\(\times P 15217\) & \(6^{\prime \prime}\) & 1 lb. & .79 \\
\(\times P 15218\) & \(8^{\prime \prime}\) & 2 lbs. & 1.10
\end{tabular}

\section*{Metal File}

\section*{Handle}

Japanned. Whll fit all sizes of files Will take any type of tool with a shank less than \(3 / 8\) ". Set screw holds tools rigid. Shpg. wt. 1 lb \(\times\) P15042
Your Cost Each.

\section*{Wood File}

Handles
Polished hardwood, fitted with
 XP15043
Your Cost Each
```
5
```

\section*{Callper Rule}

Measures inside and outside diameters up to 3 inches, calibrated in 1/6 and l/h part of an inch. Has Knurled locknut. Shipping weight
XP14891-Your Cost...IO


Circle Cutters
Cut holes easily and quickly in metal wood, bakelite, hard rubber, etc. Nos. 1 and 2 cut holes from 1 to 4 " in diameter No. 5 cuts holes from 1 to \(5^{\prime \prime}\) in diameter. No. 1 cutter has an extra beading cutter attached. No. 5 cutter available with square orroundshank State type desired on order.
\[
\begin{aligned}
& \begin{array}{l}
\text { XP14717-No. 1. XP14734-No. } 5 \\
\text { Your Cost, } \\
\text { XP14718-No. 2. } \$ 1 . I 5
\end{array}
\end{aligned}
\] Shpg. wit. of Cutters 2 Ibs. Shpg. wt. of Blades 1 lb .


No. 5

Block Plane


A 7" plane with a hardened and tempered steel blade \(188^{\prime \prime}\) wide Adjustable cutter. A handy tool around the shop for finishing radio baseboards, cabinets, ete. An excellent value. Shpg. wt. 3 lbs.
XP14730
List \(\$ 1.25\)
\(55^{\circ}\)
Can't Rol Center Punch

\section*{Cold Chisel and Punch Set}
\(134^{\text {" }} 13\) " " chisels, 3 punches. Shipping welght
\(\times P 15125\)
XP15179 - //4 chisel only Shipping weight 2 lbs. Each.
\(10^{c}\)

Made of exceptionally tough swaged Carbon Steel. Heads and points are polished and the grip is Knurled. \(2 /\) en \(^{\prime \prime}\) point. XP14999-
Your Cost Each ........IO \({ }^{c}\)

\section*{Tool} Steel Blade Long
Maple Maple
Handle

The most practical Screw Driver ever developed. Has gripper which automatically stays at any point on shank. May be used as screw gripping serew driver to drive scre ws in difficult places or as ordinary screw driver. Specially tempered blade, of tool steel, is of the slender type. Hard maple handle. Shpg. wit. 1 lb. Stock No. Blade Length Your Cost
 \({ }^{\mathbf{X P 1} 14722}\)

\section*{ \\ - 110 io}

Will wind Honey Comb, Spiderweb, or Solenoid coils of various widths and diameters. Equal in appearance to factory made coils. Includes all accessories necessary for winding the various turns. Black enamel finish. Shpg that counts XP14725-List \(\$ 7.50\) finish. Shpg. wt. 6 ibs.

\section*{Universal Coil Winder}


For use in inaccessible places where the ordinary screw driver cannot be used effectively in inserting or extracting screws. Made of tempered tool steel. Some of its advantages are: It holds screw tight while using; prevents loss of screw; indispensable in assemhling and is the only screw driver having the autonatic release Handle is insulated. Grippers are of blued spring steel. Shpg. wht. 2 lbs . Your Cos Stock No. Blade Length XP15061
\(\times P 15062\)

Service Screw Driver

A low priced Screw Driver, with very popular and attractively finished red handle fastened with bead lock. Blade of iorged steel. Shpg. wt. 1 lb . XP15055-Blade 3" Either Type

Shockless Screw Driver \(=\square\)
A popular priced insulated handle Screw Driver for electrical, household and automotive work. Handle and Ferrule are moulded in one piece of Black and Red Composition. Blade is nickel plated position. Blade is nickel plated
and has straight side point. \(6^{* \prime}\) long. Shpg. wt. 1 lb . long. Shpg. wht. \({ }^{1}\) lb.
XP15060- Your Cost. I2 Per Dozen.................20

\section*{GOODELL-PRATT}

Radio Screw Driver

Long slender blade especially suit able 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.
XP14949
Your Cost Each

\section*{Electrician's Screw Driver}
\(\qquad\)
Simply constructed, but strong and durable. This is an exceptionally good serew driver for the price quoted.
Slender pollished blade with forged point, hardened and tempered. Nickel plated ferrule: Electrician's style handle; length of Blade \(6^{\circ}\). Shpg. wt. 1 lb T? \({ }^{\text {c }}\) Per Dozen
1.25
\[
3 \text { in I Screw Driver }
\]
促

\section*{Tomblen}

Nesting type. Smallest nests in handle of next largest and the two together in the largest. Stee! blades with brass handles. 43/4" long. Shpg. wt. 1 lb .
\(\times\) P15220-Your Cost

IO

\section*{Insulated Screw Driver}

Insulated shaft and handle.
XP15225-41/2"
Each.
\(\times P 152\)
XP15226-61/2"
Each.
XP15227 81/2"
Each.
XP15228-Set of 3
Your Cost
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|l|}{Ratchet Screw Driver} \\
\hline \multicolumn{3}{|l|}{Tool steel blade. Nickel plated ferrule, hardwood handle. Has 3 position ratchet adjustment that allows operation to right or} \\
\hline left or ho wt. 1 lb. & bade & Shpr \\
\hline Stock & Blad & Yo \\
\hline P14969 & Lengt & 19 c \\
\hline \(\times \mathrm{P} 14950\) & \(4^{\prime \prime}\) & 21 c \\
\hline P14970 & 5 " & 23 c \\
\hline
\end{tabular}

\section*{Pocket Ratchet Screw Driver}
\(\square=0\)

A handy pocket size ratcbet screw driver with cip. Insulated case in XP15233 \({ }^{*}\) long. Shpg. wt. 1 lb .


GOODELL-PRATT Right Angle Ratchet Screw Driver

Enclosed

mechanist Removism. Removable \(1 / 2\) " long. Tool is \(4^{\prime \prime}\) long. Shpg.
wt. 1 lb .
XP15232-
Your Cost

\section*{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 lugs, etc. Complete with box of
hrass evelets. Shpg. wt. 1 ib . \(\mathbf{X P 1 5 0 4 6}\)-List \(\$ 2.00\) Your Cost
\(59^{\circ}\)

\section*{Platinum Point File}

This is a special fine cut file designed for spark plugs or coils. Shpg. wt. 1 lb .
Your Cost Each.
Steel Letter and Figure Set


Marks metal, leather, wood, etc. Very handy for marking your tools. Complete alphabet and numperals 0 to 9. Shpg. wt. 7 lbs. XP14977-
s 1.49

Open End Wrench Set
 Five open end stamped the following openings: 44 ,
 Bright cadmium plated with machine screw annd arge
knurled head hold wrenches tog Shpa. wt. 2 lbs.

Open End Wrench Set


Every mechanic or automobile owner needs a good set of wrenches that will stand a great deal of pressure and ab
Set of six drop forged, open end wrenches with the following open-
 Bright cadmium plated. Red enameled holder withspring catch An excellent value. Shpg. wt. 3 lbs XP15143
\(75^{\circ}\)


Made of cadmium plated steel. Contains one each of the following
 \(7 / 8 "\). Complete with wrench, and
metal container. Shpg. wt. \(21 / 2 \mathrm{lbs}\). metal container. Shpg. wt. \(21 / 2\) I bs.
\(\mathbf{X P 1 5 0 8 0}\) \(\mathbf{X P 1 5 0 8 0}\)
Your Cost
\(39^{\circ}\)
Ratchet Brace and Bit


Steel brace fully nickel plated with wood knob and handle, finished in mahogany. Has \(10^{*}\) sweep, round knurled alligator ja w chuck with spring. Equipped with ring ratchet adjustment. Complete set of 6 James Swan auger bits in a con venient wooden box withalide cover. Finest quality steel bits in the following sizes Ratchet brace with above set of bits. Shpg. wit. 6 lbs.
XP14735-5
Your Cost......... Your Cost Ratchet brace onl Shpg wt. 4 lbs. \(\$ 1,53\)
XP14736-

JAMES SWAN Auger Bits


Of highest quality steel. Bore fast and clean without binding. Double cutters, deep spur. Six bits to set. Sizes: \(1 /\) " " \(^{\prime \prime}\) and \({ }^{3 / \mathrm{m}} \mathrm{m}\). Wood box Shpg. wt. 3 ibs.
XP14737
Your SI.79

Offset Box End Wrenches Box or closed end
wrenches that will wrenches that will
not slip off the not slip off the
nut or bolt head nut or bolt
while using.
Six wrenches with the following twelve hexagon broached open-

 with stud and wing nut to hold wrenehes. Shpg. wt. 3 lbs. \(65^{\text {c }}\)
XP15145-Your Cost...

\section*{Wrench Set} Here's a handy little itern for your tool kit. \(10-\mathrm{in}-1\) slot-lock wrench set that will take all medium size nuts in general use, either square
or hex. When wrench is or hex. When wrench is not in use they are bundle by the handy \({ }^{\text {clip. }}\) Shpg. Wt. 1 lb \(35^{c}\)

\section*{\(\frac{\text { Your Cost .............. } 3}{\text { End Wrench Set }}\)}


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 genof uine leather case. Sizes are \(1 / 3\) ". uine leather case. Sizes are \(1 / \mathrm{m}^{\circ}\). Shpg. wt. 8 oz.
\(\mathrm{XP} 15081-\mathrm{l}\)
XP15081-
Your Cost
\(15^{\circ}\)

\section*{Economy Brace}

Although this item is inexpensive, it is made to withstand hard usage over a long period of time. A worth while addition to any tool kit you may now be using. This is an excep tional value in a well made brace Rnund knurled alligator chuck, with heavy spring. Wooden knob and steel parts fully polished. Has \(10^{\prime \prime}\)
sweep. wt. 3 lbs.
Shpg.
\(\times\) P14739 List 51.00
Your Cost

XP14724
List \(\$ 1.50\)
Your Cost

\section*{G. M. Co. Hand Drills}

Finely machined hand drills with hand drills with "da" hardened chuck jaws. Accurately meshed gears.
Pollshed hollow Pollshed hollow handle for storing drills. Amuch needed tool on the radio work bench.

side knol
List \(\$ 2.00\)
\(79^{\circ}\)
Your Cost

"Stix-on'" Wrench

Angle Wrenches

Adjustable angle wrenches of high quality drop forged steel. Full polished cadmium plated. Shpg. wt. \({ }^{2} \times\) P15141- 6
Your Cost

Radio Reamer
\(\rightarrow 2\)
The handiest tool for reaming holes in radio panels, wood, light metals, etc. Length of blade 4". Will ream
holes from 18 " to \(38{ }^{\prime \prime}\). Shpg. wt. holes from
8 oz.
\(\times P 15065-\) Each


XP15065- Each
\(17^{\circ}\)

\section*{RADIO SOCKET WRENCHES}


This set will stand the hardest usage. Five interchangeable sockets. K , K , Co rit and screw driver bit. Cadmium plated. Knurled handle. Sockets easy to remove, yet will not loosen while working.
working.
Shpg. wt. 1 lb .
XP14749-Your Cost

A patented wrench that fits all nuts from \(3 / 8\) " to "/15". Jaw swings open to take nut, pressure on handle produces vise-like grip. Tempered stee construction. Shpg. wt. 1 lb
XP14936-
vour com \(\quad 15^{\circ}\)

\section*{}

Highest quality carbon tool
steel, oil tempered. The ectly fitting jaws will take up to 1/4" tap. Meet properly; open easily, Shpg. wt. 2 lbs.
XP14714-Your Cost \(25^{c}\)

Carbon Twist Drills


ASSORTMENT 9 Drills; sizes \(1 / 6^{*}\) to \({ }^{1 / / / 8^{\prime \prime}}\). Good steel; fast cutting. Correctly ground and will huld their edge. In wood box. Handy for the serviceman's tool
kit. Shpe. wt. 2 lbs. \(\times \times 14709\). Your Cost 35.

\section*{wrapped.}

Your Cost
\(32^{\circ}\)

INDESTRO Socket Wrench Set
Strongly made
wrench set neatly
finished in bright
cadmium with
black wood han-
with five hexagon
SPIN TYPE Socket Wrenches. Straight and


Offset Types


\section*{6"Straight}

XP15203-For \({ }^{1 / 4}\) " hex. nuts XP15051-For 1 " hex. puts XP15052-For \({ }^{5}\).m" hex. nuts XP15053-For \({ }^{8 / 4}\) hex. nuts XP15054-For 7 虎 hex. nuts XP15204-For 1/2" hex. nuts


XP15205.
For set of 6

XP15206- Yor \({ }^{3}\) /f \(^{\prime \prime}\) hex. nuts XP15207-For \(1 / 4^{\prime \prime}\) hex. nuts XP15208-For 5/10" hex. nuts Your Cost.
Any Size

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 . 1

\section*{9" Straight}

> XP15209-For \(1 /\) hex. nuts XP15107-For \(1 / 4\) hex. nuts XP15109-For \% hex. nuts
\(\times P 15108\) - For XP15108-For ", hex. nuts \begin{tabular}{l} 
XP15110-For \\
XP15210-For hex. nuts \\
\hline \(1 / 2{ }^{\prime \prime}\) hex. nuts
\end{tabular} Your Cost, IC Any Size 5c XP15211-For set of \(6 \ldots . . .85 \mathrm{c}\)

\section*{Offset Type}

XP15212-For 3/" hex. nuts XP1521-FFor
XP15214
XPex. nuts XP15215

\section*{}

\section*{Crescent Bent Nose}

places. Drop forged aickel plated. Handle or steady gripping.
XP15131

Diagonal Cutting Pliers


A very popular plier with all serv cemen. Sharp cutters. \(5 \%\) " long Shpe wt. 3 lbs.
\(\times P 15127\)
XP15527-Your Cost ...35
Nickel Radio Pliers


A handy all-around plier, neatly made. Shpg. wt. 3 lbs. \(6^{n}\) long. \({ }_{\text {XP15132 }}\)

dTinner's Snips Finest grade dropforged shears. 10 " long with polished blades and red enameled handles. Shpg. wt. 2 \(\underset{\text { Your Cost }}{\text { lbs. }}\)

\author{
Lineman's Pliers
}


A sturdy heavy tool. Sharp cutters with strong handles. \(61 / 2^{\prime \prime}\) long.

