


# New Chairside Phonograph-Radio with Precision Automatic Record Changer 

Its inspired styling-its exciting performance--PLUS its amazingly low price-all combine to make this new Automatic Phono-Radio Combination the year's most thrilling value. The luxurious mahogany chairside cabinet blends perfectly into both modern and traditional surroundings. The convenience of its unusual slide-top cabinet adds all the more to your complete enjoyment of the best in recorded and radio enterta:nment. Here is truly the whole world of music, news, sports and drama at your fingertips. Yes - for beauty, performance and convenience-here is the ultimate in a moderately priced Radio-Phonograph Combination. For untold hours of listening pleasure, enjoy this outstanding set in your own home.
THE RADIO: Six tubes (including rectifier) AC Superheterodyne. Four waits of undistorted output for radio reception or recard playing. Tunes Broadcast Band and
Copyright 1947 Coneord Rad o C.rph. Chirages 111, Printed in U.EA_A.

Short Wave 9 to 15.5 Megacycles, Large slide rule dial. Bass Boost circuit. Large PM Dynamic speaker with Alnico magnet assures fidelity of reproduction. Variable tone control for records and radio.
THE RECORD CHANGER: Completely Automatic, plays ten $12^{\prime \prime}$ or twelve $10^{\prime \prime}$ recorcs at one loading - gently, safely-handling records with cushioned ease. Lightweight tone arm and the latest in crystal pick-ups, with new "Floating Point" Needle, reduces surlace noise and record wear. Allows for manual playing.
Available in Regular Mahogany, and Blond Mahogany. Specify firish when ordering. Shpg. wt. 63 lbs. Entire cabinet measures $27 \times 263 / \times 151$, $4^{\prime \prime}$. For operation on 105 125 volts, 60 cycle AC only.
Model I-602-Mahogany
$\$ 109.50$
Model I-603-Blond Mahogany..................119.50


Tone!

- AC-DC

VERSATILITY

- UNBELIEVABLE LOW PRICE

Full Size
Table Model Superhet

* Powerful Superhet Circuit
* Top Quality 6-inch Speakez
* Three Watts Audio Output
* Mahogany Finished Cabinet

Here's perfection of tone usually possible only in large console afts. Outstanding engineering and design, an exira large speaker and plenty of cabinet baffle space does the trick. Radio experts-dealers, engineers, serviceperformanse and superb value. More tubes, efficient speaker, advanced design features, thorough testing-all these "extras" add up to a grand thrill in listening satisfaction High Undistorted Output: Threewatts. Comparable to pre-war consoles. More than TWICE that of most comparable AC-DC sete.
Continuøusly Variable Tone Control: Deep throated bass to clear toned treble-the kind of tone you would normally expect only from an expensive console radio. Supezheterodyne Circuit: Advanced design, licensed by RCA laboratones with 6 tuned circuits. Uses: 6SA7, 6SF7, 6SL7, two 25L6 and two 2526 tubes.
540-1700 KC Standard American Eroadcast and Police Calle.
High Quality 6-inch Speaker: With lasge Alnico V Magnet for aparkling clarity and resonance of tone.
Built-In Antenna: No outside wires. Plug in and play. Connections for outride antenna if desired.
Automatic Volume Control. Inverse Feedback: Eliminates overloading, reduces distortion and hum.
Artlstic Cabinet: Exquisitely styled, beautifully proportioned with simple elegance. Rust-proof metal mesh grille adds a distinctive touch. Cabinet tinished in a hand rubbed high gloss mahogany. Size 14 inches by 10 inches by 8 inches.
Model 1-700. Operates on 105-125 volts, 50-60 cycle AC
or DC. Shpg. wgt. 13 lbs. List price $\$ 44.95 \$ 22.95$
Your Cost, each, in lots of 3
Your Cost, each, in single lots.
. $\$ 24.95$
Adapter for operating set from 220 volts AC or DC. C5243.

TABLE MODEL
AC or DC
Superhet!
Now-for the firat tme-you get all the exciting adyantages of radio's newent miracle development, FM (Frequency Modulation), plus regular AM broadcasts in one the amazing now engineering foatures packed into this set, you'll see in an instant why it is astounding the entire radio world. Here is the FM radio set you have been walting for! You get all the rich, glorious high tidelity musical beauty of FM-with sensitivity and selectivity you've come to expect only in the most expensive recaiveries of radio engineers. Only Concord engineering gonius could bring you all these radio features at such a low, value-giving price.
New Miniature Tubes are employed in a powerful, amasingly efficient circuit. Provide high senaitivity with razor sharp selectivity. Tubes used are: 12BE6 Converter, 12BA6 I.F. Amplifier, 12AT6 2nd detector and lit audio Output tube and 35 W 4 Rectifier. Top quality transformer and coile assure peak efficiency with virtually no drift on FM band.
Lazge Slide Rule Dial with smooth reduction gear drive. Tunes broadcast band- 530 to 1650 kilocycles. FM band - 88 to 108 megacycles.

Built-In Loop Antenna. Extra large for maximum AM signal strength. Provision for FM antenna aleo.
Wide Range Reproduction. New full size ElectroDynamic Speaker. Full, rich quality. Full range tone conirol. R.C.A. and HAZELTINE licensed.
Model 1-606. Operates on $105-125$ volts, $50-60$ cycle. AC or DC. Shipping weight 15 pounds.
Your Cost, in lots of 3 Your Cost, each. ... .......... $\$ 32.50$ Adapter for operating set from 220 volts AC or DC. C5243

NOISELESS STATICLESS


FREQUENCY



## THE CONCORD GUARANTEE

Every item listed in this catalog is guaranteed to conform with the standards of the Radio Manufacturers' Association, and to perform in the manner intended
for such apparatus. You must be satisfied completely with what you buy. Otherwise you can return it for exchange, repair or refund.


## You Enjoy Special Advantages When



## FAST SERVICE

Same day shipment of every available item is a "must" in the huge, com-pletely-stocked Concord warehouses -centrally located in CHICAGO and in ATLANTA. Here huge and varied stocks-thousands and thousands of essential radio and electronic needsawait the arrival of your order, to be selected, inspected, packed and ship-ped-whenever possible-within 24 hours. To avoid delay-order today trom CONCORD.


## For a New Conception of Listening PleasureThe Concord CHIPPENDALE-A Custom-

Beyond Compare-Here is the sot that is beyond comparison with any othor . . because it in the only complete home inatrument made to the commercial ntudlo standards of acoustic laboratorion and the reception standards of commercial trans-world communications stations
Flawlens Cabinetry --The dietinguished cabinet, of choicent hand-rubbed mahogany veneers, hat the rare warmth and charm of really fine furniture. Its lines are simpl', without boing severe, achieving the true elegance of good taste so sought after in interior decoration.
Versatility - Bring the whole magie worid of music and drama to your home. Standard broadcant. the new atatic-free high-fidelity FM...the entire world of international short wave and amateur stations ... and superb record reproduction free from needle noise.
Advanced Engineering-Now standard of tidelity go far beyond tullrange frequency response . . . also provide perfect steep-wave-front tranaient remponse and freedom from intermodulation and harmonic distortion remponse and freedom from intermodilation and harmoni the giant 15-in. Jensen Co-Arial dual speaker, the same principle of sound reproduction used in broadcast studios and the better motion-picture theatres where used in broadcast atudios and the better motion-picture the
Clanzical or Popular Music-A violin and a trumpet should sound like a violin and a trumpet whether they are being played in a ballroom or a concert hall... in both cases you want to hear them realistically . . and that is exactly what this inutrument brings you: room-prosence realism. Mueic with all the tine shades of tone and the full dynamic range of volume
the rich deep basses, the delicate vibrancy of ringing etrings the audden impact of percussions, the clear trills of reed. ... music that thrills, whether Popular or Classical, In the voice zanges, you hear your favorite radio dramatiot as though they were apeaking to you from the cabinet. you heaz every subtle nuance of intonation and the catch in the throat, the sigh heaz every subte nuance of intonation and the catch lin of laughter. That is that is no more than a slowly released breath, the whof laughter. That is what electronic and acoustic engineors have been wor

Automatic Record Playing-The ad-

vanced olectro-acoutical englnesring is matched by the mechanical perfection of the record changer. Slides out for instant loading, or in for concealed playing, at the slightest pressure of your finger tips. The gentle handling accorded your record by this superb changer adds hundreds of playings to the life of each record. Load it with ten 12-inch records or twelve 10 inch recorde and relax lor a long period of uninterrupted listening pleasure. Change your mind about one of your lections if you winh... any record may be
rejectad at will; or use the changer as a single record player have complete control ar all times.
Smooth Perfection-The changer mechanism is the culmination of all the experience in the art to date. Sm olh sure action. Quiet puwertul constant-speed motor holds its toeed to within $3 / 10$ of I RPM change whether it is loaded with 1 record or ic. Minimum friction and rumble a ball-thrust bearing carries all the load of b th records and turntable itself. Record-Saving Pickup-Ertremely high lateral compliance in the advanced crystal cart ridge increases record lite enormously and gives true tonal responso becauce the needle follows every bend and turn in the recorded groove, with negligible pressure on the side of the grouve. Needle point pressure is only $11 / 4$ ounce.... your records last indefinitely. The permanent jewel-point needle io radius-rounded and sbadowr-aphed for perfection. The ungue arm suspension insures a smooth gliding action so that the needle follows groove modulation, and enough inertia so the arm does not. Sub-audible arm rescnance . . . mechanical vibrations are lost in the arm insiend of being amplified by audible mechanical resonance. Wide range electrical ourput of the pickup reproduces the highest frequencies used in modern recording techniques.
Record Storage-Spacious record stcrage shelves in the cabinet accommodate large record libraries, no need for separate record cabinet unless your collection is unusually extensive

## The Receiver

The CONCORD Name-Here is your assurance of the best in radio reception. Concord is a name known throughout the radio and electronic reception. Concord is a name known throughoul the radio and electronic years, In this model, all the known "bents" in radio circuftry, components, and construction are combined into a home receiver Concord, too, 15 a "name brand". 'to professionale who know and appreciat the highest developments in the communications art.
Simplicity of Operation-Here in a set which any professional would be proud to own... and which any toen-ager can operate with greater ease than any other instrument with an $\bar{F} M$ band!
Push-Button Tuning - There is notring new about push-button tumng In the AM band, and this set has five buttons for AM station selection and it aleo has. Which is new. five push buttons for FM tuaing You don't have to tune up to . . then beyond then come back to center
for FM tuning. Select any of five channels, which is more than ample for oven the largest metropolitan FM area, merely by pushing a button. This remarkable innovation is made possible by an advanced type of Automatic Frequency Control circult which electronically tunes to the eract center of any FM channel if the mechanical tuning comes anywhere within the channel


## The 15-Tube FM-AM Radio Chassis

Built with all the precinion and circuit wizardry of yeare spent strictly in communications engineering. A brand now kind o receiving instrument designed to fill a long felt need. AM and FM with an overall frequency range of 535 kc to 108 mc in three main bands plue two electrical band-spread dial cabibration stripa to apread the tuning on the foreign-broadeast 31, 19, and 16 . meter bands.
A new development is the addition of 5 push-button tuning controle for FM, made posible by an advanced Automatic Frequency Control circuit incorporated in the separate FM tuner. Five push Control circuit incorporated in the other end of the dial simplity AM tuning as well, buttons on the other end of the dial simplity AM tuning as well,
and an AM selectivity switch provides choice of high fidelity AM and an AM selectivity switch provide
or high adjacent-chanoel selectivity. This high quality receiver han numerous applications in homes or
wherever a good specialized radio installation is deairable. Styled for beauty, the chassis lends itself perfectly to custom installations of your own choosing, in bookcases, special cabinets, or built-in
sound systems for fine homes. -asily-read dial, separate bass and treble tone controls, and 12 watte of undistorted audio output from an AF channel which is flat from 30 to $15,000 \mathrm{cps}$.


## The Record Changer

Completely atomatic or can be operated marually as single record player. Tekes up to 10 twelveinch or 12 ten-inch records at one loading, handles records with utmost gentlenese. Mounted in balanced slide. away drawer, slides in or out with fingertip pres. surs. Beautifully fin ished to harmonize with the cabinet. Pickup arm of most advanced de sign gives ycu every tone which the recording artists impressed into your record


## The Dual Speaker <br> Jensen 15" Co-Axial

 Dual Speaker Systom with frequency network which passes only the "highs" to the "tweeter" speaker designed especially to reproduce "highs with astonishing clarity. The large "wooler" is designed especially for "lows." Together the two epesters re the two epeakers reproduce the entir. audible range with magnificent realism that gives the listener every glorious tone and overtone.
# The Ultimate in Luxurious Cahinet Styling Built 15 Tube FM-AM Phono Radio 

## Automatic Frequency Control

The AFC circuit in the FM band solves the problem of stability at very high frequencies. At thene frequencies, FM tuning requires aldill and attention because slight variations in temperature and humidity cause "drift" which ordinarly requires constant re-tuning. FM receivers without APC recuire ton minutes, at least, for warm up beiore the clrcuits stabilize themselves to come extent. In this advanced receiver, however, the AFC circui not only finds the exact center of each FM channel, but also holds this center during and after the tube warm-up period

## Band-Spread Tuning

Here is a feature of the beat communications recelvers . . . electrical band spread...brought to you in this unusual home receiver. The three most important foreign-broadcast channels are apread over the length of the large edge-lighted glass alide-rule dial. Record the position of your favorite forelgn programs and tune to them eanily and quickly without using the hair-line delicacy unually associated with foreign tuning.

## Frequency Range

Five separate accurately calibrated dial strips and five band-switch positions give the following frequency coverage:

Band 1-Broadcast Band. 535 to 1720 kilocycles (kc)
Band 2-Short Wave and Amateur. Complete coverage between 5.9 and 18.2 megacycles (me).

Band 2a-Spread band. 9.0 to $12.0 \mathrm{mc}(331 / 3$ to 25 meters), the so-called 31 -meter foreign broadeast band
Band 2 b -Spread band. 15.0 to 18.0 mc ( 20 to $162 / 2$ metera), the so-called
ad -meter toreig broadcast bands
Band 3 -Now FM Band. 88 to 108 mc . Usen a complotely separa. internal tuner and separate tuning knob.

## Vaxiable Selectivity

As in the better communications recoivers, a ewitch provides choize of selectivity in the AM bands . . . eharp for adjacent channel separatioa broad for high fidelity.

## Separate Bass and Treble Controls

The human ear is lose efficiont at low and high frequancies when general volume is reduced to room-leval listoning. In addition to a treble boost circuit in the audio aystom which automatically raisen the treble level et low general volume levels to compensate for this characteristic of the ear, individual basa and treble controle are provided to make personalised adjuntments not only for the listener's ear but aleo for the acoustic effects peculiar to each room, caused by size, shape, carpeting, drapes, etc.

## Receiver Details

Audio output: 12 watts at 500 ohms. AM response: flat 30 to 7500 cps . FM response: flat 30 to $15,000 \mathrm{cps}$. Oscillator: temperature compensated IF: dual, 455 kc for AM, 10.7 mc for FM. Tubes: 1 -6BA6 RF, $1-6 \mathrm{~J} 6$ oscillator and AFC, 1 -6BE6 mirer, 3-6SG7 IF's, 1 -6SH7 IF amplifier and AM detector, $1-6 A L 5$ FM detector, 1 -6IS AF, 1 - 6 JIS bass amplifier, $1-6 S Q 7$ AF, $1-6 S Q 7$ phase inverter, $2-6 \mathrm{VGGT}$ push-pull beam-power amplifiors, $1-5 U 4 \mathrm{G}$ rectifier.

## Two Built-In Antennas

Built-in rotatable loop antenna provides adequate normal reception of both Buandard broadcast and short-wave stations. An FM dipole antenna is attached to the rear of the cabinet. Terminalis are provided for external attached to the rear of the cabinet. Fm .

## Complete Assembly in One Cabinet

There is no other way to get all the advaniages of thisinstrument assembled for you in one cabinet. If you were to purchase all the components eep. aratoly .. . and have a cabinet of comparative quality built for you the cost would be far greater than the complete, ready-to-operate instrument offered you here. While underatandably not in the low price clase, this set is surprimingly reasonable considering the quality components it offers the diecriminating purchaser. The quality cannot be duplicated at anywhere near this price.

## For Custom Installations

This tine receiver chassis and speaker are also available for replacement purposes in your old console. or for custom installations in built-in cabinets or in epecially built pertod or modern furniture. The receiver chassia and the fonsen Co-Axial spoaker may be purchased an a soparato unit. Performance of the receiver in custom surroundings is equal in every respect to the conmole set pictured above if proper batlle space is given the Co-Arial speaker, according to the instructions furnished.
Cabinet Dimensions- 34 inches high, 40 inches wide, $171 / 2$ inches doep. Power Input-Designed for operation on 105 to 125 volts, 50 to 60 cycle AC. Power drain 100 watts. Chassis size: $151 / h^{\prime \prime}$ long, $15^{\prime \prime}$ deop, $9^{\circ \prime}$ high. Model 1.1501 . 15 -tube FM-AM chassia, record changer and Jensen CoAxial speaker as described above, all mounted in the beautiful Period cabint shown on the opposite page. Shpg. wgi. 120 lbs . \$475.00
Your Cost Model 1-1500. 15-tube TM-AM chassis and Jensen Co-Azial speaker as
deacribed above. Shipping woight 55 pounds. doacribed above. Shipping woight 55 pounds.
\$229.50

Custom Installations
Weed aries tor a cabint other than thoso pictured hore. When the need aribations in modern or period pieces insis in a favorfor custom takselves... or to applace an obiond as the tinest equip. place, bint. . Concord engineoss of the instruments doloner or ment available, the components an unith. For the mutronic design below, now available as the ultimate in acourtic-ate "tops" for a connoisseur who desicorator who wants the abl units that will fultant. -or the interior dient, these are the endiatiod only with the tipest. discriminating client, thoso

## nation Supreme-Featuring The Finest Of Ouality Components



## Delight The Music Lover... For The Distinctive Setting

THE BROWNING TUNER AND POWER SUPPLY. Designed fox high fidelity and extreme sensitivity on new FM band ( 87 to 109 MC ) and high fidelity and extreme sensitivity on now M band (87 to
AM atandard broadcaat band ( 540 to 1650 KC . Two entirely differaxt AM atandard broadcast band ( 540 to 1650 XC ). Two entirely different
tuners are incorporated on one chassis to assure greatest efficiency and (unelity output. FM section consists of RF stage, mixer with separate osci¿uality output. FM section consists of RF stage, mixer with saparate osci-
itor to eliminato image interference, two stages of IF, two stage cascadeuniter, and diecriminator stage. AM section is powerful superheterodyne with added TRF stage for image rejection. Automatic volume control. Large full vision alide rule dial. Separate power supply for hum-free receptior. SHE CONCORD 15 WATT AMPLIFIER-A ctually 15 watts represent many times the audio power you will require for ordinary room volume. But this tremendous reserve power gives you flexibility and tonal fidelity mpossible with an ordinary audio systen, You may vary tone to emphasize dans or treble at will. You may relnforce weak recorded passages. Aven at full 15 watt output distortion is held to a negligible $2 \%$. Hura is imperceptible. Inverse feedback circuit design assures amazing tidelity. Amptifter cabinet shown in picture above is not included. For a complete description turn to page 22.
THE JENSEN CO-AXIAL SPEAKER-A remarkable now dovelop. ment in loud epeaker construction. Ideall suited for FM and fine AM receivers, unch as the Concord "Custom". Actually two speakers in onea cone "tweeter" mounted in the cone assembly of the large 15 -inch "woofer", each doing a specialized job to assure overall fidelity impossible to obtain with one speaker only or with two speakers of the same type. The assombly includen a built-in electrical network which passes only the high audio frequencies to the "tweeter"-designed especially to reproduce "highy" with truly astoniahing clarity. The "woofer" - designed especially for the low audio frequancies-reproduces "lowi" so realistically that a drum roll, for example, seems to come from an actual drum in the room. Together, the two speakers reproduce the entire audible range, from 50 to 15,000 cycles per second, with a responge so true that many audiences, in actual listening tests, could not distinguish between a concealed live in actual listening tests, could not disting

THE GARRARD AUTOMATIC CHANGER-This is one of the finest, most versatile record changers ever made. It's the new Deluxe "mixer" unit that plays 10 -inch and 12 -inch records interleaved in any assortment and any combination. The Garrard changer is world famous, imported and any combination. The Garrard changer is world famous, imporied from England-a tool-proof mechanism of the highest quality. Record changing is performed simply, efficiently and silently, Features a oneounce high fidelity pickup with frequency response flat from 30 to 8500 c.p.s. The permanent jewel stylus will last tor years of normal playing. The motor is silent, po
eliminates vibration.

## ORDER YOUR CONCORD CUSTOM COMBINATION FROM THE LISTINGS BELOW

Model 1-100. Traditional Period Cabinet Combination complete with Jensen Speaker, Garrard Changer, Browning Tuner and Concord Deluze 15 Watt Amplitier as described above. Shpg. wt. 150 lbs . \$525.00 Your Cost

65 lbs. Your Cost.
$\$ 195.00$ Your Cos
$\$ 195.00$
Model 1-101. Modern Cabinet Combination complete with Jensen Speaker Garrard Changer, Browning Tuner and Concord Delure 15 Watt Amplifier arr described above. Shipplng welght 160 pounds. $\$ 575.00$ Your Cost.
Model 3-101. Modern Cabinet only. Shipping weight 90 pounds.
Your Cost.
$\$ 225.00$

## SPECIAL DESIGN STUDIO

The services of Concord's Special Design Studio are available for those who desire distinctive cabinets of special design, modern or period, radio installations of andividual character, with remote apeakers in more than one room, etc. Write to our Special Design Studio.


Model 1-1100.-Operates on 105 -125 volts AC, 5060 cycles.


# Concord FM-AM or AM Chassis <br> <br> FOR 

 <br> <br> FOR}
$\rho$ Concord

## FM-AM CHASSIS

## For True to Life Tone

It's here at lastl The amaxing now Concord 'Thassis that brings you BOTH AM and FM (Frequency Modulation) reception. Designed and built to the most exacting standarcis, this superb chassie is perfectly suited to the custom installa. tion demanding the ultimate in radio pertormazce. Newest FM ratio detector circuil development gives greater ease of tuning, low nolse level, tremendous gain ard complete interterence ellmination, Tuming range covers Broadcast and Police Calls ( 540 to 1700 kc.) and new FM band ( 88 to 102 mc .). Superb 11 -tube (including rectifier) superheterodyne circuit employs dual and triple purpose tnbes to give 15 -tube sensitivity and selectivity. Outstanding features include Automatic volume control, 8-inch slide rile dial, Full clude Automatc wolume control, 8-inch side rle dial, Fuh range Bass and Treble tone control and new permeability
tuned IF transformers. Han phonoinput for record player or tuned If transformers. Has phono input for record player or
automatic changer. 13 watts of high fidelity audio output with large 10 -inch PM apeaker employing Alnico V magnet combine to assure glorious tone quality and tremendous volume. Has builtin antenna and folded Di-Pole for FM reception. No outaide wires needed.
USES NEWEST TUBES including efticient miniature types: 1-6BA6 FM, RF amplifier, I-7Q7 AM oscillator, Mixer 1-7AH7 IF amplifier, 1-7AG7 FM detector driver 1 -1-7AH7 IF amplifier, $1-7 A G 7$ FM detector driver, 1 -
7 A 6 FM detector, audio amplinfer, inverter, $2-7 \mathrm{CS}$ Push$7 A 6$ FM detector, audio amplifie
pull amplifiers, $1-5 Y 3$ rectifier.
This excellent chassis may be used in a variety of custom installatione-either near the speaker or at a distance. On this page, we illustrate several typical custom epplications In the home, club, office or hotel-anywhere the finest radio reception is desired. Use it in either of the cab:nets on the preceding page and you will have a radio with beauty beyond belief in tone and styling.
Combined with any of the record changers listed in this book the 13 watt high Hdellty audio output wil. give you a radio-phonograph that will match the finest anywhere for top quality performance.


Use this chassis with any of the record players or automatic ckangers listed in this book for a radio-phonograph combination that is tops in quality and performance and worthy of custom installation anywhere.


## Modern As TomorrowAUTOMATIC PHONO-RADIO <br> With Reversible Phono Drawer

Here is a Chairside Combination Triumph! An entirely new concept of gracious apartment or small home liv-ing-bringing convenience and perfect concert-quality radio and phonograph enjoyment to the arm of your favorite chair. Just look at the smart, functional cabinet lines-the large slide rule dial for complete ease of tuning-and the new reversible Phono Drawer ease of tuning and the new reversible Phono Drawer that pulls out of either side of the cabinet. Here is
powerful, supersensitive superheterodyne radio receppowerful, supersensitive superheterodyne radio recep-
tion combined with the most convenient, readily accessible record player of the day. The acoustically correct tone chamber with exclusive Di-Fuse-Tone assures maximum volume and tonal range to all parts of the room. No lid to lift when playing either radio or phonograph. Use the spacious top for books, a lamp or vase of Howers. Thousands of enthusiastic music lovers have been clamoning for a truly modern, superb pertorming LOW PRICED radio-phonograph combination. Now it's here-a beautiful mahogany veneer, hand rubbed functional cabinet with radio and phonograph tonal reproduction rivaled only by the largest, most expensive sets.

AUTOMATIC RECORD CHANGER-Simple and foolproof for quick and smooth operation. Plays ten 12 -inch records or twelve 10 -inch records with the drawer closed. Cryatal pickup, self-starting extra heavy motor, featherweight pressure tone arm. Complete with floating point needle
AUTOMATIC VOLUME CONTROL-Eliminates fading and blasting. Continuously variable tone control provides deep throated bass to clear-toned treble.

## THREE WATTS UNDISTORTED OUTPUT-

 Push-pull audio circuit brings glorious realism to recorded music and radio reception. Large 8 -inch speaker with Alnico $V$ magnet provide true clarity and full resonance of toneBUILT-IN ANTENNA - No outside wires. Just plug in and play. Connections for outsid aerial provided if one is desired.
POWEREUL SUPERHETERODYNE CIRCUITEmploys six tuned circuits. Uses 6SA7, 6SF7, 6SL7, two 25L6, and two 2526 tubes.
ADDITIONAL FEATURES-Power line filter, Completely shielded chassis, Shock Mounted variable condonear Hi-Cap tilter condensers, Smooth Drive Tundenerer, Hi-Cap filier condensers, Smooth Drive TunSize: 18 Inches and 28 inches by $253 / 4$ inches. Shipping weight 78 pounds.
Model 1-702-List Price $\$ 199.50$ Your Cost
Yo.

## 3 Band AC-DC Superheterodyne

 * 2 Short Wave Bands Plus Broadcast Band
## * Built-in Loop Anterna

## * Automatic Volume Control

* Dual Puxpose Tubes

A great thrill awaits you in this new Concord Superhet-erodyne-for here is a radio designed for your lintening pleasure-a radio with features usually found only in high-priced sets-a radio skillfully engineered and made from the finest materials.
The 2 Short-Wave Bands cover 13 to 22 meters and 20 to 50 meters. This gives you full coverage of all of the world's major short wave stations. The regular broadcast band of 540 to 1600 KC makes it easy to get any of your favorite domestic stations.
The Superheterodyne Circuit, employing all of the newest radio dimcoveries, plus the super-elficient built-in loop antenna, bring you fine reception from stations thousands of miles away. There is a connection for an extra outaide aerial, if desired.
The Automatic Volume Control eliminates fading and blasting. The PM Anico speaker with V magnet gives every program a true-to-life tone.
Usea 5 Tubes including rectifier. Two of these tubes are dual purpose tuber to give you 7 -tube periormance. Tubes used: 12SK7, 12SA7, 12SQ7, SOL6 and 3525 rectifier.
Beeutiful Plastic Ivory or Brown Cabinet is $91 / 4$ inches long, 6 inches high and $51 / 2$ inches deep. The large illuminated dial makes tuning easy, even on closely spaced foreign short wave stations.


Model 1-508. Brown Plastlc. Operates on 105-125 volts, $50-60$ cycle, AC-DC. Shipping weight 6 pounds.
Your Cost, asch, in lote of 3
Your Cost, in single lots
Model 1-507. Ivory Plastic. Same as above. Shpg. wgt. 6 pounds.



# THRILLING FEATURES FOR VALUE-WISE BUYERS 

\author{

* Modern Plastic Cabinet <br> * Full Vision Dial <br> * Glorious Tone <br> * Powerful Superhet Circuit <br> * Dual Purpose Tubes <br> * Amazing Sensitivity
}

Comoard

## AC-DC Table Model

From its wide, full vision airplane type dial to its gleaming ivory plastic cabinet-here's the perfect receiver for any room in your home. It's packed with exciting new design features, utilizing many new engineering developments. If you want a set that's light and easy to carry from room to room-a set that gives you top periormance and glorious tone where ever you use it-then here's your set and no mistake. Buy it on Concord's 30 Day Money Back Guarantee of Satisfaction.
IMPROVED SUPERHETERODYNE CIRCUITDifferent . . better . . . with many brand-new improve. ments that help deliver top-quality reception.

ANTENNA - You don't need an outside antenna to bring in nearby and remote stationa clear and strong. Provision for outside antenna is included for those who prefer it.
S-INCH ELECTRODYNAMIC SPEAKER-A speaker that gives you plenty of tone ..., a whisper, a high violin note, a low bass, or a whole orchestra, with large console set tone quality
STREAMLINED AIRPLANE DIAL-Tune in gour stations faster, get them clearer with llluminated Dial. No crowding of stations at high trequency end of broadcast band ...all stations indicated with large numerals, evenly spacpd.
WIDE TUNING RANGE. Complete band from 535 KC to 1620 KC
TUBES USED: 12SK7 IF, 12SA7 Converter, 12SQ7 Det and 1st Audio, SOL6GT Output and 35Z5GT Rectifier
Model 1-500-Ivory Plastic with Brown Trim. For 110 volt, AC-DC operation. 12 inches wide, $61 / 4$ inches deep, $63 / 4$ inches high. Shipping weight 10 pounds.
Your Cost
\$18.95
C5243-Line Cord Resistor for 220 volt operation.
Additional

## An Outstanding Buy!

## AC-DC Superheterodyne

## In a Beautiful Wood Cabinet

Only a manufacturing miracle makes it possible for us to give you this sensationally periorming table model for to little moaey. It is possible only because of Concord's tre mendoun buying power and leadership in the radio fiold With ite rich, soft finished Walnut veneer cabinet to delight the eye, this amaxing set brings you near and distant stations with amazing Hidelity and power. It has plenty of big set foatures, using the newest super-officient miniature tuber. Truly a once-in-a-life-time value.
535-1720 KC Standard American broadcast and police band.
built -in antenna; No outside wires. Plug in and play. Connections for outside antenna if desired.
SUPERIOR SENSITIVITY AND SELECTIVITY: New miniature tubes and postwar circuit design bring in weak stations two to four times atronger than formerly UNDISTORTED POWER OUTPUT: 1 Watt. Approz imately twice that of most comparable tone quality and clanity
TUBES USED: 12BE6, 12BA6, 12AT6, 50B5 and 35W 4 These are all newest miniature type tubes.
additional features: Automatic Volume Control, Superheterodyne Liconsed by RCA laboratories with 6 tuned circuits, Litz wound I.F. Transformers and Oscillator Coill, Power line filter, completely shielded chassis, shock mounted variable condenser. Wide vimion slide rule dial for essy station solection.
Model 1-502. Operates on 105.125 volts, 50.60 cycle AC, or $105-125$ volts DC. Size $121 / 4$ inches by 6 inches by 8 inches. Shipping weight 9 pounds.
Liat price $\$ 34.95$
Your Cost each in lots of 3
\$18.95
Your Cost aach in single lots



## concord Conoolette!

## A Radio-Automatic Phonograph Combination Designed For Modern Living

Perfect for the amall home or apartmentl Here is complete home enjoyment -Radio and Automatic Phonograph comblned-in half the apace urually required by a standard Console model. Although it's truly compact in size, this set gives you all the operating convenience and quality construction you've come to expect in radlo-phonograph combinations selling at far higher prices. It recreates the artiat's original performance in all its concert hall perfection of tone-whother received by radio or reproduced from favorite recordings. The radio is senaitive and amazingly poweriul; embodying thrilling new design foalures to bring you near and distant stations with exciting elarity and volume. Under the handy hinged top is the ruggedly built automatic record player. It changes your recorda with unbelievable speed - yet it's kind and gentle in action. Just load it up and settle back to listen lo a half hour or more of enjojable recorded muvic. Plays ten 12 -inch or twelve 10 -inch recorda, automatically at one sitting, chosen to dellight your mood of the moment.
And look at the cabinet! It's really a beauty-with amart modern styling to add now attractiveness and distinction to your living room or den. Just the right height to blend into sectional furniture or bookcases. In the lower section is a spacious recond storage apace to hold a largerecord librarya most desirable convenience feature for small living rooms. Beautifully finished in walnut, heavy rugged conatruction, built acountically to elimi. nato cabinet resonance.
If you're living in crowded quarters-but long for the magnificent tone and wonderful convenience of a large console radio-phonograph-here's your set. A perfect result of the combination of the skill of the cablnet maker and the radio engineer. And here's your set, too, if you're furnishing a den or recreation room where you wich to make the most of every inch of space. It's perfectly designed for modern living.

## Sensational Radio Features

* Now improved superheterodyne, longer tube life, lorger set life.
$\star$ Iso-Tron coile-protected from air and mointure. Hghly selective Ir transformers for top efficiency, sure separation of adjacent atations
* Automatic Volume Control completely eliminates atmospheric fading and volume rises, maintains listening lovel set by the manual control.
* Manual volume control separate from On-Off switch.
* High audio output for greater fidelity. Separate tone control.
* Now full-vision slide-rule dial. Tuning ratio $43 / 4$ to 1 . Tuning range 540. to 1712 kilocycles ( 556 to 175 moters).
* Large 6-Inch high flux donsity PM apeaker of new acountic design. Features new Alnico V Permaneat Magnet.
* Tubes: 12SA7GT Local Oscillator and Mixer; 12SK7GT IF Amplifior; 12SQ7GT Detector-AVC-First Audio Amplifier; 50L6GT Boam Pow er Output; new cool, efticiont Solenium Disc Recifier.


## Improved Phonograph Features

* Lightring fast record changer. Precision made. Fast, amazingly easy to reload. Smooth, quiet operation
$\star$ Acoustically treated cabinet for improved tone.
* Zephyr weight Crystal pickup. Advanced new type with extonded frequency range, assuring remarikable faithful tone fidelity. Equipped with long life floating polnt needle.
Model No. 1.407 Walnut Finish. Cabinet size in $331 / 2$ nehes high $201 / 4$ inches wide and $171 / 2$ lncheadeop. Operates on 110 volt, 60 cycla AC only. Shipping weight 67 pounds.
Your Cont
$\$ 89.95$



## TAKE RADIO PLEASURE WITH YOU



Comoord

# 3 WAY PERSONAL PORTABLE 

## * Operates on AC or DC or Self-Contained Batteries <br> * Large Set Tone and Volume

* Economical-Low Battery Drain
* Built-In Loop Antenna

It's small . . . it's light and handy to carry . . . and it's packed with "big sel" features and performance you've always wanted in a portable. And look at the price. . . bere is truly the most sensational "buy" in a portable we've ever been privileged to offer our customers. Take this compact set anywhere . . . wherever 105 to 120 volts AC or DC house current is available... or play it far out in the country from self-contained, long-life batteries. You always get the same super sensitive reception, the same glorious tone quality that makes radio listening truly enjoyable. At your finger tips is a full broadcast band tuning range from 535 to 1720 kilo cycles. Hear domestic stations as well as most police calls
No fuss-no bother. Just open the hinged cover . . . and start listeningl No outside aerial to bother with, no batteries to connect . . . just $100 \%$ pleasure. The amazing RCA and Hozeltine licensed improved superhet circuit uses the following tubes: 1R5, 1TR, 1S5, 3Q4, and a Selendum Rectifies. 3 of these tubes serve a dual function... which means you get extra power, extra efficiency from fewer tubes. This feature cuts battery current drain and gives you real economy of operation. Superhetrodyne circuit and the built-in anterna assure fine reception everywhere. A 3 -inch dynamic speaker has an Alnico $V$ magnet. This value-pack portable is housed in a smartly styled, unbreakable plastic case. It requires two $11 / 2$ volt " $A$ " cells and one $671 / 2$ volt " $B$ " battery. Size: $81 / 2$ inches long, $41 / 8$ inches wide and $34 / 8$ inches deep. Shpg. wgt. 7 pounds with batteries.
Model 1-408. Radio without batteries.
Your Cost
\$24.95
Battery Kit for above radio.
Your Cont

## EVERYWHERE



## Concord

## MIGHTY MITE

## Use It Anywhere!

* Weighs Only 8 Pounds
$\star$ Full Vision Slide Rule Dial
* Smart Leatherette Covered Case
* Fits on the Palm of Your Hand
\& Self-Contained Batteries
Meet the friendliest little radio ever made. It goes aiong with you wherever you travel . . to the beach, to parties, to your favorite hide-away ... or It will stay right at home and entertain you. It's small enough to fit into the palm of your hand . . . but it's really a giant in performance. Its voice is big, with plenty of volume. And it's really smart looking too, in its trim, durable leatherette covered case with contrasting plastic carrying handle.
Maybe you never thought much about the "insides" of youx radio. But it's good to know this powerful Mighty Mite is ruggedly constructed to give you long, satialying performance. It's made of the finest components, including the newest miniature tubes that proved so sensational during the war for walkie-talkies and other battle equipment. The skillul design by expert engineers assures you top performance from every part and tube.
Operaies from self-contained batteries. Equipped with a built-in anterna and two midget If stages. Uses the following miniature tubes: IS5, 304, IT4 and IR5. Has a $31 / 2$-inch speaker. Easily fits on the palm of your hand for it's only 7 inches long, $61 / 4$ inches high and $33 / 4$ inches wide. Here is a portable radio with advanced design at an economical price!
Model 1-400. Portable Radio less batteries, Shipping weight 8 pounds.
Your Cont, each, in lote of 3 .
\$15.95
Your Cost, each, in single lots
$\$ 16.50$
Battery Kit for Portable Radio above.
Youx Cost

CONCORD FARM RADIO




## Designed for the Country Home <br> BATTERY OPERATED TABLE MODEL RADIO

## * Low Cost Battery Operation

* Improved Superhet Circuit for Brilliant Tone
$\star$ Built-In Loop Antenna for Long Range Reception
* Low Current Drain Battery Tubes for Economy
$\star$ Full Vision Airplane Dial for Easy Tuning
* 5-Inch PM Dynamic Speaker for Wide Range Clarity

At last . . a powerful battery operated superhetrodyne receiver, dengned expressly for the Farm or Country Home. It has all the clarity and volume, all the smart appearance of the city AC or DC operated cousin. Everything is self contained no erternal battertes or outside aerial to worry about. And what receptiont Even if you're located many miles from the nearest broadcant station, wignals roll in like magic. This amazing performance is possible ouly because Concord Farm Radio uses the newest, most efficient dual and triple purpose tubes in an improved, super-senitive superhet circuit. You'll be thrilled and delighted with the full, rich tone quality. This set features a large 5 -inch PM dynamic speaker with efficient Alnico No. 5 magnet. It handles tremendous volume with true wide range tone. A large, full vision aurplane dial tunes the entire broadcast band-from 535 to 1720 kilocycles. Covers all domestic stations and many police calle. Automatic volume control and fall range manual volume control eliminate blasting and fadiag ... always keeps your station at a constant volume level.
Here's a battery operated radio that promises-and delivers-real economy of operation. Low drain battery tubes, combined with top circuit efficiency, assure you long battery life. Operates on any battery pack supplying $11 / 2$ volts "A" and volts "B. Uses IHS Diode, Audio and Detector and Converter; 1NS5 If amplifier.
Model 1-405. Brown Cabinet. Size: $101 / 2^{\prime \prime} \times 43 / /^{\prime \prime} \times 61 / 8^{\prime \prime}$ Shpg. wgt. 7 lbs. $\$ 19.95$ Your Cost, each, in lots of 3

Model 1-404. Same as above except Ivory Cabinet.
Your Cost, eack, in lote of 3
Your Cont, in single lots
Battory Pack for above.
Your Cont


## PORTABLE RECORD PLAYER

$\star$ 3-Tube Amplifier<br>* Special Tone Control

This portable electric phonograph will surprise and delight you with its excellent conatruction and superior porformance. It plays your favorte recordings with amazing power and fidelity. You can play it in any room in the house or take it over to jour rionds. All you have to do is plug it into a wall socket and it's ready to go. Playeany tandard 10 -inch and 12 -inch ahellac, acetate or paper base recording or transcription -and with a tone quality and volume comparable to much higher priced portables High fidelity three-tube amplifier provides ample volume for even crowded ooms and loud parties. Thorés no need to readjust the volume for every record as a separate "On". "Off" switch allows you to change the records without changing the volume. Individual tone control makes it easy to adjust treble or basa to just the righ pitch. The cover can be closed while playng to elimuate needle noise. The sturdily constructed cabinet is covered with pebble finished loatherette and has a strong plastic handle for easy carrying. Self-locking hinges hold lid open when changing records Light-woight crystal pickup reduces record wear and improves tone. Improved PM peaker with eflicient Alnico $V$ magnet hander maximum volume without diatorion Operates on 110 volts, 60 cycle, AC only. Size: 15 Inches by 15 inches by $81 / 2$ inches. Model C22653. Shipping woight 15 pounds.
Your Cost, lots of 3, each
$\$ 22.95$ Your Cost, singly
$\$ 23.95$

## PORTABLE RECORD PLAYER

## With Aufomafic Changer

$\star$ Gentle on Records

## * Play Ten $12^{\prime \prime}$ or Twelve $10^{\prime \prime}$ Record

Hore's what you've been waiting for! A new portable phonograph equipped with an automatic record changer. It's complete all by itsell. All you have to do is plug it into a socket and liston to it play one record after another. For real listoning pleasure一or or partios and dascing-this portable record player given you music wherever you want It. The new dengn amplifier has full, rich tone wilh plenty of bass. Shaped like a uitcase, it's oasy to carry too. It's modernly desioned to make the best possible use of every inch of it 19 -inch length, 14 -inch width and $7 \frac{1}{2}$-lnch helght. Plays and changes AUTOMATICALLY 10 twolvo-inch or 12 ton-inch records at one witting. Changer is ruggedly built and trouble-free. It's noiseless and it's fast .... only 5 seconde between records! Gentle action increases record life, decreases breakage. Easy to load it lets you enjoy almont three quasters of an hour of unintexrupted entertainment. Lightwoight crystal pickup with replaceable neede. Boasting many tine features usually tound only in much contlier playere, this portable phonograph dolivers the Sturdy case covered in attractive pebblo finishod leatherette. Self-locking hinges hold lid opon when changing records. Operates on 110 volts, 60 cycle, AC only. Shipping woight 20 pound.
\$33.95 Your Cont, singly

## WIRELESS RECORD PLAYER

## With Aufomatic Changer

* Play Through Any Radio
* No Commecting Wires Required

No connecting wirea . . . yot you reproduce automatically through any radio within 25 feetl You can put a stack of 10 twolve-inch records or 12 ten-inch rocords on the turntable and hear them reproduced through any radio in the house-ovon your cal radio if it is within range. Volume and quality of reproduction is controlled by your home radio you hove tuned to the wireless player, Unes quiet trouble-proot automaic record changer with Hightweight crystal pickup. Quickly adjusted tor 10 -inch or 12 inch records with otton relect switch conveniontly located. Size $121 / 2$ inches by 11 inches by $81 / /$ inches Shipping weight 18 pounds.
C22651. Wireless record changer for $105-125$ volt, 60 cycle, AC only. \$28.95 C22651. Wi
428.35

C22656. Same as abore except it a wired model. Plugs into standard phonograph lack. Operater on los-125 volt, 60 cycle, AC only. Shipping woight 16 pounds. Your Cont

## PORTABLE ACOUSTIC PHONOGRAPHS

## Eand Wound-Does Not Need Electric Current

Here is the portable phonograph you've alway wished for-one you can play anywhere. Spring wound, it's perfect for picnics, summer homes, play rooms, etc. Thi new acountic phonograph playa both 10 -inch and 12 -inch records with remarkable on qualits. The sturdily built wood case is lightweight, easy to carry or pack with luggage. It is covered with extra heavy duty loatherette and has a leather carrying handle. Strong hinge holds top open when records are being played. Lld has special compartment for carrying recorda. Needlo holder has spring type cover. A special control allowe you to regulate the speed of the turntable. Winding handle of spring wound modol is detachable and tits in a special carrying siot inside when not in use Moun is precision made with "On"."Off" switch for turntable. Strong enap type locka Motor is precision made wita On in use. Your choice of elther spring wound or elecric model.
C22657. Spring wound motor. Shipping weight 14 pounde.
Your Cort
\$16.95
C22658. Electric motor. Operater on 110 volts; 60 cycle, AC only. Shpg. wt. 14 lbs Your Cort
 EASY TO USE


RCA Wire Recorder
Anyone, without previous recording experience, can make accurate, fine quality recordings. Merely plug cartridge in, turz on power and record or playl Cartridge contains simple mechanism driving two recording wires. No threading is required and it is not necessary to handle the wire. Recordings may be number of times. Absolutely fool-prooll Timing dial built into cartridge is calibrated in minutes running time for both wires. Notations of recording sequence can be made for future reference.
LIGHTWEIGAT-PORTABLE-Cary it from room to room, office to office, or take it with you on your business trips. Weighs but $241 / 2$ pounds. A built-in retracting handle permits carrying the instrument with ease.
SIMPLE PLUG IN CONNECTIONS-Microphone and Power cord connections are simple plug-in type, intantly attached or removed from terminal board at the rear of recorder. Ierminals provided for connecting an external speaker. SCHOOLS - Educational institutions of all types will find numerous uses in music departments, speech groups and foreign language classes.
BUSINESS MEN-Erecutives will find this instrument a "third band" in the recording of timely notes, interviews and conferences.
PUBLIC SPEAKERS-Public speakers, actors, clergymen and dramatists can not find anywhere a more useful assistant in their daily work. Improvement of diction, enunciation, and delivery is assured through self-study.
MUSICIANS - For artists in all phases of musical endeavor, the wire recorder is invaluable for perfecting technique, studying performance, and rendition. and $93 / 4$ inches high. Complete with one 30 -minute wire cartridge dynamic microphone on 6 -inch desk atand, microphone cable, power cord and plug. Cat. No. C22539. Shipping weight 28 pounds.
$\$ 130.00$
Cat. No. 16309. Wire Cartridges-30-minute recording time. Each.