\section*{KLIIIS Pliers-the tinest mand}


A Side Cutting Plier. sturdy lineman's plier for use on bare or insulated wire. Has rounded nose for use in tight quarters. Sharp perfectly fitted cutting imives. Full clearance back of knife permits use on insulated wire. Shpg. wt. 3 lbs. XP15222-6" long. \$2.25 B-Oblique Cutting Pliers with Wire Stripping Notch. with Wire Stripping Notch. of a notch in the knives for use in stripping insulation. Lap joint. Narrow head. \(6{ }^{\prime \prime}\) long. Shpg. wt. 3 lbs.
\(\times\) P15233
XP15223
Your Cost
\(\$ 2.30\)

Nickel Thin Nose Pliers


A special nickel plier with lon nose. 61/2" lony. Shog.


\section*{Genuine KRAEUTER} Pliers


You owe it to yourself to own at least two good pairs of pliers. Kraeuter pliers have been acknowledged for years as being the finest pliers made. The quality will be remembered long after the price has been forgotten. Shpy. wt. each 1 lb.

\section*{Diagonal Cutting}

A-Cutting jaws of this plier come together perfectly. "They cut the insulation as well as the wire."
 Long Nose
B-A truly fine tool with a side cutting blade that is sharp, and will stay so. Gets into the places that are hard to get at XP14945- \(6^{\prime \prime}\) long. \(\$ 5.05\)

\section*{Needle Nose Pliers}
c-Furnished with an extra long finely tempered nose, for reaching into difficult places. Length, \(6^{\prime \prime}\). XP15076
Your Cost
1.20

\section*{"LAMCO'9} Work Bench Strongly Built for Garage Factory, Shop or Home Use
An excellent bench for use by the radio serviceman. It is sturdily made and will
not wobble. At this low not wobble. At this low
 price it does not pay to try to build your own bench. Sub-structure made of \(11 / 2 \times 1 / s^{\prime \prime}\) Angle-Iron securely arc welded for rigidness. Stringers are inverted to allow for nesting in of lower shelf. Fastener plates at corners for additional firmness. Slotted foot rest for anchoring to floor Top made of \(2^{\prime \prime}\) kiln-dried Douglas Fir, vertical grain. Size \(24 \times 60^{\circ}\) top \(31^{\prime \prime}\) high. Delivered knocked down. Shpg. wt. \(80 \mathrm{lbs} . S\)
XP14942-
Your Cost Each. ......
Your Cost Each


\section*{Ultico}

\section*{Steel Tool Boxes The "Utility"}

A mechanic's tool box, fishing tackle box, valuable paper box, for house hold tools and a dozen other purhold tools and a dozen other purposes. Has loose tray with movable
partitions. Heavy steel, beautifully partitions. Heavy steel, beautifuly hardware. Size \(14 \times 61 / 2 \times 6^{\prime \prime}\). Shpg wt. 6 lbs.


\section*{The "Craftsman'9 \\ The 'Craftsman'}

Has cantilever tray that pulls into cents handy to at at Made of heavy cents handy to get is with electric gauge, colush reams Finished in werially hard bured enamel es pecialy hard baked enamel, olive green in color. Has permanent embossed rule on cover. Movable tray partitions. Matched hardware with lock and key. Size \(14 \times 61 / 2 \times 6^{\prime \prime}\). Shpg.
wt. 7 ths. XP14871 Your Cost Each \(8.9^{\circ}\)

\section*{Power Sprayer}

Made to operate from the spark plug of any automobile. It will spray lacquer, paint, varnish, shellac insecticide, in act any other finely mixed freely flowing mixture or fluid. Is furnished complete with sprayer, pint jar container, spark plug air check valve, compression tank, a set of adapters for all sizes of sparkplugs. and 12 feet air hose. Shpg.wt. 11 lbs. XP14704-List \(57.50 \$ 3.25\)
Your Cost Complete.


\section*{Handy Sprayer}

Air pressure supplied by any automobile tire. Complete with glass jar, 6 ft . of hose, and adjustable spray tip. Will spray approximately four jars from one tire containing 35 Ibs. pressure. Shpg. wt. 5 lbs.
\(6)^{\circ}\)

The 'Master")
Can be used as-Tool Box; Tackle Box or as a Cash and Tackle Box or as a Cash and Bond Box. Special cantilever tray has rounded bottom and can be released from mechanism and be lifted out by hand or can be removed entirely and used separately. Size \(131 / 2 \times 41 / 6 \times 614^{2}\). Olive green finish. Shpg, wt. 3 lbs
XP15154
\(59^{\circ}\)


\section*{The "De Lume"}

\section*{TWO DOUBLE Trays with} antileyer action Particularly wited for use as tackle box or any outdoor use it is carofully ayterproofed , waterproofed. Embossed rul on cover to measure fish, etc Removable tray partitions Sturdy catches and lock with key. Size \(131 / 2 \times 6 \frac{1 / 2}{} \times 6 \frac{31}{\prime \prime}\). Green
inish. Shpg. wt. 4 lbs
XP15153
\(\$ 1.15\)

MALLORY-ELKON Auto "B" Eliminators and Replacement Vibrators


Develop sufficient unvarying " \(B\) " power for all auto sets. No rotary parts; no tubes used. Easily installed. Guaranteed. Size \(71 / 6 \times 6 \frac{5}{8} \times\) 23 ". Shpg. wt. 17 lbs.
XN14223 List \(\$ 19.95\)
Your Cost.............. \(\$ \square\) NOTE
When ordering eliminators for sets other than those listed, give make, model, number, and type of tubes and " \(\mathbf{B}\) " voltage used.



Mallory-Elkon Vibrators, due to their scientific design and careful assembly, have become the popular units in the auto radio field. They are used exclusively by a great number of radio manufacturers producing the finest auto sets on the market today. Each unit is guaranteed against defects under the R.M.A. standard warranty. In the listing below, some of the more popular vibrators are shown All are exact duplicates, and fit the chassis

\section*{Name and
Model}

Airline
Model 62
Model 118
udiola
Model S6, S7
Belmont
1932 Models Bosch
Model 150
(1st Ed.)
Model 150
Model 140
(2nd Ed.)
Model 140
(3rd Ed.)
Model 160
Model 45
Model 45
Model 79
Cadillac
Model 072
Model 072
(2nd Ser.)
Model 06W (Standard)
Model 06W
(Master)
(Standard)
exactly without any changes.
\begin{tabular}{|c|c|c|c|c|}
\hline Stock No. & Your Cost & Name and Model & Stock No. & Your Cost \\
\hline & & Colonial & & \\
\hline \multirow[t]{3}{*}{\[
\begin{aligned}
& \text { XN14533 } \\
& \text { XN14534 }
\end{aligned}
\]} & \$2.94 & Model 150 & XN14549 & \$3.23 \\
\hline & 2.65 & General Electric & & \\
\hline & & Model B40* & XP14600 & 3.23 \\
\hline \multirow[t]{2}{*}{XN14535} & 3.23 & Model B41* & XP14601 & 3.23 \\
\hline & & Model B52* & XP14602 & 3.23 \\
\hline \multirow[t]{3}{*}{XN14536} & 3.23 & Lafayette & & \\
\hline & & Model 062 & XP14603 & 294 \\
\hline & & Model L30 & XP14604 & 2.65 \\
\hline \multirow[t]{2}{*}{XN14537} & 4.41 & Majestic & & \\
\hline & & Model 66 & XP14605 & 2.94 \\
\hline \multirow[t]{2}{*}{XN14538} & 3.23 & Motorola & & \\
\hline & & Model 88 & XP14606 & 3.23 \\
\hline \multirow[t]{2}{*}{XN14539} & 3.23 & Model 61 & XP14607 & 3.23 \\
\hline & & Model 77 & XP14608 & 4.41 \\
\hline \multirow[t]{2}{*}{X X 145540} & 3.23 & Model 77A & XP14609 & 3.23 \\
\hline & 3.23 & Model 55 & XP14610 & 4.41 \\
\hline \multirow[t]{4}{*}{XN14542
\(\times \mathrm{XN14543}\)} & 3.23 & Model 55A & XP14611 & 4.41 \\
\hline & 2.65 & Model 44 & XP14612 & 4.41 \\
\hline & & Model 44A & XP14613 & 3.23 \\
\hline & & Model S-6 & XP14614 & 3.23 \\
\hline \multirow[t]{2}{*}{XN14544} & 2.94 & Model- & & \\
\hline & & All 193.4 & XP14615 & 2.65 \\
\hline XN14545 & 4.41 & Stromberg Carison All 1933 \& 1934 & XP14616 & 4.41 \\
\hline X \({ }^{\text {N1454 } 6}\) & 4.41 & & & \\
\hline \multirow[t]{2}{*}{XN14547} & 4.41 & equires spec & p & \\
\hline & & XP14617 & & \\
\hline XN14548 & 2.65 & Your Cost. & & \\
\hline
\end{tabular}

\section*{UTAH "B" Eliminator For Majestic 66}


An exact duplicate replacement eliminator for the Majestic model 66 (twin six). Contains transformer, vibrator, filter condensers and rectifier tube. Uses the new type 84 rectifier tube. Detailed instru. tion sheet precludes possibility of errors in wiring. In heavy metal container, with parts mounted in "vibration XN14232
Complete un
\({ }^{5} 5.215\)

\section*{GEN-E-MOTOR Replacement Moters}


Adaptable to practically any auto 545 now using a buzzer or vibrator type power !, upply Housed in cadmium plated case \(2588 \times 5 / 8 \times 4^{7}\) Shpg. wt. 8 lbs.
XN14201-Delivers 225 Volts at 5.1 M. A. from 6 -volt source. Drain 3.8 amps .
XN14230-Delivers 250 volts at. 00 M.A from 6-volt source. Battery drair, 4.2 amps .
Your Cost,
Either Type
s. 7.64

Motor for 32-Volt Power Supply
XN14233-Similar to above. Delivers 180 volts from a 32 -volt input. Your Cost,
Each
s. 9.70

GEN-E-MOTOR Auto "B" Eliminators Combined motor and generator operating from a 6 -volt storage battery. Can mount in exceptionally small space- \(3^{88} 8 \times 53 / 4 \times 578^{\prime \prime}\) Each complete with latest type of radio noise filter. Will carry up to \(25 \%\) overload. Is fool-proof. Employs latest type Lall-bearing motor. Shpg. wt. 17 lbs.

Taps can be provided to meet your specifications. Additional taps,
Your Cost Each Tap

\section*{Vibrator Transformer}

Combination power transformer and vibrator in one unit. Large tungsten contacts. Of full wave type (no polarity). Mounted in steel can with sponge 50 M.A. Size \(41 / 2 \times 31 / 4 \times 31 / 4^{\prime \prime}\). Shpg. wt. 6 los. XN14205-
For 6-volt input.
Your Cost
XN14206-For 12-volt inpuit
Your Cost.
s. 75
\(\$ 5.75\)


\section*{General Multi-Tap Auto "B" Power Supply}

This Multi-Tap "B" power supply unit provides smooth, quiet and constant "B" power output voltage from a 6 volt storage battery. The current drain is only 4.0 amperes at maximum output: lower for smaller loads. Taps are provided at 90 ,
 tration. Unit utilizes a type 84 rectifier to supply the necessary voltages. The vibrator Is self-contained, housed in a low resistance non-magnetic metal case. Points are oversized, insuring long life. Other features include: Electrostatically shielded transformer, both inside and out; high quality A and B chokes, electrolytic and by-pass condensers and votage regulating resistors. electrolytic and by-pass condensers and votage regulating resistors. and wiring mounted directly on the chassis which is housed in a strong and wiring mounted directly on the chassis which is housed in a strong
steel cadmium plated cabinet measuring \(63 / 4 \times 61 / 4 \times 21 / 2^{\prime \prime}\). Shpg. wt steel ca
15 lbs.
XN14252-Multi-Tap Tube Rectifier Unit, complete with Type 84 rectifier tube. List \(\$ 15.00\)
58.82 Your Cost Each.

\section*{GENERAL Vibrator Units}


Identical to those used in the above described units. Average shpg. wt. 1 lbs.

Vibrators for Tube Rectifiers XN14254-With leads
XN14255-With plug-in base. 4 -prong. Your Cost,
Syther Type. .... Vibrators (Tubeless)
XN14256-With leads.
XN14257-With plug-in base. 5-prong.
Either Type
52.94

\title{
ACCESSORTES
}

\section*{Truteat Automatic Battery Charge Rate Regulator \\ This device automatically picks up the additional drain on the storage battery and generator caused by radios or electrical appliances. The Trutest Regulator advances the charging rate of the generator by approximately 5 amperes when the set or appliance is turned on, but automatically returns generator to the original charging rate when the equipment is not operating. Thus, generator and battery are saved from being overtaxed. Easily installed, iwithout the need for any tools. Full instructions iwithout the need for any too
neluded. Shpg. wt. 2 jbs. \\ XN14258-Trutest Automatic Charge Rate Regulator. \\ }

\section*{New! SHERWOOD Master Filter \\ Eliminates Individual Suppressors}

This filter is designed to replace all resistors, suppressors or filters as used in connection
with auto radio installations. The Sherwood with auto radio installations. The Sherwood
 head only, thus eliminating the necessity for using any type of suppression on the spark plugs. Consists of eight individual coils wound into a master coil, having an A.C. resistance of 420 ohms at 3400 R.P.M. motor speed. Its distributing capacity is held to a point of .00057 this being so low as to give complete suppression of motor noises, but resonating the circuit accurately at one given frequency which is held outside the broadcast band. Constructed with solid bakelite housing that will resist heat of \(400^{\circ}\) and is moisture proof. Will stand up under continuous excessive vibration. Stands up under 30,000 -volt break down test. Shpg. wit. 8 oz .
XN14135-Sherwood Your Cost....

\section*{Vibrator}

Used in the Transitone models\(6 F, 9 F, 5 T, 10\). Contained in a sponge rubber padded cylinder so that there is absolutely no noise pick-up. Vibrator is of the full wave type with points of pure silver. Unit is of the plug-in type, with standard four-prong base. Shpl. wit. 2 lbs. XN14274Your Cost Each.
s2.79

\section*{RGA}

\section*{Vibrator for M-34}

\section*{Auto Set}

The genuine RCA Part No. 7604 used in the popular M-34 auto set. Of the full-wave type. Has large copper contact arms with
points of pure silver. The unit is mounted in a floating rubber base and is double shielded. It will pay you to keep one on hand for immediate service.

\section*{\(\times \mathrm{X} 2596\) Your Cost}

\author{
\({ }^{5} 3.00\)
}


Auto Radio Locks
Prevent the theft of auto sets. These units fit over one chassis mounting bolt, and prevent its remova until lock is opened by key. Yale locks are mounted in cast-steel casing. Black lacquer finish. Two keys provided. Fool proof. Instructions for mounting in cluded. Shpg. wt, 2 lbs.

XN14136
Your Cost Each
ve, hut of one-piece bar steel Black lacquer finish. Shpy wt Your Cost Each
\({ }^{51} .05\)

A complete line of automoblle antenmas of all types, at lowest prices, will be found listed on page 23.

\section*{Remote Con-}
trol Cables


These cables, manufactured by the S. S. White Co., are the finest obtainable. Used manufacturers as stand sel manufacturers as standard
equipment on their auto equipment on their auto
sets. Ends cannot unravel. sets. Ends cannot unravel.
Both ends terminate in both ends terminate in eter. Six sizes available Shpg. wt. 3 lbs .

 \(\begin{array}{lrrrrr}\text { XN14194 } & 14 & 50.25 & \text { XN14197 } & 38 & 50.69 \\ \times N 14195 & 20 & .35 & \times N 14198 & 47 & .85 \\ \text { XN14196 } & 29 & .45 & \times \text { X } 14199 & 72 & .98\end{array}\)

Wire Wound Igmicion Suppressors
The ideal suppressors for auto radio installations. They offer a high resistance to noise frequencies, yet permit ample flow of curof their low D. C. resistance ( 500 hms). Will not cut down the speed of any car. Housed in speed of any car. Housed in
non-hygroscopic bakelite casings: non-hygroscopic bakelite casings:
no leakage losses. Two types available: for spark plug and for XES596-Spark Plug Type. XE5297-Distributor Type. Your Cost Each Either Type


IYNCH Auto Noise Filter Designed to do the same job for the auto radio that the line home radio for the home radio. For use
in cars having one in cars having one
side of the battery side of the battery
and one side of the receiver grounded. Shpg. w
\(\times 5255\) \(\underset{\text { Xech. }}{\substack{\text { XE5255 } \\ \text { E }}} 1.47\)


XN14214

Generator Silencer
Both the generator commutator
and cut-out are sources of noise. and cut-out are sources of noise.
This noise can be eliminated by using our generator silencer.
\begin{tabular}{|c|c|}
\hline \(\times\) P14215-. mfd Your Cost Each & \\
\hline XP14216-1 mi & \\
\hline ur C & \\
\hline
\end{tabular}

\section*{Distributor Silencer}

\section*{A new and improved type} which eliminates high irequency kick-backs and noise pick-up from the ignition coil Has choke unit mounted in side the metal case, thus elim inating possibility of shorts to car frame. Shpg. wt. 3 lbs

\section*{XP14417-}

Your cost
\(75^{\circ}\)

\section*{Ammeter Condenser and} Dome Light Filter
For eliminating noise origi- Nemandich a ammeter, wiring running \(\qquad\) liminator contains choke and condenser. Ammeter condenser has no reactor. XN14218 Ammeter Your Cost Condenser.


\section*{AMPERITE for Awtos}

In the event that battery connections on an auto become loose or corroded (which very oren happens), the generator 35 volts of delivering up to nected across its terminals nected across its terminals This voltage remains high, adio set an a do a radio set. An Amperite pre. vents t
\(2 l \mathrm{bs}\). \(\qquad\) .........

\section*{Special CompactSuppressor Kits}

These "Trutest" kits employ a new and simplified type of suppressor that will make the These suppressors will fit any make car with. 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 plup suppressor for each cylinder and one distributor suppressor. XE5280-Four Cylinders. Your Cost.
Xe5281-Six Cylinders. Your cost. XES282-EightCylin-\$1.I8
ders. Your Cost
 sors for Ford V8.
Your Cost.........
\(\mathbf{I N}\)

\(\qquad\) XE5278-Single Spark Plug SupYour Cost Each ...... \(14^{\text {c }}\) XE5279-Single Distributor Sup
pressor. Your cost Each........I \(4^{\text {c }}\) Xe5253 Special Compact Type Your Cost Each
\(16^{\circ}\)

\section*{Trutest "Airplane Dial" \\ 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 ateering column. Size: 3s/2" high, \(2 \%\) " wide. \({ }^{\prime \prime}\) "thick. Can be used as a replacement control in many standard sets. Shpg. wt. 3 lbs XN14241-Remote control with lnobs and pilot light; less cables, couplers and clamps. Your Cost



Has ad justable cutter. Smooth bottom, double steel irons. Handle and knob of selected polished hard wood. Sides highly polished. Cutting blade \(2^{\prime \prime}\) wide. Length of base \(14^{\prime \prime}\). Will stand up under hard usage. Will stand up under hard usage.
Shpp. wt. 9 lbs . \(\$ \$\) XP15119-Your Cost 1.55

\section*{Pocket Level}

Guaranteed accurate. Non-freezing liquid. Nickel plated. Length \(25 / /^{\prime \prime}\) Shpg wt. 8 oz.

\section*{Expansive Bits}


A fine quality expansive bit made by C. E. Jennings \& Co. Clark Pattern, complete with two cutters, Full polished. Highly finished Guaranteed. Shpg, wt. 1 lb
XP15116 \(5 / 8\) to \(134^{4}\)
Your Cost. XP15117-7/1 to \(3 \%\) Your Cost
\(\$ 1.05\)

\section*{6 ft, Folding Rule}


Made of boxwood, finished in white enamel. Metal bound. Length 6 ft . Shpg wt. 8 oz.
XP14975- Your Cost..... \(5^{c}\)

\section*{Wood Chisel Set}


Beveled edges, honed ready to use. \(334^{n}\) blades. Leather tipped hickory handles. Set of three chisels. Sizes: \(1 / 2^{\prime \prime}, \frac{1}{2}\) and 1 . Shpg. wt. 2 lbs. XP14982-Per Set of 3.
Your Cost
\(89^{\circ}\)
Fine Quality Scratch Awls

OT=These Awls have a hardened passing through the entire length of the selected hardwood handle. Has nickeled ferrule. Blade is \(33 / 3^{\prime \prime}\) long and 61/2" overall. Shpg. wt. \({ }^{1}{ }^{\text {lb }}\) P15068 Your Cost Each........ I \(5^{\mathrm{c}}\)

\section*{Close.}

Cut

\section*{Hack Saw}

Fits where ordinary hack saws cannot be used. Frame contains a special design wave set, \(10^{\prime \prime}\) blade. Broken Hack Saw Blades may also be usped. Shpg. wt. 2 lbs.
XP15093-Your Cost
Extra Blades for above
XP15094-Your Cost for Three
"Tom Thumb" Hack Saw

\section*{Frame}

For sawing in

"tight" cor
ners this frame cannot be excelled. Complete with blade. Shpg. wt. 3 lbs. \(20^{c}\)

\section*{ICA Soldering Iron Holder and Stand}


Just the thing for the serviceman to use on service calls. Eliminates the need for waiting for the iron to cool. Just place the iron in this holdertip and barrel nest all the way inand place in tool kit. No fear of burning or scorching items near it. Also acts as stand for iron. Two steel supports fold fat against case when not in use. All metal construction, lined with asbestos material. Saves time and money Shpg. Wrt. 3 lbs.
\(\times P 15231-Y\) our Cost \(\ldots 73\)

\section*{Hand Drill}

A quality tool that every serviceman or mechanic needs. Constructed of high grade materials that insure long, unfailing serv-
ice. Geared high to drill quiekly. Drill chuck takes drills from \(1 / 16^{\prime \prime}\) to \(11 / \mathrm{m}^{\prime \prime}\). Shpg. wt. 2 lbs \(\times\) P14747-
\(39^{\circ}\)


\section*{Countersink}

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 Cost . . \(16^{\circ}\)

\section*{PACKARD Record Changer}

An exceptional value in record changers. Simplified construction makes for a sturdy compact unit that will give trouble free service for many years and also makes possible an extremely low price for such high quality. Uses a powerful dual speed motor that will play both the 78 and \(331 / 6\) R. P. M. records. Eight 10 " records may be played automatically, rejecting or repeating any record at will. Plays \(12^{\prime \prime}\) records manually. Last record repeats till switch is turned off. Entire unit is built of heavily copper plated steel with all exposed parts finished in a beautiful statuary bronze High impedance pick-up is of the new flat type with automatic weight adjustment. Very compact, requiring a space only \(17 \frac{1}{2}\) " long, 6 /2 high and \(131 / /^{\prime \prime}\) wide, making it especially suitable for a small console, Owners of portable P. A. systems will find the extreme compactness of this unit makes it ideally suited for portable use. Can be built into
a suitcase. For 110 volts A. C. other pick-up impedances or odd a suitcase. For 110 volts A. C. other pick-up impedances or odd cycles and voltages quoted on request. Shpg. wt. 30 lbs. X Y19820-List \(\$ 45.00\) Your Cost.


Coping Saw Frame Adjustable Handle
Easily adjusted to face blade any desired
direction Tighte. by turning handle. With one blade. Shpg. wt 3 lbs.
XP15091-Your Cost.
 Steel Coping Saw Elades two pin 35 above; also standard frames. Shpg. wt. 2 lbs XP15092-
Your Cost per Dozen
s26.45

\section*{Crucible Steel Files}

These files are made of hest crucible steel and tempered. Stite length desired.
XP15036 Round Bastard Files \(\begin{array}{llll}\text { Length. } 4 \mathrm{in} . & 6 \mathrm{in} . & 8 \mathrm{in} .10 \mathrm{in} \text {. } \\ \text { Cost Each 11c } & 12 \mathrm{c} & 14 \mathrm{c} \\ 17 \mathrm{c}\end{array}\) SixFor...60c \(65 \mathrm{c} \quad 80 \mathrm{c} \quad \$ 1.19\) XP15038 Slim Taper Files \(\begin{array}{lll}\text { Lenth..... } 4 \mathrm{in} . & 5 \mathrm{in}, & 6 \mathrm{in} \text {. } \\ \text { Cost Each } . . .7 \mathrm{c} & 8 \mathrm{c} & 9 \mathrm{c}\end{array}\) Six For .......40c 45c 53c XP15034-Flat Eastard Files \(\begin{array}{lll}\text { Length....6in. } & 8 \mathrm{in} . & 10 \mathrm{in} \text {. } \\ \text { Cost Each } . .11 \mathrm{c} \\ 16 \mathrm{c} & 21 \mathrm{c}\end{array}\) Six For …...62c 90c \(\$ 1.20\)

\section*{Offset Steel Scriber}

This handy item is constructed of the finest grade of tempercd tool steel. Tapers to a finely ground round point that will not lose it easy grip. One end offset for close XP14952 Your Cost. . . I? I?

\section*{Screw Drivers}

Have fine steel blades set in insulated Amberoid handies. Non-in flammable. Handles finely knurled to insure good grip. Have \(1 / \mathbf{s}^{*}\) blades for set screws, small wood screws, etc. Indispensable to the serviceman's kit. Three sizes a vailable.
XP15234- \(2^{n}\) Blade.
Your Cost Each. . XP15235- \(3^{n}\) Blade. Your Cost Each. .
XP15236-5" Blade
Your Cost Each.
Per Set of Three

\section*{Tap And Die Sets}


A handy set for the mechanic or radio set builder. In wooden box containing three dies cutting \(\frac{1}{4}, 3\), and \(^{3} z^{\prime \prime}\), with plug and hand taps to match. Also contains tap wrench and die holder. Constructed of finely tempered steel; will stand up under severe strain. U.S.S. or S.A.E. thread. Shpg. wt. 3 lbs .

XP15229-S.A.E. Thread. XP15230-U.S.S. Thread.
Your Cost, Either Type
\({ }^{\text {s }} 1.15\) XP15113-Your Cost
Extra loop blades for
Exira 139 -
Xour Cost per Dozen

\section*{Pistol Grip Hack Saw}

\section*{Frame}

Pistol Grip handle made of rubber. A very strong frame

that is adjustable to various size blades. Complete with 8 blade. Shpg. wt. \(23 / 4\) lbs
XP15137-Your Cost.
\(69^{\circ}\)

\section*{Hack Saw Blades}

Made of Tungsteel. Strictly first quality. Very flexible. Fast cutting and long lived. Fully guarantced. Shpg. wt. 1 lb .
\begin{tabular}{ccc} 
Stock & & Per Doz. \\
No. & Size & Your Cost \\
XP14965 & \(8^{\prime \prime}\) & 39 c \\
XP14966 & \(10^{\prime \prime}\) & 49 c \\
XP14967 & \(12^{\prime \prime}\) & \(59 c\)
\end{tabular}

\section*{Hack Saws \\ Adjustable frame for 8 to \(10^{\prime \prime}\) biades. Frame constructed
of nickelplate. Black of nickel plate. Black
hardwood handle. hardwood handle. \(8^{n}\) blade. Shpg. wt. 2 lbs.
\(\times \mathrm{P} 149\) \\ XP14984
Your Cost \\ \(29^{\circ}\)}


12"
49 c

\section*{Opportunities for SERVICEMEN!}

For years Wholesale Radio Service Company has made every endeavor to aid the Radio Serviceman. We have realized that his interests were our interests; that his success meant ours. For that reason we have always rendered the kind of service that meant increased profits for the serviceman.
Now after months of research and investigation in the field, we announce the creation of a Refrigerator Parts De partment . . . a Department which will double your profits!

\section*{What Does This Mean To You?}

Our investigations have revealed that there are few men better qualified than the Radio Serviceman to render Refrigerator Repair Service. You have the ability. You have the skill. You have the contacts. Perhaps you have already had requests for this kind of service in the past.

Why not service the refrigerators in those same homes where you are making Radio Service Calls? Why not be a Refrigerator Specialist as well as a Radio Expert? Here is a year round business that will add tremendously to your profits. In summer when Radio "slows down" you'll get many calls. In winter when the refrigerator may be out of use, you'll get many overhaul and repair jobs to keep you busy. There are no slack times for the Serviceman who goes into this field!

\section*{5 Million Homes Are Waiting For RELIABLE REFRIGERATION SERVICE}

The field is tremendous! 4,900,000 homes are waiting for reliable repair service; waiting to pay good money to the men who qualify! Get into this field. You are already well equipped to cash in big because of your past experience. A little study of this field plus the advice of our technical staff will go a long way toward setting you up in this profitable business!