WEBSTER Wire Recorder
Webster Model 80. Completely portable all-purpose recorder and playback unit using "Magnetic Wire Recording" principle. No needles to change, no blanks to watch-just flip a switch and start recording. So simple a child can switches and involved operating procedures. For dictation in business offices, machine wil
recorders because of ease of erasing Automa work of several cylindez-type switch. Its lightweight and ability to record continuously for one hour makes unit ideal for on-the-spot news coverage, interviews, wherever a portable recorder or long continuous recordings are required.
Magnetic wire recordings are permanent and can be replayed thousands of times. A single word or a whole program can be easily erased. Wide range volume and tone controls for recording and playback. Built-in 6-inch speakerand 3-tube amplifiez for quality, self-contained playback. External speaker can be plugged into front panel. To amplify output per connected. poses an external amplifier and speaker can be connected.
Housed in attractive case, which when closed resembles an expensive leather covered overnight bag. Complete, ready to record, includes: Recording Mechanism Microphone. Amplifier, Speaker and Three Spools of Recording Wire Cat. No. C22508. Shipping weight 32 pounds. \$149.50 Your Cost
C22507. Wire Recording Mechanism only, for building your own portable recorder or for permanent installations C16300. Extra 15 min. spool
C16301. Extra 30 min spool C16302. Extra 60 min spool
C16303. 10 -ft, input cord assembly for connecting to radio.
C16304. 10.ft. output cord assembly for external speaker or amplifier
3.53
6.32
6.32
1.75

MEISSNER Recorder-Phono-Radio and Amplifier System


I's easy to make fine recordings with this high quality unit! A high fidelity crystal cutting head assures faithful recording of program material and on Normal and overload indicators simplify control of input levels and permit any. one to cut perfect discs. Easy to follow directions are given in the instruction manual.
Radio broadcaste recorded by simply switching radio to one of the recording channels. Separate volume controls for the microphone and radio input channels techeique. Two turntabrograms to be mired and blended with recording studio disc recording and 12 -inch playback, with fult control of tone and volume. Superheterodyne receiver designed for reception over the entire broadcast band with excellent sensitivity and selectivity. Amplifier serves as announcer or public address system. With the microphone provided, the set is always ready where greater volume is required.
Everything you need is furnished with Radio-Phono-Recorder. Built-in radio and amplitier are equipped with full set of seven tubes; crystal "hand or stand" microphone and with cable are in storage compartment ready lor connection. wooden case, with heavy airplane luggage finish is, durable and attractively modern. Storage compartment for records in remoyable lid. Take the Radio-Phono-Recorder-Amplifier System with you wherever you go. Just plug into any 115 -volt, 60-cycle source.
Cat. No. C22580. Shipping weight 52 pounds.

## REASONS WHY YOUR BEST BET FOR AMPLIEIERS IS

# CONCORD 

## A Complete Line to Choose From

Your best bet for amplifiers is CONCORD because you have a complete line to choose from. Whether you need high power or low power, a portable or permanert system, a single record player or automatic changer you will tind the one to till your needs. And all at prices far belew what you would expect to pay for top quality equipment.

## You Get Everything You Need Ready to Operate

Your best bet for amplitiers is CONCORD becasse all Concord amplifiers and systems come complete and ready to operate. You get everything you need including cables, connectors and plugs. All you have to do is set it ap and plug into the electric outlet.

## Free Technical Service to Help You

Your best bet for amplifiers is CONCORD because at Concord an expert staff of engineers skilled by years of erperience in all phases of radio, electronics and public address systems stand ready to assist you free of charge. No problem is too big or too small. All you have to do is write and ask, it's absolutely FREE!

## 27 Years of Dependable Service

Your best bet for amplifiers is CONCORD because you are dealing with a company that has been in the radio and sound business for over 27 years. You can buy with utmost confidence of receiving dependable service, fine performance and true reproduction. For you are buying è product of proven quality-proven by years of use.

## You Can Pay for It While You Use It

Your best bet for amplifiers is CONCORD because it's thrifty and easy to buy them on Concord's Time Payment Plan that lets you pay for the amplifier while you are usinç it. Yes, your credit is good at Concord. It's simple, it's easy-you can buy all of the wonderful new equipment you want with only a small down payment and take a year to pay the balance.


Time Payment Plan Lets You Use It While You Pay


## Complete-Ready To OperateJust Set It Up



Free Technical Advisory
Service To Help You


Backed By 27 Years Of Experience


## Have Enough Power To Do The Job

 The following information will serve as a guide in choosing the size (wattage) of amplifier required for various installations. Determine the seating capacity or room volume in cubic feet for indoor systems or the area in square feet for outdoor systems, refer to the chart below and the last section will indicate the recommended wattage of the amplifier to use. The first column of the last section is the required wattage for installations with low noise levels, such as funeral homes, hospitals, quiet offices and warehouses. The second wattage column, where normal room noise is encountered, as in small restaurants, large offices, residential areas, light or medium manufacturing. The last column is for locations with very high noise levels such as heavy manufacturing, including boiler factories, pneumatic riveters, steel mills, large stadiums and outdoor street advertising or announcing.| Seating <br> Capacity | Area Coverage |  | equired Watis |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | door | Outdoors | Qui | or | Noi |
| - | 280,000 cu.f. |  | 2.5 |  |  |
| 1500 3000 | 600,000 cu.ft. <br> 1,200,000 cu.ft. | 30,000 sq.ft | 15 | 22.5 | \% |
| 4500 | $1,800,000$ cu.ff. | 90,000 sq.ft. | 30 <br> 45 | 67.5 | 9 |
| 6000 7500 | 2,400,000 cu.ft. | 120,000 sq. it. | 60 | 90 | 120 |
| 7500 9000 | $3,000,000 ~ c u . f t . ~$ $3,600,000 \mathrm{cu}$.ft | 150,000 sq.tt. | 75 |  | 150. |
| 9000 | 3,600,000 cu.ft. | 180,000 sq ft. | 90 | 135 | 180 |

## Use The Right Microphone In The Right Place

Fidelity is the accuracy with which a microphone reproduces sound. The wider the range, the more normal will be the sound from the speakers. In general, where conditions of feedback are likely to be encountered, a uni-directional type of microphone is best. Bi-directional, or velocity, types are recommended for studio and recording purposes but not for outdoor work, as serious distortion is introduced by the effects of wind. Crystal microphones are considered good all around instruments except where temperatures of 120 degrees or more are encountered. Dynamic types are more rugged and can be used indoors or outdoors, but are generally more expensive than crystal microphones. For complete information on uni-directional, bi-directional and semi-directional microphones see the microphone section
in the following pages. in the following pages.
It is always advisable to locate the microphone of a sound system in such a position that the least amount of sound from the loud speakers will re-enter the mike. Wherever possible, operate the microphone as close as possible to the amplifier or try to keep the length of the microphone
cable as short as possible.


Select And Locate Speakers Carefully
When selecting a speaker or speakers, it is advisable to have the total wattage ratings of the speakers equal to or greater than the
wattage output of the amplifier you have wattage output of the amplifier you have selected. If intended to use a 30 -watt amplifier, a 10 -watt speaker can be used by itself, but it would not be capable of handling the full output of the amplifier. Therefore more 10 -watt speakers would be recommended, or if one speaker only is to be used, we would recommend one with a 30 -watt rating. All speakers shown on our speaker pages have a power handling rating indicated in watts. All speakers should operate in some kind of enclosure, to protect the speaker and act as a sounding board. Several types of enclosures or baffles are avail. able and fully described on the page listing baftles.
Speakers should be mounted in such a manner that they will reproduce the sound to the desired location only. Remember sound can be distributed by wire more easily than by air. Consequently an announcement or call made into a microphone at a location such as a telephone switchboard can be conveyed to various selected locations in a large building by merely placing the speaker in the proper area. It is recommended to use more speakers in order to distribute sound properly and tend to saturate the area with sound rather than have it blast from one speaker and create unnatural effects. For instance, in a large church with a high dome and ceiling and hard walls, one or two speakers
would cause the sound to reflect from the walls in all direcwould cause the sound to reflect from the walls in all direc-
tions and possibly create an echo effect as well as distortions and possibly create an echo effect as well as distor-
tion. By using two or more speakers on each side of the church walls and not too high from the floor, a soft mellow effect would result with the sound properly distributed only where it is required, that is, in the seating area and not
at the dome or ceiling. at the dome or ceiling.


## Choose Accessories To Fill All Your Needs

After selecting an amplifier with the proper wattage and determining the number and location of speakers and microphones, decide whether a phonograph will be required and if an output indicator is necessary. The Concord Multiamp Amplifier is available with a built-in output level indicator and can also be equipped with a single record phono top or an automatic record changer, giving you all the features you need in one unit! Regardless of whether you need a portable or permanent system, a large or small unit, you can find the correct sound equipment to fill your needs in the following pages. If you have a special P.A. problem consult Concord's lree Technical Advisory Service for the help of expert
sound engineers.

# PORTABLE SYSTEM 

- Ideal for pitchmen, store demomatrationa and lecturers
* Compactly deaigned, lightweight-it's really portable
* Conservatively rated at 7 watte output
* Covers audiences up to 700 people

Here is an amplifying system that has been especially designed to fill the needs of atore demonatrators, pitchmen and others who want small audience coverage. Here is a low powar amplifier with the dependability and fine pertormance of a large unit.

Separate Inputs For Microphone and Phonograph. Fader control for microphone-phonograph controls volume and lets you change from one to the other smoothly, easily, as you desire. Almost any external type phonograph can be used.
Compact Design Make Carrying Easy. Lightwoight with overything in one cane It' r really portable. The 8-inch PM speaker is mounted in a strong, leatheratte covered, wooden case. This case also holde the amplifier and the microphone. Four atrong enap locks hold the lid securely closed when being carried.
The 7 Watt Amplifier has a recessed, indirectly illuminated front panel and is mounted in an attractively styled cabinet. Output transformer is mounted in the amplifier so that a second speaker can easily be added. Tubes consast of 1-6SL7. 1-6L6 and 1-5Y3. Extremely low hum level- 60 db below rated output, 102 db gain on microphone channel, 70 db gain on phono channel, output impedance taps al 4 and 8 ohme. Has one fader volume control, one tone control and rotary "On"."OH" switch. Steel eabinet has a burgundy wrinklo finish and is open at the back for easy access to chassis.

Cat. No. 2-100. 7 watt Reliance Amplifier complete with tubes, Instruc. tions and all necessary connecting plugs. Sh. wt. $18 \mathrm{lbs} . \$ 21.75$ Your Cont

Cat. No. 2-101. 7 watt Reliance Portable Amplifier System shown at the right. You got everything you need ready to operate. All you have to do is set it up. Syatem consists of 7 watt Rellance Amplifier complete with tubes, all necessary connecting pluge, Shure model 718 A Versatex With tubes, all necessary connecting plugs, Shure model microphone with cable 8-inch P.M. speaker with 35 -feel of cable
 mounted in a portable case that also holds the amplifier. Shipping
weight 42 pounds.
\$38.75

## PERMANENT SYSTEM

* Ideal for clubs, recltals, and small groups
- Output transformer is mounted in the amplifier
* Separate inputa for microphone and phonograph
* You get everything you need- complete system

For all around dependability and superb performance here is a truly remarkable value in a low power amplifier. It 7 watty output covers audionces up to 700 people making it an ideal system for clubs, restaurants, mall halls, music recitals, call systeme, schoole, offices or anywhere that a limited area is to be served. Compactly designed, it if bult of the finest materials and componente and expertly engineered to the highest standards of performance
A Complete Syatem. You get everything you need including amplitior, speaker, wall baffle and microphone, speaker cable and microphone cable. All you have to do is set it up.
The Amplifier. The 7 watt amplifier is the same fine quality Reliance amplifier doscribed in the portable system above. The tone control has broad variation to sult your preference or the acoustics of the place where the amplifier is to be used. With the output transiormer mounted in the amplifier a second speaker can easily be added. Overall fre quency response in from 70 to 10,000 o.p.s.
The Speaker. The speaker is a Concord PM 8 -inch with extremely tine trequency response. It has 35 feet of speaker cable.
The Wall Baffle. The fabricoid wall baftle is denigned to accommodate the B-inch speaker. It is sturdily built and correctly angled to provide coverage over a wide area.
The Microphone. Shure Model 718A Versatex complete with 7 feet of cable. Has an RF tilter.

Cat. No. 2-102. 7 watt Relfance Deluxe Permanent System shown at the right. All you bave to do is set it up. You get everything you neod ready to operate. System conaists of 7 watt Reliance Amplitior complete with tuber and all necessary connecting plugs, Shure model 718A Versatex microphone with cable, fabricoid covered wall baffle and 8 -inch P.M. dynamic epeaker with 35 feet of cable. Shpg. wgt. 32 lbs .
Your Cost
\$32.80
Cat. No. 2-103. Same as 2-102 above except with 28 -inch apeakerz 70 feet of cable and 2 wall baffles. Sh. wt. 42 lbs .
$\$ 38.95$

## Your Coat

Cat. No. 22047. Microphone Floor Stand. (Shown on page 22.) A top quality, chrome-plated, telescopic stand for use with either of the systems quove. Height is adjustable from 35 inches to 68 inches. Shipping woight 19 pounds.


# 15 and 30 watt CONCORD DELUXE 

## Compare <br> These Features With Any Other 15 Watt Amplifiex

$\star 7$ Tubes
$\star 15$ Output Impedances
$\star 2 \%$ Distortion

* 2 Dual Purpose Inputs


## Flexibility of Input and Output

Two dual purpose input channels are provided, each of which has two input jacks, one for microphone and another for phono player inputs. Thus the amplifier can operate with 2 mikes or 2 phono inputs simul taneoualy, or 1 phono and 1 microphone. Microphone and phono inputs may be mired with the amoothness of broadcast studio equipment. The microphone input gain of 110 db . is more than enough to match any high quality microphone or other input device. Power output is conservatively rated at 15 watts output. It has only $2 \%$ distortion at normal rated output and at peal power.
Fifteen output impedances are provided in order than an exact impedance match may be effected with any output device or line; thereby affording greater efficiency and consequently requiring less power to cover a given area. An impriated chart is permanently screened on the bottom cover plate listing impedances (see "SPECIFICATIONS") Bass-Treble type tone control is provided, affording a tonal range from a deep mellow bass to a criap high treble. This well tapered tone control will make possible the compensation of acoustical differences.

## Advanced Circuit Design

High gain tubes and parts are mounted on shock absorbing mounts to prevent microphonic noises that frequently occur with amplitiere when rubber shock mounting is not used. Input stages are coupled to the output stage by the transformer method which provides better overload performance. The 15 watt output stage employs the patented beam focusing circuit which affords great efficioncy of power conversion. The resulting high quality output of this amplifier is truly remarkable and is to be equalled only in higher power amplitiers at far greater cost.

## Streamline Design Cabinet

Cabinets are constructed of sheet steel and cast aluminum for lighter weight and better heat dissipation. Handles are cast into the cast aluminum sides, thereby eliminating the old style protruding handles which are ugly and add to the overall size. Cabinets are finished in two-toned burgundy enamel and wriakle with polished aluminum borders for decorative offecte. Knobs are of a contrasting ivory tone. Amplifier top is arranged to allow for maximum ventilation.

Phonograph Top Available. The top panel of both the 15 and 30 watt modele can be removed and replaced by a new panel housing the phono motor. This panel is drilled beneath the phono turntable in order to provide adequate ventilation for the motor and the amplifier. All connections come from a panel on the back for protection againet damage. Available in Permanent and Portable Systems. You can buy either the 15 or 30 watt amplitier only, or, you can get either one in a complete portable or permanent system that's ready to operate.

## 30 Watt Concord Deluxe Amplifier

Designed to cover indoor audiences up to 3000 people and outdoor areas up to 60,000 sq. It. it's an ideal unit for ballrooms, railroad terminale, churches and theatres. It has the same universal type inputs, focused beam circuit, modern cabinet and other features of the 15 W att Concord Deluxe described at the left except for power, impedance taps and tome other specifications shown below.

## Specifications of 30 Watt Concord Deluxe Amplifier

30 watts, 70 valts Normal Power Output. 5\% Distortion. 40 watts Peak Power Output. 2 Microphone Inputs. 2 Phono Inputs 60 db Phono Gain. 105 db Microphone Gain. -55 db Hum Level. $50-10000$ c.p.s. Frequency Response. Bass-Treble Tone Control. Two gain controls with phono and microphone input on each. $4,8,166$ ohms output impedances. Operates on 110 watts at 117 volits, AC, 60 cycle. Tubes: 2784, i-757, 4-6V6 and 2-6X5.
Size: $15^{\prime \prime}$ by $10^{\prime \prime}$ by $83 \mathrm{~m}^{\prime \prime}$. With phono: $15^{\prime \prime} \times 10^{\prime \prime} \times 10^{3} / \mathrm{m}^{\prime \prime}$.

## Accessories for Concord Deluxe Amplifiers

Cat. No. 2-107. Accessory Phonograph Top for Concord Deluxe Amplitiers (see D on opposite page). Shipping weight 9 pounds. $\$ 1 \mathbf{1} 50$
Cat. No. 20077. Deluze All-Steel Projector (see B on opposite page) for 12 -inch speaker. Can be used with any Permanent System. Shipping weight 13 pounds. Your Cott, each
Cat. No. 20056. 12-inch Leatherette Covered Wood Wall Baffes (see C on opposite page). Can be used with any of Permanent Systems. Shipping weight 6 pounds each. Your Cost, each
$\$ 4.10$

## SPECIFICATIONS

## 15 Watt Concord Deluxe Amplifier

Normal Power Output 15 watts; Peak Power 30 watys.
Distortion
$.2 \%$ at 15 watts
Mierophone Channels-2 each át 110 db
Phono Chanzels-2
Pass-Treble Tone Controil each at 70 db . 55 db . below full signal Frequency Response. ..... 50 to 10000 c.p.s. 15 Output Impedances: 1.3 2.7, 4, 5.3, 8, 16, 125, 167, 180, 200, 250, 415, 460, 500, and 600 ohms.
A.C. Line Power Requirements: 117 volts, 60 cycles, 70 watts; with phono 84 watts.
Tube Line up: $4-6 S 17,2-6 \mathrm{~V} 6 \mathrm{GT}, 1-6 \mathrm{X} 5$. Dimensions: $15^{\prime \prime}$ by $10^{\prime \prime}$ by $8^{3} / 6^{\prime \prime}$. With Phono: $15^{* \prime}$ by $10^{\circ}$ by $10 \mathrm{~h}^{\prime \prime}$.


## AMPLIFIERS and SYSTEMS



You Get A

## Complete

## System

Ready to Operate

- Amplifiex
* Speakers and Cables
* Microphone and Cable
* Floor Stand
* Cayrying Case


## 15 Watt Concord Deluxe Amplifiers and Systems

Cat. No. 2-105. 15 Watt Concord Deluxe Amplifier (shown on page at left) with tubes, instructions and necessary con necting plugs. Shipping weight 22 pounds.
$\$ 37.50$
Cat. No. 2-108. 15 Watt Concord Deluxe Portable System (shown above). You get everything you need ready to operatel All you have to do is set it up. System consists of 15 Watt Concord Deluxe Amplitier, iwo 12 -inch Alnico V G.E. PM speakers with 70 feet of cable and mounted in carrying caser that also hold the amplifiers. Shure model 707A20 microphone (zee B on opposite page) with 20 feet of cable and a floor stand. Shipping woight 70 lbs. \$78. 50
Cat. No. 2-109. Same as 2-108 above except with a Turner model 22 X microphone (see E on opposite page) with 20 feet of cable instead of the Shure model 707A20. Sh. wt. 70 lbe. Youz Cost.
Cat. No. 2-110. Same as $2-108$ above except vith Electrovoice model 610-20 microphone (see C on opposite page) with 20 feet of cable, instead of the Shure model 707A20. Sh. wi. 70 lbs. Your Cost
$\$ 84.65$
Cat. No. 2-115. 15 Watt Concord Deluxe Permanent Syatem. Complete, ready to operate. All you have to do is set it upl System consinte of 15 Watt Concord Delure Amplitier, two 12-inch G.E. PM speakers (see A below) each with 35 feet of cable. Shure model 707 A20 microphone (see B on opposite page) with 20 feet of cable and a dloor stand. Shipping weight 63 pounds.
$\$ 64.80$

## Your Cont

404.80

Cat. No. 2-116. Same as 2-115 above except with a Turner model 22 X microphone (see E on opposite page) and 20 feet of cable inatead of the Shure model 707A20. Shipping weight 63 pounds.
$\$ 67.95$
Cot No. 2-117. Same as 2-115 above except with a Electropoice model Cat. No. 2-117. Same as $2-115$ above except with a 21 ectrovoice model
610.20 microphone (see C on opposite page) with 20 feet of cable in-$610-20$ microphone (see C On opposite page) with 63 teet of cable instead of the Shure model 707A20. Shipping weight 63 pounds. Your Cost
$\$ 70.95$

## 30 Watt Concord Deluxe Amplifiers and Systems

Cat. No. 2-106. 30 Watt Concord Delure Amplifier (shown on page at left) with tubes, instructions and necessary connecting plugs. Shipping weight 25 pounds.
Your Cost
$\$ 54.95$
Cat. No. 2-111. 30 Watt Concord Deluxe Portable System (shown above). You get everything you need ready to operate! All you have to do is set it up. System consists of 30 Watt Concord Deluze Amplifier, two 12 -inch G.E. Alnico V PM speakers with 70 teet of cable and mounted in carrying cases that also hold the amplifier, Shure model 707A20 microphone (see B on opposite page) with 20 feet of cable and alloor tand. Shipping weight 73 pounds.
Your Cost
$\$ 95.95$
Cat. No. 2-112. Same as 2.111 above except with a Turner model 22 x microphone (see E on opposite page) with 20 feet of cable instead of the Shure model 707A20. Shipping weight 73 pounds.
Your Cost
$\$ 99.10$
Cat. No. 2-113. Same as 2-111 above except with a Electrovoice model $610-20$ microphone (see C on opposite page) with 20 feet of cable, instead of the Shure model 707A20. Shipping weight 73 pounds. Your Cost.
$\$ 102.10$
Cat. No. 2-118. 30 WaH Concord Deluxe Permanent System. Complete, ready to operate. All you have to do is set it upl System consists of 30 W att Concord Deluxe Amplifier, two 12-inch G.E. PM speakers (see A below) each with 35 feet of cable. Shure model 707A20 microphone (see B on opposite page) with 20 feet of cable and floor stand. Shipping weight 66 pounds.
$\$ 82.25$ Your Cost
482.25

Cat. No. 2-119. Same as 2.118 above except with a Turner model $22 x$ microphone (see E on opposite page) and 20 feet of cable instead of the Shuse model 707A20. Shipping weight 66 pounds.

## Your Cost

$\$ 85.90$
Cat. No. 2-120. Same as 2-118 above except with a Electrovoice model $610-20$ microphone (see C on opposite page) with 20 feet of cable inatead of the Shure model 707A20. Shipping weight 66 pounds. Your Cost
$\$ 88.90$



## 32 Watt Amplifier and System

For the finest mobile installations-here are deluxe systems that have everything. 32 watts of power is provided at less than $5 \%$ distortion. 35 watts of power is available when needed
Three separate input chamels: two for high impedance microphones; one for high impedance phonograph. All can be mixed and laded. The Triple Range Electronic Tone Corrector provides the widest possible control of frequency response to compeniate for the varying conditions encountered in mobile sound work. This exclusive feature permits individual boosting or attenuation of the bass and treble registers.
Completely self-contaited. The constant speed phono-motor is protected by a hinged cover. A six-volt DC and 115 -volt AC power supply is built in. Changeover is automatic and foolproof. A standby switch on the illuminated sloping control panel disconnects $B$ supply, but keeps tilaments heated. Battery consumption is reduced, component life is increased and the system is ready at all times for instant use. Provision is made for standby operation from a remote point. Nothing has been is made ior standby operation irom a remote point. Nothing has been syntems. Used indoors or out, on 6 -volt DC or 110 -volt AC, they will syatems. Used indoors or out, on 6 -volt DC of $110-\mathrm{y}$
Cat. No. 2-122. 32 Watt Mobile Amplitier with phono for operation on 6 -volt DC and 115 -volt AC, 60 cycle. Complete with tubes and 6 -volt
 Your Cost Cat. Ne. 2-126. 32 Watt Mobile Amplifier System. (Shown above.) Consists of 32 Watt Mobile Amplifier, 2 University Projectors each with
a 25 -watt driver unit and 35 feet of cable and a Turner model 9D Han-D-Dynamic microphone with 20 feet of cable. (See $A$ below.) Shipping weight 93 pounde.
$\$ 233.90$ Your Cost.
Cat. Ne. 2-127. Same as $2-126$ above except with a Electrovoice model 950 Cardaz (aee C below) and 20 teet of cable instad of the Turner model 9D Han-D.Dynamic microphone. Shipping weight 95 pounds. Your Cost
$\$ 237.30$
model 55
Cat. Ne. 2-128. Same as $2-126$ above except with a Shure model 55 9D Han-D-Dynamic microphone. Shipping weight 97 pounds. Your Cost
$\$ 247.50$

## 19-23 Watt Amplifier and System

Can be operated on either a 6-volt storage battery or on 115 volts AC. Conversion from one power supply to the other is automatie and fool. proof. Rated as a 20 -watt amplitier, actually produces 23 watts on AC current and 19 watts on DC current at less than $5 \%$ distortion.
Two input chanmela are provided: one for high impedance microphone; one for the built-in constant speed phonograph. The 2 channels have gain controls and can be mixed and faded. The tone compensafor effecta individual control of treble and bass frequencies.
Two power switches, mounted on the four-coloz control panel, permit separate control of amplitier and phono-motor supply.
lnside and Out-here is a thoroughly engineered amplitier. Two-tube rectitior circuit, push-pull output, easily accessible controls and connectors, and terminal board mounted components.
Indors, and erminal board mounted components.
Indect for rallies, fairs, parades and straightforward indoor or outdoor PA work.
Cat. No. 2-121. 19-23 Watt Mobile Amplitier with phono for operation on 6 -volt DC and 115 -volt AC, 60 eycle. Complete with tubes and 6 -volt and 115 -volt power cables. Shipping weight 46 pounds. $\$ 98.49$
hown above) Cat. No. 2-123. 19-23 Watt Mobile Amplifier System. (Shown above.) speakers each with 35 feet of cable, 2 spun steol sound projectors and a Turner model 9D Han-D-Dynamic microphone. (See A below.) Shipping woight 93 pounds.
$\$ 148.40$
Youz Cost
$\$ 148.40$
Cat. No. 2-124. Same as 2-123 above except with a Electrovoice model 950 Cardar (see C below) and 20 feet of cable instead of the Turner model 9D Han-D-Dynamic microphone. Shipplng weight 95 pounds. 65 Your Cost
$\$ 151.65$
Cat. No. 2-125. Same as $2-123$ above except with a Shure model 55 Unidyne (see B below) and 20 feet of cable instead of the Turner model 9D Han-D-Dynamic microphone. Shipping weight 97 pounds.

## Youz Cost

$\$ 161.75$
Cat. No. 22047. Adjustable Floor Stand. (See D below.) Adjustable from 35 inches to 68 inches. For use with any mobile system. Shipping weight 19 pounds.
Yoight Cost

SPECIFICATIONS - MODEL 2-121
SPECIFICATIONS - MODEL 2-122
POWER OUTPUT: 32 watts at lesn than $5 \%$. Peak power: 40 watts.
FREQUENCY RESPONSE: $30-12,000$ cycles plus or minus 2 db .
GAIN: Microphone: 120 db . Phono: 70 db . HUM: AC: -70 db ; 6 -volt DC: -60 db .
INPUT IMPEDANCE: Microphone channels (2), 500,000. Phono channel (1), 500,000 ohms. OUTPUT IMPEDANCE: 4-8-15-250-500 ohms. Available at terminal strip and two built-in speaker socketa.
POWER CONSUMPTION: 120 watt, 117 V AC: 28 amps. 6 V DC.
TUBES: Total 8: 3-6SF5, 2-6SL7GT, 2-6L6G, 1-5U4G.
DIMENSIONS: 16 inches long, 16 inches wide, 101/4 inches high.

POWER OUTPUT: AC: 23 watts at $5 \%$; DC: 19 watts at S\%. Peak power: AC: 39 watts; DC: 30 watts.
FREQUENCY RESPONSE: $30-14,000$ cycles plus or minue 2.5 db .
GAIN: Mierophone channel: 109 db . Phono channel: 67 db .
HUM: AC: Fund: -66 db ; Mic.: -55 db . DC: Fund: -69 db ; Mic.: -58 db .
INPUT IMPEDANCE: Microphone channel (1): 500,000 ohms. Phono channel (1): 500,000 ohms.
OUTPUT IMPEDANCE: 4-8-15-250-500 ohms, available at both terminal strip and two speaker sockets.
POWER CONSUMPTION: 90 watts, 117 V AC; 17.5 amps, 6 V DC.
TUBES: Total 6: 1-6SJ7, 1-6SL7GT, 26L6G, 2-6X5GT.
DIMENSIONS: $151 / 2$ inches long, 10 inches deep. $121 / 2$ inches high.

## for FLEXIBLITY, FIDELITY Mnd POWER

## MULTIANPRAd + + 2 mic AMPLITIHRS



Plughin power


|  | 4 | 53 | 8 | 18 | 250 | 600 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

15 output impedances


Only $2 \%$ harmonic distortion


Dual tone control

On the following pages Concord presents ite Multiamp Amplifiers. An entirely modern line of amplifiers ... modern in conception and deaign... modern in construction... modern in performance. These Multiamp Amplifier are not prewar models in a now cabinet but are completely new inside and out. For all of the engineering "know how," the technical skill gained in over 15 years of work with sound systems has gone into Multiamp Amplifiers step by step to create an amplifier that is amazingly new and better in performance. The entire Multiamp line is an ontirely now and original concept in amplifier design. Juct compare the many features, and remember Multiamp Amplifiers are exclusive at Concord.
Plug-in Power For More Wattage At Less Cost When you want more power you simply plug-in additional inexpensive power atages. Instead of requiting three different amplifiers to cover 30,60 or 75 watt jobs you now need only one with inexpensive plug-in power stages. Yes, one Multiamp unit does the work of three for you can have 30,60 or 75 watt power in one case.

## Dual Tone Controls For Delicate Tone Shading

 Every Multiamp Amplifier has separate bass and treble tone controle. You can accentuate or attenuate high or low frequencies without affecting the opposite frequenoy range. By attenuating both controls it is possible to limit the response of voice frequencies for maximum intelligibility. With this dual tose control you always have purity of tone even at full volume. You get faithful reproduction of even the most delicate tones.
## 15 Output Impedances For Greater Flexibility

You can match any combination of speakers indoors or outdoors. Whether your problem involves extra speakers, a special line, or some new piece of equipment such as a recorder you can easily and quickly solve it if your amplifier is a Concord Multiamp. The 15 output impedances are $1.3,2.7,4,5.3,8,16,125,167,180,200,250,415,460$ 500 and 600 ohms. Inputs are provided to accommodate up to 2 micro. phones and 2 phono pickups.

## Patented Focused Beam Circuit For Greater Efficiency

In conventional beam power circuits, under heavy load, during the portion of the cycle in which the plate potential drops conaiderably below the screen potential, electrons are diverted from their normal path and attracted to the acreen resulting in excessive screen current (overload), distortion and ahorter tube life. In Multiamp Amplifiers

## Engineered for Tomorroum AvailableToday itS ExClusine ar CONCORD

this effect is greatly reduced by applying an initial plate potential appreciably higher than the screen potential and further supplying the screen voltage from a resistance network. This lowere the screen potential under heavy loada, reaulting in fewer electrons being attracted to the sereen, or diverted from the focused path thus avoiding acreen overload, distortion and ecreen deterioration. This results in more than $50 \%$ additional undistorted output power and longer tube life, constant plate current, quality comparable to a class A triode, extreme stability, practically no driving power and only $2 \%$ harmonic distortion at the rated output. The cost is actually low er than a standard circuit giving less output.

## EXPANDABLE-It Grows With Your Needs

Regardless of how small a Multiamp unit you start out with and regardlens of how your neede change, your Multiamp Amplitier will never become obsolete. For the exalusive Add-A-Unit feature lets Multiamp grow with your needs. You can easily and quickly add an acceasory phono player top, neon output indicator, automatic record changer, power itages or booster amplitier. You can increase a 30 watt Multiamp Amplitier to 60 or 75 watts and a 45 watt Multiamp Amplifier to 75 or 90 watts simply by plugging in a power stage. You don't have to buy a new amplifier!

## Sturdily Constructed For Years and Years of Use

 You can depend upon Multiamp Amplifiers for faithful service year after year because not even the smallest detail has been overlooked. All input and output jacks and connectors are recessed for protection. All high gain atages are shielded from the output and power stages insuring a low hum level. Carrying handles are recessed in the cast aluminum ends. The top is ventilated. The indirectly illuminated front panel has a smooth burgundy finish with ivory nomenclature. The reat of the cabinet has a two-tone wrinkle burgundy finiah with aluminum trim. A matching chart for the 15 output impedances is printed on the boltom cover plate. The multiple chassis makes it easy to service unit by unit.
## Multiamp's Value Has Been Proven By Use

Before a single Multiamp Amplifier was made, all of the designs and parts were tested and compared with other amplitiers by skilled sound parifinere. Then, a litlle more than a year and a half ago, Multiamp engineers. Then, a little more than a year and a half ago, Multiamp Amplifiers were offered to Concord's customers. The acclaim of thou-
sands of users during the first 18 months hat proven what the laboratory sands of users during the first 18 months has proven what the laboratory
technicians discovered that Concord Multiamp is the best amplifier you can buy.

## 30 <br> AND




Amplitier in case


Amplifier case closed

## It's Portable, It's

$\star$ Plug-in power up to 90 watts

* 15 separate output impedances
* Individual bass and treble tone controls
* Only $2 \%$ harmonic distortion at rated output
$\star$ All accessory equipment fits into the base cabinet
* Available in portable and permanent systems
* 30 watt for audiences up to $3000 ; 45$ watt up to 4500

Here is the flexible amplifier that you've always warted-an amplifier that grows with your neede. For here is a 30 watt amplifier that can be increased to 60 or 75 watts and a 45 watt amplitier which can be increased to 75 or 90 watts just by plugging in an additional power unit. This "Add-A.Unit" feature of Concord's Multiamp Amplitiers makes the expense of a new amplitier unnecessary when a higher output is needed. You don't oven need a new cabinet, for these power stages are built as integral plug-in units requiring only a screwdriver to change the overall output wattage of the amplitier.
Universal input and output. The inputs accommodate up to 2 mi crophones and 2 phono pickups. Input and output jacks and connectort are recessed to protect them from damage. Skillful designing of these units has shielded the high gain atages from the output and power stages to insure the lowest possible hum level. The 15 separate output impedances make it easy to match any combination of lines or speakers. The 15 outputimpedances are $1.3,2.7,4,5.3,8,16,125,167,180,200,250$, $415,460,500$ and 600 ohms.
Individual controls for bass and treble reproduction make pos. sible delicate tone shading and full bodied volume as you can attenuate or accentuate either the high or low frequencies without affecting the opposite frequency range. By attenuating both of these controls it is possible to limit the response of voice frequencies for maximum intelligibility. This dual tone control and its resulting purity of tone is only one of the many features that make Concord Multiamp Amplifiers "Yops" in the PA system fleld.
All accessory equipment fits into the same cabinet as the amplifier. You can add a phono top or an automatic record changer top and a lifiex. You can add a phono top or an automatic record changer top and a
visual type output moter and have one compact unit with all of the convisual type output meter and have one compact unit with all of the controls on the front panel within easy reach of the operator. The accurate
visual type output meter enables even the inexperienced operator to visual type output meter enables even the inexperienced operator to
monitor remote speakers and maintain proper output level. Essentially it monitor remote speakers and maintain proper output level. Essentially it
consist of two neon indicators, one marked "Normal," and the other Consists of two neon indicators, one marked "Normal, and the other output at any predetermined value of the total amplifier output. When this pre-set level is reached, the first neon indicator lights. When the pre-set level is overloaded, the second neon indicator lights. Thus any operator can easily keep a close check on actual performance.
Portable system amplifiers are housed in a two piece carrying case attroctivels covered in handsome tan simulated rawhide leather. The paix of 12 -inch PM dynamic speakers are housed in bass reflex enclosures for perfect bass response. These enclonures are so designed that they form a two-plece carrying case covered with the same material as the amplifier case. Each speaker has a 35 -foot cable with male and female plugs.
Multiamp Amplifiers are the product of the finest englneering skill, nothing has been overlooked. The burgundy smooth tone front skill, nothing has been overlooked. The burgundy smooth tone front panel is iluminated by indirect lighting Carrying handes are recessed in the cast aluminum ends. The top panel is ventilated. An outputim-two-tone burgundy wrinkle finish and polished aluminum trim. A line fuse is incorporated in each unit. They never become too small for your needs as they are expandable. Just Add-A-Unit as needed!

# AMPLIFIERS $_{\text {ano }}$ SYSTEMS 

## Add+ $\neq$ +Unit 30-45 Watt Power Stage

## FAdd+f+Unit Output Indicator

## Add $+\mathscr{A}+$ Unit Phonograph Top <br> Add $+\mathscr{A}+$ Unic Record Changer

## Permanent, It's Exclusive at Concord

## 30 Watt Multiamp Amplifiers and Systems

Cat. No. 2-200. 30 Watt Multamp Amplifier. With tubes, instructions and connecting plugs. Shpg. Wt. 38 lbs.
$\$ 86.25$
Cat. No. 2-205. 30 Watt Multiamp Portable Syatem. (Shown on page at left) You get everything you need ready to operate. All you have to at eitt) You get everything you need ready to operate. All you have io
do is set it upl Syatem conampta of 30 Watt Multiamp Amplitier in carrying do is set it upl Symem coneagte of 30 Watt Multamp Amplitier in carrying Crystal microphone model $910-20$ (see A below) with 20 .feet of cable and a floor atand. Shpg. wt. 116 lbs.
$\$ 142.60$

## Your Cost

Cat. No. 2-206. Same as 2.205 above ercept with a Shure model 737A Monoplex Crystal microphone (see B below) and 20 -feet cable, in stead of Electrovoice $910-20$ microphone. Shipping welght 116 lbs Your Cost. ..........6.6. Cat. No. 2-207, Same as 2.205 above but with a Electrovoice model 950 Cardax Crystal microphone (bee C below) and 20-feet cable Insterd of Electrovoice $910-20$ microphone. Shpg. wt. 116 lbs .

## Your Cost

$\$ 149.00$
Cat. No. 2-212. 30 Watt Multiamp Pormanent System. You get everything you need including 30 Watt Multiamp Amplitier (shown on page at lo(t). complete with tubes, connectors and, 70 ft . speaker cable two heavy duty 12 -inch G.E. PM speakers (see G below). Electroroice raicrophone model $910-20$ (see A below) with 20 -feet of cable and tloor tand. Shipping weight 70 pounds.
$\$ 114.95$
Cat. Nom 2-213. Same as 2-212 above but with a Shure model 737 A Monoplex Cryatal microphone (see B below) and 20 -feet of c.sble. instead of Electrovoice $910-20$ microphone. Shpg. wt. 70 lbs Your Cost
5118.95

Cat. No. 2-214. Same as $2-212$ above but with a Electrovioce model 950 Cardar Cryatal microphone (see C below) and 20 -feet of cable Instead of Elactrovoice $910-20$ microphone. Shpg. wt. 70 lbe.
Tour Cost
$\$ 121.45$

## 45 Watt Multiamp Amplifiers and Systems

Cat. No. 2-201. 45 Watt Multiamp Amplifier. With tubes, instructions and connecting plugs. Shpg. wt. 47 lbn .

## Your Cost

$\$ 95.75$
Cat. No. 2-208. 45 Watt Multiamp Portable System. (Shown on page at left) You get everything you need ready to operate. All you have to do ie set tt upl System conists of 45 Watt Multamp Amplifier in carrying case, two 12 -inch GE P.M. speakers in carrying cases. Electrovoio Crystal microphone model 910.20 (see A below) with 20 -teel of cable and a floor stand. Shpg. wt. 120 lbe .
\$152.10 Your Cost
Cat. No. 2-209. Same as 2.208 above but with a Shure model 737A Monoplex Crystal microphone (see B below) and 20 -feet of cable instead of Electrovoice $910-20$ mierophone. Shpg. wt. 120 lbs . Your Cost
$\$ 156.10$
Cat. No. 2-210. Same as 2.208 but with a Electrovoice model 950 Cardax Crystal microphone (see C below) and 20 -feet of cable, instead of Electrovoice $910-20$ microphone. Shpg. wt. 120 lbs. Your Cost
$\$ 158.50$ Cat. No. 2-215. 45 Watt Multiamp Permanent System. You get everything you need including 45 Watt Multiamp Amplitier (shown on page at left) complete with tubes, connectors and 70 ft . of apeakers cable, two heavy duty G.E. 12 -inch PM speakers (see G below). Electrovoice Crystal microphone model 910-20 (see A below) with 20́feet of cable and a floor stand. Shpg. wt. 74 pounds.
\$124.45
Cat. No. 2-216. Same as above but with a Shure model 737A Monoplex Crystal microphone (see B below) and 20 -feet of cable, instead of Electrovoice 910-20 microphone. Shpg. wt. 74 lbs.

## Your Cost

$\$ 128.45$
Cat. No. 2-217. Same as $2-215$ above but with a Electrovoice model 950 Cardax Crystal microphone (see C below) and 20-feet of cable instead of Electrovoice 910-20 Microphone. Shpg. wt. 74 lbs.
$\$ 130.95$

## Accessories For Multiamp Amplifiers and Systems

Cat. No. 2-202. Phono Player accessory top for Multiamp Amplitiera. (Shown on page 29) Shpg. wt. 10 lbs .
$\$ 11.75$
Your Cont
Multiamp
Cat. No. 2-203. Automatic Record Changer Accessory Top for Multiamp Amplifiers. (Shown on page 29) Shpg. wt. 19 lbs . Will not it in por ystem.
$\$ 30.75$
Cat. No. 2-204. Neon Output Indicator for Multiamp
Cat. No. 2-204. Neon Output Indicator for Maltiamp Amplifiers. (Shown on page 29) Shpg. wt. 2 lbs
$\$ 4.75$
Cat. No. 20051. Walnut Wall Baffle. (See F below) Designed to emphasize bass responses. They spread sound over wide areas Ideal for use with most permanent systems. Shpg. wt. 8 lbs, each
 In Paixu........................................................................ $\$ 4.95$ Cat. No. 20077. Delure All-Steel Projector (see E below) For use with 12 -inch speakers. Designed to direct sound and carry it farther than wall baftles. They create a criep penctrating tone. Use with any of the permanent systems above. Shpg. wt. 13 lbs .
$\$ 10.53$


# 60 wno 75 warr MULTIAMP 




## SPECIFICATIONS*

60 Watt Multiamp Amplifier
Output: 60 Watts, Normal, 120 Watts Peak Power
Distortion: Total Harmonic, 2\% or lesa
Channels:
2 kigh gain microphone channels
2 phono or program channels
Gain:
Microphone Channels 116 db
Medium Gain Channels 80 db
Tone Controlk: 1 Baes equalizer and 1 Treble, 25 db range Hum \& Nolse: Mike channels: 60 db below 60 watts. FreqLency Range 30 to 10,000 cycles adjustable.
Output impedances:
$1.3,2.7,4,5.3,8,16,125,167,180,200,250,415,460$ 500 , and 600 ohme
Tube line up; 2-6SQ7's, 1.7F7, 1.7A4, 8-6V6GT' and 4-7Z4's Line Drain: @ 117 volts, 60 cycle A.C. is 200 watta, wita phono 220 watts.
Dimensions:
$18 \cdot / 2^{*} \mathrm{~W} \times 14^{1} / 4^{*} \mathrm{D} \times 10^{3} / /^{*} \mathrm{H}$, with phono $123 / /^{\prime} \mathrm{H}$, with changer $16^{\prime} \mathrm{H}$

## 75 Watt Multiamp Amplifier

All Specifications same a above except: as followe: Outpat: 75 Watts Normal, 150 Watts Peak Power Line Drain: (a) 117 volts, 60 cycle A.C., is 245 watts, with phono 265 watts.
Tube lime-up: $2-6 S Q 7^{\prime}$ s, 1-7F7, 1-7A4, $10-6 \mathrm{~V} 6 \mathrm{GT}^{\prime} \mathrm{s}, 2-74^{\prime} \mathrm{s}$ Tube line-up:

* All specifications shown are based on using tubes having RMA aversje values and line voltage set in the 120 volt tap position.


# They're Powerful- 

$\star$ Only $2 \%$ total harmonic distortion at rated output

* 15 individual output impedances
* Separate treble and bass tone controls
* Can be used indoors or outdoors
* All accessories fit into the same cabinet
* Designed for those who want power and flexibility
$\star 60$ watt covers audiences up to 6000
$\star \mathbf{7 5}$ watt covers audiences up to $\mathbf{7 5 0 0}$


#### Abstract

Concord 60 and 75 watt Multiamp Rmplitiers mean power ... power to cover the entire crowd, so that everybody can easily hear... power enough for fair grounds, athletic fields, halls and factories. . power that brings every sound, every note, every tone to every ear. Here are 60 and 75 watt amplifiers with separate bass and troble tone controls, 15 individual output impedances and all of the other many famous Multi-


 amp features.All accessory equipment fits into the same cabinet as your amplifier. You can add a phono player top or an automatic record changer and vigual type output indicator and still have a single compact unit with all of the controls on the front panel.
When more power is whet you need additional output stages can be utilized as booster amplitiors. A monitoring apeaker of the PM type can be mounted on the grille on the front pamel of the cabinet to be used with these booster unith. These units will stack on top of each other and connect with the original amplifier so that almost any situation can be handled in one installation. For additional detalle on power stages and booster amplifiers for Multiamp Amplifiers see the following pages.
A neon output indicator is only one of the many Add-A-Unit acceasories that can be easily installed in these amplifiers. For information on this visual typo output meter see the preceding pages.
The single player phono top is an accessory that when combined a Multiamp Amplifier opens the door to a new world of high tidelity musical reproduction. Churches, chapels and mortuaries that require top quality humless and distortion free reproduction of organ music, bolle and chimea will Hind this phono top and a Multiamp Amplifier the ideal combination. Skating rinks, dance pavilions and other users of dance music recording" will enjoy the faithful reproduction of even the highest noter Anyone can asily install this player phono top on any Multiamp Amplifier. The only tool you need if a serewdriver. This single record player top has a high quality crystal piokup and a tingle speed motor.
The automatie record changer top playa 10 twelve inch records or 12 ten inch records automatically, with the completion of the lant record it atops automatically. It is an acceasory that can be quickly installed on any Multiamp Amplifier. This unit is ideal for supplying background or danco music in restaurante or other places that desire continuous entertainmentas you may have thirty minutes of uninterrupted music from ten inch records. Stores will find it juat the thing for ballyho or sales proinch records. Sores will find it just the thing for ballyho or sales promason ainglespeed $78 \mathrm{r} . \mathrm{p} . \mathrm{m}$. motor and a true tangent tone arm with a high quality cryatal pickup.
The moderat design cabinets have cast aluminumsiden with recessed handlen, illuminated front panel, two-tone burgundy finish and all of the other features found in the 30 and 45 watt Multiamp Amplifiers. 60 and 75 watt Multiamp Amplifiers are also available in portable systems. Write to our Technical Advisory Service for details.

# AMPLIFIERS 

ano SYSTEMS


## They're Expandable - They're Economical

## 60 Watt Multiamp Amplifiers and Systems

Cat. No. 2-218. 60 Watt Multiamp Amplifier. Complete with tubes, instructions and connecting pluge. Sh. wt. 51 lb .
\$120.95
Cat. No. 2-220. 60 Waft Delure Muithamp Permanent Syatem. (Shown on page at left). You get everything you need. All you have to do is set it up! Syatem consists of 60 watt Miltiamp Amplifier, 4 Univeraity trwmpets and driver anite each with 35 -ft. of epeaker cable, floor stand and Electrovolce Model V1 Velocity microphone (see C below) with $2 \mathrm{C}-\mathrm{ft}$. of cable. Shipping weight 120 pounds.
\$288.25
Cat. No. 2-221. Same as $2-220$ above but with a Shure Sonodyne Model 51 Dynamic microphone (see B below) instead of Electrovoice V1 Velocity microphone. Shipping weight 120 pounds. Your Cont.
$\$ 288.00$
Cat. No. 2-222, Same as 2-220 above but with a Turner U9S Dyamic microphone, (see A below) inetead of Electrovaice V1 Velocity microphone and $20-\mathrm{ft}$. of cable. Shipping waight 120 pounds.
Your Cost
$\$ 292.30$
Cat. No. 2-226. 60 Watt Multiamp Permanent Systom. Everyth ng is ready to operate. All you do is set it up. System consists of 60 watt Multamp Amplitier, 4 heavy duty 12 -inch GE PM speakers each with 35 ft . of speaker cable (see E below), floor stand and Electrovoice Model V1 Velocity microphone (see C below), with 20-ft. of cable. Shisping weight 99 pounds
Your Cost
$\$ 171.75$
Cat. No. 2-227. Same as $2-226$ above but with a Shure Sonadyne Model 51 Dynamic microphone (see B below), instead of Electrcuoice V1 Velocity microphone. Shipping weight 99 pounds. Your Cost microphone. Shipping weight 99 pounds.
$\$ 171.50$
Cat. No. 2-228. Same as 2.226 above but with a Turner U9S Dyamic microphone (see A below) instead of Electrovoice V1 Velocity micro. phone, and $20-\mathrm{ft}$. of cable. Shipping weight 99 lbs .
Your Cost
$\$ 175.80$
Cat. No. 2-202. Phono Player Accessory Top for Multiamp Amplifiers. (Shown above.) Sh. wt. 10 lbs.
$\$ 11.75$
Cat. No. 2-203. Automatic Record Changer Accessory Top for Mult. amp Amplifiers. (Shown above). Will not fit in portable systeme. Shipping weight 19 pounds.
$\$ 30.75$
Cat. No. 2-204. Neon Output Indicator for Multiamp Amplifiera. (Shown above.) Shipping weight 2 pounds. Your Coat

## 75 Watt Multiamp Amplifiers and Systems

Cat. No. 2-219. 75 Watt Multiamp Amplifier. Complete with tubes, Instructions and connecting plugs. Sb. wt. S8 lbs. \$130. 40
Cat. No. 2-223. , 75 Watt Delure Multiamp Permanent System, (Shown on page at left). You get everything you need. All you have to do is set it up. System consists of 75 watt Multiamp Amplifier, 4 University trumpets and driver units each with 35 .ft. of speaker cable, floor stand and Electrovoice Model V1 Velocity microphone (see C below) with $20-\mathrm{ft}$. of cable. Shpg. wt. 127 lbs .
$\$ 297.70$
Cat. No, 2-224. Same as 2.223 above but with a Shure Sonodyne Model 51 Dynamic microphone (see B below) instead of Electrovoice V1 Velocity microphone. Shpg. wt. 127 lbs. Your Cost.
$\$ 297.45$
Cat. No. 2-225. Same as 2.223 but with a Turner U9S Dynamic microphone (see A below) instead of Electrovoice V1 Velocity microphone and $20-\mathrm{Ht}$. of cable. Shipping weight 127 pounds.
Your Cosi
\$301.75
Cat. No. 2-229. 75 Watt Multiamp Permanent Systom. Everything is ready to operate. All you do is set it up. System conaints of 75 watt Multiamp Amplifier, 4 heavy duty 12 -inch GE PM speakers, each with Multiamp Amplifier, 4 heavy duty 12 -inch GE PM speakers, each with V1 Velocity microphone with $20-\mathrm{ft}$. of cable. Sh. wt. $106 \mathrm{lbs} . \$ 181.20$ Your Cost
$28-20$
Cat. No. 2-230. Same as $2-229$ above but with Shure Sonodyne Model 51 Dynamic microphone, instead of the Electrovoice V1 Velocity microphone (see B below). Shipping weight 106 pounds. Your Cost
$\$ 180.95$
Cat. No. 2-231. Same as $2-229$ above but with a Turner U9S Dynamic microphone (see A below) instead of the Electrovoice V1 Velocity microphone and $20-\mathrm{Ht}$. of cable. Shipping weight 106 pounds. Your Cost
$\$ 189.15$
Cat. No. 20051. Walnut Wall Baffle. (See G below). Designed to emphasize bass responses it spreade the sound over wide areas. Ideal for use with any permanent system. Ship. wi. 8 lbs, each.

## Your Cost

each $\$ 5.25$
Cat. No. 20077. Deluze All-Steel Projector. (See F below). For use with 12 -inch speakers. Designed to direct sound and carry it farther than wall baffles they create a crisp penetrating tone. Use with any system above. Shipping weight 13 pounds. Your Cost.
$\$ 10.53$



## Complete System for High Power Installations

* Multiple chassis
* 15 output Impedances
* Only $2 \%$ harmonic distortion
* Individual bass and treble tone controls
- Inputs accommodate up to 2 microphones and 2 phono pickups

Here is an amplifier that has power enough for every type of operation indoors or out. Here is a superbly engineered unit that's packed with the nowest and best developments for outstanding performance in high power amplifiers. Here is a Concord 90 Watt Multiamp Amplifier.

Regardless of how your requirements may change this amplifier never becomes obsolete because it has all of the famous Multiamp features. You can quickly and easily add a 30 to 90 watt booster amplitier, a phono player top, output indicator, automatic record changer or any of the many Multiamp accessories. The 15 output impedances allow you to match almost any combination of lines and speakers. The individual bass and treble tone controls plus a maximum of $2 \%$ harmonic distortion insure faithful reproduction of even the most delicate tones and allows you to limit the response of voice trequency for greatest intelligibllity. The multiple unit chassis makes it easy to service unit by unit. Get the power you need, order a Multiamp Amplifier today.

Cat. No. 2-232. 90 Watt Multiamp Amplitier Complete with tubes, instructions and all necessary connecting plugs. Shipping weight 65 pounds.
$\$ 139.80$
Cat. No. 2-233. 90 Watt Multiamp High Power Amplifier System. (Shown abovd.) You get Amplitier System. Shown abovery y you there's nothing else to buy. System consists of a 90 W att Multiamp Amplifier, 4 University trumpets each with a Amplifter, 4 University trumpets each with a 25 waft driver unit and 35 feet of cable, a Shure model 55 Unidyne microphone with cable (see A above) and a floor tiand. Shipping weight 130 pounds.
$\$ 316.25$

## Your Cost

Cat. No. 2-234. Same as 2-233 above but with an Electrovoice model 726 Cardyne Dynamic microphone, (see B above) instead of the Shure model 55 Unidyne microphone. Shipping woight 130 pounds
$\$ 318.25$
Cat. No. 2-202. Accessory Phomo Player Top lor Multiamp Amplifiers. (Shown on page 29.) Shipping weight 10 pounds. \$11.50 Youz Cost
Cat. No. 2-203. Accessory Automatic Record Changer Top for Multiamp Amplifiera. (Shown on page 29.) Sh. wt. 19 lbs.
$\$ 30.75$
Cat. No. 2-204. Accessory Neon Output Indicator for Multiamp Amplifiers. (Shown on page 29.) Shipping weight 2 pounds. Your Cost
$\$ 4.75$


# MULTIAMP ADD-A-UNIT CENTRALIZED SOUND SYSTEMS 

Unlimited Output...Unlimited Input Channels Immediate Delivery!

Concord Multiamp Add-A-Unit Amplitiers make it possible to assemble in a mattor of minutes what would ordinarily be custom built systems with unlimited output wattage requiring technicians hours to install. Equipment with power outputs greater than 100 watts or with facilities for special inputs, impedances and other features which vary with each installation were always considered to be in the custom built class. Thie in turn meant extremely high costs and little or no flexibility once the equipment was manufactured to special requirements. But the extreme flexibility of Concord's Multiamp Add-A.Unit Amplifiers makes this custom bult equipment standard stock itemsl Facilities for unlimited wattage output, phono players, automatic record changer, output indicator and many other accessories are available and may be included in a stacked cabinet assembly as illustrated at the left . . . and all at the low cost of regular atock items instead of the usual high cost of custom built installations.
Solve your sound system problems the easy, economical way by installing Multiamp Add-A.Unit Amplifiers. Write to Concord's free Technical Advisory Service for complete detaile of how to till your public address needs to perfection.


## Multiamp Booster Amplifiers and Accessories

## (0) Multiamp Plug-In Power Stages

Multiamp plug-in power atagen are the same high quality output stagas used with the 30 and 45 watt Multiamp Amplifiers. Like all Multiamp Amplifiers they have a maximum harmonic distortion of only $2 \%$ at rated output. These units may be used to increase the power output of any 30 or 45 watt Multiamp Amplifier simply by plugging it into the basic unit. This Installation takes only a fow seconds and does not require the use of any special tools or the assistance of a technician. The 30 watt Multiamp power stage uses four 6V6 and two $7 \mathrm{Z4}$ tubes. The 45 watt Multiamp power stage uses six 6 V 6 and two $5 Z 4$ tubes. Overall sizes: $171 / 2$ inches wide by $43 / 4$ inches deep by $51 / 2$ inches high.

Cat. No. 2-237. 30 watt Multiamp plug-in power stage (see D above) complete with tubes. Shpg. wt. 16 lbs
$\$ 36.65$ Your Cost
$\$ 46.10$

## (C) Multiamp Booster Amplifiers

Multamp Booster Amplifiers are designed for use with Concord Mult amp Amplifiers to increase the power output of the unit to which thay are added by values to total up to 270 watts of output. Amplifiers with this extremely bigh output are especially designed for use in baseball parks, race tracks, stadiums and all other outdoor or indoor locations pequiring great sound coverage. Booster Amplifiers come in 30 and 45 watt power output. Their harmonic distortion is only $2 \%$ at the ratad output. They have 15 output impedances and all of the other Multianp featuren described in the preceding pages. Booster Amplifers are faturer described in ine preceding pages. Booster Ampuners are ineludes a cabinet that is of the same modern design as the Multiamp includes a cabinet that is of the same modern design as the Muliamp Amplifier cabinet. This cabinet has provision for a monitor speaker. Tae
bottom is designed to recess and stack on top of other Booster Amplitiers. bottom is designed to recess and stack on top of other Booster Amplitiers.
30 watt unit can be increased to 60 or 75 watts and the 45 watt unit 30 watt unit can be increased to 60 or 75 watts
to 75 or 90 watts by adding plug-in power stages.
Cat. No. 2-235. 30 watt Booster Amplifier (see C above) complete w.th tubes. Shipping weight 36 pounds.
$\$ 61.45$ Youz Cost
51.55

Cat. No. 2-236. 45 watt Booster Amplifier (see C above) complete w.th tubes. Shipping weight 38 pounds.
Your Cost

## (B) Portable Bass Reflex Speaker Enclosure

Two 12 -inch permanent magnet dynamic speakers are housed in these reflex enclosures to insure periect basa response. The enclosure are so designed that they form a two-piece portable carrying case attractively covered in handsome tan simulated rawhide leather. Each speaker has 35 feet of speaker cable complete with male and female plugs. Recessed receptacles guard connectors against damage. Overall eize: 14 inches by $191 / 4$ inches by $211 / 4$ inches.
cat. No. 22055. Shipping weight 25 pounds.

## Your Cost

$\$ 14.50$

## (5) Portable Multiamp Amplifier Carrying Case

Covered in the same fine material it matchen the speaker enclosures described above. Top can be completely removed, so that the amplitier is easily accessible, simply by opening the four stroag saap locks. Two sturdy handles covered in bimulated leather make carrying easy. All sturdy handles covered in imulated leather make carrying easy. All Overall size: 15 inches by $15 \mathrm{l} / 2$ inches by 20 inches.
Cat. No. 22057. Shipping weight 17 pounds.
$\$ 9.75$

## Your Cost

## (A) Combination Amplifier and 12-inch Speaker Carrying Case

A carrying cane that hold. two 12 -inch speakers plus an amplifier Made of 3 /日inch thick plywood covered with beautiful tan simulated Made of /日eninch thide plywood covered with beautiful tan simulated rawhide leather. Lock-corner construction with metal corner shields for added protecton. Four sasp locks hold case securely closed. that alides eather handles make carrying easy. Amplitfer fits on a board that alides in or out of the case quickly and easily. Although this case was designed for Concord Deluxe Amplifiers it will hold any amplitier that is 15 inches by 10 inches by $83 / 4$ inches. Overall size of case: $141 / 4$ inchea by $181 / 4$ nches by $211 / 2$ inches.
Cat. No. 22056. Shipping weight 24 pounds.
Your Cost
$\$ 11.25$

## (c) Combination Amplifier and 8-inch Speaker Carrying Case

A carrying case that holds an amplifier and an 8 -inch speaker. Beautitul tan simulated rawhide leather covers strong $1 / / 4$ inch plywood. Lockcorner construction, 4 sturdy map locks and a thick simulated leather carrying handle make it a case you can trusi with your equipment Overall mize: 12 inches by 11 inches by $151 / 2$ inches.
Cat. No. 22058. Shipping weight 10 pounde.
Your Cost
\$6.95

## dmercommunication <br> SPECIAL DELUXE

## Master Selective Systems



Master Selective Systems consist of one Master Station one Master Station and up to ten SubStations. You can build your system progressively befinning with the Master Station and one Sub-Station, and adding ot her Sub-Stations as the need develops Master Station may call any Sub Station individually, or may call all Sub Stations simultaneously. Sub-Stations may call Master but not each other. Master selective systems sounds from Sub Station lications when not in use.

How to Estimate Cable
Mea ure distance between Master Station and each Sub-Station, then order equivalent to the total footage of these distances.

## Super Selective System



Fig. 11

An unusually vereatile, low-cost inter. communication system offering complete privacy of conversation and flexibility to meet iny requirement in
industry, offices, in. stitutions. etc. Consists entirely of Masterstation units so that several separate two way conversations may be car ried on simultaneously. Any one Master Station may talk to any other Master Station less of. Masters may caleing called has power "On" or not.

## How to Estimate Cable

Simply measure distance between Master Units starting from any one Master to the second, to the third, etc., until you reach the last station in the system. thet order equivalent to the total footage of these distances.

## Combination Master System



Fig. 118 The ultimate in flexibility. "this system consists of Master Stations
and Sub-Stations in any combination desired. You may start with Two Stations (at least one must be a Masier) and add Stations as needed. Master Stations may call any other Master or Sub-Stations. Sub-Stations may an wer Master but cannot talk to each other nor can they originate calls to Master Stacommon or any Mister Station may have individual Sub-Stations.

How to Estimate Cable
Measure cable from Master to Master. Order total of these distances in Master type cable. Measure Sub-Station cable from Sub-Station to nearest Master only

## TALK-A-PHONE SPECIAL DELUXE

Far Reaching Power-person called at Sub-Station can answer at distances of 40 It. from the unit. Either Master Stations and Sub-Stations may be operated at distances of up to 2.500 feet from each other Economy is stressed in the operation. Master Stations can be operated for as little as 1.5c per month in Electric Current. Master Station Units are housed in attractive wal. nut wood cabinets measuring $93^{3}$ " wide $x$ $6^{\prime}$ deep $\times 6^{3} 4^{\prime \prime}$ high. Shpg. wt., 8 lbs. SubStations have durable Melat Cabinets $5 \frac{3}{4} \mathrm{x}$ $334 \times 7^{\circ}$ Shpy w1 3 ibs. Special DeLuxe Systems operate on $110-115$ volts AC or DC.

## Master Selective System

 See Figure 1Mode! KR-505 Special Deluxe Master Handles one to five stations. With tubes and instructions. Shpg. wt. 91 bs
C20100
$\$ 24.95$
Your Cost
Model KR-4010-Special Deluxe Master. Handles one to ten stations. Complete with tubes and instructions. Slipg. wt. 9 lbs. C20101-
$\$ 29.95$
Your Cost
Model RU-433S Sub-Station. Shpg, wt. 11 lbs.
C20102 Your Cost.
\$8.25
C16000-Cable for above. Per 10 ft. .52c

## Super Selective System

 See Figure 2You may begin with two Masters and add Units up to a total of ten as desired. Thus as many as five complete two-way conversations may be maintained simultaneously. Mode! KS-6010-Special DeLuxe Super Selective Unit. Two to ten units may be used. With tubes and instructions.
C20103-
$\$ 31-50$
C16007-Cable for above. Per 10 ft
Your Cost.......................... $\$ 2.00$
Combination System
See Figure 3
The Special DeLuxe Combination Model utilizes either Master Stations or SubStations in any Combination.
Model KC-8050-Special DeLuze Master Station. Handels one to five stations. With tubes and instructions
C20104-Your Cost.
$\$ 32.35$
Model UC-821S. Sub-Station unit. C20105
Your Cost
$\$ 7.25$
C16012-Cable. The proper cable for in-ter-connecting KC. 8050 Master Stations. Per 10 ft . Your Cost
$\$ 1.70$ C16005-Cable. The proper cable for connecting UC-821S to KC -8050 Master Stanecting UC-821S to KC-8050 Master Sta-
tions. Per 10 ft. Your Cost ..........35c

## TALK-A-PHONE DELUXE SYSTEMS

The finest in Inter-Communication-both in performance and appearance. Powertul Amplifier delivers $2 \frac{1}{4}$ watts, allows person at Sub-Stations to allswer 50 ft . from unil, Silent Feature cuts out all noise orizinating at Sub-Station, yet permits originating at Sub-Station, yet pernuts ter Stations. Privacy Earphone (optional) ter Stations. Privacy Earphone (oprionat earphones used. Beautifully finished walnut cabinets, finished back and front. $12^{*} \times 6^{\frac{1}{2}}{ }^{2} x$ $5^{3} \mathbf{g}^{\circ}$. Shpg. wt. 10 lbs. Sub-Stations in matching walnut wond cabinets $7{ }^{\circ}{ }^{\circ} \times 33^{\prime \prime} \mathrm{x}$ 61 g. Shpg. wt. 4 lbs. For operation on
110.115 volt AC or DC.

## Master Selective Systems

 See Figure 1Model KR-40-Deluxe Master Station, for use with up to ten Sub-Stations. With tubes. instructions and junction box. Shpg. wt.
10 lbs. ${ }^{10}$ lbs. 20106 Your cost $\ldots 34,95$ Model KR-AD-C - With Privacy Earphone
C20107-Your Cost
$\$ 43.50$
Model RU-43-Theluxe wood Sub-Station. Shpg wt. 1 lbs. \$1T25 Model RU-43M-1) Luxe metal Sub-Sta-
C20109-Your Cost $\$ 11.25$
C-16000 - Cable for connecting Sub Station to either type Master. Per 10 it. beither ty
Your Cost
All Deluxe Systems shown on this page are available in Underwriters Listed Models at small additional cost.
Pushbutton Operated Models also available. Write for quotations on your specifications.

(A) Model 630. Moving coil dynamic, Acoustalloy diaphragm. High quality reproduction of speerh and music, indoors and outdoors. Flat frequency response from $40-9000 \mathrm{cps}$. Out put -53 db . Tilting head for directional or non directional use. Built-in cable connector and switch. Complete with 20 ft . ca ${ }^{5}$ libs. Hi -impedance.
(A)

(B) Model 605. Dynamic for general sound work, paging, call, dispatch systems, recording and communications. Flat frequency response from $50-7500 \mathrm{cps}$. Output -57 db . Acoustalloy diaphragm. Head at fixed tilt of $22^{\circ}$. Satin chrome finish. Complete with 8 ft cable and connectors, Hi-impedance. Shpg, wt 5 lbs. C13785-Your Cost
\$14.41
C13784-Your Cost. With 20 ft . cable. $\$ 15.29$
(B) Model 905. Crystal. Same design and characteristics as Model 605, except for
-54 dh output. High capacity moisture sealed crystal.
C13723-With 8 ft . cable
Your Cost
$\$ 9.710$
C1372 - With 20 ft . cable. Your Cost. $\$ 10.58$Model 610. Dynamic. For ham rigs, public address and paging systems. Quality reproduction of voice and music. Acoustalloy diaphragm. Substantially flat frequency response from $50-8000 \mathrm{cps}$. Output -53 db . For durable service indoors and outdoors. Head at $15^{\circ}$ fixed

 | tilt. Satin chrome finish with 8 ft. cable. |
| :--- |
| C13725. |
| Your Cost. . . . . . . . . . . . . |
| I |

-1. -35 C. Model 910. Crystal, high quality, high sign and characteristics as Model 610, except for -48 db output
C13727-With 8 ft. cable
Your Cost
$\$ 13.23$

## C13728-With 20 ft . cable. Your Cost. $\$ 14.11$

(D)
Model 600-D. Hand-Held Speech Dynamic. Designed for clear, crisp speech transmission in communications, public address, and recording. Extremely rugged for use indoors or out at temperatures from 100-6000 18 , 1 from $100-6000 \mathrm{cps}$. Output -55 db . Push-to-talk switch operates mike and relay. Panel mounting bracket on rear of case. Equipled with
6 ft of cable. Black phenolic case. Hi-impedance. \$8
C13729-Yur Cose C13729-Your Cos
521.46

## SEMI-DIRECTIONAL MICROPHONES

Semi-directional microphones are pressure microphones that reapond to variations in sound pressure. They include Crystal. Dynamic Carbon and Condenser generating elements. These are substantially non-directional although they tend to become directional at the higher frequencies. For a microphone of $21 /{ }^{\prime}$ diameter, directivity starts a about 2000 c.p.s. and increases with frequency.
Pressure microphones are excellent all-purpose instruments where con ditions of room reverberation, acoustic feedback and ambient noise are not too severe. The better quality types are desirable for broadcas announcing and remote pick-up, public address, amateur communica tion and recording. Recommended for outdoor as well as indoor work.


## SHURE

(A) Model 708-A. Stratoliner for good reproduction of voice and music. Genuine Bimorph crystal. Frequency response 60-8000 cps. free from undesirable peaks. High output of -53 db . Tilting head for directional or non directional use Pearl Gray finish with cable. Hi -impedance.
\$12.35 C13633- Your Cost
.$\$ 13.23$

(C) microphone that offers quality at low cost. Frequency response from $60-8000$ cps . Output - 52 db . With 15 ft . cable. Hi impedance. Similar in appearance to Model ${ }^{707}$ C13631
Your Cost
$\$ 11.76$

(C)
Model 51 Sonodyne. Pressure dynamic microphone. For general purpose use Operates on principle of moving coil element in magnetic field. Peakfree response $60-10,000$ cps . Switch on front of case for output of 56.1 db at $40 \mathrm{ohms},-56.8 \mathrm{db}$ at 250 ohms , or -55 db at Hi-impedance. Rich Pearl Gray finish. With

## (D)

 C13432Your Cost.
518.23
(D) Model 76-8. Lapel Mike. Designed for public address, lecturing, and portable transmitters for intelligible speech reproduction Pressure-actuated diaphragm type crysta microphone. Frequency response $40-6000 \mathrm{cps}$ Output -57 db . With lapel clip, 25 ft of cable. Dia. $17 / 8^{8}$. Hi-impedance. $\$ 1363$ Your Cost. . . . . . $_{2}$. $8 ?$

(E)
Model 718-A. "Versatex". Diaphragm type sealed crystal mike. Suitable for use as hand mike, on floor stand or as desk stand. Built in RF protective resistor. Frequency response $60-8000 \mathrm{cps}$. Output -5 db . Ideal for Hams, paging systems, home recording, and low cost P'A systems. In heavy maroon shock resisting plastic case. With 7 ft . cable li-impedance.
C13629-Your Cost
$\$ 5.88$

## CONTACT MICROPHONES


(B)

## AMPERITE KONTAK MIKES

## For All Musical Instruments

Faithfully Reproduce the Vibrations of any Musical Instrument Reproduce the entire audible range without introducing any annoying peaks. Used extensively by many famous name bands. Increase timbre -create new effects. Available, as illustrated with (B) or without (A) hand volume contra, For use on regular mike channels of any high im pedance input amplifier having 60 db . or higher gain. Moisture-proof rubber cases may be attached to any musical instrument. Avcrage shpg. wt. 4 lbs. each.
(A) Without Volume Control ( $1 \times 3 \times 1^{\prime \prime}$ )

Stock No. Model Range Level Cable
 (B) With Volume Control ( $3 \times 1 \times 5 / 8$ )

C13690 KKH $40-6000$ c.p.s. $-30 \mathrm{db}, 25$-ft. \$1. 5 ? C13687-Strap for flat top guitars. Your Cost.

(C)
"KF" Foot Volume Control Provides smooth control of volume by foot action. For any high impedance Kontak mike. Size: $9 \times 21 / 2^{2} \times 1^{\prime \prime}$. Supplied with $15-1 \mathrm{t}$ cable. Shpg. wt. 4 lbs
C13663-Your Cost
s10.58

## LGP Input Transformer

(D) Matches 50 or 200 ohms to hi-impedance input. Standard for close (1) talking microphones; Laboratory for voice and music. \$4.................... 0

## TURNAR contact Mike

Model MM Provides amplified volume from any stringed instru ment without feed back. Volume centrol built in $31 /{ }^{\prime \prime} \mathrm{x}^{15} 1{ }^{6}$
Model MM, complete with $20-\mathrm{ft}$. cable
Your Cos
$\$ 10.5:$
C13758-Without Volume Control. Your Cost.


## SEMI-DIRECTIONAA

 TURNER MICROPHONES

(A)Model 33D Dynamic. For amateur work, recording, and orchestra pickup. $90^{\circ}$ tilting head for semi- or non-directional use. Specially designed aluminum diaphragm, quality Alnico magnet. Frequency response $30-9000 \mathrm{cps}$. Output -54 db . Satin chrome tinish. With 20 ft . cable and connectors. Hi-impedance. c13752-Your Cost
$\$ 15.88$
(A) Model 33X Crystal. Shock mounted. moisture sealed. Rochelle salt crystal, baromelric compensator. Design and other character istics same as model 33 D except -52 db output. C13753-Your Cost.
$\$ 144$
(8) Challenser Models. Inexpensive, practical microphones for general purpose work. For inexpensive public address, and paging systems, amateur rigs, home recorders. Crystal models, have shock mounted, moisture sealed Rochelle salt crystals, barometric compensators and wind gag to prevent blasting. Dynamic has specially designed aluminum diaphragms. All with 7 -ft. cable, and are hi-impedance. Model CD Dynamic. Frequency response $50-7000 \mathrm{cps}$. Output -52 db. Satin chrome finish.
C13763-Your Cost.
$\$ 11.47$
Model CX Crystal. Frequency response $50-7000 \mathrm{cps}$. Output -52 db . Satin chrome finish.
C13765-Your Cost.
59.55

Model BX Crystal. Frequency response $50-6000 \mathrm{cps}$. Output -52 db . Attractive Brown enamel finish. C13764-Your Cost.
\$6.38

(C)
Model U9S. Professional type dynamic. For remote broadcast, Cecording, amateurs. Adjustable saddle tilts $90^{\circ}$ for semi- or nondirectional pickup. Specially designed aluminum diaphragm. Frequency response $40-9000 \mathrm{cps}$. Output -52 db . Baked gun metal finish With 20 feet cable and connectors. Hi-impedance. C13754-Your Cost.
$\$ 23.52$
(D) Man-D Crystal or Dynamic. For stage work, amateur, and call systems. Can be mounted on floor or desk stand, has suspension hook for hanging. Slide contact on-off switch. With 7 ft . cable and connectors. Satin chrome finish. Hi-impedance.
Model 9D Dynamic. Frequency response $60-7000 \mathrm{cps}$. Output -52 db . C13760
415.88

Model $9 \times$ Crystal. Frequency response $0-7000 \mathrm{cps}$. Output -52 db C13759-Your Cost.
(E) Model 22D Dymamic. For a mateurs, call E and paging systems, general use indoors and outdoors. Ninety degree tilting head permits semi- or non-directionalo peration. Quality Alnico magnet. Frequency response $50-9000$ cps. Output -54 db . Satin chrome finish. With 7 ft cable and connectors. Hi-impedance. C13751-
$\$ 2 \in 19$
Model 22X Crystal. High quality, humidity protected crystal. Mechanical shock proof mounting. Equipped with automatic barometric compensator. Same design and characteristics as model 22 D except output of
db
C13750_- Your Cost . . . . . . . . $\$ 7$ (F) Model 20X Crystal. New lightweight, low cost hand mike for home recorders, ama"Metalseal" Rochelle salt crystal. Barometric compensator. Frequency response $50-7000 \mathrm{cps}$ Output -54 db . Rich Brown enamel finish With 7 ft cable. Hi-impedance. $\$ 7$. 88
C13768-Your Cost.........
\$7. 5 C13769-As above with switch. . . . . . . . $\$ 8.73$

## ASTATIC

(G)Model T-3 new improved crystal, superb response for amateur rigs, recording, and P.A. Tilting head for semi-or non-directional Use. Output -52 db . Chrome plated finish. With cable, spring cable protector, and connector 11 -impedance. Shpg. wt. 3 lbs. C13670-
\$18.08 Model GT-3. Model T-3 microphone with Grip-To-Talk stand. Shpg. wt. 5 lbs. C13525-Your Cost.................... $\$ 19.32$
(H) Model JT-30. Inexpensive. All-purpose amateur, home recording, and portable sound systems. Frequency response from $30-10,000 \mathrm{cps}$. Output is . 52 db . Mounted on combination hand and desk stand, with heavy die cast interlocking base. Finished in Opalescent Gray and Bright Chrome grille. Complete with concentric cable connector, and 15 ft . of cable. Ili impedance. Shpg. wt. 4 lbs.
C13427- Your Cosit.
$\$ 9.97$

MICROPHONE ACCESSORIES

(1)
(11)


(ㄴ)

Speco "Max-Mixer" Mike Input Mixer for adding and mixing two or more mikes than provided by regular input of amplifier. 3 individually controlled hi-imp. inputs. With adaptor. adaptor

Your Cost
$\$ 1$ ?Mike Dust Cover keeps dust, grit, moisture from working parts. Permits use of sensitive mikes in windy areas by elimination of wind howl. Reproduction is $95 \%$ true with cover in place.
C13450- Your Cost.
594
(L) Carbon Granules extra fine quality, guaranteed non-adulterated. Sufficient for refilling one two-button carbon mike. C13481
Your Cost.
294
(ii) Wike Springs of finetemperedsteel. Dia. C13402-Your Cost

(1)

(0)

(P)

(a)

(S)

(1)
(N) (O) Mike Base Flanges and Extension uous permanent moused or neat inconspicpous permanent mounting on desk top, pulpit, speaker stands, amatcur rigs and telephone switchboards. Fits all standard $/ 827$ mike mounts. Available in male or female types. Base dia. $11 / 4^{\circ}$. 3 mounting holes with $7 / 8$ mounting centers. Extension rods male on both ends.
C13350-Male Flange. Your Cost......30c C13351-Female Flange. Your Cost. . . . 30c C13352-6 Extension Rod. Your Cost..44c C13353-12" Extension Rod. Your Cost 59c
(P) Shure A83A Switch can be quickly attached to any cable-connector type Shure microphone. Bakelite arrow knob required for installation
C13594-Your Cost....
$92-56$
(R) Mike Cable Clip made of nickel plated brass. Used for holding mike cable close to microphone stand.