Here at Wholesale Radio Service you will find all parts for practically every leading make of refrigerator at lowest WHOLESALE prices. You can be assured of the same high quality
of merchandise and service from this department as you have been accustomed to receiving on Radio Supplies.
Do not delay! Investigate the possibilities in this field at once. We have already done so and feel that if ever there was an opportunity for the Radio Serviceman to cash in and cash in BIG it is in the Field of Refrigeration Service.
The Pioneers in this field have made big profits. So can you! Again, WHOLESALE RADIO SERVICE COMPANY leads the way by helping the Radio Serviceman to increase his profits in 1935!





Pecked Type

Flared tube side outlet angle valve with al cap. Overall height \(3 \%{ }^{m}\).


\section*{MUELLER Angle Valves}


Packed Type
Flared tube side outlet angle valve with seal cap. Overall height \(3^{\prime \prime}\)
Stock Side Outlet Bottom Inlet Your No. Tube Size Male Pipe Cost

\section*{RE2051}

1/4" \(1 / 4^{\circ}\)
\(93^{c}\)
RE2052
\(1 / 6^{\circ}\)
\(1 / 8\)
\(1 / 0^{\prime \prime}\)
\(1 / 4^{\prime \prime}\)
\(93^{\circ}\)
\(93^{\circ}\)


Double End 3-Way Double Flare
Flare Union Flare Tee Tube Elbow Tube Stock Your Stock Your Stock Your Size No Cost No Cost No. Cost I" RE520 .06 RE737 . \(121 / 2\) RE660 .071/2 " RE521. 06 RE738 . \(141 / 2\) RE661. 10 - RE522 .08 RE739 . 15 RE662. 11 \% RE523 . 10 RE740 18 RE663 18 \begin{tabular}{llllllll} 
RES25 & .15 RE742 & .28 \\
\hline
\end{tabular}

The Mueller Brass Co. are recognized pioneers in the manufacture of high class valves and fittings. Valve bodies, tees, nuts and elbows are of forged brass. Union couplings, etc., are machined from drawn brass rod. Forgings are made of dies under terrific pressure for extremely dense non-porous structure, thus eliminating seepage and the dangerous results of refrigerant leakage. All fittings conform to the standards of the Refrigeration Valve and Fitting Association as to thread tolerance, material specification, length, and size. Although we have listed practically every fitting usually called for, we have available many other types. If you do not see it listed here, do not hestiate to call on us.
\(150 \%\) discount In assortments of - 10 lline Fittings. Group your orders and save.

\section*{Compressorvalves}

MUELLER Back-Seating Compressor Valves


\section*{Exposed Type Stem}

Mat faced flange, \(1 / 4\) thick. Bolt holes drilled \(H^{\text {dita. }}\) dia. \(12 / 4\) cen-
ters. Overall length \(4 \%^{* /}\), stem
 tap.
\begin{tabular}{|c|c|c|}
\hline Stoek & Mueller & Flare Conn. \\
\hline No. & No. & Tube Size \\
\hline REECOL & A-11034 & 1/2 \\
\hline RE1603 & A-11035 & \\
\hline RE1c05 & A-11016 & 15" \\
\hline Any typ & & \\
\hline
\end{tabular}

Flat faced flange, \(1 / z^{\prime \prime}\) thick. Bolt holes drilled \(H^{\prime \prime}\) dia. on \(15 \mathrm{~s}^{\circ}\) centers, Overall length 35*. Stem square \(16^{\prime \prime}\). \(16^{\prime \prime}\) female pipe gauge tap.
Rtic

Flat faced flange, \(1 / /^{\prime \prime}\) thick. Bolt holes drilled \(H^{\prime \prime}\) dia. on \(1 \%^{\prime \prime}\) centers. Overall length \(\mathrm{Es}^{*}\). Stem quare \(1 /{ }^{\prime \prime} .1 y^{\prime \prime}\) female pipe gauge REP.

A-11032
RE1633 A-11012
Any type
Your Cost, Each.
RE1G3: A-11033
Your Cost
Flat faced flange fithick. Bolt holes drilled \(H^{\prime \prime}\) diameter on \(13{ }^{\prime \prime}\) centers. Overall length 4 dic \(^{\circ}\). Stem \({ }^{\text {g }}\) quare \(1 \mathbf{N a}^{\prime \prime}\). \(1 /{ }^{\prime \prime}\) female pipe gauge tap.

Whth Seal Cep Fat faced flange, \(1 / 2^{\prime \prime}\) thick. Bolt holes drilled H" dia. on \(1,3 /^{\prime \prime}\) censquare \(1 / 4^{*}\). \(1 /\) " \(^{\prime \prime}\) female pipe gauge tap.
RE1611 A-11173
RE1613 A-11176
\begin{tabular}{l} 
Bither type- Each... \\
Your Cost, \\
\hline 15
\end{tabular}
KEROTEST Comprossor Valve with Exposed Type Stom


\section*{KEROTEST} Evaporator Valve


With Ammonia type gasket joint- Keep evaporator valves free from Overall length \(3 \mathrm{j} \mathrm{s}^{*}\); stem square
,
\begin{tabular}{|c|c|c|c|}
\hline & Kero- & Flare & \\
\hline Stock & \[
\begin{aligned}
& \text { Aero- } \\
& \text { test }
\end{aligned}
\] & Tube & Your \\
\hline No. & No. & Size & Cost \\
\hline RE2511 & 2201 & \(16{ }^{\prime \prime}\) & \\
\hline RE2S13 & 2203 & 3160 & \\
\hline RE2515 & 2205 & \(1{ }^{\prime \prime}\) & \\
\hline
\end{tabular}

\section*{\(1 / 4\) Male Pipe side Outiot}
\(\qquad\)


Stock Kerotest
No. No. Inlet Your RE2523 2161 s/idia. 18 ( \(\$ 1.03\) threads per RE2522 2162 1/" F.P.T. 1.03
The bove can be furnished iectre-tin plated at .15 each additional.

\section*{MUELLER Evaporator Valve Strainers}
 oreign matter. The fine mesh phom phor bronze screens prevent all solid matter from passing thru the liquid line to the evaporator valve. Thrse strainers are good insurance against clogyed evaporators. The lour types shown here are designed to fit most refrigeratora


\footnotetext{

Fittings present of remarkable saving of time and labor assuring an 5 absolutely tight connection stronger than the tube itnelf. After 5 the tube and fitting have been cleaned and flux applied, the tube is 5 slipped into the fitting. The gradual taper of the fitting forms a 5 seal making it imponable for solder to flow through. The wire 5 solder is fed through the convenient feed hole while the joint is 5 uniformaly beated with a torch. A bright ring of solder imme5 diately shows around the end of the fitting and the job is done. - You now have a perfect leak and vibration proof joint.

}

\section*{DRUM VALVES}

A small service drum valve. \(2^{\prime \prime}\) verall height nectlon \(1 /{ }^{\circ}\) maje taper pipe: outdoor connection \(\mathrm{yf}^{\prime \prime}\) female pipe.
RE-3000
1.32

\section*{\(165^{\circ} \mathrm{F}\). Stock No.}

KEROTEST Small Service Drum Valve
Full open height 3 咅* Stem square ". Tank
connection pipe. Outlet connection \(11^{\prime \prime}\) female pipe. Type 812 is equipped with a fused metal safety plug which clowes at
aE3003 811 None \(\$ 1.32\)
RE300 \(812 \quad 165^{\circ} \mathrm{F}\). 250

\section*{Tank Fitting}

For adapting outlet connections of large gas drum valves for convenient use with copper tubing.

Stock Kero. Tube Your Cest No. No. Size Ench Type RE3013 K1-1 160 ?
\(\begin{array}{lll}\text { RE3013 } & \mathrm{K} 1-3 & 3 / \mathrm{m}^{\prime \prime} \\ \text { RE3014 } & \mathrm{K} 1-5 & 1 / 2^{\prime \prime}\end{array}>0\)

\section*{Streamillae Caplings \\ }

Copper to Copper


\section*{JTREAMLINE FITINGA}

MUELLER streamline fittings for refrigeration, gas, oil, air and vacuum lines are vibration proof, leak proof. Have sealed connections without nuts or flares. For further description see above.

Streamline \(90^{\circ}\) Elbows


\section*{Rubberized Door Seals}

Made of No. 1 cotton wick covered overall with a strong rubberized fabric cover. Especially developed for relrigeration work. Odorluss, will not mould nor will it be a source for fungus growth common in the life of light weight seals. Concealed edge with double stitch. Stock No

 RE4233 RE4203 RE4236 RE4206 RE4237 RE4207
\(\begin{array}{lllll} & 3 / 3 & .05 & 3.15\end{array}\) ing 1000 feet or more

\author{
NOTE
}

We can supply double cushion, low temperature and all rubber door gasketing in numerous shapes and slizes. A sample or - shetch giving dimensions are all we need to be able to quote on. The saving In purchasing long lengths should be given consideration In view of the fact that so much of this material is being used.

Rotary (COOKE) Replacement Seals


A standard replacement unit for the makes shown below. Consiats of gland plate, gasket and rotary seal assembly. These units are exact replacements for the refrigerators specified.
Stock RE7250 Kelvinator and Copeland RE7252 Fngidaire
Any type
Any type
Lots of 12-Your Cost, Ench
Servel \(1^{\prime \prime}\) Bearing. \({ }^{3 / 4}\) Shaft Dia RE7253 - Your Cost
Lots of 12-Your Cost, Each

MAYSON Expansion Valves
A low priced expansion valve. Rugged and simple con-
struction. Valve struction.
needie is steltite tip and seat made of stainless steel. For use with Sulphur Haside. The Methyl Chloride valves have Hastelloy Tip needles and Monel metal spats. Perfect aiignment of the needle point at all Pimes eliminates chatter or possibility of damsitive outside adjustment Non-corrosive stainless steel springs contain in a forged brass body. The non-corrosive materials used Shaft throughout assure tight shut of and lasting Dia. operation.
tube inlet.

REW100 1~Fema REW101 \%" Female I.P.T. \(\$ 3.50 \begin{aligned} & \text { REW101 } \\ & \text { REW102 } 1 \rightarrow 8^{\circ} \text { Frange }\end{aligned}\)
53.00
\begin{tabular}{l|l}
\(\mathbf{S} .90\) Any type- Each. \\
4.20 & In lots of silx, each
\end{tabular}

Refrigerant Sulphur Dioxide Methyl Chloride Sulphur Dioxide Methyl Chloride
\(\$ 3.20\)
\(\$ 3.00\)

\section*{FEDDERS}

\section*{Dehydrators}

Consists of a brass cylinder with filter cells at each end and space between with a liberal charge of standard drying agent, if ordered charged. If supplied uncharged, one end cap is soldered to the body and the other end cap left unsoldered for easy ingertion of drying agent. Uncharged dehydrators are supplied complete with filter cells. Both types can be easily disassembled for insertion of new drying
small size-Lsth. \(41 / 4\) Overall
Stock Tube Your No. Size RE3251 \(1 / \mathrm{m}^{\prime \prime}\) (uncharged) 1.43
Large Size-Lgth. 81/8" Overall
RE3253 1 " \(^{\prime \prime}\) (charged)
2.48

RE3254 1" (uncharged)
1.71

Screen and filter pad for above
dehydrators.
Anhydrous Calcium Chloride
A high grade drying agent to be used in filling or refilling dehydraRESS. 1 lb container.
\(65^{\circ}\)

\section*{Float Valve Needle}

Made of stainless steel shank and stellite tip of diamond point hardness, and is not subject to wear, corrnsion or erosion.
RE7200 For Kelvinator unitsPart No. 9101-
Your Cost
\(50^{\circ}\)
RE7201-For Frigidaire Un
Part No. 96841.
Your Cost
\(50^{\circ}\)


Cortridge type needie seat assembly for Fedders Float Valve. Can be used on Mullins, Norge and other types of flonded evaporators. Part No. ER-7875. \$1.25

\section*{FEDDERS Automatic} Expansion Valve


For all refrigerants except a mmonia, carbon dioxide, range 20 inche vacuum to 15 lbs. pressure. Moisture proof, forged brass body Length overall 3 . Standard in let \(H^{\prime \prime}\) S.A.E. on valves. With 1 and \(3^{\prime \prime}\) F.P.T. outlet any standard fittings may be used.
Stock No. Outlet Your Cost RE332S
RE3326
1/F.F.P.T. RE3326

Repiacement Parts for Fedders Automatic Valves Needle and Collar Assembly \(60^{c}\)
RE3370-Your Cost RE3370-Your Cost Needle Seat Nee3371-Your Cost
Strainer
Strainer - Your Cost
\(35^{c}\)
\(35^{\circ}\)
"Gemulne DETROIT"
AutomaticEmpancionValve No. 672


For sulphur dioxide, methyl chloride, ethyl chloride, freon or any teirigerant not detrimental to brass Range: \(25^{\circ}\) vacuum to 15 lbs. pressure. Can be furnished with spring for higher pressure on special order Soldered connections render valve gas tight. Moisture proof. Standard fittings may be used on valv with \(]^{\prime \prime}\) F.P.T. to give other out lets.
Stock N
Outle
RE3380 \(3^{\prime \prime}\) S.A.E
RE3381 1/2" S.A.E.
RE3382 为" F.P.T.
RE3383 \(2^{\prime \prime}\) center crosswise flange
center lengthwise
flange.
Any type- Each.
\(\$ 4.50\)

\section*{UNITED Dehydrated and Deoxidized Seamless Refrigeration Copper Tubing}
U. D. D. Copper tubing is made of the very highest quality by special manufacturing process to meet the strict refacturing process the refrigeration trade. quiremen confure this tubing with the unknown and gegeral usage tubing on the market at gegeral prices. Every conmarket at lower prices. Every continess and dryness have been given this tubing in the have been given thion. You probably know the drastic results which result in the use of inferior tubing. Made to A.S.T.M. specification No. 8-68-30T. Ends are sealed, stamped and soldered. Wall thlekness, 035 gauge.
\begin{tabular}{|c|c|c|c|c|}
\hline Size & Wt. 20 Ft . & Your Cost & Wt. 50 Ft . & ur Cost \\
\hline O. \({ }^{\text {D }}\). & \({ }_{76}\) Coils & \({ }_{50}^{20.50}\) & Coils & \$1.20 \\
\hline * & . 30 lbs . & & 3.25 lss . & 1.56 \\
\hline - & 84 lbs . & 86 & 4. 72 libs. & 2.15 \\
\hline - & 2.38 lms & 2.08 & 45 lts . & 2.46 \\
\hline * & 90 lbs . & 1.28 & 7.25 lbs . & \({ }^{3.17}\) \\
\hline \({ }^{3} 6\) & . 42 lbs . & 250 & 8.53 lbs . & \({ }^{3.78}\) \\
\hline & 3.96 lms . & 1.68 & 9.90 lls . & 3.79 \\
\hline
\end{tabular}

Considerable savings are to be had in quantity purchases. Deduct: \(10 \%\) in lots of \(10-19\) lbs. ; \(20 \%\) in lots of \(20-49\) lbs. ; \(\mathbf{2 5 \%}\) in lots of \(49-99 \mathrm{lbs}\).