## minioflinitic

## ELECTRO-VOICE


(A)

CARDYNE. Eliminates unwanted sounds. reduces background noise, stops feedback increases working distance from microphone. New Mechanophase principle gives wide angle front pickup over wide frequency range, dead at rear. New Acoustalloy diaptragm insures wide flat response. Will withstand extremely severe operating conditions for both outdoor and indoor use in remote broadcasting, disc, and film recording, and public address. Substantially flat response from $40-10,000 \mathrm{cps}$. Output -53 db . Alnico V magnet. Satin chromium finish. Standard mike stand threads. Built-in finish. Standard mike stand threads. Builtin
on-off switch. Complete with 20 ft . cable, plugs. on-off switch.
Hi-impedance. C13718Your Cost
\$34.99
(B) Cardax. Moisture sealed crystal element. Cardioid microphone with new Mechanophase principle provides true cardioid unidirec quency response. Selector switch varies response for hi-fidelity sound pickup or extra crispness of speech. Output -57 db on flat curve, -48 db on speech. Output -57 db on flat curve, -48 db on indoor and outdoor use in public address, recording and communications. Tilting head. Built-in on-off switch. Satin chromium finish. Complete with 20 ft . cable and plugs. Hi-impedance. C13720
s23.23

## AMPERITE

Pressure Gradient Dynamic. Elipsoid pickup pattern. $40-11,000 \mathrm{cps}$. -56 db Satin chromiura finish. Built-in
c13610-PGH High impedance C13613-PGL 200 ohms
Your Cost, Either
$\$ 13.82$
C13611-PGAH. As above, but foot cable. High-impedance.
$\$ 14-7(1)$ Your Cost
C. 13607-Plastic Baffle for PG microphones. Your Cost Each.

88

## UNIDIRECTIONAI MICROPHONES

Cardioid, meaning "Heart Shaped," is a term applied to unidirectional microphones, describing their pickup pattern. These are excellent all purpose instruments that give wide angle $135^{\circ}$ front pick-up and null back response. Lowered room reverberation, random noise and acoustic feedback decreases or eliminates many serious causes of distortion and volume level limitations. Both crystal and dynamic types are available. as well as combination velocity-dynamic.
These microphones, live at the front. dead at the rear, solve many sound and broadcast installation problems. Especially desirable for overcoming feedhack and audience noise. Can be used in or out of doors, for music or speech, broadcast, recording, public address, or communications


## SHURE

(D) Model 737-A. Monoplex high output Super Cardioid. "Metal (1) Seal crystal, with Shure Uniphase" principle. For public address, communications, and all types of recording. Frequency response response down connectors Finished in Pearl C13431Your Cost
$\$ 17.05$Model 55. Unidyne moving coil dynamic, with new "Shure Uniphase" principle. For public address and recording. Flat response from 40 to $10,0(x) \mathrm{cps}$. Impedance selector switch at rear of case to allow selection of Low, Medium or High impedance. Output is -56.1 db into 40 ohms, -568 db into 250 ohms, and -55 db into 35.000 ohms. Tilting head adjustment. Complete with 25 ft . of cable and connector plug. Shpg, wt. 7 lbs. C13689
Your Cost
\$32.34
(F) Model 556 "Broadcast". Super-Cardioid type unidirectional mov-(-) ing coil dynamic microphone. Unidirectional characteristic obtained by "Shure Uniphase", principle. Especially designed and tested to meet the requirements of the broadcast studio. Random noise pickup reduced $73 \%$. Spring suspended in case to reduce mechanical vibration pickup. Frequency response from 40 to $10,000 \mathrm{cps}$. Switch at rear of case for Frequency response from 40 to $10,000 \mathrm{cps}$. Switch at rear of case for
selection of 1 low . Medium or High impedance. Sutput -56.1 db at $40 \mathrm{ohms},-56.8 \mathrm{db}$ at 250 ohms and 55 db at 35000 ohms. Tilting head adjustment. Complete with 7 ft . cable, and connectors. Shyg wt. 6 lbs . Your Cost
\$49.98

## BI-DIRECTIONAL MICROPHONES

In the usual form this type is known as Velocity or Ribbon. They respond to the difference in pressure on the front and back of a thin ribbon suspended in a magnetic field. They are bi-directional for all frequencies. Live at the front and back and dead at the sides, top and bottom. They can be worked from the tront or back or both simulpickup is increased. It is usually considered that an included angle of $90^{\circ}$, both front and rear, is a usable range The discrimination against
sound at the sides reduces random noise pick-up, acoustic feedback and room reverberation by a ratio of nearly $2: 1$ over semi- or nondirectional microphones. This almost doubles working distances.
Velocity microphones characteristically have excellent hass response and are ideal for orchestra or solo pickup. Unwanted sounds may be minimized by orientating microphone so that its side faces the sound source.


## AMPERITE

Studio Ribbon Microphone, for broadcasting. recording, and public address. Will not become "boomy" on close talking. Pickup angle $120^{\circ}$ at front and back with practically no frequency discrimination. Ruggedly constructed for indoor or outdoor use. Not affected by wind. Frequency response from 40 $14,000 \mathrm{cps}$. Output -56 db . Chrome finish. Complete with switch, 25 ft . cable and connectors. Shpg. wt. 8 ths.
C13616-R80 H. Hi-impedance C13617-R80 L. 200 ohm $\$ 47(1)$

Model RBHG Ribbon. Frequency response from 50-11,000 cps. Output - 65 dh . Chrome finish. Complete with switch, 25 ft . cable and finish. Complete with switch, 25 ft .
cable connectors. Shpg. wt. 8 lbs. cable connectors. Shpg. Wt. 8 lbs

## C13621-RBLG 200 ohms.

Your Cost Each
\$24.70
Model RSHG Ribbon, for public address, and recording. Frequency response from $70-8.000 \mathrm{cps}$. Output -60 db Baked enamel finish. Complete with switch, 12 ft . cable and cable connector. Shpg, wt. 8 lbs. C13623-RSHG Hi-impedance.
C13624-RSLG 200 ohms.
Your Cost Each.
51: $: 3$


## ELECTRO-VOICE

(A) Model 425 Floor Stand. One hand finger tip operation. Press button to raise or lower shaft between $37^{\circ}$ and $66^{\circ}$ automatically locks when button is released. New type adjustable 3 legs base spread gives firm support. Tivo legs adjustable, for placing flush against speakers stand. or stage. Folds up for portability. Modern streamline c22049 rich satin chrome linish. Standard 5/8"-27 thr. Shp Your Cost
\$14.41

(C)Model 430 Floor Stand. Press button with finger, raise or lower With other hand, between $36^{\circ}$ to $65^{\circ}$, automatically locks. Three legged base with $17^{\circ}$ spread. Two legs adjustable for flush mounting against stage. Legs removable to make conyact package. Attractive gray finish, extension shaft finished in satin chrome. Shp Your Cos

48,82
Model 423-A6 Desk Stand. Sturdy desk or table stand. Round die cast hase, rubber buttons prevent scratching surtaces. Finished in satin chrome. Base dia. $45^{\circ} 8^{\circ}$, stem riser $6^{\circ}$. Shpg. wt. 1 C13538
Your Cost.
\$2.35

## ASTATIC

(D) Grip-to-Talk Desk Stand. Built-in micro-movement switch operates relay tor "break-in" operation. Ideal for use with Ham rigs paging and call systerns. Fits 3 -prong Astatic nikes. Telephone black C13373
Your Cost
$\$ 6.44$

## CONCORD

(1) Quality Floor Stand. Smooth, adjustments, from $35^{\circ}$ to $68^{\circ}$ Positive grip friction clutch firmly locks stand. Base dia. $10^{\circ}$, (inished in black wrinkle, chrome plated uprights. Shpg.
Your Cost
$\$ 44.8$
E) Lecturers Neckstand. For lecturers, demonstrators, and teach ers, fits comfortably around neck leaving hands free. Flexible gooseneck has ${ }^{5 / \prime}$ "-27 thr. Weighs only 12 oz
$\$ 1.95$

## ATLAS MICROPHONE ACCESSORIES

(4)

(A) Boom Stand. For suspending mike over speakers' Height from $48^{\circ}$ to $72^{\circ}$. Boom arm $63^{\circ}$ long, can be easily removed. Base dia. $17^{\circ}$. chrome and gun metal finish. Chrome plated uprights. Shp C2059
Your Cost.
\$32.34
(B) Baby Boom Arm. Quickly attaches to floor stand. Universal swivel for adjusting and locking in position. Adjustable for weight of any mike. Lengih 32 C22060
Your Cost
$\$ 4.12$
(C) Bracket Clamp. Can be used directly as mike support, or with baby boom arm. Can be clamped to overhanging edge of a table, desk, or piano. Chrome finish. Length $6^{\circ}$.
C13371-Your Cost
$\$ 1-78$
(1) Flexible Gooseneck. Attached to any mike stand. Used where moderate adjustment required. Male and female ends have "s"-27 thr, Chrome finish. Length $13^{*}$
C13372-Your Cost.
$\$ 1,1 ?$

##  ACCESSORIES Hig R REPRODUEERS



## TRUE-SONIC

## Co-Spiral Speaker

## (A) P5\%FR-Revolutionary new speaker

 design. High electro-acoustic transfer efficiency and wide range achieved with only one voice coil and with no cross-over net work. Reproducing range is 40 to 16,000 cycles.Full is watts of power-handling capacity. Uses two acoustic sections, one of which is a 15' seamless molded curvilinear cone of new design for reproducing lowest bass: the other section, for extended high tones, is a mathematically designed acoustic spiral which gives 90 degrees of high-frequency dispersion. This brand new and patented method of high-frequency propogation is the differential diffuser called the SILVEIR PIRAL
Input impedance is 16 ohms. Overall diameter is $151 / \mathrm{s}^{\prime \prime}$. Net weight 23 lbs , inciuding a 40 oz. Alrico 5 magnet.
C 2314
Your Cost.
\$47.04
DeLuxe Reflex Cabinets
(B) 52D-Superb cabinet. distinctively modern. designed to harmonize with quality furnishings. Rare woods finished by master craftsmen. Port opening, hidden by grill cloth, engineered to Bass-Reflex design equations for balanced low-frequency reponse. Drums, tubes, lowest voice tones eproduced with startling realism. For $15^{\circ}$ speakers such as Tru-Sonic P52 series and others. Solid construction, lined with acoustic material. No false resonance. ${ }^{2}{ }^{\circ} \times 1318$ "x35". Shpg. wt. 75 lbs.
C21318-Mahogany
C21319-13leached Blonde $\$ 17$ Sour Cost, Either.....

## Coaxial Spealcer

(C) P-52A-Frequency response 30-16,000 cps, $\pm 5 \mathrm{db} 50-12,000 \mathrm{cps}$. 'Room pres ence" living, vital realism. An assembly of 4 units: $15^{\prime}$ bass speaker; high-freq. speaker with small precision-built diaphragm; 8 -cell horn unit; and 1200 cps cross-over network that divides highs from lows and channels each tothe proper speaker. Fliminates acoustic cross-modulation. Painstaking tests betic cross-modulation, Painstaking tests be-
fore large selected and discriminating audifore large selected and discriminating audi-
ences have developed perfect balance and ences have developed perfect balance and trum. Rugged, precise construction plus Klnico 5 magnets totaling 960 oz give this speaker the fidelity and efliciency needed for ideal FM recepion, broadcast station monitoring, sound motion picture reproduction and laboratory uses. Power input: 20 watts. Input impedance: 16 ohms. li-freq- horizontal distribution 80 degrees; vertical distribution 40 degrees. Size 151 dia. overall, $10^{\prime \prime}$ deep. Wt. 30 lbs $\$ 120$.

## Coaxial Unit in Cabinet

(D) Consists of Model P52A coaxial speaker described above mounted in same cabinet as described below. Cabinet sturdily constructed of heavy. rigid, vibration-proof plywood and lired with moistureresistant material to eliminate spurious resonance. Carefully designed release port beneath cone relieves back-pressure and reinforces frontal Battleship-grey finish. Size: $26 \times 15 \times 34$ " high. c21316-Your Cost

## Separate 2-Way Speaker System

(D) P-5211F-Differs from P-52^ system in that completely separate low and high frequency units are employed. Separation of these units and mounting low frequency unit in Model 52 U base reflex cabinet (described above) and high frequency unit on top of cabinet, makes maximum elficiency possible from each speaker. Since space is no longer a major factor, a larger multicellular horn ( $11 \times 91 / 2 \times 151 / 6^{\prime}$ ) is used and a lower and more effective crossover frequency is selected. Separate field units are provided for each speaker. These heavily powered units provide perfect balance and performance from deepest bass to highest overtones, without emphasizing some frequencies or leaving out others. The feeling of "Presence" and the true meaning of ""ligh-Fidelity" are realized in this superb instrument. Characteristics: power input 20 watts; input impedance 16 ohms; crossover frequency 800 cycles; frequency response $30-16,000 \mathrm{cps}$; $\pm 5 \mathrm{db} 40-12,040 \mathrm{cps}$; distribution. horizontal 80 degrees, vertical 40 degrees; combined field weights 61 lbs . Alnico 5 permanent magnet Size: cabinet $26 \times 15 \times 34^{\prime \prime}$ high, overall height $43^{\circ}$ Net wt. 90 lbs. Shpg. wt. 130 lbs .
\$188.16

JENSEN Type "J'" Coaxial Hi-Fi Speakers
(A) Efficient dual speaker assemblies with cone type "tweeter" (A) mounted in the cone assembly of the "woofer"" Ideal for FM and fine for AM receivers, for broadcast and recording monitoring, etc. The $15^{\prime \prime}$ models incorporate a built -in two channel network providing high and low-pass channels with attenuation of $10-20 \mathrm{db}$ per octave: 3 also furnished with four-position High Frequency Control Switch on a ing type network that aftords good wide-range performance; no range control switch with this model. These units can be used with enclosures below.

## Model JAP-60. 15-inch Speaker

Professional type, Range 50 to $12000-15000$ c.p.s. Efficiency 3 db higher than other $15^{\circ}$ models. Input impedance 500 ohms. Max. input $14-15$ watts. Integral two-channel network. With 4 -pwition H.F.
control. Shpg. wt. 24 lbs . C19007-Your Cost.
$\$ 55.53$

## Model JHP-52. 15-inch Speaker

For all general applications. Range 50 to $12000-15000 \mathrm{c} . \mathrm{p.s}$. . Maximum input 12 -14 watts. Input impedance 500 ohms. Integral 2-channel
network. 4-position H.F. control. Shpg. wt. 23 lbs .
C19002-Your Cost..................................

## Model JCP-40. 12-inch Speaker

Replaces $12^{\circ}$ speakers in radios and phono-radio combinations. Range 50 to $10000-12000$ c.p.s. Max. input 8-10 watts. Input impedance 6 ohms. Has simplified bridging type network (no H.F. control).
Shpg. Wt. 16 lbs.
C19008-Your Cost. . . . . . . . . . . . . . . . . . . . . . .

## M.E. Level Control

Simplified fidelity control for Model JCP-40 Coaxial speakers. Easily 16 ohms ins wates desired high irequency respons c9010-Your Cost.

## JENSEN Standard Series Speakers

A complete line of replacements for radio receivers, low power public address systems and intercommunication equipment. Highly efficient Alnico 5 magnets insure unlimited life. Hum bucking coils built into field coil models. All models less transformers. A complete listing of output transformers will be found below. P4-X through P8-U 3-4 ohm V.C. P8-S through P'12-T 6-8 ohm V.C. All Dynamics $3-4$ ohms V.C. B P. M. Speakers

| Stock No. | (B) P. M. Speakers |  |  | Output trans. E | Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model | Size | Watts |  |  |
| C18960 | 1' 4-X | $4^{\circ}$ | 2.0 |  | \$2.44 |
| C18952 | $)^{\prime} 5-{ }^{\text {( }}$ | 5' | 2.5 |  | 2.91 |
| C18968 | 1) 5-X | $5^{\prime \prime}$ | 2.5 | E | 2.53 |
| C18969 | P 6-W | $6{ }^{\prime \prime}$ | 3.5 | E | 3.32 |
| C18970 | ]' 8 -U | $8^{\circ}$ | 6.0 | D | 4.91 |
| C19076 | $\mathrm{J}^{\prime} 8$-S $\dagger$ | $8{ }^{\circ}$ | 8.0 | C | 7.60 |
| C18971 | 1'10-T | $10^{*}$ | 8.0 | C | 6.26 |
| C18972 | P12-T | 12" | 9.0 | C | 6.97 |

*Vóice coil impedance 40 -s0 ohms.
$\dagger$ Extra heavy magnet.
(C) Field Coil Speakers

| Stock | , |  |  | Field | Output | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Model | Size | Watts | Ohms | trans. | Cost |
| C18953 | F 4-X | 4 " | 2 | 2800 | E | \$3.18 |
| C18956 | $F$ 4-8 | 4* | 2 | 450 | E | 3.03 3.35 |
| C18954 | F 5-X | 5 " | 21.2 | 2800 | E | 3.35 |
| C18955 | F 5-\% | 5 | $2{ }^{1} 2$ | 1800* | E | 3.29 |
| C18958 | F 5-\% | 5 | 212 | 450 | E | 3.15 |
| C18961 | F6-\% | $6^{\circ}$ | 3 | 2800 | E | 3.41 |
| C18981 | F 6-8 | $6^{\circ}$ | 3 | 1800* | E | 3.47 |
| C18983 | F 8-W | $8{ }^{\circ}$ | 4 | 2500 | D | 4.00 |
| C18959 | F 8-W | 8 | 4 | 1800* | D | 3.97 |
| C18984 | F 8-W | 8 | 4 | 1000 | D | 3.91 |
| C18985 | F10-S | $10^{\circ}$ | 9 | 2500 | $\dagger$ | 7.64 |
| C18962 | F10-S | $10^{\circ}$ | 4 | 1500 | $\dagger$ | 7.47 |
| C18987 | F12-S | 120 | 10 | 2500 | 1 | 8.73 |
| C18963 | F12-S | 12* | 10 | 1500 | $\dagger$ | 8.58 |
| tFixed <br> *Tappe | edance 3(\%) ohm | put tr | former | commen |  |  |



## JHNSEN Model HNP-51 Coaxial Speaker

(D) Model HNP-51 with compression type H-F speaker and L-F cone network mounted on the speaker frame. An H.F range control switch is attached to the dividing network by a $36^{\circ}$ cable. H-F "roll off" at 15000 10,000 7500 and 6000 cps H-F speaker is mounted behind L-F unit and fed through the field by means of a trumpet. L-F cone voice coil is built around this trumpet. (lnput impedance 500 ohms, power rating 25 watts. L-F speaker $15^{\prime}$ curvilinear cone; Alnico 'V PM fields. Size: $151 / 8^{\circ}$ dia, $\times 103 / 8^{*}$ deep. Shpg. wt. $18 / 4 \mathrm{lbs}$. Your Cost
81.66

## JENSEN PM Concert Spealkers

(E) Use in all types of radios, phonographs, public address equipment models less output transformer listed. Transformers listed at right. Output Shpg. Your No Model Size Watts VC trans. $\begin{array}{lccccccc}\text { No. } & \text { Model } & \text { Size Watts } & \text { V.C. trans. } & \text { Wt. } & \text { Cost } \\ \text { C19075 } & \mathrm{P} & 8 \mathrm{R} & 8^{*} & 9 & 6.8 & \mathrm{C} & 4 \mathrm{lbs} . \\ 8.97\end{array}$ $\begin{array}{lllllll}\text { C19073 P10-R } & 10^{\prime \prime} & 10 & 6-8 & B & 5 & \text { B bs. } 10.88\end{array}$ $\begin{array}{lllllllll}\text { C19077 } & \text { P12-R } & 12, & 12 & 6-8 & B & 7 & \text { lbs. } & 11.47 \\ \text { C19071 } & \mathrm{P} 12-\mathrm{Q} & 12, & 13 & 8 & \mathrm{~B} & 9 \mathrm{lbs} . & 16.32\end{array}$ $\begin{array}{llllllll}\text { C19071 } & \text { P12-Q } & 12, & 13 & 8 & \text { B } & 9 \text { libs. } & 16.32 \\ \text { C19069 } & \text { P12-N } & 122^{\prime} & 15 & 8 & A & 16 \mathrm{lbs} & 28.81 \\ & \text { C19078 }\end{array}$

## JENSEN Extended Range Speakers

(G) ALNICO 5 PM speakers providing high fidelity performance up to (- $10,000 \mathrm{c} . \mathrm{p} . \mathrm{s}$. designed for monitoring in broadcast stations for replacement and modernizing units for $F \mathrm{M}$. and television receivers for radio-phono combinations, etc. Less output transtormers.

| Stock |  |  |  |  | Output | Shpg. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Model | Size | Watts | V.C. | trans. | wi. | Cost |
| C18948 | P 8-SH | $8{ }^{\circ}$ | 7.5 | 6-8 | C | 4 lbs. | \$ 8.35 |
| C19000 | P12-SH | $12^{\prime}$ | 9 | 6-8 | B | 5 lbs . | 10.5 |



(C)

Your Cost



## © <br> (H) <br> IENSEN "D" Bass Reflex Enclosures

- Constructed of genuine striped walnut. Excellent for Jensen coaxial speakers, or for high-lidelity radio, phono or P.A. systems. 50 lbs
C18945-Your Cost
$\$ 49.00$
Model D151: For 15


## Model "B" Bass Reflex Enclosures

(H) Durable but inexpensive. Designed for smooth H.F. response, max imum extension of L.F. response. Made of impregnated composiion board injshed in hammered brown lacquer. Removable feet for wall mounting. For
No. C18994


## JENSEN Universal Output Transformers

Universal tube transformers match V.C. to 4500, 7000, 10,000 and 14,000 ohms. Universal line transformers match V.C. to 500,1000 , 1500 and 2000 ohm lines. Your

| No. | JENSEN | Application | Core | Term. | Type | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C19026 | 2X-100-* | Univ. Tube | $1 \times 1$ " | Pintip | A | \$5.73 |
| C19027 | Zソ-2005 | Univ. Line | $1 \times 1$ 1' | Pintip | A | 5.73 |
| C19025 | 2X-1005* | Univ. Tube | 7/6x ${ }^{3} 8$ | Pintip | B | 4.23 |
| c. 19024 | ZY'-2003 | Univ. Line |  | Pintip | 8 | 4.23 |
| C18965 | 2X-1002* | Univ. Tube | 8/430 | Pintip | C | 2.94 |
| C18964 | ZY-2002 | Univ. Line | $3 / 6 \times 3 /{ }^{\prime \prime}$ | l'intip | C | 2.94 |
| C19028. | ZY-4002 | Univ. Line |  | Pintip | D | 1.97 |
| C19029 | 2P-1023 | Univ. Tube | 1/2x | Solder lug | E | 1.26 |
| C19030 | ZL-2021 | Univ. Line |  | Solder lug | E | 1.26 |
| C19031 | 21P-1024* | Univ. Tube | $8 / 8{ }^{5} / 8{ }^{6}$ | Solder lug | D | 1.53 |

*All.primary windings center tapped.


## JENSEN Peri-Dynamic Projector

## (A) <br> Projectors are complete assemblies of PM speaker and acoustic system. Usually good frequency response from 100 to 5500 cycles For music or voice reproduction. Suitable for indoor or outdoor use. Power handling capacity 15 watts average, 25 watts max. Voice coil impedance 8 ohms. Bell dia. $241 / 2$ depth, $30^{\prime \prime}$. Shpe, wt. 30 lbs . c19004-Less stand <br> Your Cost <br> 44:8.51 <br> C19005-JE Your Cost

## JENSEN Hypex Projectors

(B) Especially suitable for speech reproduction and commercially acceptable music reproduction. Sturdy steel encased unit, plus eflex horp construction insures dependable operation under allweather conditions. Finished in durable baked two-tone gray lacquer Increased efficiency in the region above acoustic cut-off.
Type $11-20$. Horn only. Bell diam. 203/". Depth $16 \%$. Acoustical length, 4 ft . Nominal acoustic cut-off, 165 cps . Stand coupling flange tapped for ${ }^{2 / 4}$ pipe thread. Shpg. wt. $181 / 4 \mathrm{lbs}$
915.4 C18926-Your Cost

Hose Type H24. Horn only. bell dia., $24 / 40$. Depth, $201 / \mathbf{g}^{\prime \prime}$. Acoustical
ength, 5 ft . Nominal acoustic cut-olf, 140 cps . Shyg. wt. $213 / \mathrm{l}$ C18927-Your Cost
s21.05

## JENSEN Type "U"' Annular Driver Units

(C) U-20. PM type. Rate at 15 W . average, 25 W . max. Normal voice C18919-sic input. 16 ohm V.C. Diam. $31 / \mathrm{s}^{\prime \prime}$. Depth 3 C18919
Your Cost
\$24.11
Fixed Impedance Transformers, encased in metal cans; will not mount directly on speaker
C18922-500 to 16 ohms. Core size, $7 / 0 \times 7 / 8^{\circ}$. . . . . . . . . . Each $\$ 4.26$
C18923-500 to 8 or 16 ohms. $11 / 4 \times 11 / 4=\ldots$

## Stands and Supports

Adjustable Stand. Sturdy cast fitting with three-leg base, for mounting projecto

## C18924-Your Cost

s1. 76
Adjustable Support. Provides adjustment when projector on pipe mast. 3. pipe thread on both ends.
$\$$ is mounted

## JENSEN "Speech-Master"

(D)
AP-10: Desk type PM speaker employs Peri-Dynamic principle Dustproof, fully enclosed. Internal bracket for 1 and sturdy base It. $6 \%$ dia $5^{2}$ enclosed. Internal bracket for $2 \mathrm{~K}^{2}$ transtormer. 4 ohm voice coil. Wt. 6 lbs.
C18929-Each
$\$ B_{-1} 7$
AP-11: As above, less base and swive! bracket. Mount cutout. Wt. 4 lbs

## Speaker Accessories <br> Kainer Deluxe All-Steel Projector

©Constructed of heavy spun steel alloy and will accommodate all types of $12^{\prime \prime}$ speakers with or without transformers. Rear housing has back pressure release. Overall length, $20^{\circ}$ : bell, $17^{\circ}$; flare extension. $11^{\prime \prime}$. Screened breather opening. Finished in baked art metal grey. Fixture (welded to baffle) is tapped to fit standard $1 / 2^{\prime \prime}$ pipe. Base has a tilting dog-toothed adjustment with swivel and lock nut. Shpg. wt. C20077-J-12 (less base).
Your Cost. . ................... $\$ 10.53$ C20078-Bracket with base only Your Cost
Your Cost

## Car-Top Horn Carrier

Waterproof plywood and angle iron gutter hooks with adjustable straps, $8 x$ c20 ${ }^{2}$. Shp. Wh. 8 hs


Jensen UNIVERSITY SPEAKERS

## UNIVERSITY Reflex Projectors

(C) High efficiency exponential air column type projectors. Ileavy-gauge all metal spun horns. Compact and easy to install. Incorporate design features that insure superior acoustic results. Non-resonant rubber rims with each unit. Will handle 25 watts output. Complete with universal " $U$ " type mounting bracket. Finished in hattleship grey. Waterproofed for outdoor use. Less drivers.
Stock Model Bell Lath, C.P.S. Shpg. Your No. No. Dia. In. Cutoff Wt. Cour
 C20046 SMH $15^{*} \quad 12^{*} \quad 180 \quad 6$ lbs. 14.41

## UNIVERSITY Driver Units

$\oplus$
Built to the most exacting standards of precision engineering. All employ quality Alnico magnets to insure peak efficiency. New one-piece molded Phenolic diaphragm, immune to extreme temperature changes and corrosion. Units use the exclusive University "rim centering" construction for perfect alignment, and greater efficiency. Alignment not affected by shock or vibration. Entire assembly in hermetically sealed housing. Standard thread fits all standard projectors. Model MAH has VC impedance of 8 ohms. Models SAH and I'AH have VC impedance of 160 hms .
Stock Model Range Cap. Sh. Your No. No. C.P.S. Watts Wt. Cost C21300 MAH 100-6000 $12 \quad 21 / 2 \$ 14.70$ C21301 SAH $90-600025 \quad 5 \quad 21.76$ *Heavy duty model. flux density $23 \%$ higher than SAH.

## UNIVERSITY Industrial Paging <br> Speakers

Compact intercommunicator "booster" speaker having extremely high projecting power. Clear sound out put overcomes factory noises. Can be used as "Talk Back" speaker in intercom systems. High sensitivity permits initiating or answering calls at distance from the speakers. For industrial plants, terminal yards, docks and loading platforms. Com plete with ad justable mounting bracket. Stock Mod. Cap. V.C. Freq. Shpg. Your No. No. Watts Imp. Resp. Wit. Lbe. Cost $\begin{array}{llllll}\text { C19349 MIL } & 5 & 8 & 400-9000 & 31 / 2 \\ \text { C19349 } & \$ 14.70\end{array}$ $\begin{array}{llllll}\text { C19348 } & 1 \mathrm{B8} 8 & 12 & 8 & 300-6000 & 5 \\ \mathrm{C} 24015 \mathrm{CR} & 18 & 16 & 250-6000 & 9 & 19.99 \\ \mathrm{Cl}\end{array}$
## UNIVERSETY $360^{\circ}$ Radial Projectors

(H)
Infinite Balife" sealed acoustic chamber is responsible for the added in all horizontal directions properly loaded. Give uniform cover suspension. Projection angle is about $15^{\circ}$ down for most effective sound placement. Other features: All-Metal weathern or most effective sound tire"' rims; "floating rubber" cone mounting; back pressure "breathers." tireo rims; foating rubber cone mounting; back pressure breathers.
No. Model Cone Diam. Height Weight Each
c24016 R13P8 $\begin{array}{llccccc}\text { C24016 } & \text { R1SPS } & 8^{\circ} & 18^{\circ} & 9^{\circ} & 91 \mathrm{bs} & \$ 11.52 \\ \text { C24017 } & \text { RBP12 } & 12^{\circ} & 27^{\circ} & 11^{\circ} & 19 \text { lbs. } & 20.58\end{array}$

## UNIVERSITY Radial Speaker

(J) Model IBR reflex air column horn with radial deflectofs and built-in hermetically sealed driver. Particularly recommended as Talk Back* speakers for intercom systems. High sensitivity eliminates close talking, calls can be initiated or answered at a distance from speaker. For paging and call systems in factories, warehouses or outdoor locations where $360^{\circ}$ coverage is required. Frequency coverage 300-6000 cyche ${ }^{1}$ 'ower capacity 12 watts. Impedance 8 ohms. Bell dia. $9^{\prime \prime}$, height $11^{\prime \prime}$. Shpp. wt. 5 lbs.
C19347-
Your Cost


## UNEVERSITY Accessories

(M) C21305-Model 2YC Connector for connecting two-driver units to any trumpet. Your Cost. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 5.88$
C21306-Model PMA Adaptor for mounting trumpet on pipe fitting. Your Cost.
C21304-Model TS-10 Stand for University Trumpets.
Your Cost
$\$ 23.52$
Line Matching Transformers weatherproofed for outdoor use.

| No. | Type No. | Primary Imp. | Im |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| C5898 | 5401 | $500-1000-1500-2000$ | Sec. Imp. | Watts | Cost |
| C5899 | 5402 | $250-500-1000-1500-2000$ | $4-8-16$ | 12 | $\$ 7.35$ |


(A)

(B)

(C)

(0)

(E)


## Universal Tube to VC Transiormers

c1954-4 Watt for up to $6^{\circ}$ speakers.
C1955- 8 Watt for up to $10^{\circ}$ speakers.
C1956-18 Watt for $10^{\circ}$ to $12^{\prime \prime}$ speakers
1.30


## GE Public Address Speakers

Newly designed Alnico V P. M. speakers incornorate the latest engineering developments in scientific tone reproduction. Each is given a severe electrical test for assurance of longer life. Each is checked acoustically in a sound-proof booth. Kecommended for use home radios C19351 is the 25 -watt speaker used in all Concord public address systems. Aluminum base voice coils provide higher wattage output and will not warp. Molded cones assure high fidelity and brilliant frequency response. Plated finish protected by new Lusteron treatment. Assembled with universal transformer mounting brackets.

| Stock <br> No. | Dia. | Alnico V <br> Magnet Wt. | V.C. <br> Imp. | Wattage | Shpg. | Yt. |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: | | Your |
| ---: |
| Cost |



## CONCORD

## Dynamic Speakers

A quality line of speakers for general replacement purposes. Speakers are also recommended for use with intercommunications systems, ight public address work, adios and record players.


Can also be used as replacement for automobile radios. When properly haffled, Concord speakers have a substantially flat frequency response from 100 to 4500 cps . All use high quality permanent magnets and formed one-piece cones.

| Stock <br> No. | Dia. <br> lnches | Field <br> Ohms | Normal <br> Wistts | Shpg. <br> C19279 | 3 |
| :--- | :---: | :---: | :---: | :---: | ---: |



## CONCORD PM Speakers

High quality permanent magnet speakers. Each matches in sensitivity a comparable lield coil type. lligh permeability Alnico V and Alnico Ill magnets used for utmost efficiency. One-piece seamless cones, plated metal frames. Voice coil impedance 3.2 ohms up to $8^{\circ}$ size, $6-8$ ohms above $8^{\prime}$. All supplied less out put transformer.

| Stock | Dia. | Watts |  |  | Shpg. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Inches | nor. | plk. | Depth |  | Cost |
| C19155 | 2 | 1 | 2. | 121/6 | 1 | 51.75 |
| C19268 | 3 | 2.5 | 4 | 23/8 | 2 | 1.75 |
| C19269 | 5 | 3 | 4.5 | 219 | 3 | 1.89 |
| C19270 | 6 | 4 | 6 | $2{ }^{15} / 6$ | 3 | 2.35 |
| C19271 | 8 | 5 | 8 | 315 |  | 3.70 |
| C19290 | 10 | 8 | 10 | $6^{12}$ | 6 | 5.65 |
| C19272 | 12 | 9 | 12 | 69 | 7 | 6.45 |
| C19258 | $4 \times 6$ | 3 | 4.5 | $2^{1 / 6}$ | 1 | 1.89 |



QUAM Alnico V PM Spealcers
Utilizes the new Alnico $V$ magnet-recent development providing maximum performance with minimum weight. Widely used for A('-1) ( radios, record-players, inter-oflice and duto receivers. High conversion factor. 3.2 ohm V.C. Less Trans


Stock No. Dia. C19310 C19312 C19313 C19315 C19318 C19319 C19320 C19321


Wattage Nor.-Pea

| , | Alnico V | Dept | Shps. | Your |
| :---: | :---: | :---: | :---: | :---: |
| Peak | Magnet wt. | In. | Wt. Lbs. | Cost |
| 3 m | . 68 oz. | $21 /$ | 8/6 | \$2.35 |
| 33 | 1.47 oz . | $2^{\text {a }}$. |  | 2.76 |
| 415 | .68 oz. | $2^{3}$ | 1 | 2.47 |
| 4112 | 1.47 oz . | $2^{516}$ | 1116 | 2.85 |
| 6 | 1.00 oz . | $25 / 8$ | 11 | 2.82 |
| 71/3 | 2.15 oz. | 27\% | 11/2 | 3.44 |
| 8 | 2.15 oz . | 3** | 2 | 4.23 |
| 12 | 4.64 oz . | $37{ }^{\circ}$ | 416 | 6.00 |
| 11 | 3.16 oz . | $4{ }^{17}$ | $4^{1} 2$ | 6.17 |
| 15 | 4.64 oz . | 514 |  | 7.44 |
| 20 | 6.80 oz . | 5\%\% | 51 | 8.53 |

## QUAM Electro-Dymamic Spealkers

Designed and constructed for use as radio replacements. All conform to RMA standard dimensions and are equipped with the Quam Ad-justa-A-Cone voice coil suspension. Field coils are manufactured from carefully selected and tested materials, garanteeing long life under adverse climatic conditions

| Stock No. | Dia. | Field Ohnis | Wattage |  | Depth 1nches | Shpg. <br> Wt. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Non | Peak |  |  |  |
| C19327 | 4' | 450 | 2.5 | 3.75 | 2 | 1\% | \$2.59 |
| C19328 | $4^{\prime \prime}$ | 2700 | 2.5 | 3.75 | 2 | 18\% | 2.59 |
| C19329 | 5 " | $6 . \mathrm{V}$ | 2.5 | 3.75 | 21/8 | 2 | 2.70 |
| C19330 | 5 ' | 450 | 2.5 | 3.75 | $21 / 8$ | 2 | 2.70 |
| C19331 | 5 " | 1000 | 2.5 | 3.75 | 21,8 | 2 | 2.70 |
| C19332 | -5' | 1800 | 2.5 | 3.75 | $24 \%$ | 2 | 2.70 |
| C19333 | $6^{\prime \prime}$ | 6-V | 3.5 | 5 | 23 | $21 / 2$ | 3.18 |
| C19334 | $6{ }^{\prime \prime}$ | 1000 | 3.5 | 5 | 23 | 21/2 | 3.18 |
| C19335 | $6^{\circ}$ | 1800 | 3.5 | 5 | 28. | 21.2 | 3.18 |



## QUAM 4x6 Oval Speakers

Available in both dynamic and PM types, these highly efficient R M A Standard $4 \times 6$ speakers are for general eplacement purposes. Depth $21 / 4^{\prime}, 3.2$ ohm V.C. Less Transformer
Alnico V Your



Speaker Repair Service
Speakers reconditioned with Carron seamless cones. Install new voice coil and align. Dust and other causes of noisy reproduction removed. 1'M's remagnetized. Delivery approx. 30 days. Approx. costs are
$13^{\circ}$ over....................35
Cones not in Corrang can be sent in for duplication. Approx, costs are:


## Speaker Shims

(A) Non-Mannetic Monel shims. 4 each. $004^{\text {" }}$, with penci $008^{\circ}$, with pencil clip. C19619-Your Cost

244

## Universal Field Coils

(B)Fits $5^{\circ}$ and $6^{\prime \prime}$ speakers. Spacing washers, A tubes and directions with coil. Size: Type
 Type A Your costohms Type B Your Cost C19461 450 C19481 ${ }^{C} 19456$ C19457\$ $\$ 1{ }^{1000} \mathbf{C 1 9 4 7 7}$ C19458 C19459 $\qquad$ 3000 C19480

## WALSCO Speaker Cone Patches

 Specially fabricated material and adhesive for permanent cone repair. 12 assorted patches. Your cost ............24. 4 WALSCO Flocked Grille ScreeningProtective grille for radio, intercom phonograph speakers. Will not tear, split or fray. Stock No. Size. Color Your cost


Speaker Grille Cloth Handsome frieze, $50^{\circ}$ wide, cut to your specified length, 219996-1Per Yard. Your Cost

S1.85 C19496. 12x12". Your Cost

## Voice Coil Dust Felts

Felt discs used on voice coils to keep dust of 25. . Can be glued to any cone C14745-Your Cose 244
## Cement Kit

(D) An efficient cement kit for speaker cones, botle of coils, r.f. coils and chokes. One ane one bottle C19499-Your Cost

44

## CARRON EXACT DUPLICATE

## REPLACEMENT SPEAKER CONES

## ©

Seamless one-piece cones that duplicate the original units. Feature enduring, non-resonant quality. Voice coils are accurately wound and firmly attached to cones and are also exact duplicates of the originals. Only popular numbers are listed below: we can supply on order any round or oval cone not shown below-give make and model of receiver, or send in your old cone with voice coil and spider attached.

Stock Carron

## Model No. <br> 4' Speaker Cones <br> C19563 1562 Emerson AX211. 4X5-324 <br> C19606 1564 Emerson C $1275,615,368 \mathrm{U}$ <br> C19366 1553 Gen. Elec. H508 <br> C19372 1555 Oxford (Fada 105-134B, RCA <br> C19369 1616 UTah 4 A 106 A <br> C19370 1619 Zenith 49AG.385 <br> C19371 1620 Zenith 49U334

Your Cost, Each.

## 5' Speaker Cones

C19411 1417 Airline 62-475, Arvin 18
C19441 1626 Chevrolet 985538 (Spkr. 41045) C19445 1373 Crosley 516
C19446 1589 Crosley 719E, C-648-A
C19543 1489 Emerson A130, A132, A148,149
C19462 1584 Emerson D-L-330
C19578 1043 Jensen T3 (Crosley 175, 343)
C19466 1387 (Quam-Nichols (Air King 260)
Your Cost, Each. ............................ 81c

## 6" Speaker Cones

C19576 1285 Jensen F6R (Belmont 777)
C19470 1400 Jensen PM6C, G6R ${ }^{\text {Your Cost, Each. . . . . . . . . . . . }}$ \&

## 7' Speaker Cones

C19474 1583 Chevrolet 985-536\$1 29
C19504-1617 Zenith 49AB341 \$1, $\mathbf{Y}$.

## 8' Speaker Cones

C19612 1411 Jensen G8R, PM8C
C19506 1200 Magnavox 154D, $48 \mathrm{C}, 158$
Your Cost, Each.

## 10' Speaker Cones

$\begin{array}{lll}\text { C19501 } & 1000 & \text { Atwater-Kent No. 15142, } \\ \text { C19532 } \\ \text { 1060 } & \text { Majestic G3, } 90,91,101\end{array}$
Your Cost, Each .
\$14. 6

## 12' Speaker Cones

C19510 1035 -Jensen D7, D8 (111/4)
C19701 1384 Jensen PM12C
C19613 1474 Jensen PM12B
C19533 1062 Majestic G5, 131, 132
C19641 1366 Jensen A12
$\begin{array}{cc}\text { Stock } & \text { Carron } \\ \text { No. } & \text { No. }\end{array}$
12'
C19520 Speaker Cones-Continued
C19521 1664 Utah 12PG17A, 12J43-B
C19522 1483 Utah GT13, F12P
Your Cost, Each. .

## For Philco Sets

## ${ }^{4}$ Speaker Cones

C19534 1542 TM-4 (Pt. No. 36-1469) C19538 1587 TP4, TP12, PT25 Sour Cost, Each................ $\boldsymbol{~}$ \& 5' Speaker Cones
C19682 $1244 \quad 54,57$ (Pt. No. 36-3029)
C19552 1203 5,5T (Auto) (Pt. No, 02861)
C19703 1343 FT9 (Ford) 816 (Pt. No. 363526)

Your Cost, Each.
C19549 1500 ${ }^{6}$ Speaker Cones

$7^{*}$ Speaker Cones

C19681 1246 34B, L. (Pt. No. 36-3157) Your Cost,
Each.......
8 ' Speaker Cones
C19547 $1079 \quad 20,21$ (Pt. No. 02625) Your Cost.
$10^{\circ}$ Speaker Cones
C19529 1248 167, 10 (Pt. No. 02625)


## 12' Speaker Cones

C19551 1539 39-40, 39-45 (Pt. No. 36-4089)
Your cost.......................................46

## For RCA Sets

5" Speaker Cones
C19406 1236 R28, 300, 301, 100 (Pt. No. C19554 1091 M34, M105 (Pt. No. 9023) Your Cost, Each.
$9^{*}$ Speaker Cones C19405 1124 R32,52, RE45, E35 (Pt. No. Your Cost 10801)

## CABINET REPAIR ACCESSORIES


(A) For repairing cabinets. All are $7^{\prime \prime}$ long; C15523-I, vaight Walnut
C15523-lijight Walnut. C15525 Black.
Your Cost, Each

## Plastic Cabinet Cement

Repairs Bakelite or Plaskon molded radio cabinets. Dries fast and holds securely. 2-oz. botul.
C15273-
Your Cost

## GENERAL Scratch Stik


(B) Handy pocket stick for servicemen, reiify moves scratches from radio cabinets in a cis520
Your Cost, Each.
10 For.
$21^{4}$

## Scratch Remover Kit

(C) Combination kit of 6 colors, popular bottles scratch remover liguid-walnut and clear. Works on all types of light and dark woud.

## Cabinet Repair Kits

(D) Handy kit, ideal for radio shops, stores, trucks, etc. Small brushes in caps of all bottles make quick patching of damaged cabinets easy. Kit contains bottle each of: Ivory spirit enamel, light and dark, dark brown lacquer enamel, walnut spirit stain, polish renewer, French varnish: 3 sheets garnet finishing paper, steel wool, polishing cloth and instructions. Shpg. wt. 3 lbs. Your Cost.
$\$ 1.56$
(E) For use on plastic, bakelite or wood cabiof light and darks of shellac sticks, bottles shading lacquer. Magic Scratch Remover. alcohol lamp, spatula, touch-up brushes, steel wool, etc. Very easy to use. Shpg. wt. steel
3 lbs .

521 -Your Cost
$\$ 2 \sin ^{5}$
Cabinet Touch-Up Kit. Same as above, less Scratch Remover, shellac sticks, lamp and Spatula (stains only) Wt. 2 lbs. .... 0 ,

# $\binom{$ RECORD }{ CHANGERS } 

CRESCENT Automatic Record Changer
A new improved single post changer with the features you would hardly expect to find in the low price field. Simple, single control, plays ten $12^{\prime \prime}$ or twelve $10^{\prime}$ records automatically. Rejects any record desired, or permits optional playing of records manually. Only three moving parts while changing. Fast .i. changes records in 5 seconds. "Childproof"
 time without damage. Has self-starting. 78 RPM, 110 volt 60 cycle AC, heavy duty motor, and $9^{\prime \prime}$ turntable covered in velvet flox. Will operate satisfactorily on any record regardless of age. Complete with $30^{\circ}$ lead wires, and plugs, and simple instructions, for easy connecting. Finished in two-tone brown with attractive plastic trim. Will decorate any radio. Requires only $51 /{ }^{\prime \prime}$ head room and fits any cabinet with $121 /{ }^{\prime} \times 161 /{ }^{\prime \prime}$ changer area. Shipping weight 12 los. c22503-Your Cost
\$15.95

## GENERAL INSTRUMENT Record Changer

Foolproof mechanism, designed to give the maximum convenience and pleasure with a minimum of attention and care. Will play manually and automatically change up to 10 twelve-inch or 12 ten-inch records. Fast changeover time assures a short wait between records. Discs last longer due to the feather weight pickup used-only $11 / 4 \mathrm{oz}$. needle pressure. Heavy duty dependable
 mounted for silent operation. Records drop on velvet brown flox turntable. Requires a mounting base $11^{\prime \prime} \times 12^{\prime \prime}$. Overall height $61 /{ }^{\prime \prime}$ above the mounting plate and $2^{\circ}$ below. For use on 115 volts AC 60 cycle. Complete with mounting hardware. Shipping weight 11 lbs. C22556-
\$16.95

## WEBSTER Record Changer

Simple in design and operation, it provides manual or automatic play ing of ten standard 12 or twelve 10 discs with a minimum of waiting time between records. Home recordings or "inside out" records up to $12^{3}$ size may be played manually. Shuts off automatically after the last record has played. Light weight pickup less needle has a $36^{\circ}$ lead. The unit has a 110 volt,
 4 pole, heavy duty. 60 cycle motor Supplied complete with mounting template, instruction manual, and all mounting hardware for standard $5 / /^{\circ}$ board. Dimensions: $14^{\circ} \times 14^{\circ} \times 9^{\circ}$ overall. Shpg. wt. 17 lbs.
C22500-Model 56-Your Cost
\$26.66
New Junior Model similar to above but last record is repeated instead of automatic stop. Dimensions $12^{7} / 8^{\circ} \times 12^{\prime \prime} \times 9^{\circ}$ overall. Allow additional $1^{\circ}$ front, side and rear for $12^{\circ}$ record clearance. Shpg. C22501
Model 50 -Your Cost.
\$21.17

## WEBSTER Intermix Changer

The Model 70 changer is handsomely styled to harmonize with fine furniture;-operating mechanism is attractively concealed. Simple to operate and easy to load and unload. All parts are sturdy and of precision manufac ture, assuring years of dependable enjoyment. Rim drive type, with rubber-tired idler wheel that is in contact with the drive rim and sleeve only when the changer is in operation, thus eliminating
 the idler wheel during long periods of non-use. Removable spindle for easy unloading of played records. Plays $11 /^{\circ}$ stack of $10^{\circ}$ and $12^{\circ}$ records intermixed. or full stack of either. Base size: $14^{\circ} \times 14^{\circ}$, height above main plate $8^{\circ}$ when fully loaded, depth below plate $212^{\circ}$. Shpg. wt. 18 lbs.
c22s04
Model 70-Your Cost.
$\$ 42044$


AUTOMATIC RECORD changer *LIGRTWEIGHT
*SMALI SIZE *NO GEARS * $11 / 4$ or. NEEDLE PRESSURE
This changer is a simple, gearless, foolproof mechanism, designed to give the maximum convenience and pleasure with a minimum of attention and care. This machine will play and automatically change attention and care. This machine will play and automatically change 78 r.p.m. type having an eccentric stopping groove. Recordings sold today for home use are of this type. Very old records that do not have an eccentric stopping groove can be played semi-automatically by operating the reject lever at the conclusion of each selection. The free floating tone arm incorporated in this machine employs a crystal pickup of the hi-fidelity type. Needie pressure $11 / 4 \mathrm{oz}$. Conventional removable needle. Turntable is brown flox coated. Entire unit is finished in beige and brown enamel. Overall size: $103^{\prime \prime}$ by $1211^{\circ}$ by $8^{\circ}$. Requires $6^{2}$ above motor board and $2^{\circ}$ below motor board. Complete with mounting hardware.
C22560-Your Cost.
s19.46

## Base for above Record Changer:

Wood mounting base for use with above record changer. Walnut finish. Mounting holes and clearance cutout already provided. Provides a complete portable unit ready to attach to a radio. Size, $125 / 8^{\circ} \times 1136^{\circ} \times 214^{\circ}$
c22361-Your Cost
$\$ 1.95$

## GARRARD Record Changer



Garrard's new DeLuxe "Mixer" rec$12^{\circ}$ changer which plays both $10^{\circ}$ and combination and changing is performed simply, efficiently, and silently. 1 -ounce high-fidelity crystal pickup. with frequency response prom 30 to 8500 c.p.s. The permanent jewel stylus will last for years of normal playing. The motor is silent and sturdy, buitt to give powerful but regular governed running. Special spring mountings for full floating nonmicrophonic installation. Overall dimensions with a full $12^{\circ}$ record
supply are: $15^{\prime \prime} \times 13^{\prime \prime} \times 51_{1 / 2}^{\prime \prime}$. Shpg. wt. 211 bs . C22550-A.C. Model-100/130 V. 60 cycles c22552-As above, but magnetic head. Less needle.
$\$ 69.50$ As above, but with G.E. Variable Reluctance picku C225pilier. Your Cost.
69.50 C22551-Universal A.C.-D.C. Crystal pickup 489.50


The mode! " 400 " record changer is an inter-mix model handling ten $12^{\prime}$. or twelve $10^{\circ}$ or any ten records intermixed. Gives positive intermix action. Automatically shuts off after last record has been played. Quick, quiet record changing cycle is ess than 4 sec . Records are ently lowered on spindle step. Uses "Muted Stylus" cartridge. Mounting space required is $13136^{\prime \prime}$ wide, $121^{\prime \prime}$ long, and an overall height of $73 / 8^{\circ}$ C22557- I

92: 73
Your Cost
VM Model 401. Combines Model 400 Intermix changer with beautifully styled birch and maple basc. Complete with 6 ft . power cord and 4 ft . shielded cord for radio attachment.
C22558-
53275

## Record Changer Bases

Sturdily constructed all-steel bases for use with Webster record changer Models 50, 56 and 70. Attractivery finished in dark brown wrinkle finish to harmonize with any surroundings. Mounting brackets welded in place for changer. Non-scratch felt feet permit placing on table tops. other polished surfaces. Measure $13 \% / \%^{\prime \prime} \times 13 \frac{1}{4} \times 41 / 4^{\prime \prime}$. Shpg
$\$ 3-12$
C22355-For Wehster Model 50.
......53.44
C22356-For Webster Model 56.
3.4

## WALSCO Standard Test Record

For immediate audible adjustment of record changers. Solves problem of adjusting set-down position of the pick-up and for proper tripping through series of tones at beginning and end of record. Playing time through series of than 40 seconds. Stroboscope on rim of label indicates 78 rpm at less than 40 seconds. Stroboscope on rim of label indicates 78 rpm at standards. Precision checked for perfect flatness, concentricity, thickstandards. Precision checked for perfect flatness, concentricity.
ness and correct groove depth. C21880-10-in. record. .....50.88 C21882-12-in. record 54.80


# Phono Mlatoris Accessories 

## G-I Rim Driven Motor

(A) Model LX. Made by General Indusiries. Insulation turntable for quiet operation. Oilless bronze bearings. Twopole high speed motor. $9^{\prime}$ turntable. 78 r.p.m. 10 C22531. W. 8 lbs

## G-I RM4 Recording Motor

(B) Constant speed ( 78 r.n.m.) self-starting motor Weighted $10^{\circ}$ turntable. Motor insulated from plate and table. Retractable drive pin. Rim driven; pulley ider and table in one plane. Depth $2^{15} 16^{\circ}$ below plate. 110 volts (0) cycles. Shipping weight 13 lbs .

C22528-Your Cost

## Constant Speed Motor

Model CX. Gear Drive. 78 r.p.m. phono motor for ully enclosed hecords. self-starting induction type. $1 \times 31^{\circ}$ deep. For 110 V .60 cycles. With $10^{\circ}$ turntable and all hardware. Wt. 10 lbs. C22525-Each
## Dual Speed Motors

(D) Model D. Powerful, governor controlled, gear drive mal variat that will maintain a unilorm speed under norator and lever shift to 78 or $331 / 3$ RPM. Fully enclosed with silent helical cut gears running in a hath of oil in a waled housing $10^{\prime}$ urntable. 110 V 50-60 cycles Furnished with mounting hardware. Shpg wi 13 lbs C22530
Your Cost
C22533-As above with $12^{\circ}$ T.T
Your Cost
$\mathbf{\$ 1 5 . 9 0}$
$\mathbf{s} 16.45$
Automatic Stop
For any above motors with $8^{\circ}, 9^{\circ}$ or $10^{\circ}$ turntable. C22540-Each.
Alliance Even-Speed Phono-Motor
Model 80. Rim-drive phono motor $9^{\prime \prime}$ turntable Constant speed ( 78 r.p.m.) self-starting, forced draft air cooled. For $10^{\circ}$ and $12^{\circ}$ records. 110 V . C22545-Your Cost.
$\$ 3.75$
\$4.08
$\$ 8.13$
$\$ 9.90$


## WEBSTER M-15 Phono Motor

(F) Heavy duty shaded 4 pole motor, improved rim drive, with $9^{\circ}$ turntable heavily cushioned with long fibre flock. For manufacture, replacenient or home construction of record players. Operates on $105-125$ volt 60 cycle. Shpg. wt. 5 lbs. C22505-Your Cost
\$3.82

## G-I Dual Speed Recorder and Play-Back Unit

(H) Cuts records up to $10^{\circ}$ dia. at 78 or $331 / 3$ r.p.m. Plays (1) records up $1012^{\prime \prime}$ dia. at 78 or $33^{1 / 3}$ r.p.m. To shift motor from one speed to another, merely turn the speed change dial. Beautiful wainut wood grain finish on steel base plate. Streamlined plastic trim on pickup and cutter arms attractively engraved with legends "Reproducer" and "Kecorder." Convenient depth of cut adjustment. Dynamically balanced rim drive type motor. Compensating switch operated by speed change dial. Assembly includes clual speed motor, $10^{\circ}$ weighted turntable, cutting mechanism, crystal pickup, compensating switch, ting mechanism, crystal pickup, compensating switch, pickup and cutter arm rests, drawn steel base
wide, 111 f front to back, 110 V .60 cycles.
wide, $111_{2}$ front to back. 110 V .60 cycles.
C22516.
Your Cost
Similar to above, but single speed at 78 r.p.m.
C22517 Your Cost............................... 524.51

## G-I Record Changer and Recorder

(G) Cuts records up to $10^{\prime \prime}$ dia. Plays twelve $10^{\circ}$ or ten $12^{\circ}$ records automatically. Only necessary to lower the cutting arm over the record disc to start the recording operation. Convenient depth of cut adjustment on top of cutting arm. Self-starting, dynamically balanced, recording type motor. Non-jamming record handling fingers which do mot extend past record lead-in space. 1 Jandles records with either run-in or oscillating trip grooves. Shock mounting provides isolation of entire assembly from the cabinet. Brown iridescent finish. Furnished with crystal pickup. $10^{\circ}$ weighted T.T., on-off switch, and C22515-
Your Cost


## High Gain Phono Amplifier

(J) A three tube hi-fidelity amplifier with an with low output, high quality pickups. In cludes volume control and built-in output ransformer. Uses new miniature tube types 12 AT 50135 and 35 W 4 . Small size of 5 年 2A 31 " wide and 31 . high make the unit long, 3 wide and 2 or portable phone especially desirable for portable phone players and all applications where space is at premium. For and Speaker socket and shielder phono input socket builk into chassis-just plug in. 5 ft.
line cord. Complete with tubes. $\$ 4.95$

## Phono Oscillator

(K) Compact new design using series plate modulation. Uses only 2 tubes instead of the usual three tubes. Easy to install and operate. Phono motor and pick-up connect directly to oscillator. Plays records through radio by simply starting reoord player and tuning in the oscillator on the radio as you do your favorite station. I las tuning adjustment to assure a "clear channel" on your dial. Oscillator is automatically turned off when phono motor is shut off. Permits remote playing of recorns, and gives high quality Complete with tubses.
$\$ 5.83$

## Stroboscopic Speed Checker

(L) When placed on turntable and illuminated with a bulb ( 50 or 60 cycle) in-C197Each

## Tone Arm and Head

(M) Exact replacement for $95 \%$ of all nonElectronic reproducers in service torday. Takes standard replaceable steel, alloy or cac tus phono neadles. Excellent for construction of children's phonographs. Sturdily constructed of alloy die castings for long years of use. Finished in black and polished nickel. Arm has mounting plate. For up to $12^{\prime \prime}$ records. has nounting C13415-Head only C13416-Arm only
$98^{\circ}$

## ICA Record Player Switch

Used for quickly connecting record players, F.M. and Television attachments into the audio amplifier of radio receivers. Provides change over from radio to record players without introducing hum. Cuts out radio on
phono position. C12699-Your Cost
$\$ 1.32$

## Record Player Cabinet

(N) Install your own record player or changer hed mahogany cabinet. Large enough fo ithed mahogany cabinet. Large erough to house any record player with a base not over $12 \times 12^{\circ}$. Will also accommodate a 3 or 4 -tube amplifier and a $4^{\circ}$ or $5^{\circ}$ oval speaker. Constructed of snahogany vencer and selected hardwoods. Finished in reddish-brown mabogany color. Only a limiled cjuantity a vailable -get yours now Size $15 \frac{1}{2} \times 151 / 4 \times 81 / 2^{\prime \prime}$. Shpg. wi. 10 lhs.
Your Cost.
$\$ 7.95$
spring mounting hardware. Base plate $14^{\circ} \times 14$


## Record Player

Easily connected to any radio receiver. Beautiful reproduction of favorite records, with uil richness of tone. Volume is dependent on radio to which it is connected. Will play records perfectly thru audio section and speaker of largest or smallest receiver in your house. Featherweight, true tracking, crystal pickup will play both $10^{\circ}$ and $12^{\text {P }}$ records. Constant speed phono-motor insures accurate reproduction. Single connection to radio or amplifier and speaker is all that's necessary. Attractive sturdily constructed cabinet. Size: $12^{\prime} \times 11^{\prime \prime} \times 4^{\prime \prime}$. for use on $105-125$ volt 60 cycle AC only. C22654
Your Cost

## ${ }^{5} 10.95$

## SHURE

## Magnetic Recording Head

(Not lllustrated). High quality, wide response record cutter, for home recording equipment. Standard replacement for thousands of magnetic cutters and with minor circuit changes will replace crystal cotting heads. Inesigned to operate directly from voice coil winding of output transformer, highly sensitive recording element. Match $4-8 \mathrm{ohm}$ voice coil windings. No mounting brackets. Tapped mounting holes facilitate re-use of brackets on old unit. Size: 23 " $x^{1 / 8}{ }^{\prime \prime} x$ $8_{4}$ with needle screw and 4 -inch flexible leads. Less stylus. Shpg. wt. 8 oz . $\$ 17 \boldsymbol{5}$ C13799-Your Cost.
$\$ 1.75$
Lots of 6, Each.

## PHONO PICK-UPS



## ASTATIC Studio

 Master "400"
## (C)

 Professional type crystal recording studio use on lateral recordings. Swivel base may be raised or lowered to desired Low friction pivots assure con Low friction pivots assure contant needle pressure. Low vertical inertia insures ideal tracking even on warped and distorted records. Attractively designed with long, slender curved lines, offset head for low tracking error Astatic Nylon 1-J cartridge with semi-permanent sapphire-tipped replaceable needle. Frequency response from 50 to 8010 cps . Output 1 volt. Needle pressure oz. Over all length $121 / 8^{\prime \prime}$. Finished C13412- $\$ 1402$

## GE Variable Reluctance

 CartridgeGE PRE-AMPLIPIER
(G) A new compact low voltage audio pre-amplifier for use with the G-E Pick-Up. Employs a shock mounted 6SC7 tube in an equalizing circuit. Plate and filament power are obtained from the ssociated receiver or amplifier $15^{\circ}$ insulated leads furnished. $12^{\circ}$ shielded lead and plug for connecting to input of amplifier. Finnecting to input of amplifier. Fin shed in G-E Staybrite Lusteron Measures $38 / 8^{\prime \prime} x^{3} 3^{5 / 8} \times 4^{1 / 2^{\prime}}$. Shpg Your Cost....... \$5.8:2


## CALTRON Pickup

${ }^{(1)}$
New high quality phono graph pickup. Incorporates vibrating reed magnetic car tridge with a needle point pres sure of only 1 oz . Especially de signed for use where high quality reproduction and long record life are important. Output 2.5 milli volts. 1 mp . 100 ohms. Shpg, wt 10 oz

## C13467-Model \$8.82

## Pre-Amplifier

(J)

Model 404. For use with radio and amplifiers having nsufficient gain for operation o the Caltron pick-up described above. Delivers 1 volt of undisorted output. Uses 1-6SC7
Shpg, wt. 13 oz
C13472-Less tube. $\$$ Sish............ 8

## Replacement Cartridge

Model103P.A vibrating reed mag netic pick-up cartridge in streamlined plastic case. Not affected by weather. Impedance 100 ohms Output 2.5 millivolts. Shpg. wt C13469 Each.
$\$ 5.00$

(B)

## AUDAX Model 73A

(A) Uses the newly developed . with replaceable sapphire tipped stylus. For playback of lateral recordings up to $12^{\prime \prime}$. Linear frequency response from 50 to 10.000 cycles. Output of -30 db . Impedance 200 ohms. Needle pressure less than $2 / 6 \mathrm{oz}$. Finished in bronze and chrome.
C13457
\$39.10
(A) Model 74A. For lateral recharacteristics same as for 73 A . Finished in French gray and
chrome.
Your Cost
$\$ 48.80$
Note: Both above available in 500 ohm impedance.

## AUDAX Model R-55

(A) Tuned ribbon reproducer for Has easily replaceable sapphire tipped stylus. Frequency response is flat within $21 \% \mathrm{db}$. from 50 10 8,000 cycles. Output of -20 db . 8 teedle pressure less than 1 ds Impedance 200 ohms. Finished in mpedance and chrome C13460 Cost... \$19,40
$\$ 9.40$

## AUDAX Microdyne

(B) Model D-38H-New relay
action principle places reso nance of moving system beyond audibility, eliminating harsh peaks. Exciter inertia several hundred times less than in ordi nary pickups. Flat within $\pm 2 \mathrm{db}$ to 7500 cycles. Rising bass curve to about 8 db at 50 cycles. Exceptionally low vibratory momentum. Tip pressure about 39 grams. May be used with JEWEL POINT. Black and chrome finish. $1218^{\prime \prime}$ long. 500 -ohm imp

## C13458- <br> Your Cos <br> $\$ 29.25$

AUDAX Equalizer Filter For use with Audax Model R55, 73A and 74A pickups, or any 200 ohms output pickup. Has five positions, covering NAB Orthocoustic, vertical, 78 RPM and inter positions. C13461-
Your Cost.
\$4 3. 80
C. Replacement head mounting C. for Model 55 pickup.
C13470
Your Cost.... $\$ 15.99$

Replacement head mounting for Model 73A and 74A pickups.
C13471-Your Cost.... $\$ 35.69$
Clapedances on special order.

## BRUSH Crystal Pickup

Eliminates usual needle chuck and set screw. Employs small permanent polished sapphire stylus, bringing the mechanical imped ance of the vibratory system to a very low value. Response is flat within $\pm 2 \mathrm{db}$ to $60(\%) \mathrm{cps} .0$ has slightly rising characteristic to 10.000 cps Will drive conventional two stage amplilier. Taupe and brown finished



SHURE "Muted Stylus" Pickup
(N) Muted Stylus crystal pick(U) ups play with amazing needle quietness. Has specially designed muted sapphire needle for longer record life. Paithful tracking gives
clear, fuller tone qualities, and very low surface noise. Ideal for high quality home phonographs coin operated machines and similar applications. Needle force is loz Output voltage $\$ 8.8 .88$
rour Cose
Picku
SHURE "Glider" Pickup
(O) High 1.4 V. output combined tis lo this one of the finest pickups at its Changeable needle. Up to $12^{-}$ C13417-Mlodel \$3 5 93A. Your Cost
53.59 Model 93 AN. Same as above but C13418
Your Cost
$\$ 5.06$

## Tone Equalizer

(P) Recommended for use with itions. bass mediups four po C13475-Your Cost $\$ 1$
and of

## WEBSTER Crystal

 Pickups(R) Excellent design and perform ance. Balanced to track at needle pressure of less than 2 oz . Frequency response from 40 to 8500 cps . For $10^{\circ}$ and $12^{\prime \prime}$ records. Stamped steel construction brown enamel finish.
Model AE-10. With natural sapphire tip needle.
Your Cost.
$\$ 2.70$
Similar to above pickup but less needle.
Your Cost.
$\$ 2.35$
Model AC-10-1. Frequency response from $50-7000 \mathrm{cps}$. Needle pressure $21 / 2 \mathrm{oz}$.

## C530

Your Cost
$\$ 1.95$

## WEBSTER WAJ-1"

 Crystal Pickup(S)

Precisely balanced pickup ous-alloy needle. Practically no record wear to needle changing. Streamlined bakelite arm. 40 grams pressure. .5 V. output. cipping weight 1 Ib Cach............. \$1 :
 (1)
(
(®)
(1)
(A)

## LONG LIFE PLAYBACK NEEDLES



## JENSEN Royal Jewel Needle


(A) Genuine sapphire jewel point set in specially designed oftiset shank which reduces surface noise and distortion to a minimum. The hard. smooth, perfectly shaped sapphire point protects your records and provides exceptionally long life for the needle. Phays up to 10,000 sides! $\$ \mathbf{1 . 4} \mathbf{Z}$

## RUBY-TONE Needle

(B) A precision ground jewel te thipet is carefully (Bused into a specially designed straizh shank sarflere Moise, inicial spenses fress practically eliminates cive perfect reprod uction. 3000 plays. $\$ \mathbf{1 . 4} \mathbf{4}$ JEWEL TIPPED Offset-Type Needle (C) This extraordinary jewel tipped needle will face noise and distortion are greally reduced by an ingenious cushion action design that minimizes record wear and climinates needle talk. $\$ 1.07$

## Precious Metal Tipped Needle1000 Plays

Similar in design to above hut with a special alloy lit for long life and full clarity.

54

## KACTI Needle:

(D) Long playing cactus needles that produce clear. sort. natural tones. Mechanical sur face scratch is practically eliminated. Easy to resharpen. Will not
scratch or damage records. scass-lackage of 12.
. 52. so

(1)

10 Packages for

## PETER GREY Needle Pointer

(E) Famous "Kacti" needle pointer for sharpening brush.
brush.
C273-Shipping weight 2 lbs
10 for ...
$\$ 1.50$
. $\$ 1.35$

$\left[\begin{array}{l}\text { Phenol liedles } \\ \text { Acceseser ies }\end{array}\right]$

$\binom{$ Phono Needles }{ Accessosories }

## Standard Playback Needles

(D)

RCA steel phonograph needies
C153-Fuli Tone (Pack of 100) C160-Extra Loud 100)

10 Packages assorted. . 7 Sc . Your Cost per Package.
(Pack
RCA Chromium needles. Green shank
Rack
$25^{4}$
10 packages
. 51.80
(1) RELIANCE Chrome plated individually shadowgraphed
(Jood for 15 plays each.
CA40-Package of 5. Your Cost
154
(1) Green shank shadowgraphed needles.

C432-Package of 100 . Your Cost
(1) Hi -fi needles for automatic record changers Good for c14 plays each.

Your Cost
46
(1) RCA 1214
(1) RCA Red Seal needles, designed for Red Seal rec- 254

10 Packages for

## RECORDING NEEDLES

(E) Lapped edge sapphire cutting needle for acetate discs. Precision cutting jewel for low surface noise and highest fidelity. cutting life.
C191-Your Cost Each
3.23
(E) Iike ahove, but with
h Long Shank to fit Presto Prof
fessional and

C198-Your Cost Each
$\$ 3.45$
(E) Sapphire cutter ground to W.E. spec. For acetate discs. Abont 10 C196-Yours Cost Each (F) Steel cutting*nee

C439-Plattened shank . Your Cost
( Stellite cutter for acetat ..............................
(3) of sides: can be resharpened

C337-Your Cost Each
\$1. 18
(H) Individually polished steel cutter for acetate discs. Will cut 15 to c348- $2510-\mathrm{in}$. discs.
C348-Package of 4. Your Cost
596
(H) Alloy cutter for acetate; harder than steel. Polish while ca34and lapped
C434A-Package of 5. Your Cost
C434B-Package of 10. Your Cost
95
(A)



## Standard Albums

(A) A well-made album with a durable and (A) attractive maroon cover. Opens flat due to a unique type of construction. An extremely fine value at an unusually low price. Index inside front cover. Shipping weight 2 ibs. each. $\begin{array}{cccc}\text { Cat. No. } & \text { Size } & \text { Pockets } & \text { Each } \\ \text { C21890 } & 10^{\circ} & 12 & 78 \mathrm{c} \\ \text { C21891 } & 12^{\circ} & 12 & 94 c\end{array}$

## Deluxe Record Albums

(B) Flat opening type with heavy kraft pockets. (B) Overall covering of padded brown swir leatherette. Gold embossed Cothic design on back. Beautiful in appearance and unusually sturdy in construction, this is a truly superior album in every way. Shipping weight 3 Ibs each. Index inside front cover

| Cat No. | Size | Pockets | Each |
| :--- | :--- | :---: | :---: |
| C21888 | $10^{*}$ | 12 | $\$ 1.28$ |
| C21889 | $12^{\circ}$ | 12 | $\mathbf{1 . 3 3}$ |

## LYRIC Record Elolder

(C) Why risk broken and scratched records when you can safely file fifty $10^{\circ}$ or $12^{\circ}$ records in only 12 inches of table or shelf space? Soft red felt covers the unbreakable steel base and separators, keeping your records in perfect condition. Handy indexing system included helps you locate any record in a few seconds. Handles are copper plated. A perfect git fo music lovers. C21894-Your Cost.
\$2.33

## Lyric Record Carrying Case

(D)

Stores fifty $10^{\circ}$ records safely and conVery light, exceptionally strong and durable Comfortable leather carrying handle. Handy indexing system. Protective rubber cushions. Ideal for storing records on trips, picnics, or in the home. Shipping weight 7 lbs. $\$ 5.30$
c21896- Your Cost............

#  <br>  <br> (A) 

CRYSTAL PICKUP REPLACEMENT CARTRIDGES
A comprehensive lineup of replacement cartridges for all standard makes of crystal pickups as recommended by the manufacturers. Each and every cartridge is precision made and individually tested for rated frequency response and output voltage.

## RCA Magic Tone Cell Kit

(A) RCA Victor "Silent Sapphire" jewel point permanent pickup. Sapphire is protected by tiny bumpers and shock absorber. Output volts $1 \%$ at 400 cycles. Includes Magic tone fcell, silent sapphire jewel point in cartridge form, and all hardware.
C13960
Your Cost..............

ASTATIC "QT"
Cartridges 1 mproved design. Output voltage . 75 . Frequency response to 5000 CS . Needle pressure of $1 \frac{1}{4} \mathrm{oz}$. Model c13961-Your Cost metal tip needle.

MODEL QTJ
With sapphire tip needle
C13962-Your Cost
Replacement needle for Model QTM
c101-Your Cost
Replacement needle for Model QTJ
C102-Your Cost
SHURE "Muted Stylus Cartridge"
Fits all standard flat-type pickup mountings. Output voltag replaceable sapphire tip needle. C13991-Your Cost
With replaceable osmium tip needle.
Replacement sapphire needle for above
Replacement osmiu
C104-Your Cost.

ASTATIC


## SHURE

. $\$ 5.23$
$\$ 1.47$
$\$ 1.76$

## WEBSTER

| Stock <br> No. | Mode! | Type | Pressure | Output | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C13966 | N3 | B | $1 \frac{1}{4} \mathrm{oz}$. | . 7 V . | \$2.62 |
| C13970 | D4 | D | 11/402. | . 7 V . | 3.18 |
| C13971 | *D5 | D | $11 / 4 \mathrm{oz}$. | . 7 V . | 3.91 |
| C13976 | C2 | C | 21/2oz. | 2.0 V . | 2.35 |
| C13977 | C3 | B | 21/2 oz. | 2.0 V . | 2.35 |
| C13978 | E4 | B | $2 \sqrt{1} \mathrm{oz}$ 。 | 1.5 V . | 2.62 |
| RCA |  |  |  |  |  |
| Stock No. | Model | Type | Pressure | Output | Each |
| C215 | 31050 |  | 2.7 oz. | 1.5 V . | \$2.52 |
| C249 | 37158 |  | 3 oz . | 1.5 V . | 2.82 |
| C277 | 33217 |  | 2.7 oz. | 1.5 V . | 2.52 |
| C280 | 33122 |  | 2.7 oz . | 1.5 V . | 2.52 |
| C13424 | 31156 |  | 3 oz . | 1.5 V . | 2.85 |
| C13979 | 38610 |  | 2 oz . | 1.5 V . | 3.33 |

ASTATIC "Nylon-l-J" Cartridge Incorporates molded Nylon chuck and kneeaction, sapphire tipped needle. Control of action, sapphire tipped necdie. and crysta clement is nearly perfect. Needle is matched clement is nearly perfect. Needle is matched to cartridge, and while it may be replaced, no reproduction must remain constant.
C13980-With Nylon Needle. $\qquad$ $\begin{array}{r}\$ 4.56 \\ .1 .76 \\ \hline\end{array}$

## Record Blanks

PRESTO "ORANGESEAL" Dises Aluminum Base
Famous Presto aluminum base recording discs. Caated with Presto's special compound they have low surface noise and long-playing life. Non-warping and lighter in weight than Green Seal discs listed below. Standard package quantity 50 . package quantity 50 .
C11960- $6^{6^{2}}$. Each
C11962-10 ${ }^{\circ}$. Each
0.35
.50
75
$\begin{array}{r}\$ 0.21 \\ \hline 0\end{array}$ C11963-12* Each..... .75 . 75

## "GREEN SEAE" Discs

Finest grade of recording blank made by Presto. Aluminum Base and coated by a special compound used exclusively by l'resto. Used by research laboratories to demonstrate the capabilities of recording equipment. Standard recording blank for a majority of the larger broadcasting stations and recording studios. Overall thickness . $052^{*}$. Standard package quantity 30 . Lots of 30 ea. C11992-12'. Each.... $\$ 1.80 \begin{array}{r}\text { ntith } \\ \$ 1.08\end{array}$


## AUDIODISCS

## "RED LABEL" Aluminum Base

For professional use. "Acetate" coated on smooth aluminum base. Double-sided with 3 drive pin holes. . 054 " overall thickness. Write for special prices in standard package of 25.

| C11989-8'. | \$0.8 |
| :---: | :---: |
| C11994-10'. Each | 1.15 |
| C11995-12'. Each | 1.85 |
| C11996-16". Each | 3.4 |

## "YEL LOW LABEL"

Acetate coated on Aluminum Base. For amateur, school or home use. Double sided and labeled. Std. Pkg. Quan. 25.
C11990-8. Each
C11997-10' Each
C11998-12. Each
.90
$\mathbf{1 . 5 0}$
2.70

## RECORDISCS

## Home Recording Blanks

The Orange and Red Label Discs listed below are all Cellulose mirate conated, thus providing high fidelity reproduction, and the ability to withstand age and playback without cracking or peeling.

## Orange Label

Firm, non-warping bond hase, professional nitrate coated. Admirably suited for the average type of amateur transcription.
C11969-SIX 61:"Discs. . . . . . . . . . . $\$ 0.60$ $\begin{array}{lll}\text { C11970 S1 } \\ \text { C11971-S1 } & 8^{\circ} & \text { Discs. . . . . . . . . . . . . } 1.00 \\ \text { Discs. . . . . . . . . }\end{array}$

## Red Label

Heavy, .021" thick aluminum base discs with a mirror-like finish for high-lidelity reproduction over a wide frequency range. Comparable to those used by broadcasting stations and professional recording studios.


## Aluminum Base Discs

High cuality recording discs with a coating of professional nitrate compound on an alumnum base. Low noise level, warp-proof and unbreakable. Light weight.

| StockNo. | Size | Price Ea. Per 10 Ea |  |
| :--- | :---: | :---: | :---: |
| C11955 | $62^{\prime}$ | 20 c | 18 c |
| C11956 | $8^{\prime}$ | 27 c | 24 c |
| C11957 | $10^{\prime \prime}$ | 40 c | 36 c |
| C11958 | $12^{\prime \prime}$ | 53 c | 47 c |

## WILCOX-GAY RECORDIO Discs

 Light weight, flexible discs for use with bome recurders. Non-inflammable. Excellent re cording quality. Coated and labe! both sides C11979-S1X 61. Discs. $\$ 0.60$ C11980-S1X 8" Discs ............ 1.00
## GOUED-MOODY Professional

## Record Blanks

Professional quality blanks having a perfectly uniform cuating of highest grade cellulose nitrate on smooth aluminum base. Mirror-like surface will permit recording with utmost fidelity and lowest noise level to produce professional results. Overall thickness $063^{\circ}$ 2 -hole type.

| Stock No. | Size | Price Each Per 25 Ea |  |
| :--- | :---: | :---: | :---: |
| C11986 | $10^{\prime \prime}$ | S0.84 | S0.68 |
| C11987 | $12^{\prime \prime}$ | 1.36 | 1.09 |
| C11988 | $16^{\prime \prime}$ | 2.50 | 2.00 |

## MASTER Discs

Cellulose coated aluminum based discs used extensively by phonograph record and electrical transcription manufacturers for making original master recordings. Not affected by humidity or changes in temperature.

| Stock No. | Size | Price Each Per 12 Ea. |  |
| :--- | :---: | :---: | :---: |
| C11950 | $1314^{*}$ | $\$ 2.24$ | $\$ 1.79$ |
| C11951 | $171 \%$ | 3.75 | 3.00 |

## Record Renewer

For acetate records. Cleans, lubricates and protects. Thin film of lubricant reduces friction. 2-ounce bottle.
C15300-Your Cost
$26 c$
Renewer: Same as above! but for commercial records such as RCA, Victor, Columbia, Decca, etc. 2 -ounce bottle. C15301-Your Cost
Recording Fluid: Applied to recording blank before cutting, fincreases stylus life, reduces surface noise. For use on non-in flammable discs only

## Gummed Record Labels

Neatly printed spaces for title, date and name of recorder. Fits all discs.
C431-Package of 50 .


# RECORDERS And 

## PRESTO Model Y Recorder

(A) Highest quality $16^{\circ}$ dual speed portable record and playback. Mandles up to and including $171 /{ }^{\text {" }}$ transcription masters. Serves 500 people as a cutter, magnetic, normally flat $50-8000$ res; equal ized, $50-10,0(\mathrm{~K}) \mathrm{cps}$. Negligible harmonic distortion Wide dynamic range. Turntable is directly driven by pulley on motor shaft to eliminate vibration and hold speed absolutely constant. Speed changed in stantly, outside-in or inside-out cutting changed instantly, and cutter gently lowered to surface, al by levers. Vibration damper on cutter eliminates vertical modulation. Highest quality $16^{\circ}$ magnetic pickup. Quick disengage for cutting spiral runouts Time scale. Under-panel, chip-free mechanism equal in every way to overhead lathe. 2 -mike mixer, high and low freq. equalizers, and changeover switch for continuous cutting. Model Y-2 consists of the Mode 76 -A recorder and playback in its own case and the Model 87-A amplifier and speaker in its own case. The only accessories needed are a high-impedance mike, discs, stylus, and needle

Amplifier uses two 6SJ7's, a 6N7, two 6C8G's, two 2A3's push-pull, and a $5 Z 3$. Gain 115 db . Output 10 watts. Freq. response flat $30-10,000 \mathrm{cps}$. Treble control raises 6500 cps as much as 17 db or drops 5 kc as much as 20 'db. Bass control raises 100 cycles as much as 20 db . Distortion less than $1 \%$ at maximum cutting level. Panel includes a volume indicator meter, telephone line input jack, monitor jack, and dual receptacles for turntables and mikes Mike input 100,000 ohms, line input 500 ohms, output 8 ohms. Speaker is $10^{\circ}$ PM dynamic, mounted in the baffied case cover.
Model 75-A recorder and playback is $201 / 2 \times 11 \times 19^{\prime \prime}$, Weight 49 lbs. Shpg. Wt. 68 lbs. Model $87-\mathrm{A}$ amplifier and speaker is $231 / 2 \times 12 \times 20^{\circ}$. Weight 57 lbs Shpg. wt. 85 lbs. Total Model Y-2 Shpg. Wt. 153 bs. For 115 volt, 60) cy AC . Complete with tubes and instruction book.
\$741.00 c22587-Model 75-A Only, Your Cost. . . $\$ 451.00$ c22588-Model 8i-A Only, Your Cost. . . 290.00

(D) Accurate, for professional or amateur. Fits all standard turntables. I'ositive screw engagement, chip guard many other refinements. 110 lines/inch, out-side-in. Choice of Astatic X-26 Crystal or M-41 8 -hm Magnetic
(B) Complete recorder-playback unit. Records up $134^{\circ}$ disc. Connects to any home radio, microphone, or another phono pickup to duplicate rec ords. Plays all makes of records. As voice amplifier,
serves audiences of 500 serves audiences of 500 persons. Ideal for sales work, schools, actors, musicians, and home recording. In beautiful portable case, light-weight and compact
Two speed, $331 / 3$ or 78 rpm . Speed accuracy $0.5 \%$. No belts. Change speed in 5 seconds. $12^{\prime \prime}$ turntable machined from heavy casting. Heavy-duty con-stant-speed motor. Highest quality magnetic cutter and pickup heads, flat $80-5000$ cps. Sylus-saving under-panel cutting mechanism, chip-free, with
quickly replaceable worm for either outside-in or inside-out cutting. 110 db amplifier gain, flat 50 )
8000 cms . I iigh- freq. equalizer for 3313 rm record8000 cps .1 ligh -freq. equalizer for $331 / 3 \mathrm{rpm}$ recording, maximum 20 db up at 6 kc . Playback scratch filter, maximum 25 db down at 5 kc . Volume-indicating meter. Monitoring jack. $8^{\circ}$ PM speaker in bafled case cover with extension cable. Tubes: three 6 SQ 7 stages, 6 N 7 , push-pull 45 's, and 80. Complete with tubes and instruction book, with outside-in cutting worm. (Extra worm for inside out by special order, slightly additional.) The only accessories needed are a high-impedance microphone, discs, stylus, and needle. Dimensions C22585-Your Cost
$\$ 348.00$

## PRESTO Model I Transcription Playback

(c)Professional quality portable playback. Atight weight, Remarkably clear wide-range repre, duction. Consists of: $12^{2}$ clear wide-range reprorecording turntable, high-quality $16^{\circ}$ magnetic pickup, 4 -stage amplifier, ${ }^{8}$ quapeaker mounted in pickup, 4 -stage amplifier, 8 . speaker mounted in Presto Transcriptone needie. Ilas tone control to Presto Transcriptone needle. Ilas tone control to
adjust response for all makes of lateral recordings

Overall frequency response $80-7500 \mathrm{cps}$. Lateralype pickup, needle pressure $13 / 1$ oz. Speed accuracy ess than $0.5 \%$. Amplifier gain 70 db, output 4.5 watts undistorted. Tubes are 6 SF5, $6 N 7$, push-pull 45 s. and 80. Dimensions: $194.2 \times 151 / 2 \times 11^{2}$. Weight tubes, for 115 volts. 60 cy AC. $\$ 290100$
cutters. 12

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

Your Cost
$\$ 6000$
C22567-16. Magnetic
22568-16 Magnetic



## REK-O-KUT Recording Equipment

## Professional Cutter

New design. Rugged, simple. positive features demanded by Broadcast engineers. ''recision stainless-steel feedscrew shadow graphed for accuracy. Slide bars and gauge chromed for easy, wear free operation. Enclosed gears, no chip binding. Universal mount quick cutter interchange. Cut spirals any width. not limited by pitch of screw. Model B-5 has Brush RC20 Crystal cutter; 120 ines/inch; outside-in. Shpg. wt 15 lbs .