\section*{-}

FEDDERS
Line Filter
Provides an efficient trap for tube scale, compressor chips and other foreign matter which find its way into the liquid refrigerant or oil. Construction consists of fine mesh phosphor bronze with a layer of heavy white felt between preventing solid matter from passing thru liquid line to float or expansion valve needles. Complete with forged flare nuts.
\begin{tabular}{|c|c|c|}
\hline Stock No. & Tube Size & Your Cost \\
\hline \[
\begin{aligned}
& \text { RE3200 } \\
& \text { RE3201 }
\end{aligned}
\] & \[
\frac{1 / 40^{\prime \prime}}{3 / 88^{\prime \prime}}
\] & \\
\hline Replace above. RE3205 &  &  \\
\hline
\end{tabular}

Replacement ilter screen for
above filters. above filters. RE3206-Your Cost

\section*{Wquid Line Scale Trap}

Operating valve protection is assured by using this trap especially where maximum strainer area is required and where the refrigeration system contains an excessive quantity of chips and foreign matter. Supplied with heavy forged flared nuts and copper seal bonnets at no additional cost.

RE3218-
\(84^{c}\)
> conemunOTEusmune
> Due to the fuctuation of the market in Copper Prices, prices on copper tubing are subject
change without notice. We can supply for limmedlate dellvery electro-tin outside, pure tig inside and outside copper tubing. Prices will be furnished on request. Seaiedend Seamless construction.


HORN'S

10Porcelain Patch
A white liquid cement which hardens with a body. color and lustre similar to porcelain or enameled iron. Repairs chipped parts like new, welds cracked seams in linings, cements name plates without drilling and when used as a gasket prevents rust runs. 2 oz. tubes.
Re3ses-Tube of light white RE3987-Tube of medium white RE39s -Tube of dark white. Your Cost.
Eleh
\(23^{\circ}\)
RE3985 Kit containing one tube each light, medium, and dark white.
Your Cost
\(75^{\circ}\)

\section*{Seam Filler}

RE339 - \(1 / 2 \mathrm{lb}\). packaze of Hy drolene.
RE3991-2 1b package of
lene. \(50^{\circ}\)
Your Cost

\section*{Litharge}

Unequaled for making a cight, permanent joint as for fittings in manifold tube, etc. 1 lb. con tainer.
RE3Scs Your Cost
\(22^{\circ}\)

\section*{All Metal Flexible Charging Hose}

\section*{-sinhos-}

Suitable for use with all retrigerants which have no corrosive action on brass. Spiral coil type hose of continuous seamless brass tubing protected by doublebraided copper on outside. Outlet connection made of copper tubing which can be reflared several times. Also repleced when necessary by eoldering in a new piece. Stock No. Length Your Cost RE3910


\section*{HELLER Automatic Tacking Machine}

For attaching gasket to refrigerator doors. Rust prool and guaranteed for one year if Heller staples are used.
RE3925-Your Cost.
87.50

Heller steel staples. Package of
(5.000. \(\mathbf{R} 26\)-Your Cost ..... 52.50 Heller copper tin-plated, rust proof staples. Package of 5.000 RE3927-Your Cost.
53.00

\section*{Soldering Material}

Solder flux brush.
\(15^{\circ}\)
RE3955-Your Cost
Mueller No. 50 streamiline nolder
 Mueller No. 50 non-corrosive streamline solder flux
\begin{tabular}{ccr} 
Stock & & Your \\
No. & Size & Cost \\
RE3957 & 2 oze can & so.15 \\
RE3958 & 8 oz. can & .50 \\
RE3959 & 1 lb can & .85
\end{tabular}

\section*{Official Refrigeration Service Manual}


Servicing an electric relfigerator is absurdly simple once you get the "hang" of it. In this Refriger ation Manual every part is carefully explained diagrams are furnished of every known machine: special care given to the servicing end. The tool needed are illustrated and explained; there ar trouble shooting charts, and other service data. Over 1,200 diagrams; 450 pages: \(9 \times 12^{\prime \prime}\). flexible loose leal cover. RE19904 - Your Cost
\(\$ 4.00\)

\section*{Principles of Refrigeration}

A Complete lihrary on refrigeration. The work is in everyday language. With this book the practitioner is enabled to intelligently dexign or operate refrigerated machinery. The theoretical and fundamental operating principles are given attention first. This is followed by numerous practical considerations and the application of the fundamental principles to the economic produetion of ice and refrigeration for various purposes. Over 1.000 pages. Profusely illustrated in a cloth binding.
Your Cost
\(\$ 7.50\)

> We carry a complete stoch of standard parts and equipment Tor the Refrigeratlon Industry, such as, Ho Hsehoid Evaporators, Commerclai Evaporators, Automatic Expansion Valves, Thermostatic Expansion Valves, Fllters and Dehyarators, Paekless Valve, Gaskets, Door. Gaskets, Dehydratad and Plain Copper Tubing, Vaives and Fitthgs, Water Valves, Controls, Gauges, Brushes, Belts, Thermestats, Tools.


\section*{Tube Cutter}

Hand tool for cutting tubing. making a clean, fast, right angle cut without burrs or chips. Leaven tubing round ready for flaring. Has reamer on bottom. RE3Gso for tubing in to and Your Cost
\(\$ 2.50\)
Re3cel above but without reamer. For tubing 't to and including \(1^{\circ}\) outside diameter.
\(\$ 3.50\)
RE3G43-Extra cutting wheels for above tube cutters.
Your Cost

. 50.25
RE3GM-Extra reamer bladea for RE3Gs0. Your Cost . . \(\$ 0.25\) REscas-Extra cutting wheel screws for RE3640 and RE3641. Your Cest
. 50.08

\section*{Refacing Tool}

Refaces seat
of fttings and assures a tight leak proof joint. Reamer
has 5 flutes has 5 flutes smooth cut and eliminaten chattering Takes adapt
ers for 5 different sizes of coup lings. \(1 / 0\) th, \(3 / 8, \frac{1}{5}, 14^{2}\). Complete with adapter
REBemo
Your Cost
Rearmer only
Reamer only
RE3681-
Your Cost
Adapters only. Specily size
Re3ce2-

\section*{Automatic} Tube Cutter

Cuts copper, brass, block tin, and lead tubing. Makes right angle cut quickly and cleanly. By adjusting tension spring, cutter will feed automatically. For tubing \(1 / /^{\prime \prime}\) to and including outside diameter. RE364S:
82.25

Your Cost
Extra cutting wheels for above.
RE3647-Your Cost . . . . . . 50.25
Extra cutting wheel screws for above.
RE3648-Your Cost ....... s0.08

\section*{Reseating or Refacing Tool}


Has a harded 7-tooth which will reset or reface
fared fitting ends that have become marred or scratched. Complete with one bushing of the lollowing sizes: \(y^{\prime \prime}\). \(\mathrm{A}^{\prime \prime}\). \({ }^{3} "^{\prime \prime}\), \(1 / 5^{\circ}\). \(3 \mathrm{~h}^{\circ}\). Specify size wanted. WEset5-Your Cost S? Bushing only. Specify size RE3ces-Your Cost.

Pinch-Off Tool


Will quickly pinch copper, brasa and aluminum tubing so that no gas or liquid will pass sealed part of tubing. Disconnects the liquid or gas line while making repairs or installations without losing any of the refrigerant. Opens up any of the relrigerant, Opens up ready to operate. For tubing \(1 / 6\) is and \(3 / \mathrm{s}^{\prime \prime}\) outside diameter K 5625 .
\(\$ 1.85\)
RE3626 - Same as above but has hex. head bolt instead of bolts with wing nuts. It does not have the extra extension of the Your cost
\(\$ 1.25\)

\section*{Tube Bender}

A specially prepared spring wire coil, cadmium plated to prevent rusting. With this it is a simple matter to bend tubing by hand to any desired shape without coilapsing the tube. The belled end assures easy removai of tool after bend is made. Overall length of tube bender \(71 / 2\)


Set of Six, 1 each of the above REseso
Your Cos

\section*{an}

\section*{Reversible Ratchet}

Made from chrome alfoy steel with yin square drive. Light thumb preasure on easily accessible switch will instantly reverse ratchet ae tion. Bright satin finish with pol ished head. Length \(6^{\prime \prime}\). \$1.35

\section*{Flare Nut Wrenches}


Made from fine quality tool sted, chrome plated to \(a\) high permapent lustre.
Re3772 \(6^{\circ}\) long with openings to accommodate \(\mathrm{K}^{\prime \prime}, 1^{\prime \prime}, \mathrm{A}^{\prime \prime}\), ¹ " \(^{\prime \prime}\) and accommodate \(3 / 2^{\prime \prime}\) flare nuts. \(1 / 4\). N. and one \(1 / 2\) " flare nuts

\section*{Your Cest}

Nes77s-7 \(7^{\circ}\) long with openings to accommodate \(38^{\prime \prime}\) and \(\%\) "flare nuts.
Your Cose
\(50^{\circ}\)

\section*{Commutator Resurfacers}

Made from an artificial abrasive block consiating of the hardest dialectric grain known, not the ordinary stone often used for this purpoee.

RE3915-Size \(6^{\prime \prime} \times 1 / /^{\prime \prime} \times 1 / 3^{\prime \prime}\).
Of medium hardnese for removing mica or a small amount of copper from commutator
RE3916-Size \(6^{\prime \prime} \times 16^{\prime \prime} \times 14^{\circ}\)
With finer krain, recommended for general work on fractional h.p. motors. Can be used for cutting mica and cleaning and poliahing commutator.

Your Cost Eech-
Either Type
\(75^{\circ}\)

\section*{12-Point Box Wrenches}


Drop forged from Chrome Vanadium Steel, these wrenches combine lightness in weight with exceptional strength. Both ends are of -eet and have differen openings in each end. Heada are buffed and wrench is plated to a high permanent lustre. Oval handles, double hexagon openings.

Stock
No. Length Opening Your

detects leaks of chlorinated hydro carbon refrigerants including methyl chloride, ethyl chloride, trichlore-ethylene, methylene chloride, careene, and freon. The detector is an alcohol-burping blotoreh with a special burner housing which syphons air through a rubber tube. When the end of the rubber tube is held near a leaky joint the ras is drawn into the burner. The fame instantly changes from blue to green. An efficient blotorch lor general service work. Cavacity one pint. \$5.1
RE3950-Your Cost

\section*{TURNER Handitorch}

A real blow torch in miniature. This is an automatic preasure torch with a standard type flame control and shut-of vaive, having a needle point which automatically clears the gas orifice each time the valve is clomed. Develops a hot blue flame which fully meets the requirements of mechanical, bench and laboratory users. if pint capacity polished brass tank with bottom filler. REW200-
\$1.25


\section*{Your Cost}

\section*{SHIMS}

Fibre thrust washers or ahims are used in all motors wo cuntrol the end play of the rotor or armature. The proper size to fit Delco, Century, Wagner and Emerson as used on electric refrigerators is kiven below for your convenience


\section*{Set of Three 12-Point Box Wrenches}


Conaists of one each No. RE3750, RE3751, RE3753 Box Wrenches described above, packed in strong cardboard box
REs7ce.
Your Cest
31.30


\section*{Straight Wrench}

\(21 / 2^{\circ}\) long with A" square opening with small refrigerant drum valve stems.
RE37es-Your Coet.
IO \({ }^{\circ}\)

\section*{Open End Wrenches}

\section*{Set of Six 12-Point Box Wrenches}


Conusts of one each RE3754RE3759 inclusive, Rox Wrenches described above, packed in strong cardboard box.
VE3761
Your Cost
-3.35

Chrome vanadium nteet, switch Cdjusting vrench for Fripidaire Hea vily plated and polished. Length \(4^{\circ}\), openinge \(1^{\prime \prime}\) and \(\mathbf{n}^{\prime \prime}\).
NE37e- Your Cost
\(35^{\circ}\)
Open end wrenches manufactured from high quality tool ateel, hea vily plated to a high permanent lustre.

\section*{Stock}

No. Leth Openings


 nEs773 \(51 / 20-11 / 2^{\prime \prime}\) \&


\section*{TURNER Blotorches}

Has a heavy improved burner which devel-opsanextremely hot blue flame and will give hixhly efficient service without clogging. Pump Init is sturdy and brass tank has a pollshed finish. Capacity one quert.
RE3951-
Your Cest
\(\$ 3.25\)

\section*{FEDDERS} Special Wrenches


Used for insert ing Fedders cartridge type metal seat assembly in the
Fedders float header. Has a 3is socket and outside diameter is specially ground to b/ outside diameter for insertion in header, reces or well.
RE3703-Your Cost S.20

The T-handle hex. wrench has the wrenen has the
ends of the hanends of adapted for opening and closing valve stem in liquid and suction valves on domestic and commercial flooded units. Hexagon opening in the end is used in removing and replacing bolts or detaching valves from header of cooling units and also removing beader flange bolts.

RE3701-
Your Cost
81.40

\section*{Ratchet Wrenches}

Compact and light in weight. Overall length \(6^{\circ}\). In addition to the regular broached openings at each end of the and 1 opening \(44^{\prime \prime}\) has been provided to ccommodate the valve stem of small refrigerant cylinders. The 1. " hex on one end of the vrench will accommodate standard fe cap serew used to install shut-off valve compressors header valves on flooded type units, motors on flooded \(y\). Retchet is marked on and off.