## Courcost $\$ 175.00$

## Special Hi-fidelity transform

 or to match Brush or any high c22593Your Cost
$\$ 9.50$

16" Recording Motor


Precision dual-speed $16^{\circ}$ asmically balanced turned, dyiron turntable with $1^{\prime \prime}$ dia castSpecial grooves force-feed oil when operating. $1 / 20$ II.P. con-stant-speed motor. One 78 and one $331 / 5 \mathrm{rpm}$ idler. Adjustable stops regulate idler pressure chanse gral lathe-bored and lapped table bearing sand lapped turnYour cost.. \$165.45 Recording level meter in streamlined case. Operates from output of $8,15,200$ or 500 ohm amplifie Your Cost

## PARA-FLUX Playback Equipment Reproducers <br> 16" Turatable

 Rugged $16^{\circ}$ magnetic, with equalizer and 5 -pos. de-em phasis switch. Outputs from 30 to 600 ohms at -43 to -53 db be low 1 mw. Heads quickly inter changeable. Adjustable height. Flat $40-11,000 \mathrm{cps}$. 1'ermanent diamond stylus. pressure 35 grams. Moving mass 22 milligrams. Complete assembly is nd Switch Shipg wqua lbs Model UL-1DA Head $\$ 166.50$ Model Head.
Head. $\mathbf{C 1 3 4 5 5 - Y o u r ~ C o s t ~} 5150.00$ C13456 Model LL-1DA with teral Head.-Your Cost $\$ 120.00$ NOTE: Replacement heads available at $\$ 35.00$ on exchange basis.
(H) Model TP-16, companion to Sm Pe Para-Flux Reproducer. Smooth, silent, trouble-free. Meets all requirements of Broadcasting studios. 78 or $331 / 3 \mathrm{rpm}$. Heavy-duty constant-speed motor with oversize bronze bearings and dual speed control, in fultlloating mount on steel base plate. Speed control completely disengages driver and id ler in "off" position, thus preventing "flats" on the drive-mechanism surfaces. Specially formed spindle gives "wowless" performance. Shipped in wood utility mounting suitable for permanent installation. $21 \frac{1}{2} \mathrm{x}$ $16 \times 51 /{ }^{\circ}$.
Your Cost .... $\$ 78.80$

# Pilot Lamps SOCKETS 

## Genuine EVEREADY-MAZDA Pilot Light Bulbs



Both pitot and flashilght type bulbs are listed below type bulbs are histed below.
6.8 volt bulbs are for 6.3 volt 6.8 volt bulhs are for 6.3 volt
receivers. Bead colors aid in receivers. Bead colors aid in
identifying bulb types. Everidentifying bulb types. Ever-
eady-Mazda bulbs are standard in most makes of radios.
Prices Below Include Federal Excise Tax.
Tubular Bulb, Miniature Screw Base (A)

| Stock No. Type | Bead Color | Voles | Amps. | Ea. | 10 For | 100 For |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C12274 48 | Pink | 2.0 | . 06 | $15 c$ | 99 c | \$8.91 |
| C12250 41 | White | 2.5 | . 50 | 9 c | 60c | 5.40 |
| C12254 40 | Brown | 6-8 | . 15 | 9 c | 60c | 5.40 |
| C12252 46 | Blue | 6-8 | . 25 | 9 c | 60 c | 5.40 |
| Tubular Bulb, Midiature Bayonet Base (B) |  |  |  |  |  |  |
| C12260 43 | White | 2.5 | . 50 | 9 c | 60c | 5.40 |
| C12259 49 | Pink | 2.0 | . 66 | 15c | 99 c | 8.91 |
| C12249 44 | Blue | 6.8 | . 25 | 9 c | 60c | 5.40 |
| C12284 47 | Brown | 6-8 | 15 | 9 c | 60 c | 5.40 |
| Round Bulb, Miniature Screw Base (C) |  |  |  |  |  |  |
| C12273 50 | White | 6-8 | 20 | 10c | 66 c | 5.94 |
| Round Bulb, Miniature Bayonet Base (D) |  |  |  |  |  |  |
| C12261 51 | White | 6.8 | . 20 | 8 c | 49 c | 4.41 |
| C12285 55 | White | 6-8 | . 40 | 8 c | 49c | 4.41 |
| FLASHLIGHT BULBS |  |  |  |  |  |  |

$\mathrm{G}-31 / 2(\mathrm{C})$ is small round. $\mathrm{G}-4^{1} 2$ is large round. TL-3 (E) is lens bulb. P3 312 (not illustrated) is pre-focused miniature flange type bulb. Stock No. Type Color Volts Amps. Ea. 10 For 100 For

| C12200 | 13(G-31/2) | Green | 3.8 | . 30 | 9 c | 60 c | \$5.40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C12201 | 14(G-312) | Blue | 2.5 | . 30 | Sc | 60c | 5.40 |
| C12202 | 605(G-41 ${ }^{\text {2 }}$ ) | Brown | 6.0 | 50 | 10 c | 66 c | 5.94 |
| C12203 | 222(TL-3) | White | 2.2 | 25 | 9 c | 60 c | 5.40 |
| C12204 | 112(TL-3 | Pink | 1.1 | 22 | 9 c | 60 c | 5.40 |
| C12205 | $233\left(\mathrm{G}-3^{1}{ }^{2}\right.$ ) | Purple | 2.3 | . 27 | 9 c | 60c | 5.40 |
| C12206 | PR2(P-31.2) | Blue | 2.4 | . 50 | 13 c | 86 c | 7.74 |
| C12207 | PR3(P-3i.) | Circen | 3.6 | . 50 | 13c | 86 c | 7.74 |
| C12208 | 263N(C-312) | Blue | 2.6 | .3) | 10 c | 66 c | 5.94 |

 110-120 V. Pilot Lights Genuine GE Mazdalamps. Type S-6 C12257-6 watts Each
Type c-7. As above, but -. watts. Available in white Frosted, C12280; Clear-C12275.
Either Type, Each

## Tubular Candelabra Base 110-120 Volt Pilot Lamp

A brand new 4-watt lamp that is ideal for use behind small panel openings, dials, etc. Looks ju t like a radio pikot C12272-10 for $\$ 3.56$.
Each

## VICTOR Pilot Bulb

Intermediate base, frosted bulb. 110,120 volts For Colonial, victor and other receiver C12253
Carton of 10, \$1.71. Each
194


## Dial Light

 ColoringKit of colors, Red, Green, Blue and of solvent. Each in screw Amber, and alxitle the. Dries in 1 minute. Color is permanent. C15185-
Your Cost, Per Kit
41 个

## 1" Enclosed Pilot Light

Underwriters' Approved
single unit socket assemby unaffected by heat. All porcelain and brass construction. For standard S6
lamp. removable from front of wanel. Single 1" hole mounting. Faceted red or green jewel. C14140-Red Jewe
C14141-Green Jewel
Either Type, Your Cost

## Eront Removable Jewel Brackets



Giant 1" Jewel Brackets
$1^{*}$ diameter faceted jewels. Candelabra takes 3 or 6 -watt 110 V . bulb

|  | Candelabra | Miniature | Bayonct |
| :---: | :---: | :---: | :---: |
| Color | Base | Base | Base |
| Red | C6403 | C6404 | C6465 |
| Opal | C6321 | C6324 | C6327 |
| Green | C6322 | C6325 | C6328 |
| Amber | C6323 | C6326 | C6329 |
| Any Type | Above, |  |  |



Pilot Light Sockets
Miniature, Candelabra,
Bayonet Base


Min. Screw Min. Bay Cand. Base
 10 for $48 e$
100 for $\$ 4.32$

GE NEON GLOW LAMPS
Used extensively in test instruments. On DC only the negative electrode glows. All except 12-watt types operate on 105-125 volts AC or DC and require minimum starting voltages (approx.) 65 on $\mathrm{AC}, 90$ on DC. $1 / 2$-watt minimum starting voltage 105 -recommended only for AC not DC. All have clear glass except C12263 which is finished orange. Prices include Fed. Tax.



S14

Bases: A: Standard Edison. B: Candelabra screw. C: S.C. Min. May.


C13331-Candelabra (B) ©C C13327-Edison (B)
C13330 Miniature (B) Ea. 5 \& C13387-Candelabra $(A) \cdots$..... 13 Bl 2-ContactlCand. Bay. Metal Shell/Sockets - -


## Full-View Neon Pilot Light



Full view plastic head pilot light with built-in resistor for operation on 110 volts. Uses C12215 neon bulb listid above. Ilead unscrews to replace front of panel With mig. nut and washer, threaded ${ }^{15} 141827$.
C14181-Red Head C14182-Amiser Head.
C14183-Opal Head.
Any Color - Your Cost

## Miniature Panel Light

${ }_{2}$ For panel mtg. S.C. Min. Bay. Base. Mis. in C6436-
Each.


Takes candelabra base bulbs type S-6. For panels up to $3 / 6^{\prime \prime}$ thick. $1^{\circ}$ diameter glass jewel with set

Polished chrome. Jewel bezel C14174-Your Cost

76 C14175-Similar to above, but with red or green faceted $1^{*}$ jewel. Specify color. C14176-Same but withminiature base. $\mathbf{Z 6}$ 6

## (2) Jewelled Pilot-

Fine quality jewelled pilot brackets, for amplifiers, trans mitters, etc. Al have aceted jeweis, highly polished nickel plated steel brackets. Stand ard jewelled brackets have $1 / 2^{2}$ jewel requiring a ? ${ }^{\circ}$ mounting hole. Jumbo brackets have a $3 / 4$ " jewel. requiring a ${ }^{13} 1{ }^{\circ}$ " hole. Available with Candelabra 110 V ., Miniature Bayonet and Miniature Screw lase suckets.

Base $\begin{gathered}\text { Standard Size } \\ \text { Ryped } \\ \text { Green }\end{gathered} \quad$ Amber $\begin{array}{llllll}M i n . & \text { S.rew } & \mathrm{C} 6433 & 19 \mathrm{c} & \mathrm{C} 6432 & 19 \mathrm{c} \\ \mathrm{C} 6434 & 19 \mathrm{c}\end{array}$ $\begin{array}{llllllllll}\text { Min. Bay. C6456 19c } & \text { C6454 19e } & \text { C6458 19c }\end{array}$ Cand. C6427 21c C6426 21c C6428 21c

Faceted Jewels Only
C6430 12c C6429 12c C6431 12c
Assembly With ${ }^{3}$ in Jewel Eacb $\begin{array}{llll}M i n & \text { Screw } & \text { C6330 } & \text { C6331 }\end{array}$ Cand. C6333 C6334 C6335 35e

Due to limited space, we are unable to list all pilot lights and bulbs available directly from stock in Chicago and Atlanta. Write dence will receive prompt attention.

## Portable Electric Record Player and Changer



## Plays Half Hour of Continuous Music

An amazingly versatile, ine quality unit at an exceptionally low price. Comprises an improved automatic record changer power amplifier and speaker. Changer will play continuously at a single loading with cabinet cover closed, ten $12^{\circ}$ or twelve $10^{\circ}$ records. Any record can be rejected when desired with the press-to-reject button which also serves as autonat ic manual, and on-of switch. All-in one contro conveniently located Eay loading and gentle with your records. Will not jam even if you are careless New silent type, constant, self starting, rim drive motor with $9^{\prime \prime}$ turntable. Fine Astatic crystal pickup With extremely low needle pressure gives wide frequency range and minimum surface noise. Ideal for multitude of uses. Can be carried without fear of moving parts. New locking device protects pickup arm and turntable to insure complete portability. Separate tone and volume control permits adjustment to desired response. Tube comple ment: 1 -12SJ7, 1-50L6GT, 1-3525GT Iligh fidelity reproduction by $6^{\circ}$ PM dynamic speaker. Portable carrying case finished in attractive simulated alligator skin with leather handle and snap locks. Over all dimensions $181 / 4 \times 151 /{ }^{\circ} \times 91{ }^{1}$ ". Complete with tubes and speakerready to use. Shpg. wt. 33 lbs.
C22521 -
Your Cost
\$44.75

## RECORD CABINETS



We are proud to present four new record cabinets, to fit the needs of those record enthusiasts who not only want convenient storage space for their record collections, but also appreciate and love good furniture.
Model A and Model $B$ are identical in sizc, styling, capacity, and finish, except Model A is supplied less doors. Modern streamline round corner design harmonizes with practically all furniture settings. Large size top is adequate fur most present day table model phono combina tions. Semi concealed aibum partitions and clear shelf space make the cabinet allaptable for use for books, knicknacks, fic., for users that do not have sufficient albums to fill entire case. A stop cleat is provided so that $12^{\prime \prime}$ records are self aligning merely by shoving record album against the cleat. Cabinet is built to finest furniture standards with select hardwoods and veneers and is beautifully finished to fit into fine home surroundings. Size: $198 / 4^{\prime \prime}$ wide, $17 \pi_{4}{ }^{\circ}$ deep, $28^{1}{ }^{\prime \prime}$ high. Ilolds 9 $12^{\circ}$ albums, 108 records.
Model C is a double tier cabinet without doors for larger collections of aibums. Holds 18 albums, 216 records. Size: $193^{\circ}$ wide, $13^{3}$ deep. $33^{\prime}$ high.
Model D is a large modern cabinet with double doors designed for the storage of large record collections. Flush-to floor design with record storage space divided into two tiers. Dividers for holding albums upright. Constructed of ${ }^{18}$ " 5 -ply mahogany veneer, will a beatiful lustrous piano finish on all surfaces. A really magnificent piece of furniture lolds twenty albums, 240 records. Size: $24^{\circ}$ wide, $16^{\circ}$ deep, $\$ 1^{\circ}$ high Will really accommodate a record player or radio on top. Highest grade distinctive cabinet hardware

| Model |
| :---: |
| $\mathbf{A}$ |
| $\mathbf{B}$ |
| $\mathbf{C}$ |
| $\mathbf{D}$ |


| Stock No. Mahogany | Stock No Walnut | Shpg. | Your Cost |
| :---: | :---: | :---: | :---: |
|  |  |  | $\begin{array}{r} \$ 15.90 \\ 19.35 \\ 21.85 \\ 42.95 \end{array}$ |

## CLASSOPHONE Record Storage Facilities



The modern way to store protec and classify phonograph records for instant use. Classophone Pockets are hinged at the basc, firmly anchored in the cabinet into which it is built Each Classophone Pocket is clearly numbered; each number corresponds with gummed label supplied for affixing to record; number is then placed on index fite or index book Comes in portable carrying cases or in kits for building into your own cabinet or bookshelf. Each pocket holds either $10^{\circ}$ or $12^{\prime \prime}$ record
Portable No. 3: In convenient, sturdy portable carrying case, finished in beautiful simulated alligator leather with smart matching trimmings. Ideal for motor trips, musicians, sound system operators. Includes 25 Classophone Record Holders complete with numbered stickers; index lock and key for case
$\$ 11.61$
C21876-Your Cost
$\$ 16.17$ 50 pockets
C21877-
C21877-Your Cost
KIt No. 1: 25 Classophone Pockets for installation in your own cabinet or bookshelf. Includes numbered stickers, index reference leafet C21878 Yourcost
Kit No. 2: Same as Kit No. 1 described above excep
\$5.14

## C21879

Your Cost
\$10.28
For Commerclal Use: Classophone Kits anala for radio stations, schools, manufacturers with wired music systems, etc. Write for quantity prices

## Two Station Intercom

$\star$ Operates on

AC or DC
$\star$ Noise Silenc ing Switch
$\star$ Remote Station up to 1000 Feet Distant


Complete two way intercommunication system for use in garages, restaurants, stores, factories, business offices or the home.
No special knowledge or tools required. Any 2 conductor wire used for remote station connection up to 1000 feet distant. $105-120$ volts ACDC. Either station may be hung on wall by means of screw slots in the back. Cases moulded of durable hard plastic. Attractive polished mahogaryy finish. Master unit has noise silencing switch. Each unit measures $8^{11^{\circ}}$ high. $6^{\circ}$ wide, $4^{\circ}$ deep.
Complete with all tubes in place, 6 ft . rubber cord, 50 ft . connecting C 22364 She Shas wt. 7 ons
Your Cost

## Multiple Station Intercom <br> Master Station Only, fame as used in the 2 -station set above. Out

 put 2 watts; speaker A-inch Alnico V PM; tubes 12SJ7(GT, 50L6G'T C22365--Your CostC22365-Your Cost
Remote Station Only, same as used in the 2 -station set above ex cept has addition of push-button switch to originate call to master station. Up to 5 remote stations may be used with the master c22366.
Your Cost Each
\$477
Selector Switch Only, for use by the master station to select any one of the remote stations. Simple detailed installation instructions packed with each unit. No matter which button is pressed, any of the remote stations can "come in" to originate call. No solder connections necessary. 6 push buttons, 5 for station selection by master, the sixth to retur

## Your Cost

$\$ 5.51$
Twisted Pair Intercom Wire, to connect Selector Switch to any rernote station up to 1,000 feet away.
C16013-Your Cost Per Font.
$11 / 2$ C

## Ferret Signal Generator


$515^{\circ}$. For 110 v 60 cycle AC C21432- Your Cost

Model 701 FM-AM signal generator Large $9^{\circ}$ three color scale. glass covered Frequency range 170 kc to 220 mc , fun damental frequency to 110 mc . Unit com pletely shielded for minimum radiation Crystal calibrated, low loss, permeability Crystal calibrated. low loss, permeability
tuned RF coils. 0 to $100 \%$ internal 400 cycle sine wave modulation. Electron coupled combination Hartley and Col coupled combination Hartley and col pitts oscillator for high LC ratio, low luctuations. Low loss, low impedance conaxial cable output. Ladder attenuator Vernier drive with 3 to 1 ratio. Housed in an attractive, blue-gray Hammertone finished aluminum case. $10 \mathrm{M}^{\prime} \times 1014^{\circ} \mathrm{x}$


(M)
(N)


Any Item On This Page

Radio Knob Spring
(P) Finest grade selected sizes steel springs in all regular prox. 20 assoried.

## Machine Screw Assortment

(A) All standard sizes used in elec(A) tronic and similar work in handy inexpensive assortment. Contains approximately 50 Nos. 6,8 , 10 screws $1^{\prime \prime}$ to $1^{\prime \prime}$ long C15456-Assortment C15457-6-32 $x^{3}$, pkg. of 60 . C15458-6-32x 1 , pkg of 50 . C15459-8.32x 52 , pkg. of 40.

## Small Machine Screw

 and Nut Assortment(A) Special assortment of extra and 4 nceded in electronic and experimental work; for fastening small parts, and for replacing rivsts. Approximately 40 assorted screws and 40 assorted nuts. ccrews an

## Self Tapping Screws

(B) Cut therr own thread in either
metal or plastic. Ideal for mounting parts on chassis, replacing rivets and eyelets. Package of approx. 30 assorted sizes. C15450-Assortment
C15451-pikg. approx. 40 , size $6 x^{8}$ 月 C15452-pkg. approx. 35 , size $8 \times 3$ 3'

## Phonograph Pick-up

## Set Screws

(C) Knurled head steel screws, pick-ups and recording beads. Approx. 10 asst. C15409-
Wood Screw Assortment
(D) Handy assortment for workshop or home. Contains approx. 30 round and flat-head screws of popular sizes in brass and steel. C15453-

## Ornamental Screws

Antique bronze finished rosette head screws for mounting speakers. Package of 15 assorted izes.
C15449 -

## Spade Bolts

(E)
Indispensable for attaching condenser coils, IF cans, for Experimenters, Servicemen and manufacturers. Stud size 6-32 Hole size No. 6. Package of approx. 25 assorted lengths.

## C15443-

## Small Screw Assortment

(G) Assortment contains approx (3) 60 small wood, brass and steel screvs sizes 1 to 3 up to $\frac{8 / 8}{}$ for name plates and escutcheons. C15454

## Rnbber Feet

(H)
Made of oil resistant synthetic rubber for radio phonograph and amplifier bases. Available in screw or tack type. Package of 12 assorted screw type.
C15407-
Package of assorted tack type. C15408-

## Smap-in Trimounts

Eliminates use of screws on radio back covers, dial scales chassis built in antennae. Speeds up assembly and repairStk. No. Lgth. For Hole No. Pcs.


## Special Mountirg Nuts

(K) Various kinds of nuts used on volume controls, switches. jacks and potentiometers. A must for every radio man and electrician. Cadmium or nickel plated. Package of approx. 15 assorted.

## C15445-

## Steel Set Screws

Hardened steel set screws, all popular sizes for radio knobs, record changers, automobile radios. Package of approx. 20 assorted sizes. C15400
## Metal Washers

(M) Cadmium plated. Steel wash(M) ers. Package of approx. 100 assorted small sizes. C15433-

## Machine Screw Nuts

(N) Nuts are "Small Pattern'" preelectric trades. Cadmium plated. Stock No. Size Approx. No. C15446
C15447
C15448

## Terminal Lugs

(0) Available in six popular sizes, for radio and electronic work. Made of tinned brass.
Stock No. Fig. No. Approx. No.

| C15419 | Asst. | 40 |
| :--- | :---: | :---: |
| C15420 | 1 | 30 |
| C15421 | 2 | 30 |
| C15422 | 3 | 30 |
| C15423 | 4 | 30 |
| C15424 | 5 | 30 |
| C15425 | 6 | 40 |




#### Abstract

Expansion Springs (A) Handy for radio, electrical shops, laboratories. Assortments contain various sizes for record changers and dial drives. C15434-10 Asst. large springs. C15435-10 Asst. small springs.


## Fuse Insulators

(B) Highest quality in ulators for use on automobile radios. Two lengths included fit all standard $1 / 4^{\circ}$ diameter fuses. Pkg. approx. 16 asst. C15405

## Fuse Clips

(C) Made of nickel phated spring brass for single hole mounting. Pkg. 12 assorted. C15426--

## Speed Nuts

(D) Self locking and easy to install. For replacement on record changers, tuning units. Package of approx. 30 assorted sizes.

## Retaining Rings and

## "C" Washers

(E)Standard types and sizes required for radio, electrical and of volume controls and record changers. Assortment contains sizes for shafts $1 /{ }^{\prime}{ }^{4}$ to ${ }^{3}$, ${ }^{6}{ }^{\circ}$ diameter.
Stock Description Approx.
No.
C15427 Rings and Washers 40 C15428 Ring $1 /{ }^{\prime \prime}$ shaft C15429 C washer $1 / 4^{\circ}$ shaft 50 C15430 C washer $1 /{ }^{\prime}$, shaft 35

## Chassis Mounts

(F) Long lasting resilient synthetic rubber. To give chassis floating effect. Pkg. of 10 assorted.

## Phono Motor Rubber

## Drives

(G)Exact replacements for stand-- ard motor drives. Precision made to assure constant speed. Made of abrasion resistant synthetic rubber tor long wear.
Stock I.D. O.D. Thick No. per
 C15414
${ }_{C} 15415$
C15416
C15417

## Cord Strain Reliefs

(H)

Provides a grommet and strain pelier in one piece. For use on appliance, radio and amplifier power cords. Will prevent insulation of wire from being cut or damaged. Package of 4.

## Angle Brackets

(J) Handy brackets of various (保gths and shapes. Precision made of steel, or brass and plated. Pkg. of approx. 15 assorted. C15418

## Acorn Nuts

Improves appearance on panel assemblies and cabinets. Pal type steel nuts, self locking. Cadmium plated. Pkg of 12 assorted.

## Spacer

(L)Assortment of metal and insulating spacers. Accommodates No. 6 and No. 8 screws.
C15402-Pkg. approx. 12 asst. inc15403 metal.

Small Cotter \& Hairpins
(M) Package contains assortment of most popular sizes of cotter and hairpins. Valuable aid in radio and phonograph repair. Package of approx. 50 .

## Spring Washers

(N) For record changers and automatic tuning assemblies. Assortment of phosphor-bronze and steel friction washers. Approx. 25 asst.

## C15404-

## Key Wrenches

(0) Three assts. of key wrenches to (0) fit all standard Hex and spline socket screws used in radio and electronic equipment.
Assortment of 5 small Hex wrenches Fits set screws No. 4 to $1 / 4^{\circ}$ and cap screws No. 2 to 8.

## C15410-

Assortment of 4 medium Hex wrenches. Fits set screws No. 8 to ${ }^{1 / 4}$
Assortment of 4 small Spline wrenches. Fits set screws up to $1 / 4$ " and cap screws up to No. 8.
C15412-



## DeLuxe Hardware Assortment

Our most popular hardware assortment conveniently used hardware, including assorted nachine screws-voodscrews--nuts-bolts-rivets-eyeleto-lugs-lock
washers-fibre washers-rubber grommets, etc. Finest quality hardware. Shpg. wt. 4 lbs. C14831-Your Cost, per Box

Rivet and Eyelet Asst.
 Special assortment of 55 popular size rivets and eyelets to fasten sockets, C14840-55 Asst. Your Cost. $24{ }^{\text {c }}$

## Escutcheon Pins

$\rightarrow$ Antique finish—8价 $\longrightarrow 1$ long. For fastening all nameplate
C14811-l erer 100
Your Cost.
14 ${ }^{\text {¢ }}$

## Escutcheon Screws

Round head, antique finith, $8 / 8$ "
long. Fits any type escutcheon. C14934-No. 2 size escutcheon. Per Gross

## 1/4" Metal Spacers

|  | For raising com- <br> pone nts a bove |
| :---: | :---: |
| chassis or away |  |
| crom manel. All |  |

## Assorted Brackets <br>  <br> Box of 28 of the most popular angles and bracketsused in radio. Made of <br> C14838 <br> Your Cost heavy metal.

 parts.
# HARDWARE 

boxed. Contains over 1000 pieces of the most frequently
$97^{4}$


Nickel Plated Machine Screws
6-32 Round Head Screws Stock No. Lengeh Gross C14750 $\quad 35 \mathrm{c}$ C14751 C14752 C14753 ${ }_{8-32} 14754{ }^{1 / 2} \quad 58 \mathrm{c}$ C14755 C14756

48 c
52 c
6. 32 Flat Head Machine Screws

| C14760 |  | 6 c |
| :---: | :---: | :---: |
| C14761 |  | c |
| ${ }^{\text {c14 }} 14762$ |  | ${ }_{48}^{42}$ |
| C14763 | $1{ }^{\circ}$ | 48 |
| C14764 |  |  |

## Ornamental Top Antique Finished Machine Screws

No Size Lgth. Doz. Gr.Lots $146816{ }^{1 / 3}$ 10c 3102


## Round Head

 Wood Screws| Stock No. | Size | Length | Gross |
| :---: | :---: | :---: | :---: |
| C14780 | 4 | ${ }^{3}$ | 39c |
| C14781 | 5 | $1 / 2$ | 41c |
| C14782 | 5 |  | 45c |
| C14783 | 5 |  | 48 |

Hex Nuts, Knurled Nuts,


Insulating Washers


|  | Shoulder Type |  |
| :---: | :---: | :---: |
| Stock | Per | Per |
| No. | O.D. I.D. 10 | 100 |
| C15020 | $1^{\prime \prime}$ 3/8" 11c | 99c |
| C15021 | 34. 3\% 8c | 72c |
| C15022 | 19" $0_{16 "}{ }^{\circ} \mathrm{Fc}$ | 63 c |
| C15023 | 1/2" 1/4" 7c | 63 c |
| C15025 | \% 7 ¢ | 63 c |
| C15026 | 14" .136" 6c | 54 c |
| Flat Washers |  |  |
| C15030 | 8" 8\% 8c | 72c |
| C15031 | 1\% Gc | 54 c |
| C15032 | 6 c | 54 c |
| C15036 | 6 c | 54 c |
| C15037 | 年" . $136^{\prime \prime} 6 \mathrm{c}$ | 54 c |

Assorted Fibre Washers

Your Cost


## Snap-in Trimounts Per Box.

 Used to fasten dial scales, loop antennas and hacks on plastic cabinets, etc. 30 Asst.
C14839-
244
YHPMENT.PERSO

## 



## GE PYRANOL Condensers

(A) Famous make of oil filled and impregnated, hermetically sealed Complete with terminals and mounting hardware. Ideal for commer cial, amateur, manufacturing and experimental uses.

| Stock |  | Cap | W.V. | Dimensio | Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Fig. | Mfd. | D.C. | In. | Cost |
| 5B3229 | A | 4 | 1500 | $33 / 5 \times 11 \times 488$ | 51.95 |
| 5B3228 | A | 2 | 1000 | 5x13/91 | . 79 |
| 5B3236 | A | 1 | 1000 | 13/41x214 | . 59 |

## 4 Mid. 600 Volt Oil Type Capacitor

(B) Oil filled and impregnated! Mounting is through a single hole to clear the sturdy 3 3/4 $\times 16$ threads per inch threaded bakelite neck The two key-ways in the hakelite cover are locked in corresponding notches. The extruded metal container is spun down on a synthetic rubber sealing gasket. Provides a $100 \%$ hermetic seal and a strong mechanical bond between container and cover. Size $4: 5 \times 1$ 600 working volts, I)
583164 Your Cost.

## TOBE Plug-In Capacitor

 Type PT-SC-11C. Filtermite. Passes all required Army and Navy immersion tests. Low power factor. Capacity: 8-8 mids. Resistance: 2000 megohms per mfd . Voltage: 600 volts 1 DC working. Tested at 1800 volts C. 2330 . $2^{5}$ prong. C2330. $\$ 1.95$

600 Volt Oil Filled Condenser
(D)

Cornell-Dubilier type TJL wkg. Size, $1 \mathrm{ml} 1 / 4 \times 27 \mathrm{~m}^{\circ}$. Less mtg bracket.
5B3014-Each
594
Similar to above but 6 mfd Size: $5 \frac{1}{2} \times 21 / 2 \times 1 \frac{1}{4}$
583209 Your Cost.

. 25 Mid. 1000 Volt

## Condenser

(E) (E) Anit light-weight dependable unit furnished with mounting bracket. Oil-filled and impregnated. Porcelain stand-off insulators fitted with locknuts and soldering lugs. Overall size
 C2316-Each
$29^{9}$

## Plastic Cased

## Dry Electrolytics



Iighly efficient electrolytic ng plastic. Designed for inverted mounting. All are $100 \%$ moisture proof and will withstand extremes of heat. Insulated wire leads for direct connection. All are rated at 450 volts d.c. whg.; 600 volts peak. $1 z^{\prime \prime} \mathrm{d}$. $\mathrm{I} 31 \mathrm{~h}^{\prime \prime} \mathrm{h}$. with palnut.

| Stock | Cap. | Your Cost |
| :---: | :---: | :---: |
| No. | Mfd. | Each |
| C2384 | 10. | \$0.69 |
| C2385 | 12 | . 76 |
| C2386 | 16. | . 85 |
| C2389 | 20. | . 92 |
| C2390 | 24. | . 95 |
| C2393 | 35. | 1.09 |

## (G) Oil Filled Paper Condensers

Stock Cap. D.C. Dia. Your No. Type Mfd. W.V. $x$ L. Cost

 *Same as 5B3213 less mounting bracket

(G)

. 5 Mfd., 1500 Volt D.C. Condenser

(1)Metal encased. Stand-off insulator terminals with 8-32 screw terminals with lugs. Complete with mounting hardware. Overall size: $31 / 6 \times 15 / 4 \times 1^{\circ}$

## 582968

494

## Midget Paper

## Condensers

(H) For Hearing Alds and (H) Personal Radios. Miniature type paper capacitors with ends sealed in bakelite resinoid. Will not melt at 100 degrees centigrade For use up to 95 per cent humidity. Good leakage resistance, and leads will not pull out at high temperatures. Noninductive, pre-tinned copper wire leads. These units are conservatively rated at 150 volts. All sizes are plus or minus lí".
Stock Cap. Size Your No. Mfd. L.xD. Cost C3192 . 001 5/8 $x^{3} / 0^{\circ}$ C3159 . 002 3/4シ10 EA. $\begin{array}{lll}\text { c3160 } & .005 & \frac{3}{4} \times \frac{3}{1 / 5} \\ \text { C3161 } & .006 & 8 / 8 \times 1 / 6^{\prime \prime}\end{array}$ $\begin{array}{lll}\text { C3161 } & .006 & 8 / 4 \times 1 /{ }^{\prime \prime} \\ \text { C3193 } & .01 & 8 / 4 \times 1 / 4^{\prime \prime}\end{array}$
 C3162 . 05 2/43/8 11c
C3163 . 1 \% 1 Y/ 12 12 c

## Standard Brand Condensers-Priced Low



Servicemen! Extra special values in condensers. These prices give you over $\mathbf{6 0 \%}$ discount from list. Concord offers the condensers at tremendous savings. A condenser for every service need. Stock up now on all sizes. All brand new suaranteed nationally known makes of condensers. Order today

| Stock No. | Cap. | W. V. D. C. | Price Each | Price-Lots of 10 Each |
| :---: | :---: | :---: | :---: | :---: |
| $\overline{\text { X }-100}$ | 10 | 25 | \$0.30 | 50.27 |
| X-101 | 25 | 25 | . 34 | . 31 |
| X-102 | 50 | 25 | . 40 | . 36 |
| X-103 | 10 | 50 | . 32 | . 29 |
| X-104 | 20 | 50 | . 34 | . 31 |
| X-105 | 25 | 50 | . 36 | . 33 |
| X-106 | 50 | 50 | . 42 | . 38 |
| X-107 | 8 | 150 | . 32 | . 29 |
| X-108 | 12 | 150 | . 34 | . 31 |
| X-109 | 16 | 150 | . 36 | . 33 |
| X-110 | 20 | 150 | . 38 | . 34 |
| X-111 | 30 | 150 | . 40 | . 36 |
| X-112 | 40 | 150 | . 44 | . 40 |
| X-113 | 4 | 250 | . 32 | . 29 |
| X-114 | 12 | 250 | . 40 | . 36 |
| X-115 | 16 | $250)$ | . 44 | . 40 |
| X-116 | 20 | 250 | . 48 | . 44 |
| X-117 | 8 | 350 | . 36 | . 33 |
| X-118 | 12 | 350 | . 44 | . 40 |
| X-119 | 16 | 350 | . 50 | . 45 |
| X-120 | 24 | 350 | . 54 | . 49 |
| X-121 | 4 | 450 | . 36 | . 33 |
| X-122 | 8 | 450 | . 38 | . 34 |
| X-123 | 10 | 450 | . 42 | . 38 |
| X-124 | 12 | 450 | . 46 | . 42 |
| X-125 | 16 | 450 | . 54 | . 49 |
| $\times-126$ | 20 | 450 | . 60 | . 54 |
| X-127 | 16 | 500 | . 80 | . 72 |
| X-128 | 5-5 | 50 | . 44 | . 40 |
| X-129 | 10-10 | 50 | . 46 | . 42 |
| X-130 | 8-8 | 150 | . 46 | . 42 |
| X-131 | 8-16 | 150 | . 48 | . 44 |
| X-132 | 20-20 | 150 | . 52 | . 47 |
| X-133 | 8-8 | 200 | 50 | . 45 |
| X-134 | 8-16 | 200 | . 52 | . 47 |
| X-135 | 12-12 | 200 | . 52 | . 47 |
| X-136 | 16-16 | 200 | . 60 | . 54 |
| X-137 | 16-16 | 250 | . 68 | . 61 |
| X-138 | 8-8 | 450 | . 68 | . 61 |
| X-139 | 8-16 | 450 | . 80 | . 72 |
| (1) <br> (N) |  |  |  |  |
|  |  |  |  |  |

## SPECIAL VALUE Condensers

A variety of capacitors for every purpose, at give away prices. Exceptional opportunity for radio servicemen, experimenters and amateurs to have available a stock of popular condensers at money saving values. Midget dry electrolytic types will handle any job requiring an electrolytic capacitor. Polarity clearly indicated. Bare wire leads. Easily replace larger capacitors. Can types hermetically sealed in spun metal cans with spade terminals and mounting lugs.

| No. | Type | Mfd. | WV | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 583220 | K | 8 | 450 | 13/6x21/2 | 27 c |
| 583221 | K | 8-8 | 450 | $1 \times 23 /$ | 45 c |
| C3156 | K | 10 | 450 | 13/16x21/ | 23 c |
| C3157 | K | 10-10 | 450 | $1 \times 31 / 8$ | 35 c |
| 583222 | K | 16 | 450 | 7/8x3 | 35 c |
| 583223 | K | 20 | 150 | $11,15 \times 2$ | 25c |
| C3155 | K | 20 | 250 | $8521 /$ | 35 c |
| 583224 | M | 20-20 | 150 | $48 \times 2$ | 37 c |
| 583225 | K | 40 | 150 | $31421 / 2$ | 29 c |
| C3158 | K | 40 | 450 | $1{ }^{3} 16 \times 312$ | 49 c |
| 583226 | M | $50-30$ | 150 | 1120x | 39c |
| 5B3219 | L | 16 | 500 | 11/8×2 | 49 c |
| 583216 | L | 100 | 50 | $1 \times 23 / 2$ | 14 c |
| 5B3053 | L | 100-100-50-20 | 50 | 1/4×3 | 17 c |

## Oil Filled Capacitor

(N) Connectors mounted on porcelain stand-off insulators. 1 mfd at 1000 W.V. DC. Steel case $18 / 4 \times 1 \times 2^{\prime}{ }^{16^{\prime}}$. Bracket with $214^{\circ}$ mounting centers. 58 \&
583237 Your cost.

## Oil Impregnated Paper Condenser

(O) Cylindrical type can, solder O ug connector. 2 mid at 5 B 3238 Your Cost.. 294

#  

(A)


## (B)


(c)

## 5" ALNICO V P.M. Speaker

(A) Uses the new Alnico $V$ magnet that provides maximum performance with minimum weight. Widely used in AC-DC radios, record
players, intcr-office and auto radios. High conversion factor. Voice coil Lerminals conveniently placed on transformer mounting bracket. Transformer not furnished. Normal wattage 3, peak wattage 41 . V.C. impedance 3.2 ohms, depth $2 \%^{\prime \prime} \mathrm{K}^{\prime}$. Shpg wt., $1,4 \mathrm{lbs}$. 5B7009-Your Cost, Each.
s1.57

## 31/2" ALNICO 3 Speaker

(B) $31 /{ }^{2 / 2}$ equare mounting PM speaker with heavy Alnico magnet. inst-proof spider and voice coil. Excellent for intercom systerns. small radios, portable record players. Voice coil impedance 8 ohms.
Will handle 2 watts with ease. Requires only $2^{\circ}$ behind mounting Will handle 2 watts with easc. Requires only $2^{\circ}$ behind mounting

\$1.49

## ALNICO V Oval Speaker

(C) $4 \times 6^{\circ}$ rectangular mount with $3 \%{ }^{3} \times 4.45^{5 / 6}$ mounting centers. Utilizes $21 / 2^{\prime \prime}$ deep. Voice coil terminals on transformer nounting Lust proofed. former. Weighs only 9 oz . Ideal for portable equipment or requirements where quality reproduction and light weight are desired. Voice coil $3-1$ ohms impedance. Rated 3 watts normal, $4 \frac{1}{2}$ watts peak 5 57012
 cach, $11 / 2$ lbs.


PM Speaker
High quality permanent magnet all purpose $6^{\text {s }}$ speaker. a comparable field coil type. Has high permeability magnet. One-piece seamless cone, plated metal frame. Voice coil impedance 3.2 ohms. $6^{\circ}$ diameter, V.C. Dia. Septh, $2^{11 / 40^{\circ}}$. Wess output transDepth, $2^{12960}$. Less output transformer. Shpg. wt., 3 lbs $\times 144$
Your Cost.
s1.89
31/2" Field Coil Speaker


A quality speaker for general replacement purposes on call systems, hearing aids and midget radios. Has 450 ohm field coil. Flat response, when properly bafiled, from 100 to 4500 c.p.s. Formed 1 piece cone. Less transformer. Shpg. wt. 3 lbs.
K146
Your Cost . . . .