ALLEN Set Screw Wrenches
Stock No. Size Blex Your Cost RE37家 REW201 REs7ts
RE3740
RE37s1

\section*{REFRICHATOR PARIS}

\section*{Interstate Commerce Commission Regu－ lations Regarding Refrigeration Cylinders}

I．C．C．regulations specify that refrigerant cylinders must be officially tested every fue years．If the test date on the drum（usually shown below serial number）is more than five years old，the drum must be etested by local authorities before being used for shipment．Cylinders rill not be refilled if the test date is more than five years old．

\section*{－baprochrailine}

\section*{＂ANSUL＂}

\section*{Methyl Chloride}

Do not let price be your guide when purchasing refrigerants． Untold grief has very often been the result of using unknown stable and non Methyl Chioride is metals．Has low head pressure metals．high operating efficiency． and high operating efriency．
Used in many types of units both commercial and domestic for al－
mont all kinds of food and indus－ trial refrigeration． Stock
No．
\begin{tabular}{llrr} 
REA130 & 3 lbs. & \(\$ 3.50\) & \(\$ 2.64\) \\
REA131 & 6 lbs & 6.00 & 4.38 \\
REA132 & 15 lbs & 10.00 & 8.70 \\
REA133 & 40 lbs. & 20.00 & 21.20 \\
REA134 & 60 lbs. & 20.00 & 28.80
\end{tabular}

Ethyl Chloride
Your
Cost RE4140 1－10 lbs．\(\$ 0.75\) REA141
RE4142
1100 102 lbs.
RE4142 100 lbs．
＂Ansul＂

\section*{Sulphur Dioxide}

You cannot be careful enough in your choice of Sulphur Dioxide． This refrigerant which we supply is made by Ansul，one of the larg－ est and oldest producers of the highest grade refrigerants．Do not be mislead by lower price，
inferior products．Scientifically inferior products．Scientifically dried through a four stage de－
hydrating system．Ansul contains the minimum of moisture，is free of any impurities and can be charged directly into a refrigerant unit．Every cylinder is individu－ ally analyzed for dryness and purity．All valves are cleaned and tested before each filling．


\section*{Portable Three} Thermometer Panel


This device placed on top of re－ frigerator shows the temperature of coil box and room．No instal－ lation labor，no alteration to cabinet or drilling of holes RE3900
Your Cost
\(\$ 7.00\)

Gauge Testing Outfit KEROTEST type 413

＇Chis outfit has a wide variety of uses such as－Purging air or gas from High Side：Charging oil in Low Side：Testing Low Side for Leaks：Setting Low Side Con－ trols：Charging liquid gas in High Side：Charging gas into Low Side： Setting Expansion Valves：Purg－ ing gas from gauge lines，etc．All flared connections are for \(1 / 4^{\prime \prime}\) O．D． Copper Tube．
RE38s0－less gauges \(\$ 3.12\)
Your Cost，

\section*{Carbon Tetrachloride}

Priced slightly higher than the ordinary grade of cleaner but this is the higheet grade available．Used for cleaning compressors，refriger－ ator fittings，tubing，gas tanks，etc． Dissolves grease and oil quickly and thoroughly．One gallon cans．
RE3975－
Your Cost
42．25
Refrigerant Cylinders
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|r|}{Seamless steel．Bears I．C．C． stamp．Diameter 4＂．Length 12＂．Capacity 3 lbs．Methyl Chloride or 5 lbs．Sulphur Dioxide．Price complete with valve．} \\
\hline & \begin{tabular}{l}
RE4060 \\
Your Cost \(\qquad\)
\end{tabular} \\
\hline \multicolumn{2}{|l|}{Yenexm NOTE Mranco} \\
\hline & Note：Cylinders are accepted for credit If returned within 90 days from date of sale in good condition．Charges must be prepaid．Cylinder caps and valve outlet caps must be re－ turned with empty cylinders， otherwise charge will be made for them． \\
\hline
\end{tabular}

\section*{TAYLOR Pocket Thermometer and Refills}

These Etched－stem．Glass Ther mometers are reliable．Heavy－wall glass in bulb and large diameter glass stem gives strength，large diameter capillary gives high visibility，firmly fastened in metal screw caps．Strong metal cases convenient to carry give perfect protection．Red Spirit－filled easy－ reading thermometer with etched scale minus \(30^{\circ}\) to plus \(120^{\circ} \mathrm{F}\) ． especially adapted for use where visibility is poor．Complete with single case．
RE3882
Your Cost
\(80^{\circ}\)
Extra Red Spriti Refills only

\section*{RE3 54}

Your Cost Magnifying lens front，red read－ ing mercury，double case
RE3887－
\(\$ 1.35\)
Your Cost
Magnifying lens front，red read－ ing mercury，refill only．

RE3888－
\(90^{c}\)

\section*{Small Motor Bushings}

The genuine phosphor bronze bushings listed here are for service replacement on refrigerator motors most widely uspliance work．Oil grooves are added to these bushings for two purposes，either to direct or restrict the oil flow．Both results should be accomplished with as little grooving as possible，so that the oil him
which is built up by motion is not broken which is buit up by motion is not broken．The grooving on these \(10 \%\) discounts in lots of 12 or more．
Stock
No．O．D．1．D．Length H．P．Type \＆frame Your
CENTURY Cost
REL6 H H \(11 / 3 \mathrm{FI}\) ．wick \(1 / \mathrm{B}\) to \(1 / 2\) RS，DM，M7X－M8X－L． REL7 1 亩 \(1 / 21\) MFl．wick \(1 / 1\) to \(1 / 6\) RS，DM，M5－6．DM7－L． 5.28 REL11 1 it H 2FI，wick \(1 /\) tol RS，SC RSI，RM10LX REL22 1 而 \(\mathrm{H} 21 / 3 \mathrm{Fl}\) ．wick \(1 / 1\) to 1 RS PS1，SCIS
 REL30 1 I 2 FF．ring \(1 / 2\) to 11／2RS，SC RM10LX

 REL37 1 H1 2 FFI．wick 1／8to 1／6 SP

\(\begin{array}{ll}1 \% 1 \\ 1 / 4 & \text { to } 1 / 5 \\ \text { DC }\end{array}\)
DAY FAN
BL447
LELCO
.30

REL2 H 3／ \(1 \mathrm{k} / \mathrm{Fl}\) ．AC－DC 3105，3168－9
REL3 H H 1 ＋Fl

\(\begin{array}{lll}1 / 1 / \text { to } 1 / 3 \text { AC－DC } & 3105,3168-9 \\ 3103-04-45-50\end{array}\) 6 DC－AC \(\begin{gathered}60,3411-12 \\ 3116-3140\end{gathered}\) Hoto \(1 / 1 /\) DC－AC \(\quad 3349-50,3480\) ， 3705 40， 0 \(3705,4060,4089\),
\(4125,4135,4258\), \(4125,4135,42\)
4294,4300 GENERAL ELBCTRIC
RELS K／3／2 1 K／4


REL49 13／ 1 2 6 FF1．
REL52 \(11 / 63 / 61 / 6 F 1\) ．
REL48 1 亩 \(2 / 1\) HFI．

Cartridges，specify if for sulphur dloxide，methyl chloride or paint，organic or acid fumes． ar．
 Waterwhite oils refined until Iree from impurities．Will not react with the refrigerant to form gum，carbon when used with refrigerants such as sulphur dioxide，methyl chloride， and others．For small machines operating with sulphur dioxide
refrigerant．

Protection against fumes，sulpher diox－ ide，methyl chloride， ridge with absorb－ ents purifies incom－ ing air．Flutter type permits natural easy breathing and will not clog or leak． Body of brass cad－ mium plated．All parts of this masly can be dis－ mounted for cleaning．Supplied without goggles or with sir tight rubber goggles attached．Furnished with one extra cartridge，complete in metal case．
Your Cost REw－With Goggles．Each， 57.00 REW－Cartridge only．Each， 50.40 RE333s－Pencil for cleaning lens． Your Cost ．．．．．．．．．．．．．．．．\(\$ 0.25\)

At last it has been made possible for those actively engaged in the refrigeration trade to obtain complete and accurate listings of all compressor parts for Frigidaire refrigerators.
These parts include: pistons, piston pins, piston rings, piston valve discs, flapper valves, connecting rods, eccentrics, eccentric shafts, bellows seal assemblies, flapper valve reeds, flapper valve springs and buttons, float valve needles, water valve stems, filter pads and screens, line valve connections, woodruff keys and all types of gaskets.
To simplify selection of proper parts, all material is listed in a handy ten-page booklet, in catalog form. Representative parts of each type are clearly illustrated to make identification easy. We are indeed happy to state that this helpful booklet is being offered absolutely FREE. It is only necessary that you write for your copy, clearly indiocating your return address, and a copy will be sent to you by return mail.

\section*{paris}



\section*{Replacement Gaskets}

The gaskets listed below for Copeland and Kelvinator refrigerators are made up to the exact specifications of the original manufacturer in every instance. This applies likewise to all of the gaskets which we stock for various makes of refrigerators. These unusually low prices are made possible by our tremendous quantity of purchases as well as the fact that we buy and sell only for cash. If your requiremore than or quantities cumbers, hundred assorted gaskets of not more than ten different numbers, write in for special prices.

\section*{Stock Replacement Gaskets for KELVINATOR Units}

Stock
No

\section*{RE 6200}

REG202
RE 6210
\begin{tabular}{cc} 
Kelv. \\
No. & \multicolumn{1}{c}{\(\begin{array}{l}\text { Description } \\
2044\end{array}\)} \\
\(\begin{array}{ll}\text { Service Valve Fitting and Strainer Assembly } \\
\text { Gasket }\end{array}\)
\end{tabular}
2046 Valve Spring Plug Gasket for Expansion
2670
Valve.
Cooling Unit Suction and Liquid Service Valve Gasket for No. 3046 Service Valve Assembly
\(\begin{array}{lll}\text { RE6215 } & 3073 & \begin{array}{l}\text { Assembly } \\ \text { RE 6218 }\end{array} \\ 3096 & \begin{array}{l}\text { Expansion } \\ \text { Cylinder Head Gasket Gasket. }\end{array}\end{array}\)
+
3096 Cylinder Head Gasket for Model S, F1-8,
\(\begin{array}{ll}3140 & \text { Crankcase Cover Gasket for Model J, D2, S, } \\ \text { F18, F10 on }\end{array}\)
F18, F10 on Cover Gasket for all Model B,
\(\begin{array}{llll}\text { RE 6224 } & 3325 & \text { Crankcase Cover Gasket for all Model B, } \\ \text { RE 6226 } & 3332 & \text { LB, R } & \text { Compressor Seal Gasket for all Model B, }\end{array}\)
RE 622:
3334 Compressor Base Gasket for Models BB, WB, F18, F10 on, all R
RE6230 3336 Discharge Valve Plate and Cylinder Head
RE 6231 3337 Cylinder Head Gasket for Model BB, WB,
RE 6232 3338 Discharge Vive Plate Gasket for Model BB,
RE 6240 3622 Compressor Base Gasket for Model I20-21,
RE6241 3623 Compressor Base Gasket for all Model C
RE6250 4381 Float Valve Gasket for No. 4390 Float Valve Assembly
\(\begin{array}{lll}\text { RE6251 } & 4382 & \text { Service Valve Gasket. } \\ \text { RE6285 } & 6111 & \text { Float Valve Gasket for Nos. } 6118 \text { and } 6139\end{array}\)
RE 6300
7003 Float Vul de Asset
re6300 2003 High and Low Pressure Line Adapter Gastet for Model Valve Gasket for all Model R, \(\mathrm{LB}, \mathrm{B}\), F1 to 9, F10 to 35, F37 to 55, F65, LB, B, F1 on (Asbestos).
\begin{tabular}{|lll} 
RE6301 & 7003 & Same except material is lead .................... \\
RE6315 & 7107 & High Pressure Control line Adapter Gasket
\end{tabular} and Discharge and Suction Service Valve Gasket for all Model LB, B, 73 on



FEDOERS Type S Flooded Made entirely of brass and copper． All tubes are silver soldered to insure metal to metal con－ tact．The flost as－ sembly is set at the factory for the re－ frizerant used．Pro－ vides positive oil return，lool prool re－ frigerant control andeasyaccesaioility for adjustments or repairs．Silver satin finish．Complete with Float Assembly and Trays．Does not include cold control．


RES－33 \(54 \quad 7.5 \quad 3 \quad 10\) A＂ 13.49 RES－36 \(56 \quad 10 \quad 5 \quad 13 \% 17.03\) Trays， \(131 / 2441 / 2 x d\) if．Units without doors，
15 fions， \(6 T / g^{2}\) wide．
FEDDERS Flooded Type L Series Equipped with \(3 /\)
flared tube suction flared tube suction line and liquid line．Have non－removable header． All units have trays and grids as standard equipment with chrome plated tray fronts．Does not in－
clude cold control． Complete with float assembly．Specify for Sulphur or Methyl．




A fast lreexing con－ tinuous tube dry expansion domestic eveporators．The use of one con－ tinuous tube pre－ vents any possibility of the unit becom ing oil bound．The continuous tube construction of this unit causes faster freezing because the
trays are separated from the actual refrigerant only by the thickners of the copper tube and tray sleeves．
Prices include Fedders Automatic Expansion Valve．
\begin{tabular}{|c|c|c|c|c|}
\hline Stock No． & No． Trays & High & & \[
\begin{aligned}
& \text { Your } \\
& \text { Cost }
\end{aligned}
\] \\
\hline RE－FF2 & 1 & \(7 \mathrm{H}^{\circ}\) & 3 & 512.60 \\
\hline RE－FF3 & 2 & \(10^{*}\) & 4\％4 & 11.65 \\
\hline RE－FFA & 3 & 12 \％＂ & \(48 /\) & 16.63 \\
\hline RE－FF5 & 4 & \(14 \%\) & 43 & 18.76 \\
\hline RE－FFG & 5 & 16 \％ & 43 & 20.54 \\
\hline \multicolumn{5}{|l|}{＊Freezing time based on test in \(110^{\circ} \mathrm{F}\) ．Room and Water poured in trays at \(70^{\circ} \mathrm{F}\) ．All trays at one time－Hours（All cubes in all trays completely frozen）．} \\
\hline
\end{tabular}

\section*{FEDDERS Prestalioy Domestic}

\section*{Eveporators}

These dry ex－ pansion evap－ orators are made of a
double walled shell with a copper tube pressed be－ tween them．
 In silver astin
Iinish with chrome front plate．Steam cleaned，dried and dehydrated．Supplied with Fedders Automatic Valve and trays to fit，but without cold controls． \(11 \mathrm{~A}^{\circ}\) long． \(7^{\circ}\) wide．