5'/ Dynamic Speaker

$5^{\prime}$ dynamic speaker for general replacement ceivers, call ceivers, call communicationsystems. Also used for light public ad-

225 Ohm 5" Dynamic Speaker


For replacement in radio receivers, intercommunication and pasing systems. 225 ohm 5: dynamic speaker withex speaker withex
tra heavy pot tra heavy pot, hum bucking shielded Output dress work. When properly bail fled has a practically fiat response covering from 100 to 4500 c.p.s. ohm fold Less transiorma Shpg. wt, 3 lis. \$1 S pedance of 50L6. Excellent for voice and music. 5B7013-
Your Cost
\$1.65

## Handy Terminal Strip Rit



Kit of 10 assorted. Handy assortment with from 2 to 28 terminals. High quality phenolic insulation With either screw or solder lug terminals. Mounting holes or brackets provided on each strip Your Cos
$\$ 1.65$

## Alnico "V" 12" PM

## Dynamic Speaker

Excellently constructed $12^{\prime \prime}$ PM dynamic speaker with AInicoV per manent magnet. Magnet weight of $6.80 z$, is equal to $200 z$. of conventional magnets. 1 voice coil with 68 ohms impedance. Capacity is 14 to 18 watts Dustproof spider and voice coil construction. For all general applications such as FM and AM receivers, fine phonographs broadcast and recording monitoring, public address. Also excellent for replacement purposes.
$5 B 7010$ Cost
Your

## MIDGET PM SPEAKERS

Compact, lightweight speakers that employ efficient permanent magnets. Idcal for call and paging cient permanent magnets. Idcal for call and paging model has 3 ohm voice coil. $5^{\circ}$ model has round frame, others square. Less transformer. Shpg. wt



## 8/ PM Speaker

4 lbs. Less

Vitreous and Cement Coated Resistor Kit


Assortment of 20 vitreous enamel and cement coated wire wound resistors with wattage ratings from 5 watt to 25 watts. Wide

Your
Kit of 100 Micamold Mica Condensers


Kit of popular size bakelite mica capacitors for servicemen and amateurs. Unmarked, but all guaranteed perfect. High quality units at an unusually low price. Capacities range from . 000005 mfd. to 0005 mfd .
c3995
C3995 Co
894

## Voltage Divider Kit



Rated at 2.5 watts in free air10 watts when mounted on chassis. Metal mounting strap conducts heat from unit without shorting or grounding. Contains 10 wire wound resistors with moulded bakelite cases and metal nounting straps. Resistance values: $5.45,6,100 / 2 \mathrm{M}, 250,2500$, and 30 M ohms. A Real value 58244.

Your Cost
$-84$

## Kit of 10 Moulded Paper Condensers



Popular sizes of moulded bakeite cased wax impregnated paper condensers, with axial wire leads. All have RMA color code, and all guaranteed perfect. Highest quality units made by leading manufacturers. Capacitance from .006 mfd . to 2 mid ., 200 to 600 volts.
58696 -Your Cost...

Ideal for radio set rensormer. and light P.A. work $\times 145{ }^{\circ}$
Your Cost
$\$ 2.90$

## $4^{\prime \prime}$ Field Coil Speaker

 Has a practically flat response, when properly baffled, covering from 100 to 4500 c.p.s. Formed one picce cones. For general replacement systems, hearing aids. midget radios. Also good for light public address work. 450 ohms field. Shpg. wt. 3 lbs. Less transformer
X147-Cost ...... \$1 49
TRIMMER CONDENSER ASSORTMENT


 ctar (18)
20 Assorted Trimmers and Padders in regularly used capacities. Majority are ceramic, standard types.
C10203
our Cost

## IF Transformer

 High gain perme-ability tuned IF ability tuned IF
transformer. 375 Kranstormer. normal peak, but gives verysatisfactoryoperation at 455 KC peak. Has screwdriver slot adjustments, one on top and one on bottom. 5 solder lug terminals on bottom deal for replacement use and experimenters. Small size, only $135 x$ $1 / 3 \times 24^{4}$ high. 2 spade mounting tuds No. 6-32x $86^{6}$ long on $1^{38}$ mtg. etrs. A real value!
Your Cos 10 for.
 ARTS AND ELECTRONIC HEADO


## "L" Pad

(A)Nationally known wire wound "L" Pad . Standard ${ }^{3}$ " -32 threaded mounting bushings, Y, dia. shafts, $8-8$ ohms, 4 watts, 1 © depth Shaft length $1{ }^{\circ}$ Lots of 10 each

124

## Wire Wound Volume Control

(B)
Exceptional value in nationally known standard make of smooth acting wire wound 1000 ohm, 4 watt control. Standarc \%' ${ }^{\circ}-32$ threadcd mounting bushings and ${ }^{2 / 4}{ }^{\circ}$ dia. shafts. 1deal for replacement and general purpose use. Body dia. $15 / \mathbf{x}^{5} / 8^{5}$ deep. Shaft ength $38^{\circ}{ }^{\circ}$
${ }_{5 B 2096}{ }^{8}$ Your Cost, Each $^{2}$
244 Lots of 10

## Potentiometer

(c)
Nationally known, fully enclosed smooth action carbon type control for replace ment or general purpose use. Standard ${ }^{3}{ }^{\circ}-32$ threaded mounting bushing and solder lug terminal. 13,000 ohms $13 / 8$ dia. $\times 1 / /^{\circ}$ deep Shatt dia. $13^{1 / 4}$, length ${ }^{1 / 2}$. C8158-Your 10 8c 8

(E)10 for
(1) Non-shorting type, with all contacts, lugs and wipers plated heavily silver plated. All other metal parts cadmium plated. Steatite insulation used throughout, for high voltage and RF switching. Has standard $3 / 8^{\circ}$ threaded bushing, and 1/" shaft extending $11 / 1_{0}$ ".

39

## Ceramic Insulated Selector Switches

(M) Five position two gang selector switch with total of 32 contacts. Can be used as a meter switch where several circuts are supplied by a common surce or as a band switch to short out unused coils. Standard $3 / 6^{\prime \prime}$ bushing with lock washer and nut. $1 / 4$ " shaft, ${ }^{3} 88^{\circ}$ long. A good item for any maintenance or serviceman.
$584035-48$
5B4035-Your Cost
29

## 1/2 \& 1 Watt R.M.A. Carbon Resistors

(R) Here's another CONCORD EXCLUSIVE serviceman's in offer that helps you to build profits! (Vur tremendous buying power makes this offer possible-stock up now and save! All are R.M.A. coded and held to acceptable tolerances. Specify stock number of type and resistance.

| Specif ()hms | Ohms | Ohms | of typ | Ohms | Ohms |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 100 | 900 | 6000 | 17500 | 70000 | $20 \times 1000$ | 11/2 Meg |
| 150 | 1000 | $7 . \times 00$ | $20 \times 100$ | 75000 | 250000 | 2 Meg |
| 200 | $15 \times 0$ | 10000) | 25050 | 80000 | 300000 | 215 Meg. |
| 250 | 2000 | 12000 | 30000 | 90000 | $4(0) \times 000$ | 3 Mer |
| 500 | 2500 | 12500 | 35000 | 100000 | 5000000 | 5 Meg |
| 600 | 3000 | $130 \times 10$ | 50000 | 125000 | 750000 |  |
| 750 | 5000 | 15000 | 60000 | 150000 | 1 Meg. |  |



1 Megohm with on-off switch. Audio taper. $1 /$ "shaft $21 / 2$ long. Requires $11_{2}$ behind panel
582104 -Your Cost 582104-Your Cost

(14)

 Kit of 100 Resistors-An assortment of 100 popular carbon resistors. Contains approximately 501 -watt, 25 , 1 -watt and 25 2 libs.
C3816-Kit of 100 . Specially Priced
\$1 50

## 2-Watt Carbon Resistors

(S) Heavy-duty carbon resistors, absolutely moisture proof material and workmanship Guaranteed made of the finest plus or minus. The average are within $5 \%$. Resistance values pius or minus. The average are within $5 \%$. Resistance values
will not vary at normal voltage. Ideal for replacement across small voltage divider sections, bleeders, etc. $2^{\prime} \mathrm{L} . x^{1 / 2}$ O. D . small voltage divider sections, bleeders, etc. $2^{\circ}$ L. x $1 / 2^{\circ}$ O.D.
Stock
Stock


## Motor Speed Control

(D) Money Saving value on wire wound control. Designed for permanent smooth close control. Ceramic and metal construction permits operation under heavy loads and insures proper heat dissipation. Single hole mounted by $3 / 8$ "-32 threaded bushing, with solder lug terminals, and $14^{\prime \prime}$ dia. Shaft with knob. 12.5 ohms, 500 watts. Body $63 / 4^{\circ}$ dia. 23 " $^{\prime \prime}$ deep. ${ }^{43}{ }^{\prime \prime}$ " shaft.
5B7080-Your Cost,
$\$ 3-25$

## Volume Controls

Compact $11 / /^{\prime \prime}$ dia. carbon volume controls for general purpose use, 1 Megohm, taper. Requires $1 / 2 "$ behind panel.
5B2041-Your Cost................
$\$ 1.70$
$1 / 2$ Megohm, with on-off switch. Audio taper 5B2103-Your Cost . . . . 10 for - Your Cost
$\$ 3.90$


## Radio Phono Selector Switch

(F) Nationally known switch for replacement or general purpose use. 3 position 10 point stator. AC switch closed in 3rd position extreme clockwise. Standard $8 / /^{\prime \prime}-32$ threaded bushing. Shaft $1 / 4 /$ dia 1 " length. 29

### 1.5 Meg. Volume Controls

(H)
A compact efficient and long life volume control. Consistent quiet service is as sured in all climates by means of an exclusive stabilized element. Dia. $118^{\circ}, 14^{\prime \prime}$ shaft, $2^{\prime \prime}$ ong, ${ }^{3 / \prime}$ " bushing with nut. 1.5 megohm con-
rol. Audio shunt, AVC taper. rol. Audio shunt, AVC taper.

## SPST Volume Control Switch

(G) SPST cover plate switch for 5B2106-Your Cost<br>$15 \%$

## Midget Knife Switches

(L) Panel mounting. Has black Bakelite "wide. With mtg. nuts. TypeDPST. ${ }^{13 / 4^{*}}$ long, C16845-

## Push Button Switch

(P) Six button switch. one button three pole, single knobs.
c9582.
294
SPST Locking Type Switch
(N) For use on automatic record changers (N) or as a limit switch. Cam with roller actuates switch, which then locks in closed position, and circuit can be opened by light pressure on retaining dog. Handes approximately 3 amps , at 125 volt Normaily open.

Special Value Resistor Kit Kit of 100 assorted resistors, 3 to 2 watt. All R.M.A. color coded.
58155-Your Cost.
$89^{9}$

## 75 Watt 20,000 Ohm <br> Adjustable Resistor

(T) Wire wound unit with adjustable slide. Nicrome resistance wire wound enamel coating, and lug terminals 615


## 75 Watt 30,000 Ohm

## Variable Resistor

(W) Vitreous enamel coated. Adjustable (1) taps have small contact buttons so several may be used without shorting out much resistance. Brackets and one slider furnished. 5B132-Your Cost.

694
"Koolohm" Fixed Resistors
(Y) Insulation has high di-electric strength, withstands impervious to moisture.

|  | 10 W |  |
| :---: | :---: | :---: |
| Stock No. <br> 58122 | Ohms | Price |
| 58123 | 100 |  |
| 58139 | 200 |  |
| 58124 | 4000 |  |
| Lots of 10 | $\operatorname{each}_{5} \mathrm{wa}$ | 11 c |
| Stock No. | Ohms |  |
| 58134 | 400 |  |
| 58135 | 1,000 |  |
| 58136 | 7,500 |  |
| 58137 | 10,000 | Lots of 100 |
| 5B138 | 25,000 | 7c Each |

ER:MDT5


## $\star$ Five-Tube High Fidelity Broadcast Receiver

 $\star$ Telechron Time Switch Clock
## $\star$ Worm Drive Synchronous Motor <br> $\star$ Three-Tube Facsimile Printer and Amplifier

## Complete Set Consists of Two Principal Units-

Recording Unit driven by a worm gear and synchronous motor and operated thru impulses from a special three tube recording head amplifier. Utilizes carbon paper in contact with white paper as a recording medium.
Receiver is a conventional 5 -tube high-fidelity superheterodyne with the audio output feeding the recording amplifier. Easily modified to power a large PM speaker with plenty of reserve. Receiver as it stands, covers the entire broadcast band in two ranges of $540-1160 \mathrm{KC}$ and $770-1550 \mathrm{KC}$
Telechron Time Switch Clock turns set on at any predetermined hour, permits it to operate for any desired length of time, up to six hours, then turns it off, all automatically. Can be used for numerous other timing applications as well. Entire complenuent is housed in a high quality mahogany cabinet with closing lid in the style of the latest radios. Size of cabinet ( $13^{\circ}$ deep, $19^{\prime}$ wide. $21^{\circ}$ high) adapts it to construction of modern record player or recurd changer with built-in radio For $105-125$ Volts, 60 cycle operation. Shpg. wt. 100 lbs. The many fine, precision units included in this equipment at the price shown. easity make it the outstanding buy of the year! The value of the parts alone is many times this low cost!
C25749 Your Cost
$\$ 49.50$
(4)

(B)


## Eleven-Tube Radar Unit

(A) GREAT PARTS VALUE! Brand new APA-1 radar indicating equipment. Amplifier contains 11 tubes: $2 \times 2,879,6116,6 \mathrm{G} 6 \mathrm{G}, 6 \mathrm{X} 5 \mathrm{GT}$ 7-6SN/GT, resistors, condensers, etc.; black wrinkle nuetal cabinet measures $7 \% \times 121 / 2 \times 9 \%$; has shock mounting. Control unit in separate cabinet has switches, potentiometers, connectors, etc. Scope indicator with 3 BPI cathode ray tube enclosed in metal shield; has rubbertipped metal visor and 6 feet of 11 -conductor shielded cable. Units 5 are in original packing cases, complete with operating handbook. Your Cost
\$19.95

## Xtal Frequency Standard

(a)The famous MCW-CFI unit of the AN/ART-13A Transmitter. This unique sub assembly utilizes one 12SL7GT twin triode as a $125 A 7$ tube 200 KC calibration oscilator and frequency tripler, one and MCW audio oscillator supplying a 1,000 cycle audio note. The CFI unit employs a regenerative frequency divider and multiplier circuit to obtain a 50 KC fundamental and harmonics, incorporating a 200 KC crystal (not supplied) as the controlling standard and will yield from 50 KC to 18 megacycles. This unit can be adapted into an excellent Frequency Meter, range 50 KC to 18 megacycles by adding an external power supply and VFO. Chassis measures overall, including tubes, $5^{\circ}$ high, $57 / 8^{\circ}$ long, $33 / 8^{\circ}$ wide. Shipped with tubes and schematic. YB9548-
\$2,95

(A)


## Marker Beacon Receiver

(A) BC-1023-A is a regulation marker beacon receiver designed for reFCC ception of modulated signals on the 75-MC band authorized by the FCC; variable tuning permits coverage of $62-80$ MC without circuit changes Output of the receiver usually is used to flash an indicator lamp on the pilot's instrument panel and no adjustments are necessary during operation: simply turn the set on. Relay circuit in the set can be adappted to control external circuits, open doors, etc. Weight is only 3.4 pounds; dimensions are $5^{2} \times .5^{8} \times 3^{7}$ nin BC-1023-A is housed in a handsome aluminum calbinet with a shock mounting. Units are new, in original carions, and complete with tubes (1-6SQ7, 1-6U6GT, 1-fiSC7, and 1 I2SII7). Operates directly from any 12-14 VDC power source. Priced for quick sale to flyers, amateurs, and experimenters. 589547 -
Your Cost
$\$ 3.95$

## Wire Chief's Portable Test Set

(B)A "must" for P. A. men. Use as a telephone set in connection with a handset. Use as DC voltmeter, $\mathrm{O}-50 \mathrm{~V}, 1000$ ohms $/ \mathrm{V}, 1 \%$ accurate. Use as ohmmeter. Use to check insulation resistance. Use to predict location of a break in a line by determining capacity between t wo wires or one wire and ground. Parts alone worth far more than price of entire set. Contains the voltmeter; six very good key switches (single-throw, two throw, spring-loaded, snap action; multiple contacts, perfect for amplifier panels, sound distribution panels, etc.); handcrank kenerator which puts out 90 volts at 16 to 20 cps ; AC buzzer which requires only 5 ma; coils, terminals, etc. All contained in sturdy metal bound wooden box with hinged lid, snap lock, and strap carrier, $11 \times 9 \times 7 \frac{1}{2}^{\circ}$. New with complete instruction manual. Weight 7 lbs . 5B9565
Your Cost
\$39.50


## Transmitter Tuning Unit TU-10-B

(A) Plug-in type variable frequency master oscillator and buffer (A) tuning unit, frequency range 10,000 to $12,500 \mathrm{KC}$, housed in aluminum case with removable top and bottom covers. Contains 3 variable condensers. One 27 -plate double spaced 100 mmf . Hammarlund condenser $3^{11} 11^{\circ} \mathrm{lg} \times 2^{3} 4^{\circ} \mathrm{wd} \times 134^{\circ} \mathrm{h}$, one 16 -plate double spaced 35 mm . 1 lammarlund condenser $314^{\circ} \lg \times 2^{3} 4^{\circ}$ wd $\times 21 / 8^{\circ} \mathrm{h}$, and one
 Wd $x{ }^{13^{\circ}}$ h; two 400 mmf .2500 VDC low loss mica condensers Cor nell-Dubilier $9 H$, one 400 mmf . 2500 VDC low loss silver mica temperature coefficient condenser Cornell-Dubilier 9LS; one tuning coil 9 turns $0.102^{\circ}$ dia. tinned copper wire spaced 2 turns in. on ceramic coil form $2^{\prime \prime}$ dia. $\times 5^{\circ} 1 \mathrm{lg}$, one tuning coil 6 turns $0.102^{\circ}$ dia. tinned copper wire space 2 turns, in. on ceramic coil form $2^{\circ}$ dia. $\times 5^{\prime \prime} \lg$, and tapped each turn; one Mycalex terminal strip $1 / 4$ "thk. x $1 / 4$ " wd $\times 123 /{ }^{3} \mathrm{lg}$ with 10 banana jacks. Front panel has one right angle 50 to 1 vernier 180 deg. rotation dial with lock, one straight 5 to 1 vernier 180 deg. rotation dial with lock, one beavy duty $R F$ ceramic insulated SP6T rotary switch, and calibration chart. All variable condensers and coil forms mounted on ceramic stand-off insulators. Ideal as basic unit for high power transmitter exciter unit without alteration, or component parts may be dismantled for other uses. Black finish front panel, rear case natural aluninum finish. Size: $73 / 8 \times 16 / 4{ }^{\circ} \times 8 \%$
5B9542-
$\$ 1.95$

## Interphone Pre-Amplifier

(B)Compact resistance coupled pre-amp which operates from an external power supply. Incorporates a 6SL7G'T twin triode, 28D7 dual beam power amplifier, microphone matching transformer, filters plugs, sockets, and relay, all wired ready to operate, from a 28 covered cable, shielded leads, PL-68 three circuit plug and PL-55 two circuit plug. Housed in an aluminum case $5^{\circ}$ long, $31 /{ }^{\circ}$. high, $3 y /{ }^{\prime \prime}$ wide. Schematic inside cover. Shipped complete with tubes. 5B9566
Your Cost.
$\$ 1.89$

## (c) 0

## PLATE-FILAMENT-POWER TRANSFORMERS

## PLATE TRANSFORMER

©
$117 / 120$ V. 60 cycle primary; secondary群 200 ma . Fuly shielded horizontal mounting. Color coded leads; primary: red common, black 117. and brown black 120 V. Secondary: brown High Voltage, and brown-yellow High Voltage CT. Size: $41 / 2^{\prime \prime} x 3 \frac{1}{4}$ " $x 37 /$ " $^{\prime}$ high. 4 mo $3^{\text {3 }} \times 3506$, mounting cen
\$2.95

## Hi-Voltage Plate Transformer

(C) Primary 115 and $230 \mathrm{~V}, 50 / 60 \mathrm{cy}$. Sec. rey steel case with 6 stud terminals on standgrey steel case with 6 stud terminals on stand-
of insulators through bottom. Size $7^{3}{ }^{3} \times 5^{\prime} \times x$ $57 / 8^{\prime \prime} .6$ mounting holes on $6^{\prime \prime} x 21$

## centers. <br> 5 B6556-Your Cost.

53.85

## Hi-Voltage Plate Transformer

(A) Primary 117 volts 60 cycles. Secondary lack finish metal at 250 ma . Fuly enclosed black finish metal case, with $12^{\prime \prime}$ long 1RMA
color coded leads. Size: $37 /{ }^{\circ} \times 41 / 4 \times 453^{\circ} .4$ slotted mounting holes on 3 " $\times 3{ }^{3}$. centers. 586563
Your Cost.
$\$ 4.5$

## Power Transformer

Special value tran formers Conform to RMA specifications. Primary 117 . 60 cycles. Secondar y outputs $700 \mathrm{v.c.t}$. at 90 MA , 5 v at 3 amp . and 6.3 v at 35 amps . For 8or 9 tube receivers and amplifiers. Two hole


## 6569-Your Cost

## Power Transformer, 2.5 V .

(B) High grade low-power unit made to RMA daries 650 V CT at 40 mils, $5 \mathrm{~V}, 2 \mathrm{amps}$., and 2.5 V CT at 4 amps. Mounting area $3^{\circ} \times 2{ }^{\prime 2}$.


## Extra Value

## Power Transformer

Heavy-duty through-chassis mount, halfshell type power transformer for replace ment or original installation. Pri. $117 \mathrm{v}, 60 \mathrm{cy}$. Sec's 700 v CT at $120 \mathrm{ma}, 5.0 \mathrm{v}$ at 3 amp . Shpy. wt. 4.2 lbs. 5B6565-Your Cost
\$2.95

## Heavy Duty Power Transformer

(D) A first quality component. Meets all speproved Transformers. Primary 117V, 50/60 cy, electrostatically shielded. Secondaries 700 C 1 at $200 \mathrm{ma}, 5.0$ at 3 amps.; and 3.3 centers $3^{3}$ x $3^{\prime \prime}$. Wt. 7.1 lbs . $\$ 4.56$

## Power Transformer

(A) Primary 117 volts 60 cycles. Secondary: 5 volts CT 860 volts CT at 50 ma ., No. $2-$ amps., No. $4-6.3$ volts at 2 amps., No. $5-$ 6.3 volts CT at 2 amps. Fully enclosed black finish metal case, with $12^{*}$ long RMA color forded leads. Size $31 / 4 \times 33 / 4 \times 378{ }^{3}$ ". 4 slotted mounting holes on $21 / 2 \times 233^{\circ}$ centers. Excellent for amplifiers, radios, and general re-
placement purposes. 5B6562-Your Cost
$\$ 1.95$

## Filament Transformer

C Primary 115 and $230 \mathrm{~V}, 50 / 60$ cycles. Secondary 5 V CT at 6 amps. Fully enclosed grey finish steel case, with 6 stud lerminals Terminals 1-2-3 primary, 4-5-6 secondtom. Terminals $1-2-3$ primary, $4-5-6$ secondary. Size $48 \times 8 \times 3 / 8$ 5B6554 Your Cost
${ }^{\text {s }} 1.95$

## Filament Transformer

(C) Primary 115 V .25 amps . at 60 cycles. (E) Secondary 6.3 V., 3 amps . In hermetically sealed rectangular case. Length $3^{315 / 6^{\circ}}$ $x$ width $25 \frac{10}{\prime \prime}^{\prime \prime} \times$ height $4 \frac{5}{8^{\prime \prime}}$ Four studs for above chassis mounting. $13 / 4 \times 21 / 4{ }^{\circ}$ mounting centers. Solder lug terminals mounted on 5B6567-Your Cost

## Filament Transformer

An excellent filament transformer with 115 VAC 60 cycle primary. Sec. No. 1 (2.5V-10 amp.). Sec. No. 2 ( 6.3 V . CT at 5.5 metically sealed with porcelain insulated lugs, 5000 volt insulation test. Overall dimensions $5 \frac{2}{8^{\prime \prime}}$ high, $41 / 2^{\circ}$ long, $3 \frac{8}{8}$ wide. Fine for Hams and experimenters $5 B 6568$
Your Cost

(H)

(د)

(B)


## REPLACEMENT FILTER CHOKES

4 Henry, 300 Ma.

## Heavy Duty Choke

40 ohms DC resistance. Fully enclosed grey steel case with 2 stud terminals on stand-off insulators through bottom. Size:
$5^{2} / 8 \times 4 \times 4^{3 /} /{ }^{3} .6$ mounting holes on $4^{3} / \times 1^{11}$ $53 / 8 \times 4 \times 43 / 8{ }^{7} .6$ mounting holes on $43 \times 11{ }^{4}$
centers.
$586551-Y$ our cost..........
5B6551-Your Cost.

6 Menry, 50 Ma .

(H)300 ohms DC resistance. Made to specifications of American Standards Ap-
 C2075-Your Cost
centers $2^{7}$ Ko $^{\circ}$. Shpz. wt., 1 lb .

## 6 Menry, 150 Ma. <br> Heavy-Duty Choke

100 ohms D C. resistance. Fully enclosed grey steel case with 2 solder lug terminals on stand-off insulators through 31/x11/ centers
$56553^{\prime}$ Your Cost. . . . . . . . \$1, 89

634

## Special Value!

10 Henry, 40 Ma. Choke
(H) 260 ohms D.C. resistance. Extremely compact, highly efficient choke particularly well suited for use in auto radio receivers and AC/DC radios, Also excellent filter for general receiver and amplitier use. Un
 C1601-Your Cost.

39

## 10 Menry, 50 Ma.

(H) 475 ohms D.C. resistance. Unshicided size, with wide variety of uses. Size: $2 \times 1 \frac{3}{2}$ 5B5126-Your Cost

594

## 10 Henry, 110 Ma.

(J) 235 ohms D.C. resistance. Popular wide fexiblame strap mounting Unshielded. Lon dec 31 ads. Size: $2 / 2$ hers. C1570-Your Cost

15 Henry, 50 Ma. Totally Enclosed Choke
(G) 120 ohms D.C. resistance. Fully shielded, (G) strap type nounting. Compaet, efficient, and has
586550
Your Cost
B94

## 20 Henry, 65 Ma

(-)220 ohms D.C. resistance. Fully enclosed black wrinkle finish case with solder lug terminals on bakelite panel through bottom. Size: $2 \times 21 / 2 \times 3$. 4 mounting holes on $1 / 1 \times 2$ centers on top and bottom. 5B5037-Your Cost

## 30 Menry, 50 Ma. <br> Low Cost Per Henry

(H) 450 ohms D.C. resistance. Unshielded, strap type mounting. Ideal for replacement and experimental uses. Size: $213^{\circ}$. Shpg. wt., 2 lbs. C246-Your Cost.
$73^{\text {c }}$

# IF <br> max cis 



## INPUT-INTERSTAGE-OUTPUT TRANSFORMERS

## Input or Output

## Transformer

(A) Special transformer that would make a (4) good input or output transformer. Center tapped primary, impedance 110,000 ohms. Primary current, 25 M.A. Secondary No. 1: 70, 150, and 275 ohms. Secondary No. 2: 310, and 2600 ohms. Half shell mount. Overall dimensions, $3^{\prime \prime} \times 211^{\prime \prime} \times 3^{\prime \prime}$. With $6^{\prime \prime}$ flexible connecting leads
5B5067-Your Cost
$39{ }^{\circ}$

## Midget Input Transformer

$6-8$ ohms to single grid. Unshielded, with B 4 color coded leads. For use with small PM dynamic speaker used as microphone

## Interstage Transformer

C)
Primary (1-2) 10,000 ohms, secondary finish octagon case with 4 numbered solder lug terminals on top. Size: $2^{\prime \prime} \times 15^{5} \times 178^{\prime \prime}, 4$ ${ }_{5 B 5110}$
YB5110

## Push-Pull Driver

## Transformer

High quality driver transformer for pushD pull phase inversion. Pri. impedance 10,000 ohms. Pri. current, 35 ma . Secondary tapped for following $1 / 2$-secondary innpedances and turns ratios pri. to 伨 sec.: 2500 ohms, $1: 1 ; 4400 \mathrm{ohms}, 1.5: 1 ; 10,000 \mathrm{ohms}, 2: 1$. Core

## Tube to 200 Ohm Line

 Output Transformer

2500 ohm primary, 200 ohm secondary Has colored leads-red, yellow and blue, primary. Black and yellow, secondary. Very Overall construction, ideal for intercoms Overall size: $11 / 8^{\prime \prime} \mathrm{x}^{7}{ }^{\circ} \mathrm{xl} \mathrm{I}^{\prime}$ "
5B5109-Your Cost

196

## Tube to 500 Ohm Line Output Transformer

 sealed ohms. Fully enclosed, hermetically line, with 4 solder lug terminals. For renote 5B512559

## Push-Pull to 500 Ohm Line

 Output Transformer(G) 20,000 ohm prinaary CT, 8 ma. DC max. current. 500 ohm secondary CT Frequency response flat $\pm 1 \mathrm{db}$ from 50 to 8000 cycles. Fully enclosed black crackle finish metal case, with $12^{\circ}$ color coded leads out bottom. Size: $2^{\prime \prime} \times 2^{3} \mathbf{a}^{\prime \prime} x 2^{7 / 8^{"}} 4$ mounting holes 586560 and bottom on $12 / 6^{\circ} \times 2^{\circ}$
$\$ 159$

## Single-Ended

## Output Transformer

(D) Primary, single tube 7.000 ohms 30 ma . second:ary 4 ohms. Unshielded strap typ $1^{\prime \prime} \times 1,1 / 2$ mounting holes on $2^{\prime \prime}$. 1 C1612 Your
$45^{4}$

## Universal Output

(H) 15 watts. For single or push-pull plates (H) With instruction sheet. Primary impedance $2500,5000,6500,10,000.13,000$ ohms. 70 ma. Secondary 2, 4, 6, 8, 15 ohms. 21/4 $\mathrm{H}, 35 /{ }^{\prime} \mathrm{W}, 21^{\circ} \mathrm{D}$ overall. Shps
C2082 C2082
Your Cost.
S wt. 3 ibs.

## Universal Output

(J) 15 watts. Single or push-pull tubes to voice coil. Half shell type with 9 color coded leads. Primary: red, red-black and blue. Following sccondary leads connected to voice coil will match these impedances: black, redyellow 1,000 ohms; black-yellow, red-yellow yellow 1,000 ohms; black-yellow, red-yellow red-black, red-yellow 6,000 ohms; black, redblack 7,000 ohms; black, green 12,000 ohms; black, yellow 22,000 ohms; yellow, red-black 24,000 ohms. Size: $3^{\circ} \times 2^{1} \frac{1}{2}^{\prime \prime} x 23 / /^{\prime \prime} .4$ mounting studs on $21^{\prime \prime} \times 22^{1} 46^{\circ}$ centers. 5B6558-Your Cost.

## Output Transformer <br> And Filter Choke

(K) Two units, each with separate cores, (1) potted and hermetically sealed in one steel case. No hum transfer. Single-ended output to line or to high or low impedance headsets. Ideal for communications receivers. Primary impedance 4300 ohms. secondary 4000 ohms with tap at 300 ohms. Reactor sec. tion is 6 H at $65 \mathrm{ma}_{\text {, de }}$ resistance 300 ohms. Ierminals marked. Diagram on top. $4^{\circ} \mathrm{HI}$, $1^{15}$ o $^{\prime \prime} \mathrm{W}, 3^{\prime \prime}$ deep overall. Mtg. Ctrs. $116^{\prime \prime} \dot{x}$ 5B6570-Your Cost.
$\$ 1.49$


## Battery Charger RA-63-D

(L) Ileavy duty ruggedly constructed battery charger that delivers 12 14 volts at $10-13$ amps for rapid charge. Trickle charge switch for 15 volts at 14 amps depencling on battery condition. II eavy duty full wave selenium rectifier that will charge two 6 volt batteries connected in series, and one or more 12 volt batteries connected in parallel. Supplied with four foot four color coded conductor cable termmated in Hubbell No. 7411 polarized plug. Operates from 115 V 60 cycle AC source. Ideal for garages, filling stations, labs, aircraft shops, and wherever 12 V1)C power supplies are required. Size: $13^{\circ}$ if ${ }^{\circ} \times 10^{\circ} \times 17^{3}$, 自 Shpr. wt. 60 lbs . $5 B 9544$-Your Cost$\$ 29.50$

## High Current Transformer

5.1 Volts at 190 Amps.
(M) Primary- $105,110,115,120,125$ volts, 60 cycles at .970 K. V. A (Mecondary- 5.1 volts at 190 amps. Suitable for ageing filaments, small welding machines, and numerous other uses in the laboratory or shop. Primary terminals come out to I' stand off insulators. Secondary terminals come out at heavy duty stand off porcelain insulators. Mounted in cast iron end bells and finished in baked black enamel. Overall size: $20^{\circ} \times 10^{\circ} \times 8^{\prime \prime}$. Mounting centers: $8 y^{\prime \prime} \times 71_{4}^{\prime \prime}$. Shpg. wt., 70 lbs. 5B5124-
Your Cost
$\$ 16.95$
LOWEST PRICES • HIGHEST QUALITY AT CONCORDRADIO


$\Theta$


## VOLTMETERS

(A) 35 volts DC full scale deflection. $21_{2}{ }^{\circ}$ (b) round flange. White scale, black lettering model K 25 5B4205-Your Cost
$\$ 1.95$
(B) Voltmetcr D.C. (Simpson Model No. minus $2 \%$. Scale reading 0 to $3.21{ }^{1}{ }^{\circ}$ dia $\times 1^{\circ}$ d. Round face. Black scale, white lettering. ${ }_{5 B 4207}$
$\$ 1.95$
Your Cost
Model No
 Round face. Black scale, white lettering. Round face. Black scale, white lettering.
SB4206-cost.
$\$ 1.95$
(D) Voltmeter D.C. (Gruen GW Model No. 506). $0-150$ scale, $2 \frac{1}{4}$ dia. $\times 1^{10} \mathrm{~d}$. White scale, black lettering.
$5 B 4208-Y$ our Cost
$\$ 1.95$
(E) Voltmeter A.C. 0 to 1.5 V . Scale marked 0-2-4-6-8-10. Half wave rectifier. Radium dial. 1000 ohms D.C. resistance on meter side of rectifier. Dia. $21 / 8^{\circ} \times 11_{4}{ }^{\circ} \mathrm{d}$. Round face. Black scale, white lettering.
5B4209-Your Cost. . .
$\$ 1.8$
(F) 0-6 Kilovolt D.C. 1 ma. full scale deflectron. Roller-Smith type DT. White scale, black lettering. $31 x^{\circ}$ round flange. Requires
 Your Cost.
Multiplier Resistor. 12 Megohms. 10 kilovolts maximum. Measures $51^{\circ}{ }^{\circ}$ long by $114^{*}$ dia. Hermetically sealed in glass tubing with metal-to-glass bonded ferrule ends. Two required for meter above.
5B133-Your Cost Each

984
(F) Weston 507 . Scale $0-100$ Meter 0-1.2 ing. High quality workmanship throughout. Black metal case Flange drilled for panel mounting.
584215 -Your Cost
s2.25

## 



## RF AMMETERS

(G) Amperes Radio Frequency. (Simpson peres Fruc Model No. 135). Scale 0-3 ammegacycles. Dia. $2 \frac{1}{2}^{\prime \prime} \times 18^{\prime \prime} \mathrm{d}$. Round face. Built-in thermocouple. White scale black lettering
$\$ 245$
(H) 0 -4 amp. RF meter. Built-in thermo(H) couple. G.E. type DN-56. Black scale, 5 white lettering. 21. round flang Your Cost
$\$ 2.45$
(D) Amperes Radio Frequency. 1 lickok (D) Electric Modei No. 5661). 0-3 amperes. Frequency effect less than $2 \%$ up to 65 megaFrequency Round face. Built-in thermocouple. Cycles. Round face. Built-in thermoco $5 B 4211$
\$2.45
(K) Westinghouse $0-3$ ampere scale. Fremegacycles. $2^{\circ}$ dia. round face. Thermocouple type. Less thermocouple. White scale black lettering. 5B4216-Your Cost
$\$ 1.95$

## MILLIAMMETER

(J) 1

1000 DC MA full scale deflection. Black for panel mounting 5B4204 Your Cost
\$1.95
(D) 0-20 M.A. Precision built DC milliamDeter. 23 f flange mounting type. Black dull finish bakelite case. Mtg. Hdwe. includ ed. Large, clearly legible dial calibrations. ed. Large, clear
\$2.59 5B4122-Your Cost
(D) 0-300 DC Milliammeter but in dull black metal case. Requires $21_{15}{ }^{\circ}$ dia. hole for flush panel mounting. Large clearly legible scale divisions. Depth behind panel, $1^{15}$. Mounting hardware incl.
584118-Your Cost


## MILLIAMMETER

(D) 0-200 MA. $21 / 2^{\prime \prime}$ fange mounting type. High cualibred for use on $1 / 8$ steel panel. case dull black finish included.
\$2.69

## G.E. DECIBEL METER

(A) G.E. rectifier type AC meter. Full scale deflection: 3 V AC. Scale calibrated from -10 to +6 Db., based upon 6 milliwatts and 600 ohms. "th flange mounting type in black, rull finish bakelite case. An excellent audio meter, suitable for laboratories, schools. sound men, and experimenters. \$3.75

## WATT METER

D) $0-1000$ Peak Watts Meter 200 Micro (J) amperes DC full scale deflection. Gruen model 250 . White scale with black lettering 25 round flange. 584200 -
$\$ 2.69$

## TUNING METER

(L) Tuning Meter (General Electric Model No. DW53). Has 7 divisions on scale Marked Tuned for Max." No numerals Radium pointer. Has built-in pilot light of the "grain of wheat type," 3 V. Mazda No. 323. Dia. $21 / 2^{\prime \prime}$ I $1^{\prime \prime} \mathrm{d}$. Round face. Aircraft type instrument mounting. Black scale,
white lettering. white lettering. 5B4212-Your Cost
s1.69

## OUTPUT METER

(M) Output Units Meter. (Weston Model No. (M) 507). Built-in thermocouple type. Scale 0 to 10,0 to 120 ma. R F. Full scale dellection $2^{3}{ }^{116^{\prime \prime}}$ dia. ${ }^{15}{ }^{15} 16^{\circ} \mathrm{d}$. Round face. White scale, 5B4213 tering.

## MODULATION METER

(N) Modulation Indicator (G.E. D0.49). (N. Scale 0 to 75. 7.5 volts. Full scale deflection. $13 / /^{\prime \prime}$ dia. $\times 11 / 8^{\circ} \mathrm{d}$. White scale black lettering. 5B4214-Your Cost
$\$ 5.95$


COILS-Priced Very Low!
Antenna and R.F. coils furnished in unshielded type for t.r.f.sets and shielded type in round drawn aluminum cans $115 / 66^{21} \times 24^{\circ}$ high for servicing $90 \%$ of all receivers on the market. High impedance primaries for screen grid tubes with 4 bank Litz wound secondaries. Wound for

## LITZ-WOUND R.F. and Antenna Coils

| No. | Fig. Application | Freq. | Shield | Mtg. | Each |  |
| :--- | :---: | :--- | :---: | :--- | :---: | :---: |
| C10012 | A | Ant. Coil | $550-1750 \mathrm{kc}$ | none | Bracket | 35c |
| C10077 | B | Ant. Coil | $550-1750 \mathrm{kc}$ | Can | Spadelugs | 39c |
| C10095 | C | R.F. Coil | $550-1750 \mathrm{kc}$ | none | Bracket | 35 c |
| C10085 | D | R.F. Coil | $550-1750 \mathrm{kc}$ | Can | Spade lugs | 39c |

## Air-Core Condenser Tuned I.F. Transformers <br> No. Fig. Appin. Freq. Shield Size Mtg. Each $\begin{array}{lllllllll}\text { C10069 } & \mathrm{E} & \text { Input } & 456 & \text { Can } & 18 \times 18 / 2 \times 3 & \text { Spd. lugs } & \text { 39c } \\ \text { C10070 } & \mathrm{E} & \text { Output } & 455 & \text { Can } & 186 \times 18 \times 21 / 2 & \text { Spd. lugs } & \text { 39c }\end{array}$


(D)

(E)
$\left[\begin{array}{r}2 \\ 3 \\ 0\end{array}\right.$
(a)
use with 365 mmf . variable tuning condenser. Brackets furnished. Dia= gram included with kits for building 4 or 5 tube set. 1.F. Transframincluded withkits for building 4 or 5 tube set. lif. Transwith compression mica trimmers adjusted from top of aluminum shielding can. RMA color coded leads.

|  | R.F. a | Antenna | Coil | -its |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Application | Freq. | Shield | Mtg. | Each |
| C10073 | 1 Ant. and | 550-1750kc | Can | Spade lugs | \$1.10 |
| C10071 | 1 Ant. and | 550-1750kc | Can | Spade lugs | . 75 |
| C10096 | 1 R.F. Coid | 550-1750kc | none | Brackets | . 67 |

Permeability Tuned I.F. Transformer No.
Fig. Appln. Freq. Shield
F
lnprot
1

# fle-Pupocer R ELAYS 

## SENSITIVE RELAYS



Fully adjustable sensitive relay with 2000 ohm coil. Ideal for plate circuit or photocell applications. Minimum pull-in current only 2.5 millitacts. Mounting bracket has two mounting holes. Size: $311^{\prime \prime}$ long, $21^{\circ}{ }^{\circ}$ wide. $21 / 8^{\circ}$ high 5B4033Your Cost
\$1.49


45-60 VDC sensitive re ay, 10,000 ohm coil Contacts: one set of DPST normally closed. and one set of SPST normally open, rated 15 amperes at 6 volts to 5 amperes at 110 volts. Overall dimensions $1 \frac{3}{6}{ }^{\prime} \times 2$ " $\times 11 / 4$



100-130 VDC sensitive relay, 10,000 ohm coil. Contacts: 2 SPST, one normally closed and one normally open, rated 10 amps. at 6 volts to 4 amps. at 110 volits. Size $21 / 8{ }^{\circ} \times 112^{\circ} \times 18 / 8$
$5 B 3982-\mathrm{CO}$
Your Cost

45 VDC relay, 2000 ohm coil. Contacts, one set amps. at 6 volts to 20 amps. at 110 volts, and one set of SPST normally open contacts rated 5 amps. amps.at 110 volts. This is an excellent relay for tube circuits, photocell alarm systems, and a host of other applications. Size. $31^{\prime}$ "x 21 . " "x $35 / 8^{\prime \prime}$. With metal dust cover, external lugs, mounting screws, and diagram 5 B3983

Your Cost
${ }^{\text {s }} 1.39$

## SPDT RELAY

SPDT contacts of $3 / 10^{\circ}$
 diameter fine silver rated at 550 watts noninductive load at 60 cycles. Coil operates on
19 to 29 volts $50-60$ 19 to 29 volts $50-60$
cycle $A C$, with $D C$ recycle $\Lambda C$, with $D C$ re-
sistance of 50 ohms, 1500 volt insulation throughout. Overallsize,
$21 /{ }^{\prime \prime} \times 18 /{ }^{\prime \prime} \times 15 / 8^{\prime}$. C5950-Your Cost 896

## DPST RELAYS



DPST contacts, normally open, of $\mathrm{F}_{6}{ }^{\circ}$ fine silver diameter, rated at 550 watts non-inductive load at 60 cycles. Coil oprates from .6 to $i$ requires from .6 to 1 of 4 amps. DC resistance, 1.5 ohms. 1500 volt AC insulation throughout. Overall size, $21 / 4$ C5948- With mig. bracket.
$89^{4}$

## DOUBLE POLE RELAY



Double pole relay, with one set of SPST contacts normally open, and one set of contacts normally closed, contacts of 3 " ${ }^{\prime \prime}$ fine silver, rated at 550 watts non-inductive load at 60 cycles. Coll operates on 14 to 32 volts, with DC resistance of 27.5 ohms. Overall size, $2^{\prime \prime} 22 y^{\prime \prime} x$ $1 \mathrm{sf} \mathrm{f}^{\prime}$, with mig. bracket. C5941-Your Cost..