\section*{GILMER MOULDED＂V＂BELTS}

Gilmer refrigerator belts are built to fit．Their endless moulded rubber con－ struction is a feature much to be desired．The sizes listed below have been selected inasmuch as they are standard for hundreds of regrigerator models on the market．By listing them in the manner below，we save you the trouble of going through long lists and specifications to find the belt you need．Simply check the size of your old belt and order from our listing．When ordering in lots of twenty－ five or more，deduct \(15 \%\) ．
\begin{tabular}{|c|c|c|c|c|c|}
\hline Stock & Size Inside & Your & Stock & Size Inside & Your \\
\hline No． & Circumference & Cost & No． & Circumference & Cost \\
\hline RE5005 & 47150 & S0．0． 4 & RE5691 & \(54 H^{\circ} \mathrm{x}\) 年。 & 50．83 \\
\hline RE4365 & \(34^{\prime \prime} x^{31} 6^{\prime \prime}\) & ． 61 & RE5692 & \(534^{\circ} \times 1{ }^{\text {a }}\) & ． 51 \\
\hline RES076 & \(44^{\prime \prime} \times{ }^{\prime \prime}\) & ． 85 & RE5742 & \(3218{ }^{10}\) & .51 \\
\hline RE1310 &  & ． 55 & RE5765 & \(34 \times 1\) & ． 57 \\
\hline RE5090 & \(461^{\prime \prime} \times{ }^{\text {f }}\) & ． 3 & RES766 & \(35{ }^{\text {c／}}\) & .43 \\
\hline RE5114 & \(42{ }^{18} \mathrm{x}^{13 / 9}\) & .91 & RE5771 & \(40{ }^{1 / 4}\) & ． 61 \\
\hline RE3380 &  & ． 49 & RE5779 & 39.8 & ． 64 \\
\hline RE5143 &  & 1.02 & RE5747 & 39 Hx & \\
\hline RES148 &  & ． 91 & RE5747 & 43 10 \({ }^{\text {a }}\) & 18 \\
\hline RE5211 & \(44^{3} 3^{\prime \prime} 4^{2}\) & ． 81 & RES802 & \(3612 \times\) & 45 \\
\hline RE5261 &  & ． 51 & RESLed & \(36{ }^{3} \times\) & \\
\hline RE5300 & \(3935^{\prime \prime} \times H^{\prime \prime}\) & ． 43 & RES503 & \(37{ }^{\prime \prime}\) & ． 39 \\
\hline RE5303 & \(93 \times \times 3 /\) & ． 59 & RES811 & \(32 \%\)＂\({ }^{\text {\％}}\) & ． 39 \\
\hline RE5309 & \(45{ }^{3} 8^{\prime \prime} \times 14\) & ． 72 & RES \({ }^{\text {d }} 37\) &  & 1.00 \\
\hline RES316 & \(74{ }^{\prime \prime}{ }^{3}{ }^{\text {\％}}\) & 1.58 & RES43 & \(311^{\circ} \times 1{ }^{\text {a }}\) & ． 32 \\
\hline RES390 & \(6710^{\circ} \times{ }^{\circ}\) & 1.11 & RE5858 & \(52{ }^{\circ} \times{ }^{\circ}\)＂ & ． 72 \\
\hline RES582 & \(55^{\prime \prime}{ }^{\circ}\) & 1.11 & RE5559 & \(58 \%{ }^{\prime \prime} \times{ }^{\prime \prime}\) & ． 72 \\
\hline RE3650 & \(63^{\prime \prime}\) \％\({ }^{\prime \prime}\) & ． 79 & RESESO & \(441 /{ }^{\prime \prime} \times H^{\prime \prime}\) & ． 43 \\
\hline RES412 & \(68^{\prime \prime} \mathrm{x}^{11} \mathrm{~m}^{\prime \prime}\) & 1.70 & RES563 & \(43{ }^{\prime \prime} \times{ }^{\prime \prime} \times\) & 43 \\
\hline RES441 & \(3910 \times 1{ }^{10}\) & ． 84 & RE58G4 & 41 \％\({ }^{175}\) & 35 \\
\hline RES582 & 57 A＂x \({ }^{\prime \prime}\) & 1.11 & REStSS & \(3730 \times 10\) & ． 36 \\
\hline RE5c83 & \(65^{\prime \prime} x^{31} 3^{\prime \prime}\) & ． 98 & RESE96 & \(387 /{ }^{1 / 1 / 4}\) & 40 \\
\hline
\end{tabular}

Flexotrays


Flexible rabber ice trays of pure，tasteless amber－colored rubber，made to fit all make and sizes of meehanical refrigerators．s Flexotray used to replace the grid in a meta tray makes poesible quick and easy remova of ice cubes，as the ice will not stick to thr rubber
Measurements shown are the same，or slightl less，than inside top measurements of th metal tray







 RE751037 21 10 4 社 1 出


 RE750909 2712 な＂ 3 な＂ 1 太＂1．OS
 RE750918 21 101／4 41／2＂ \(11 / /^{\prime \prime}\) 1． 1 S
RE750999 21 11 3＂ 3 钅＂ \(1 H^{\prime \prime}\) 1． 09


RE750914 32 Rd． 9 y／2＂dia． 1 H＂\(^{\prime \prime}\) S． 9


\section*{Enamel Detrosting Pams}

Stainless whil enamel finish．The sizes are most wid ly used for replac


\section*{HANDY CLEANER AMD DEODORIEER} or hard to get at places. Cleans matresses, lair corpets, drapes, elc. Deodorizer Sel epels insects and banishes odors. Shpg. \(4 .{ }^{9} \mathrm{lbs}\) :Sil780-Handy Cleaner, less Deodor. zer Sel. our Cost

G. E. A-C-MATIC IRON Pully automatic. Provides even ironing temperalure rate for all types of material. Has Button Soving Nooks, Heel Stand. Thumb Rest and long life Calrod ele. ment. 6 lb . iron. Finished in Chromeplate. For \(115-125\) volts AC only. Shpg. wi., 9 lbs.
\(\$ 3.85\)
3. E. VACUUM CLEANER lust what the housewife reeds-a cleaner that gets ill the dirt, and is ex. remely simple to pperale. The powerful motor lriven brush rings deep lyng dirt to the urface, combs ind freshens the ug pile. Hos oth front and ear wheels to acilitate opera ion. Air cooled notor requires no oilling. Adiustment crew pravides correct nozzle height for ill rugs. 7-blade fan provides powerful uction. Rubber bumpers protecl furni. ure. Has pistol-grip handle with conenient switch. Shpg. wt., 30 lbs.

\section*{S17182- \\ our Cos1}
\(\$ 22.45\)

\section*{RAIOR BLADE SHARPENE:}

Puis a keen new edge on u:ed blodes. Just place blode in position, close lid, and shanpever storts immediotely and steps automatically when blode is sharpened. In black lacqueled metal case. For \(105-125\) velts AC. Comes with 6-4t. cord and plug. Shpg. wh., 3 lbs. XV18115Your Cost
\(\$ 6.25\)
G. E. HOTPOINT ELECTRIC MIXER

Mixes, beals, whips, stirs and chops foods. Has power ful 3-speed motor provided with lilt-back neck. Comes complete with two Pyrex bowls, double bealer, drink mixer, juice extractor, extractor bowl and oil dropper. Finished in Green boked enamel. Easy to assemble. Shpg. wt., 18 lbs.
XV18342-
Your Cost. \(\$ 6.45\)


Popular kitchen clock. Has selfstorting synchronous molor, for use on 105-125 volls, 60 eveles AC current. Housed in altroctive Beelleware cose, finished in Ivory or Green. Size 71/2" bose, 21/4" deep. Specity color desired. Shpg. wi., 3 lbs.
XV18081-Your Cost. \$3.95

\section*{HOUSERODD ion Salins}

\section*{1935 TOASTMASTER AND hospitality tray}

Needs no watching-the Flexible Clock times the toasting automatically and pops up the finished toast as soon as it is finished.
The new Hospitality Tray is of wood, treated to resist acids and alkalis. Finished in mahagany, sycamore or walnut. The eutting block, with trimming and sizing knife, is finished the same as the Tray. Includes crystal clear glass dish with five compartments.


A combination Whipper and Mixer in one. Eliminates the tiresome lask of beating or mixing by hand. Datachable stainless beater cleans instantly. Mixing unit plugs into any electric outlet. Shpg. wf., 8 lbs. XVis124-Your Cost
s1.15

\section*{THE ROYAL "CULINAIRE"}

The most powerful Mixer-ChopperBeater on the market today. Silent \(1 / 8\) H.P. motor is mounted in base-no oil or grease can drif into the bowl. All attachments fit directly on the main drive shaft. Comes complete with special Lrnite bowl, 2 large beaters and one bowl cover. Motor for operation on 100 to 120 volts, \(A C\) or \(D C\). Motors use on special voltages supplied at an additional \(\$ 1.50\). Shpg. wi., 19 lbs.
XV18195-Your Cost.

\section*{s16.45}

Xv18196-Grinder and Chopper-Your Cos1.
\(\$ 4.25\)


\section*{THE NEW \\ GRILLETIE}

A new and improved model of the famous Grillette that prepores your meal right at the table. Features include: Removable plates (makes for easycleaning) ; aremovable grease receptacle; new type cool handles. Unit is guaranteed for one year against burnouts. Adiustable slide with vertical catch permits toasting of "triple decker" sandwiches or thick steaks and chops. Available with either nickel plote or bright chromium finish. Size \(101 / 2 \times 5 \frac{1}{4}\). Base \(113 / 4667 \%^{\prime \prime}\). Shpg wi., 8 lbs.


\section*{ERECTOR Sats for Borst}


No. 3 ERECTOR
Contains all parts necessary to build 75 models such as Ferris Wheel, Crane, etc. Instructior book included. Size, \(18 \times 10 x^{3 / 4} 4^{\text {N }}\)
Shpo. wt. \(31 / 2\) ibs. \(\$ 1.50\)
No. 4-Same as above, but with a powertul electric motor. Shpg
wfici74s-Your cost. \$2.95


\section*{No. 6 ERECTOR}

This sel can build boiler models. Contoins powerful electric motor which operates an house current. No batteries or transformer to buy. Gear box fully controls the models. Provides foscinating entertainment. Shog. wt., 15 lbs.
xsi7348-Your Cost \$4.45

No. \(81 / 2\) ERECTOR
The World's Champion. This model builds the giant 4-foot loco motive and tender, ond 405 other models. Includes pawerful elec tric motor. Instruction baok included. Size, \(291 / 4 \times 103 / 4 \times 51 / 2^{n}\) Shpg. wt., 42 lbs . xsirsal-Your Cosi
s 18.75

\section*{GILEERT KASTER KIT}


Any boy can casi his own soldiers, sailors, Indians and other toys. Just plug into any electric outlet and builf-in heating unit does the rest. Equipped with one mould, 8 metal pigs, all neces. sary tools, and instruction book. Shpo. wt., 12 lbs Xsi7330-Your Cost
\(\$ 2.95\)

\section*{STEELBUILDER No.}

For the little boy who shows me chanical inclination. This set contains girders, wheels and pulleys that can build over 100 different models such as Crone, Wagon, etc. Screw driver and all nesessary nuts, bolts and washers included. Manual explains all operations in delail. Shpg. wt., 3 lbs. Xs 17350 - Your Cost

79

STEELBUILDER No. 5
For the older boys. Has four trays packed full of oll the neces troys packed full of all the neces-
sary shafts, pulleys, girders, sary shafts, pulleys, girders,
mounting bases, etc., to build mounting bases, etc.; to build Shovels, Ferris Wheels, and other popular machines. All hardwore and a serviceable screwdriver included. Book of Models shows how to carry out the desion of an unlimited number of models. In box \(17 \times 131 / 2 \times 21 /{ }^{\prime \prime}\). 9 lbs.
xs11352-Your Cost.. \$3.75


\section*{OFFICE CLOCK}

For stores, schools, offices, elc. Walnui wood case. Numerols can be seen al a distance. Guaranteed for one year. For use on 110 volts, 60 eycles A.C. 151/4" square, Shipg, wt., 12 lbs .
\(\$ 3.95\)
EIECTRIC LOCKS


\section*{TIMEMETER KITCHEN MODEL}

This shutter type model replaces the old dial and hands with large numerals which record lime large numerals which record time
at a glance. Improved silent molor. In Ivory or Green wood case \(61 / 2^{\prime \prime}\) square. Shpo. wi., 4 lbs
XV18029-Your Cosi
\(\$ 2.49\)

\section*{GOTMIC BOUDOIR CLOCK}

Style plus quality at a low price! Finished in striking combination of black and nickel. Guaranteed De luxe motor, for 110 volts, 60 cycles A.C. Size \(33 / 4 \times 3^{\prime \prime}\). Shpo. wíis \({ }^{3}\) lbs.

\section*{'SUPERSTAR" IRON}

A beautiful six-pound streom line iron with tapered point Two-tone ebonized handle. Finished in bright chrome plate Terminals fit all standard cord sets. Shpg. wi., 8 lbs. less cord.
XV18167-Your Cost \$1.23

STA-LITE AUTOMATIC LIGHTER
Just unscrew the cap, and when air strikes the ele. ment o flame arises. Works outdoars as well as indoors. For cigarettes, pipes and cigars. In metal case finished in Black, Green, Red or notural chrome.
Xvisos8-Your Cost
\(79^{c}\)
Sta-lite fluld, per can
```
                                    25c
```

\section*{"GOLDYLOCKS" TALKING DOLL}

Litle Miss Goldylocks is almost human. She stands \(28^{\prime \prime}\) high, and is all dressed up in party" clothes-socks, shoes, panties, slip, dress with lace collar, pink hoir ribbon ond gold hair-pins. She says "Mama" when she bends. Eyes close when she reclines. This litile Miss will stand a lot of abuse without breaking. Shpg. wi., 10 lbs .
XSil392-Your Cost.
\$3.25
TOY BEAR
The baby bear of the Three lintle Bears. All brown, with black nose and bead eyes. Has soff plush hide. Maunted on steel chassis with four rubber ired wheels. Comes camplete with leatherette leash. Shpg. wi., 9 lbs.
Xs17393-Your Cost \(\$ 2.98\)

\section*{'FUZZY-WUZZY' DOG}

So natural you expect it to bark. It is life-size, measuring \(17^{\prime \prime}\) high and \(20^{\prime \prime}\) lang. Brown with white face. Natural bead eyes. Mounted on steel chassis with four rubber tired wheels. Complete with leash. Shpg. wt., 9 Ibs.
s2.98


\section*{ PIEMCRAFI}


\section*{CHEMCRAFT}

No. 10 MICROSCOPE OUTFIT
This ouffit contains an assortment of 16 different chemicals specially selecied for use with the microscope. Also contains slides, cover glasses, dehy. drated specimens, watch glasses, dissecting instruments, magnitying glass, and a powerful Micrascope that magnifies 150 diameters. Objects are seen clear. ly, without distartion or evestrain. Packed in mahogany finished wood cabinet with complete instructions for observations and much interesting information. \(18 \times 12 \times 31 / 4\) ". Shpg. wi., 10 lbs.
XS173:9-Vour Cost.
\(\$ 7.95\)


\section*{CHEMCRAFT No. 2}

31 different chemicals and apparatus. Manual explains over 180 experiments.
Shpg. wi., 3 lbs.
Xsi7358-Your Cost.
\(\$ 1.59\)

CHEMCRAFT No. \(31 / 2\)
41 chemicals and apparalus. Man al explains over 265 scientific experiments. Shpg. wi., \(41 / 2 \mathrm{jbs}\).
XS17359-Your Cost
\(\$ 2.75\)

\section*{MICROSCOPE SET No. 6}

Contains assortment of 16 chemicals and necessary sfides, cover glasses, etc. Mieroscope magnifies 118 diameters without distortion. Book of in. structions. Shpg. wi., 8. Ibs. K517590-
Your Cost
64.75


\section*{CHEMCRAFT No. \(11 / 2\)}

7 different chemicals packed in o leatheretle case. Manual of instrucfions included. Shpg. wi.. 9 lbs. XS17361-
Your Cost
\$6.25

\section*{CHEMCRAFT No. 10}

Contains 105 different chemicals in mahogany finished wood cabinet. Manual included. Shpg. wl., 11 lbs. X517362-
Your Cost
\({ }^{5} 7.95\)

\section*{CHEMCRAFT NO. 5}

Practically an entire chemical labora tory. 68 different chemicals in slurdy waod cabinet. Manual explains use. Size \(191 / 4 \times 111 / 2 \times 21 / 2^{\prime \prime}\). Shpg. wt., 7 lbs. X 517360 -
Your Cost
\(\$ 3.95\)

\section*{CONNECTICUT}


\section*{DUPLEX DELUXE}

\section*{WALL PHONES}

Very easily installed. Will operale efficiently up to 1000 feet. Signals are loud and clear. Two, three or four phones may be connected in a circuit. Requires two No. 6 dry cells of each phone, or batteries may be located at one central point. Of heavy gauge metal finished in light green with nickel trim. Pocked two in box with 100 feel of wire, staples and complete instructions. Shpg. wi., 6 lbs.
XM13565-Your Cosi, per poir
\(\$ 5.95\)

\section*{DUPLEX JUNIOR WALL PHONES}

Similar to the Deluxe model, but with single bell. Fin. ished in a light brown. Packed two in a box, with wire, staples and instructions. Shpg. wt., 5 lbs. XM13366-Your Cost, per pair
\$ 4.95

\section*{FRENCH DUPLEX CRADIE PHONES}

These popular cradle trpe french phones have the same choracteristics as the Deluxe wall phones. Of heary metal, finished in light green. Full instructions included. Shpg. wt., 8 lbs. List \(\$ 8.50\) : XMis440-
Your Cost 5.95


CATAPULT, AEROPLANE AND HANGAR
When lever is depressed, plone is shot out from 15 to 20 feet. Hangar grey with red and blatk trim; plane yellow with red wings. Size \(12 \times 6 \times 8^{\prime \prime}\). Shpg wi., 7 lbs.
xsifse2-Your Cost
\(\$ 2.10\)


\section*{AMERICAN FIYER TYPEWRITER}

Opcrates like a real one. Has movable carriage, standard keyboord, and takes standard size paper. Shpg. \(w i ., 4\) lbs.
\(\$ 1.89\)


\section*{ELECTRIC EXPRESS CRUISER}

All metal, electrically driven and lighted. Four dry cells drive the boal for 15 miles and speed lever allows for 2 speeds lorword, 2 reverse and neutral position. Enameled in ivory and green. With 4 batteries and bulb. Length \(18^{\prime \prime}\). Shpg. wi., 9 lbs.
X517322-Your Cost.
61.79
"MICROPHONE SAM" THE DANCING ROBOT
Gel acquainted with "Micraphone Sam". He performs an ap. propriate iig in time with speech or music, and cannat fail to amuse and entertain. Outfit consists of a microphone, a vibrating unit with an "on-off" switch, four slandard Eveready flashlight cells, and, of course, "Dancing Sam". You can talk, sing or whislle into the microphone, or you can place it near the radio loudspeaker. You can conceal the microphone and octivale the dancer so that he appeors to be able to think ond obey orders. Con be assembled in a few minutes time without the need for any tools. Full instructions for use are included. Comes complete with four batteries. Shpg. wi., 4 lbs. XN14504-Your Cost.
\(\$ 3.75\)


\section*{BUILD-A-MOTOR}

Every boy will enioy building and using this powerful electric motor. Comes with pulley for driving loys, a grinding wheel and a buffer. Blueprint diagram furnished. Warks on house current. Shpg. wt., 6 lbs. xS17399-
Your Cost
\(\$ 1.49\)


\title{
I WILL HELP YOU START A SPARE TIME OR FULL TIME RADIO SERVICE BUSINESS \\ J. E. Smith President National Radio Institute \\ \\ WITHOUT \\ \\ WITHOUT \\ \\ FREE BOOK TELLS HOW \\ \\ FREE BOOK TELLS HOW MAIL COUPON! MAIL COUPON! \\ Radio operaturs on ships enjoy life, see the world, with board and lodging free, and get
}

\section*{HERE ARE A FEW EXAMPLES OF THE KIND OF MONEY I TRAIN MY MEN TO MAKE}

Clears \(\$ 4500\) in 18 Months "Before taking your Ladto Course three years aso. In about 18 months made about \(\$ 4500\) in Radio. I cannot hay too much for the wonderful help i have recelved from N. R. \({ }^{\text {No }}\)."

Noel W. Ray
B19 Broad st Gadmden. Alabama.


Spare Time Work Pays \(\$ 18\) a Week and average \(\$ 18\) a week. People who In rood times would buy a new Rudio. now have the old one lixed.

407 Wunderich Ashaty.
Bub A venue, Barberton, Ohilo.


\section*{Now Owns His \(\mathbf{O w n}\) Business}
would thad not taken your Course I would be digeitig ditches instead of runnink my own businews. One week this doesn't count sales alone, and wants to ret into Radio if a fellow the starting point.

Modern Radio servit
Pittwold. in.


\section*{You Get PRACTICAL EXPERIENCE}
with Equipment I Give You
My C'nurse is not all theory. I'll show you how to use my mpecial Radlo equipment for conducting experiments and bullding elrcuits which fllustrate important principles used in such weli-known seta Victor, Majestic, and others. You work out with your own hands many of the things you read in our lewon books. This \(50-50\) method of training makes learning ot home eany, interewting, fascinating, intensely practica!. You learn how mets Work, why they work. how to make them work when they are out of
order.

The world-wide use of Radio sets for home entertainment has made many opportunities for you to have a spare time or full time Radio business of your own. I give you instructions early in your Training for doing 28 Radio jobs common in almost every neighborhood. Many N. R. I. men make \(\$ 5, \$ 10, \$ 15\) a week extra in spare time while learning. I show you how to install and service all typen of receiving sets. 1 give you Radio equipment and instructions for conducting experimenta, for building circuits and testing equipment, and for making teats and teating equipment, and for making teats
that will give you broad, practical Radio experithat will give you broad, practical Radio experience. Clip the coupon helow and get my" free
64 -page book, "Rich Rewards in Radio" -it gives you a full story of the success of N. R. I. studenta and graduates, and tells how to start a spare time or full time Radio business on money made in spare time while learning.
Many N. R. I. Men Make \$5, \$10, \(\$ 15\) a Week Extra in Spare Time While Learning
Many of the seventeen million sets now in use are leas than \(50 \%\) efficient. I will show you how to cash in on this condition. I will show you the plans and ideas that have enabled many others to make \(\$ 5, \$ 10, \$ 15\) a week in spare time while learning. Ford R. Leary, 1633 Davison Road, Flint, Mich., wrote: "My part-time earnings while taking the N. R. I. Course were \(\$ 651\).

\section*{Get Ready Now for a Radio Business} of Your Own and for Jobs Like These Broadeasting stations use engineers, operators, station managers, and pay up to \(\$ 5,000\) a year, Radio manufacturera use testers, inspectora foremen, engineers, servicemen and buyers and pay up to \(\$ 6,000\) a year. Radio dealers and jobbers employ hundreds of servicemen, salesmen, managers, and pay up to \(\$ 5,000\) a year.

\section*{FREE: RADIO SERVICING TIPS}
good pay besides. My book tells you of the opportunities in these fields, also in Aviation, Radio, Television, Police Radio, Short Wave Radio, Automobile Radio. Get it.

\section*{I Train You at Home in Your Spare Time}

Hold your job until you're ready for another. Give me only part of your spare time. You do not need a high school or college education Hundreds with only a common school education have won bigger pay through N, R. 1. J. A. Vaughn jumped from \(\$ 35\) to \(\$ 100\) a week J. E. Mclaurine increased his earninga 100 per cent. The National Kadio Institute is the Pioneer and World's largest organization devoted exclusively to training men and young men by Home Study for good jobs in the Radio industry:

\section*{You Must Be Satisfied}

I will give you an agreement to refund every penny of your money if you are not satisfied with my Lesson and Instruction Service when you complete my Training. And I'll not only give you thorough training in Radio principles. practical experience in building and servicing sets, but also Advanced Specialized Training in the type of Radio work you choose.

\section*{Get My Free Book of Facts}

Mail the coupon for "Rich Rewards in Radio." It's Iree to any ambitious fellow over 15 years old. It telis you about Radio's spare time and full time opportunities; about my training; what others who have taken it are doing and making. Mall coupon now in an envelope, or paste it on a le post
eard. card.
J. E. SMITH

President
National Radio Institute
Dept. 4MF3


Let me PROVE that my Course clear, easy to understand and fas for my to study. Send the coupon Shoot my reference book, "Trouble Shooting in D.C., A.C., and Battery Sets." This interesting lessung give: 132 ways to correct common Kadio troubles. I am willing to send this book to prove that you too can muster Radio-just as thousands of other fellows have done. Many of them, without even a grammar school education, and no Radio or technical experience, have become Radio experts and now earn two or three times their former pay.
J. E. SMITH, President, National Radio Institute, Dept. 4MF3
Washington, D. C.
Dear Mr. Smith: Without obvigation, rend me the germee Manual and your tree book about spare time and full time Radio opportunltiew, and how I can train for them at home in spare time. (Pleave print plainly.)
Name
Age
Address
City.

\section*{JN YOUROWN HOME!}


\title{
Gives Yau Dne Full Month to Prove that Caffoystte is the set for you!
}

HOW often have you heard the claims "Finest in the world," "Will out-perform any set on the market," "Visit our dealer and convince yourself"? Promises, exaggerations, claims - that no radio set in the world could live up 10 .

The cautious radio purchaser tries to "buy safe" He does "visit the dealer" There he listens-very carefullyto a radio set. Naturally, the dealer has seen to it that the set is adjusted so that it will perform very satisfactorily in that particular location.

Mr. or Mrs Radio Buyer listens to the sel perform for a half hour-perhaps for even an hour-and if it sounds good the set is purchased. They fail to realize that the very same set may sound entirely different when it is installed in their own homes, because of a difference in atmospheric conditions, installation, etc. Or they don't stop to remember that the set which performs like a champion in the store may sound like a boiler factory in the home.
Entire Contents Copyrighted 1934 WRS. Co - Printed in US.A.

We don't ask you to take our word that a Lafayelle will satisfy youl Inslead, we give you an unequaled opportunity to test a Lafayette in the privacy of your own home for a full 30 days. Listen to it perform. Make it pull in every local station in your vicinity during the busy early evening hours. Then go ofter distance. Pull in faraway stations with the ease of locals.

Then, and then only, consider that you have purchased your lafayette. If, however, for any reason whatsoever you do not care to keep your set-if you are nol absolutely and completely salisfied - your money will be refunded IN FUll, without questions of arguments of any kind (less transportation charges).

That is the famous 30 day FREE TRIAL OFFER originated by LAFAYETTE. It is to the best of our knowledge and belief the most liberal trial offer ever made by a radio manufacturer. Only our unlimited confidence in the quality that has been built into every Lafayette Receiver makes it possible for us to make such a broad guarantee.

\section*{REFRIGERATOR} Replacement


See pages 177 to 186

\footnotetext{
100 SIXTH AVENUE • NEW YORK, N.Y.
}~~~~~


[^0]:    $\begin{array}{llll}\mathbf{X} \$ 17203 & 200 & 10.0 & 35.25\end{array}$

[^1]:    Acetate Needles
    Specia! needles for playing back celluloid records. XA209-Envelope of 12
    $10^{c}$

    ## Your Cost

    ## Fibre Needles

    For use in reproducing aluminum recordings. Prolong record life. YA343 Envelope of 12 I( ${ }^{c}$ Your Cost

    ## Steel Needles

    For reproducing celluloid
    XA34 -Envelope of 5 .
    Your Cost
    XA341-For aluminum.
    Your Cost, Each......
    $-7$
    $75^{c}$

[^2]:     Referto pages 112, 113 for a tabulated listing of exact duplicate power transformers of all standard radio receivers. Refer to pages $115-120$ for listing of all types of a udio transformers and chokes which can be used with the above transformers. miti with the above transformers.

[^3]:    
    We can supply any transformer not shown
    in the listing at the very lowest prices.
    Write us, giving name and model number
    of the receiver, and we will quote immediately.

[^4]:    
    解 denser blocks will be found on page 121 .
    locks will be found on page 121 .

[^5]:    
    5
    5
    5

[^6]:    A compact indicator having a range covering from 100 to 100,000 ohms

[^7]:    Handy-Reliable
    Range 0.100,000 Ohms
    Servicemen can now determine quickly and accurately the resis-
    tance value of any defective resistor,
     tance value of any defective resistor, without the use of elaborate measuring instruments. The Trutest Ohm Indicator is wire wound on a vitreous enameled Isolantite tube. It is calibrated from zero to $100,000 \mathrm{ohms}$, and is mounted securely on a base equipped with test clips and test prods. The test clips fasten on the ends of the defective resistor, while the test prod is run up on the bench or carried in the kit. It is an extremely well made instrument, and will stand rough usage without breaking down or causing ment, and Sils. stand 2 los. trouble. Shpg. wt. 2 Trus. Indicator Your Cost Each

[^8]:    yousen NOTEsescoser
    A complete listing of piug. In coifs, coil forms and associated short wave acpage 53.