394

## 110 VOLT AC RELAYS FOUR-POLE RELAY



A heavy duty relay with two sets of SPDT contacts, and two sets of SH'ST contacts, nor mally closed. All metal parts are bright-piated and all soldered joints are carefully enameled to prevent corrosion. Contact arms and springs are heat-treated beryllium copper, and con tacts are $3 / 6^{\prime \prime}$ pure silver. slightly crowned Each set of contacts is rated at 6 amperes at 115 volts AC. Relay coil consumes 6 VA at 115 volts AC. Normal pull-in voltage. 92 volts; drop out voltage 75 volts. Base and insulation are natural brown canvas bakelite. Base size $31 / 8^{\circ}$ square, $14^{\prime \prime}$ thick. Overall height 13 in" Shp. wt. I lb. No. 2129BF... \$1, 8


SPST contacts, normally open, of $3 / 6^{\circ}$ diameter fine silver. rated at 550 watts non-inductive load at 60 cycles. Coil operates on 95 to 125 volts $50-60$ cycle AC, with DC resistance of 550 ohms. Overall size $2^{1} 6^{\circ} \times 1^{7 / 8} \times 1 \frac{1}{8}{ }^{\circ}$

696
Your Cost


AC RELAY COIL OPERATES ON 110VAC. Finest material and workmanship. Two sepa-
rate coils connected in series and mounted on rate coils connected in series and mounted on armature carries a bakelite block on which are mounted a SPDT and a SPST normally open set of contacts rated at $15 \mathrm{amps} .110 \mathrm{VAC}$. . Al sets of contacts are insulated from each other and the frame by bakelite insulation. Screw terminals. Coils may be connected in paralle to work at a lower voltage.
YB4100-
$\$ 2.45$
THERMAL TIME DELAY RELAY
Leach type 1054 T with 375 ohm 24 volt D.C. coil. Delay adjustable from 20 seconds to 1 minute. $1 /{ }^{\circ}$ fine silver $D$. P.S.T. contacts normally open. Will handle 50 amps.at 12 volts D.C. 25 amps at 21 volts A.C. Metal base with 8 vounting holes. Size $31 / 4$ long, $233^{\prime \prime}$ wide, $1 \frac{188^{\circ}}{}$ high 5B4030 Your Cost
$\$ 1.9$

## THERMAL TIME DELAY REPLACEMENT UNIT



Mounted on glazed porcelain base with $6^{\circ}$ flexible copper able from 20 sec . to 1 minute Exact replacement for 5131030 . listed alove.
5B3989-Your Cost. 294

## AC SOLENOID

## Compact solen oid, DC Resist- ance 20 ohms, wound on brass tube with I.D. of

 $210^{\circ}$. Operates on 6 to 10 volts AC, constant duty, or 4 to 7.5 volts DC constant duty. Overall dimensions 111 "
## D.P.D.T., 24 VOLT RELAY



3" pure silver contacts rated at 6 amps. 110 volts a.c. Bakelite insulation. d c 6-32 rastance 23 mounting holes on $1^{\mathrm{B} /} \mathrm{K}^{\prime \prime}$ by $1^{\prime \prime}$ centers Overall size: $2^{y}$ by $1 \mathrm{~s} / \mathrm{g}^{\circ}$ by 11/".

69 Your Cost

4 P. D. T. 24 VOLT RELAY

$1 / 8$ " pure silver contacts rated at 3 amps .110 volts a.c. 250 ohms d.c. coil for 24 volt operation. 6-32 threaded mounting holes on $11 / 6^{*}$ mounting centers. Overall size: $2^{\prime \prime}$ by $18 / 8^{\prime \prime}$ by $18 \%^{\prime}$
583996Your Cost

494


## STARTING RELAY

(A) 12-14 VDC heavy duty starting rela (A) with 13 ohm coil. SPST contacts normal ly open. Excellent for starting dynamotor and heavy motors. Overall dinuensions approx $37 / 1 \times 23 / 4 \times 25{ }^{\circ}$. Similar to General Electric Contactor No. CR2800-384B2.
5B4301 Your Cost.
(B) 6 VDC relay, with coil resistance of 16 ohms. Contacts SPST-double break10 amps at 110 volts. Measures $2^{3 / 6} \times 1 \mathrm{~s}^{5} \mathrm{k}^{11 / 2}$.



## SELENIUM

## RECTIFIER

* No Warm Up Period * Easily Installed $\star$ Costs Less
Saves space only $11 / 4 \times 11 / 4 x$ ${ }^{11} 10^{*}$-fits where tube won't. Costs less than tube and socket it eliminates. Long life-built to last the life of set. No warm-up peried. Starts instantly and runs cooler because no filament current is required. Installed in less time than tube-only two soldering jobs. Two rectifiers may be connected as a voltage doubler to supply 250 volts at 80 ma. from 117 volt AC power supply. Sturdy all-metal construction power supply. Sturdy all-metal construction not easily damaged. when charging deformed electrolytic even when
condensers.
$75^{\circ}$

(B)


## CRYSTAL PICK-UP

(A) Tigh quality crystal pick-up mounted in included. Requires $\frac{1}{2}$ hole. Shielded lead and cartridge case. Aluninum die cast arm finished in smooth dark brown. Leas needle 5B3551Your Cost
$\$ 1.59$

## RESISTORLESS NEON BULBS

(B) For use in Test instruments noise si-

Type NE-2 with a wattage rating of 125 th watt. No base, wire terminals.
X169-Your Cost.
10 for.
$\pm 4$

## Carbon Throat Microphone



587060-Your Cost.


This microphone will work into any 200 ohm impedance input circuit Has ad justable strap to fit any neck. In operation this microphone is strapped around the throat therebv facilitating full freedom of both hands and head movement. Ideal for ultra high frequency mobile work for hams. Supplied with strap. $10^{\prime \prime}$ cord and plug
$29^{9}$

## Light Weight Hand Held T-17B Microphone

High quality and light weight! Sturdily constructed 200 ohm single button carbon mike with built-in hiss filter and press-totalk switch. Complete with 5 -foot rubber cord, PL-68 plug and microphone dust cover.
$94{ }^{4}$

Chromium Plated Steel Case


A beautifully built, highly polished chromium- plated stee! case, ideal for test equipment, oscilloscopes, amplifiers, etc. Has removable bottom, ventilating louvres on all sides, particularly sturdy for use with heavy equipment. Measures $93^{3}{ }^{\circ}$ high, $70^{\circ}$ wide, and $1212^{\circ}$ deep, with $2 / 2$ diameter hole in front panel, and $15 / 0^{\prime \prime}$ hole in top panel.

## c22276-

Your Cost
91-5

## Antenna Reel

Sturdy, rustproof heavily gal vanized wire frame reel with freely turning handle and crank. Ideal for winding and storing antenna wire, cables, clothes
 line, rope, twine etc. Winding area $8 y^{\prime \prime} \times 3^{\prime \prime}$ inside and $11 \%{ }^{\circ} \times 434^{\circ}$ outside. Handle 7/8 dia. $\times 41,{ }^{8}$ long, crank handle 1-2' dia. $\times 1=2$ long.
5B6549-Your Cost
29

## Break-In Telegraph Key



Mounted on bakelite base $48 / 6 \times 3^{\circ}$ Jumper strip with binding posts also mounted on base with key. llas binding post connections and circuit closing switch. $1 / 1$ is $^{\prime \prime}$ solid silver keying contacts. All metal parts cadmium plated This is an exceflent key for sounder and buzzer telegraph systems, as it is equipped with 2 sets of binding posts, one set mounted on a sumper strip and the other set mounted on the key. 394
586543 - Your Cost. 394

## Circuit Breaker



Completely housed in molded plastic case with reset switch on front. Fast positive action. Enclosed cas completely flame proof mounting studs two $10-24 \times 1 / 2^{\prime \prime}$ mounting studs which are also the terminals. Can be used to replace fuses as service can be restored after short circuit or overload is corrected by merely throwing the toggle switch to ON" position. Size: $3^{\prime} \times 3^{2} /^{\circ} \times 1^{\prime \prime}$ Two types as listed below. all are for use on 115 AC or 584058
5220 MA
584059-9 Amp
${ }^{1.39}$

## Battery Cord Set



Consists of $71 / 2$ feet of 2 -conductor flexible twisted pair cable each conductor No. 14 stranded tinned heavily insulated copper wire, color black; 2 heavy duty $4^{*}$ battery clips on one end and one 4 fermale contact plug on the other end and fuseholder with 5 amp . fuse in yellow (positive) lead near plug end. For use wherever storage batteries are used.
5B6537-
Your Cost
29
Neutralizing Tool Kit
12 Tools Telescope Info 5 Unifs

This kit is composed of alligator side wrench, $6^{\circ}$ insulated driver-metal nib, $5 / 0^{\circ}$ and $1 / 6^{\circ}$ nut wrench, $1 / 6^{\circ}$ insulated square nut wrench, $1 / 4$ hex metal side wrench, 21/2" insulated driver with metal nib. $3 i^{\prime \prime}$ hex slotted insulated wrench driver, $5 / /_{0}{ }^{\circ}$ hex insulated nut wrench $5^{\circ}$ and $6^{\circ}$ insulated driver

## Live Rubber Mounts



Excellent live rubiver mounts for floating gang condensers, sockets, and record changers to prevent micro-
 Per 100 .


## Experimenters Motor

Compact induction type AC motor operates from 25 to 30 volts AC, 60 , cycles. Motor speed 2400 RPM, with gear train driving $3 / 4^{\circ}$ shaft at 24 RPM. Has clutch which disengages motor from gear train when power is removed, and friction brake on gear train which prevents shaft from continuing rotation when power is removed and ciutch drops out. For inter mittent oper ation, with thermal cut out which prevents overloads from injuring motor. Measures $2 \times 1^{3 / 4} 3^{2}$ overall, excluding shaft, which is $1 / 4$ " overall, excluding shaft, which is $1 / 4$ any position but clutch is operative only when the shaft is in a horizontal plane. Mounts by, means of four "/4" Studs extending $9 / 2^{\prime \prime}$ from case.
C14699-
Your Cost.
$\$ 2.50$


## 7 Tube Chassis

(A) Punched 7-tube chaissis, tern $7^{*}$ wide, 2 measuring $14^{\prime \prime}$ long. radio and amplither builders. 589564 Your Cost

294

## 1S4 Tube Shields

(B)
Miniature tube shield for num with retainer spring inside. 587020-Your Cost Each 44 10 for .30c
(A)


## Bakelite Knobs

Molded and polished walnut bakelite knobs for $1 / 4$ " shafts. " $A$ " is spring-clip, push-on type; diameter is $178^{\circ}{ }^{\circ}$ " $B$ " is for knurled shafts; diameter is $1^{\circ}$. Fine for Experimenters, Amateurs or Builders.

| Stock |  |  | 10 | 100 |
| :---: | :---: | :---: | :---: | :---: |
| No. | Type | Each | For | For |
| C9625 | A | 5c | 40 c | $\$ 3.00$ |
| $5 B 249$ | B | 5 c | 40 c | 3.00 |

## Knob Kit

Kit of 20 assorted knobs. 1 real addition to your knob stock box at a real bargain price
$\underset{\text { Per Kit................... } 59}{ }$


## Microphone Cord \& Plug

(A) 3 -circuit mike plug PL-68 connected to rubber-covered 3 -conductor cord 4 ft. long. Strainrelief rubber over end of plug. End of cord terminates in two connecting lugs, tinned ground lead, and tie-cord fastened to eyehole lug. Flexible and durable. Excellent for Push-to-talk Mike Applications.

## 585145

Your Cost
$19{ }^{4}$

## Three-Conductor Cable

(B) 10-foot 3-conductor rubbercovered cable with colored leads and No. 10 spade lugs and tie cord at each end. l leavy duty tinsel wire, live rubber in ulation. Excellent for phone, mike, speaker applications requiring flexibility of cable under rough, tough conditions.
585138
${ }_{\text {Your Cost. }}$


## Jack Box

(C)
C Consists of one 3 -circuit jack, one single-circuit jack, one $150,000-\mathrm{ohm}$ potentiometer, and 5 -position rotary switch enclosed in an aluminum case $115^{\prime}$ long. $3^{\circ}$ wide, $3^{\prime \prime}$ high. Shipped complete with knobs. Circuit diagram inside cover. Shpg. wt., 21 lbs $5 B 3959$
Your Cost
25

## 

## Fuse Holder Kit

C Consists of one Littelfuse No. 1068 double fuse mounting, three 5-amp. 3AG fuses, two ${ }_{10} x^{3 / 4}$ screws, two No. 6 lock washers, two
two Littelfuse clips No. 101 ! and two $\frac{1,16 t}{8,16}$ steel nuts. 5B145-Your Cost
$10^{4}$

## Extractor Fuse Posts

(D) Black bakelite fuse holder (D) for type 3AG fuse. For pand mounting with ${ }^{13}$ /n" buhing cquipped with insulating rubber washer, lock washer, and nut. Extends $15^{\prime \prime}$ behind panel and has rugged solder lugs. 5B238- $\qquad$ $16^{4}$


## Tool Roll

(A)Simulated leather tool roll 1 las a strap with 15 slots to carry several pliers, screwdrivers socket wrenches, etc. When tools are packed in this roll, they make a neat and compact tool ki 589521Your Cost

194

## Five-in-One Tool Set

(B) Cadmium-plated steel shank and knurled handle, hollow oo store five snap-on tips End of handle unscrews to remove tools. Tips are: $/ \mathrm{T}^{3} \mathrm{a}^{0}$ screwdriver and wrenches. $71 / 4$ : long. Wt.. 2 lhs. 586985
Your Cost
$79^{9}$

## Ceramic Socket <br> Fox 832, 829

An excellent purchase makes this highest quality trans-mitting-tube socket available at less than manufacturer's cost. 1/4 thick white ceramic, glazed on top side, $2^{3} \%^{\circ}$ square with rounded corners, reinforced ${ }^{3} 6^{\circ}$ mounting holes on $17 /$ / $^{\prime \prime} \times 1 /{ }^{1 / 8}$ centers. Seven silver plated powerful spring-grip contacts with wo soldering holes each, firmly iveted in place and reinforced riveled in pace and reinforcedby cast cutout in the ceramic.
$586986-$
Your Cost
$29^{4}$

(E)
(E)

## Ceramic Octal Socket

(D) A low-loss, heavy-duty sock et on $1 h^{\circ}$ mounting centers. irm kripping cylind tacts silver plated. Sturdily constructed. Heavy ceramic body seated in pressed steel shell Soldering tabs and four ground ing lugs pre-tinned, provided with C13109-
Your Cost Each
10 for.
94

## Low-Loss Octal Socket

(E) Flush mounting high quality low lass phenolic compound socket seated in heavy rust-re four grounding lugs. Tubular gripour grounding lugs. Tubular grip ping silver-plated contacts end in two hole terminals. 5B6979Your Cost, Each

54 10 for 43c

## Pilot Light Socket

A two-contact bayonet typ of socket requiring $\%$ dia. hole for mounting flange. Retaining ring included. Two solder lug terminals.5B247-
Your Cost
10 for
$15^{〔}$


## 30 MH RF Choke

(A) Wound on ceramic form men lug terminals. Mounts by means of screw through cener hole or two mtg. holes in base. C resistance is 136 ohms. Max imum IX is 125 ma .
Your Cost
394

## APC Air Padder Condensers

(B) Ceramic insulated air padder condensers ideal for circuits requiring a constant capacity under all climatic conditions such as oscillator circuits. IF transformers, fixed tuned circuits, etc Sizes under 100 mmf have screwdriver slot adjustment. The 100 mmf size has " shaft tein long. A record low price for this high quality item.
Stock No.
583511
583206
583512
5B3518

## Unshielded R.F. Chokes

(C) All-purpose unshielded r.f. chokes. Universal-wo und, accurately rated and factory tested. Thoroughly impregnatedwill give long, trouble-free service. C10133-2.5 Milli-
henries. Your Cost .... c10135-60 Milli-
henries Your Cost.... 294

## Radio Noise Filtex

(D) Keeps hash out of power lines when connected at source of noise, or removes hash
from radio when connected to in. from radio when connected to in-
coming line. In hermetically sealed case $2 \times 2 \times 138^{\circ}$ high, with two mounting lugs on $2 \frac{3}{6}$ " centers. Case is grounded, hot les of 115 V AC line goes to terminal at one end, out of terminal at other end. Rated at 10 amps. Shpg. wt., 2 libs.
5B3239-Your Cost
ATLANTA
596

#  <br> Hand tor 2 und 



## 2 Gang Condenser with Band Spread

## (A)

 (A) Section one 39.7 mmfd min. to 353.4 mamid. max., section two 339 mmid . to 3.0.3.3 mmfd. max., band spread both sections 20 mmfd . Sturdily constructed, useful for portable or small super heterodyne receiver. ingle spaced aluminum plates with low loss bakelite insulation Both shafts mounted on ball bearings and with ball thrust adjustment. dial pulley mounted on each shaft. Size: $1 \times 21 \times 21^{\circ}$833562-Your Cost

## 3 Gang with Band Spread

(A) 352 mmfd . max. each section, band spread 20 mmid . max. Sturdily constructed, for use in communications superheterodyne receivers. Single spaced aluminum plates with low loss bakelite insulation. Brass shafts mounted on ball bearings with ball thrust adju tment. $2^{\prime}$ dial cable pulley mounted on each shaft. Size: $47 / 8 \times 31 / 2 \times 234$. mounter
583563 5B3563-Your Cost
$79^{\text { }}$


## 3 Gang with Band Spread

(A)
12.5 mmfd . min to 410 mmid max each section, band spread 20 mmid . Sturdily constructed. Replacement for use in nation ally known communications super heterodyne ally known communications super heterodyne receivers. Single spaced aluminum plates shaft low loss bakelite insulation. Main tuning shaft
extends $2^{5}{ }^{\circ}$ from front of condenser, bandextends $2^{5 /}$ from front. of condenser, band-
spread shalt extends $13,8^{\circ}$ from front of conspread shaft extends $133^{\prime}$ from front of con-
denser, both shafts have $2^{\circ}$ dial cable pulley attached. Size: $61 / 4 \times 31 / 2 \times 31 / 2^{*}$ 5B3561-Your Cost.
\$1.19

## 3 Gang Condenser

(B)12.5 mmfd . min. to 562.8 mmfd max. each section. Sturdily constructed condenser, used in superheterodyne receivers for standard broadcast and short wave. Single spaced aluminum plates with brass rotor spaced Shaft is mounted in hall bearings with shaft. Shait is mounted in hall bearings with
ball thrust adjustment. Stator plates are ball thrust adjustment. Stator plates are
mounted on low loss bakelite insulators. Size:
 583564-Your Cost

(D)


## U.H.F. 3 Gang

C. 6 mmfd , to 54.7 mmfd maximum each section. These sturdily constructed condensers are ideal for use in UHF , Double spaced aluminum plate, ball bearing rotor shaft with ball thrust end adjustment, and micalex insulation. Front rotor is grounded to frame, center and rear rotors have provisions for insulating from frame and each other. Shaft $3 / 8^{\prime}$ dia. $3^{3 / 8}$ long. Size: $6^{3} / 0^{1} \times 31 / 48$ ${ }^{23}{ }^{3}$.
5B3567-Your Cost
984

## Broadcast Tuning Condensers

(D) Two sections. RF section 420 mmf. Osc. section 162 mmf . Trimmers each section 20 mmf. Ball bearings with ball endthrust adju:tment. Condenser body $13 / 4^{\prime \prime}$ wide, $18 / 8^{\prime}$ high, $2^{3} a^{\prime \prime}$ deep. Shaft extends $3 / 4^{\circ}$. Cable drum permanently installed at factory. Ideal for making small receivers and portable equipment. Shpg, wt. 1 lb .
583569 -With $3^{\circ}$ drum.
583570 -With $4^{\prime}$ drum.
Your Cost Each.
$98^{〔}$


JOHNSON Variable Condenser
Rugged, compact unit for medium and low-power transmitters 032" thick aluminum plates. Steatite insulation. Heavy phosphor-bronze contact springs. Capacity 12 to 244 mmf . $045^{\circ}$ spacing. Approximate breakdown is 2000 volts. Slotted shaft $1 / 4$ breakdown is
dia. $1: 1$ "long.
$583572-$
Your Cost
$\$ 1.29$



3 Gang Calibrated Condenser
(F) Two 250 mmf sections and one 260 mmf .


## Single-Section Condenser

 Steatite insulation, $500 \mathrm{mmfd} .2 \times 1^{17} \times 66^{5 / 6}$ 583571 Your cost984


## Variometer

(L)
Smoothly operating perfectly balanced variable inductance with range of 2.5 to 7 microhencys. Coils are double spaced silver plated solid heavy copper wire mounted on ceramit insulation. Frame is low loss lamicerated linen base phenolic with ceramic feed nated linen base phenoic with ceramic feed through terminals and ceramic shaft coupling. $5 \times 41 / 2 \times 378^{\circ} 4$ mounting holes tapped No. 6-32 on $31 / 2 \times 23$ m centers 5B7068-Your Cost

494

## Neutralizing Condensex

(M) Capacity 3 mmfd . to 11 mmfd . Suitable (M) for neutralizing low power transmitter amplifier stages. Body made of steatite for mounting in a $3 /$ a $^{\prime \prime}$ hole, or may be suspension mounted. Capacity is variable by plungerlike action.
YB3171-
Your Cost
(1)


ICA 140 Mmf. Midget Condenser
(H) For communications receivers and trans(H) mitters. Compact, rugged and highly efficient. Ceramic insutation; sturdy lug terminals, single hole mounting feature. etc $1 / 4^{\prime \prime}$ shaft plated to resist corrosion. Capacity 7 to $140 \mathrm{mmfd}, 19$ plates. With nounting nut. Shpg. wL 1 Ib.
C9714.
Your Cost
$\$ 1.03$


## MEISSNER Midget Alignaire

(N) Bakelite cased 1 to 12 mmfd midget air element for mounting attached
C9740-
Your Cost

### 2.8 Mmf Dual Condenser

(P) Maximum capacity per section, 2.8 mmfd, minimum, 2 mmid. Mycalex coupling between sections, isolantite end plates Each section two plates, $10^{\prime \prime}$ spacing. with rounded corners. Low loss bakelite base with two holes for base mtg. can be removed and each section used as separate condenser if desired. 6-32 threaded stud projects from back of each section, $1 / /^{\circ}$ shaft Overall size: ${ }^{13} 16_{16} \times{ }^{17}, 10^{4} 4^{7}$.
5B3503-
Your Cost
$59^{4}$

(A)

(C)


## PHOTOFLASF COMPONENTS

## Eid-Voltage Power Supply

(A) Type PS-1 power supply. Simple and safe to use, sealed-in metal (A) case. Only three terminals to connect. Porcelain stand-off insulator for bigh-voltage output. Input 117 v 60 cycle AC, output will charge Wapacitors to $\mathbf{C 1 9 8 9 - Y o u ~}$
s11.14

## Energy Storage Capacitors



Small lightweight units for use with the PS-1 power supply. Peak volts 2250 , energy storage 7.6 watt-seconds, 3.2 mfd . Professional results can be obtained by the use of 8 or 10 capacitors in parallel, good results with as few as 6 connected in paraliel. Increasing number of capacitors used gives increased light intensity. Approximately 15 seconds required to charge 8 capacitors. Size: $4 \times 2 \times 1 / 4^{\circ}$ 5 lbs.

## c1029-Your Cost Each

## AMGLO Photoflash Lamps

C. Light intensity rated 100 times that of sunlight. Superb results ( with either Kodachrome or Black and White. Many thousands of flashes per bulb. Duration of flash less than one ten-thousandth second get clean action shots. High color temperature, $6500^{\circ}$ Kelvin with standard circuats, closely simulates daylight. Requires standard 4 -prong radio tube socket
C10582-Type 51Q4X Energy rating $40-60$ watt-scconds. For use with PS-1 power supply and up to 8 Plasticon capacitors listed above. Your Cost,
\$13.23 Each
D) C10583-T use with
listed above.
$\$ 1470$
NOTE: See other pages of this catalog for listings of additional photo flash equipment: Transformers, condensers, relays, thyratron control tubes.


Tire Static Neutralizez PowderConsists of simple injector and bags of anti-static powder, made under patent license from U.S. Rubher Co. When injected into tire eliminates static from car radio, eliminates the electric shocks obtained when you step out of a car and touch the door handle, eliminates spark
bites in inner tubes. Powder packed in individual bags, one for each bites in inner tubes. Powder packed in individual bags, one for each tire, including spare. Tire need not be completely deflated to inject. Simply screw injector into valve, fill with powder, and blow air into tire, through the injector, with air hose at filling station. Powder is effective during the entire life of the inner tube. C15540-Injector and 5 bags of powder. Your Cost
$\$ 1.50$ C15581-Powder only, sufficient for 5 tires.

## TELECTRONIC Induction Telephone Pickup



Picks up telephone conversations. Simply place the phone base
either cradle or upright type, on the pick-up platform and connect the leads of the pick-up to the high-impedance microphone input terminals of any audio amplifier. When used for Public Address work, a speaker at home or in another city can address large audiences with out special phone circuits; or use it to record important telephone conversations
C22506-Your Cost .
$\$ 29.50$
Dealers Are Invited to Write for Quantity Discounts

## PLASTICON Glass Mikes




## 3 Section Side

## Cowl Antenna

$96^{\circ}$ Ends from $31^{1 / 1 / 2}$ to $96^{\circ}$, with three sections. Special shims eliminate rattle and vibration. Two-hole universal mounting. Bakelite body insulators have grommets to insure acgrommets to insure ac-
curate fit. Moistureproof braided shield ead-in. Chromium plated finish.
C22037 Your Cost

## \$1.89

## Vertical <br> Antennas

Copper tubing, olive drab painted, three section vertical antennas, each section 4 feet long with threads to screw into next section. Total next section.
length approx. 12 ft . when assembled. Tapered along complete length from ${ }^{30}$ dia.
to $389512-\$ 1$

## Two-Section

 Antenna
## Goose Neck Type

Overall size $34^{\circ}$. Made of 2 brass sections with an extended length of $24^{\circ}$ mounted on a $7^{\circ}$ flexible base which permits adjustment to any angle desired. Collapsed -measures only $17^{\prime \prime}$ Threaded mounting rod extends $3 / 4$ " below base. Connection provided for grounding. Finished in olive drab. Ideal for ultra high frequency portable transmitters and receivers.

## $5 \mathrm{~B} 9539-5 \in$ Your Cost.

## Ground Rod

Made of
$\%^{\prime \prime}$ of heavy steel $16^{\circ}$ long and for each dia. Has pointed end 587099 Your Cost. . Y\&



## SOLAR Heavy Duty Line Filter

(A) Power line disturbances caused by refrigerators, oil burners, fluorescent fixtures, barber equipment and other electrical devices are filtered out or eliminated at the source. Building power lines should be protected from radio interference by connecting filter between unit and line. For example oil burner to filter and filter-to line. If source cannot be determined, then connect between line and radio. Case should be grounded with terminal provided. Inductance-capacity type to provide heavy-duty filtering up to 20 amps at 115 VAC, 600 20. Five terminals, center terminal ground. Dimension $23 /{ }^{\circ}$ wide, $21 / 6^{\circ}$ high.
5 B3218-Your Cost.
s1.79

## 6 Volt Vibrator

(B) Replacement for Mallory 294, 4-4, Radiart 5300, SO-1, Utah 5B3950-Your Cost

## "Zip" Wixe Stripper

©Strips wire instantly! Fasten wire stripper to bench or other length. Pivoted bustable stop enables wire to be stripped to any Suitable for any wire up to 12 MM diam. Size: $2 \times 2 \times 21 / \mathbf{x}^{\prime \prime}$. 75 \%


## STANWYCK Midget FM Coils

(A) Complete 10.7 mc IF coils and discriminators in aluminum cans. (A) Carefully engineered for best selectivity and maximum audio fidelity. Compression mica trimmers. Each trimmer paralleled by ceramic capacitors. Extremely stable high quality assembly. Can $8 / 4$ ${ }^{\mathrm{sq}} \mathrm{Ci} . \mathrm{X}{ }^{17}{ }^{\prime \prime} 3^{\prime \prime}$ Coil Your Cost

Cost
$\$ 1-23$

## CENTRALAB HI-KAP Ceramic-X Capacitors

(B)

Longer life, better performance. Extremely small and compact. DC working volts 600

| Stock No. | Mfd. | Each | Stock No. | Mfd | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C1000 | . 00005 | 15 c | C1005 | . 00075 | 15 |
| C1001 | .0001 | 15c | C1006 | . 001 | 15c |
| C1002 | . 00015 | 15c | C1007 | . 002 | 15 |
| C1003 | . 00025 | 15c | C1008 | . 005 | 18 |
| C1004 | . 0005 | 25c | C1009 | . 01 |  |



## Save Money On All Your Photographic Needs!

## CONCORD CAMERA CATALOG

## For Everything in <br> Photography at

Money-Saving Prices
The new, post-war Concord Camera Catalog has everything. Here is a partial list of the brand-name items you'll find ready for immediate delivery

American Bolex - Ampro Ansco - Ārgus
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MALL COUPON NOW!

Line Cord Resistors


Flexible，sturdy cords for AC－DC radios，tield supplies，plono oscil－ lators，etc．Ratings are at 3 from your line voltage gives total voltage applied to tube filaments． No Ohms Voltage Irop $\left.\begin{array}{llll}\mathbf{C 5 3 2 2} & 135 & 40.5 & \text { volts } \\ \text { C5332 } & 150 & 45.0 \text { volts }\end{array}\right]$ $\begin{array}{lll}\mathbf{C 5 3 3 1} & 160 & 48.0 \text { vots } \\ \mathbf{C 5 3 2 3} & 180 & 540\end{array}$
 $\begin{array}{lll}\mathbf{C 5 3 3 4} & 220 & 66.0 \text { volts }\end{array}$ $\begin{array}{lll}\text { C5325 } & 250 & 75 .() \text { yolts } \\ \mathbf{C 5 3 2 9} & 280 & 81.0 \text { volts }\end{array}$ $\mathrm{C}_{5242} 310 \quad 93.0$ volts
 C5320 $\quad 560 \quad * 78.75$ volts ＊This cord usecl in 3－way portable 15 amp．drain．
Your Cost Each．．．．．654

UNIVERSAL Resistor Cord


A replacement cord for all makes of receivers．One cord lits any type set．Any nornally used re－ sistance from 22 to $3: 10$ ohms in one cord．Complete instructions supplied with each cord．Ideal
 Special AC－DC Cords With Pilot Light Tap
Like above，but 4 －conductors， with pilot light tap．Tinned leads． Stock Total Tapped at Your No．Ohins Ohms Cost $\left.\begin{array}{lll}\text { C5334 } & 110 & 24 \\ \text { C5335 } & 180 & 25 \\ \text { C5336 } & 2200 & 40 \\ \text { C5337 } & 2(4) & 25\end{array}\right\} \quad$ Each

| C5337 | $2(4)$ | 25 |
| :--- | :--- | :--- |
| $\mathbf{C 5 3 3 9}$ | 280 | 40 |$\quad$ Each

## 220 Volt to 110 Volt Line Cord Resistor



American corrl equipped witly standard male plug and female recentacle．European type has ceptacle．Indispensable to serv－ icemen abroad．Can be used on shavers．handblowers，small ra－ dios＇up to 7 tubes），and small apoliances
C5243 Standard 300 ohm for sets using .3 amp．tubes，if）ma plate supply．Tot．cap． 350 ma ． C5245－Standard forcign C5245－Standard． 5 sets using ohms for sets using ． 15 amp．tubes， 50 ma． plate supply．Tot．cap． 200 m C5233－Same but foreie
Your Cost Each
$\$ 1.41$

## Genuine Mazda 6－Volt

 Edison Base BulbsEdison base light bullis for use in 6 －volt lighting cir cuits．Inside frosted．
C1255－ 15 W. Draws 2.5 A
C12256－ 25 W. Draws 4.2 Eithe！Type， Eithe
 C13300－
Your Cos

JFD Exact Duplicate Ballast Tubes

1The following listing of ballast tubes will servibe 38\％of the sets requiring replacement ballast tubes． Each tube is an exact plectrical and physical duplicate of the oricinal ballast tube，and will fit right into the set without the necessity of cutting pins，etc．，and eliminate the possibility of choos－ ing the incorrect ballast with re－ sultant burning out of tubes，etc．

| Type | Type | Typ |
| :---: | :---: | :---: |
| 5042 | 165R4 | 320 R ： |
| 50 B 2 | 2（0）R | W． 45788 |
| 100－70 | 2501 R | W 11516 |
| 100－i7 | $3(0) \mathrm{R}$ | W 16773 |
| 100－79 | 300 R 4 | M8689 |
| 16512 | 330 R |  |
| C10348－Any Above Type． Specify Type． Each |  |  |
|  |  |  |
|  |  |  |

Specify Type
Each

| Type | Type | Type |
| :---: | :---: | :---: |
| 11 K 42 B | BK49C | K55C |
| 13 K 42 C | BK 19D | Li5B |
| 13K42D | K 191） | $\underline{5} 5$ |
| K4213 | K 191 I | L5．5D |
| K12C | L－198 | 122 A |
| K42D | 1，4， C | K 51 B |
| L4213 | 551 | 1．67C |
| 1－A3C | 13K55C | K80B |
| L12） | BK55D | 2UR＇2 |


C10349－Any above typ $\underset{\text { Epechify Type．} 54}{ }$

## Ampexite AC Voltage <br> Regulator Tubes

Exact units for popular sets．

| $\begin{array}{c}\text { Stock } \\ \text { No．} \\ \text { Nops．} \\ \text { No．}\end{array}$ | For Use in |
| :---: | :---: | :---: |
| Models |  |

$\frac{\text { No．}}{\text { C12455 }} \frac{\text { No }}{9-20} \frac{\text { Models }}{13 \text { runswick } 11,21,31}$ 13rem．－Tully S81，

C12456 11 －20 13 runs．S14，S21
21245 Prem．－Tully 82， 8.4 C12457 M0 Najestic \％Scries Your Cost Each， $73^{\text {c }}$ Any Above Type
C12220－Amperite No．35000． For RCA 1＇art M86892－9． Each 73c

## Variable

Voltage Regulators
Designed for use WC＇instruments AC instruments to compensite for
irregular line volt－ age．These units
 will fit any stand－ ard 110 volt outles．Compact． neat appearing and well con－ structed，these voltage regulators will lengthen tulx life in receivers and protect components．The ma－ ority of reccivers used torlay de－ velop troubles due to excess pri－ mary voltage．lise of these de－ mendable regulators will insure ong trouble－free service when ong trouble－free service when properly adjusted．Maximum dis－ spation is listed below．Model 211 is wound with high quality alloy wire on ank insulated metal ore with the winding encased in Di－el－ite Adjustable five different positions．Mrdel 2113 has air cooling features which promote rabid！heat dissipation．Ilas 8 pocitions．

| Stock | Type |  |  |
| :---: | :---: | :---: | :---: |
| No | No | Watts |  |
| C12521 | 211 | 65 |  |
| Lots of | Ea |  |  |
| C12522 | 211 | 15 |  |

## Foreign Plug Adapter

One end of the receptacle designed for standard American plug；other end has round type contacts to plug into

174

## BALLASTS AND RESISTOR CORDS

 C7037 Type C7039 BM149B C7040 B．155B C7041（＇02 C6860 2 1 R215 C6859 Kㄴㄹ below

## Reliance Ballast Resistors

For use in all AC midget sets．Stock up at this low

Your Cost Each
 C7042 к80日 Type C7C43 14 C7044 L42D
＊Indiates alass or metal type， 4 －prons；others metal，oct

## JFD Air－Cooled Adjustable Ballast Kit


landy new kit of adjustable AC．DC hallasts in air－
cooled perforated metal tubes，designed to replace more than 2 F00 different types of ballast tubes， Contains 2 Type＂$A$ ，＂ 2 Type＂B，＂and I Type＂C＂ ballasts，with book giving complete instructions and replacement data．Shpg．wt． 2 lbs
$\$ 4241$ REPLACEMENT TUBES FORABOVE KIT C6856－Type＂$A$＂．Ballast 8 Prong Octal C6857－Type＂13＂Ballast 8 Prong Octal C6858－＂1ype＂C＂Ballast 4 Prong
J．F．D．REPLACEMENT CHART

\section*{| U＇se | To Replace Types |
| :---: | :---: |
| Type | Besinning Witl | <br> Beginning Witlis}

Numbers
Ending With
K．L．M or 13
B1，or BM
10 to 42 A，I3，C，D，F，（；or II
4．2（0） 105 A，B，C，D，F，G，M，S1，S2，S3 K． 5.5 ，14012， 16.312 and 1851 R series．


## AMPERITE AC－DC Ballast Tubes

By using these fine regulators，tubes are kept to within $5 \%$ of their correct voltage，even if the line varies from 85 to 5 volts．Furnished complete with starting resistor that saves pikot lights and tubes．All KL types are octal base．
Asterisk indicates special unit
$73^{4}$

| － |  |  | Tヶbe |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Type | C12226 | 2．50R＊ | C12245 | KL－45． | C12234 | K1－75 |
| C12239 | 3－411 | C12227 | $320 \mathrm{R}{ }^{*}$ | C12237 | K1．－551 | C12222 | L．55B |
| C12238 | 4P－1． | C12228 | L，15； | C12236 | KL－601 | C12221 | KL．50E |
| C12224 | $165 \mathrm{R4}$ | C12233 | K上， | C12229 | K1－－心く1 | C12450 | BK 51 DJ ＊ |
| C12225 | 20012 | C12235 | K］．－2．5I | C12230 | KL－50ㅇ | C12452 | 100－77＊ |
|  |  | C12232 | KIL | C12223 | KL－．0S3 |  |  |

C12225
REPLACES ALL AC－DC BALLASTS

| Type | Beginning With | Numbers | Ending With |
| :---: | :---: | :---: | :---: |
| KL－25 | K，L，M or 13K | 10 to 36 | A，B，C or D |
| KL－23H | K，L，M or 13K | 10 to 35 | $\mathrm{F}, \mathrm{G}$ or H |
| K1．－5 | K，L，M or 13 K | 36 to 67 | A，B，C or D |
| KL．－JOH | K，L，M or BK | 36 to 67 | or H |
| K1．75 | BL or 13M | 67 to 105 | A，B，C or D |
| K1． 7511 | K，L．M or 13K | 67 to 105 | G |
| K1． 0 OS | K or 1. | 40 to 100 | Sl |
| K1．－6） 2 | K or L | 40 to 100 | S2 |
| K1．－5ins | K or L | 40 to 100 | S3 |
| K1．．0E | $k$ or L | 36 to 67 | E |

Type 4P－45－4 Prong replaces the following types： $50 \mathrm{~A} 21101281101+1 \quad 1 \times 1213 \quad \mathrm{KX493} 1 \mathrm{~L} 49 \mathrm{C}$


5B Type 3－40－4 Prong replaces the following types：

## Combination Antenna Wire and AC Line Cord



Combination 3 －wire 115 －volt $\Lambda \mathrm{C}$ line cord and antenna wire．Eliminates unsightly aerial wires makes table model radios casy to move．Special female socket will fit sets radios made by Sonora，Belmont，Sentinel and Admiral．Well insulated cloth covered wire， 6 feet long． C5232－Your Cost


STANDARD AND HEAVY DUTY $\overline{45}$ Voit

## ＇B＇／Batteries

Super B batteries have oversized cells and are built to give maximum service．Both Regular and Super types available with Fahnestock clips or with sockets for standard battery plugs．Plugs not included．

Standard Duty 45V．（Tapped at 221／2V．）



Heavy Duty 45V．（Tapped at $22^{1 / 2} \mathrm{~V}$ ．）

|  | 824 | 10308 | $714 \times 8$ x | 1211s． | 6 | \＄2．19 | 52.41 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C19832 | C19822 | 2130 | 78／6x81／8x ${ }^{1 / 2}$ | 1413s． | 6 | 2.48 | 2.73 |

Light Duty Radio＂B＂＇Batteries
Binding post terminals． 5308 has insulated terminals， 4156 plain brass All give exceptionally long service for their weight．

| Stock | Buge |  | W W | Shpg． | Sd | Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | No． |  | H．W．D． |  | Pkg． | Ud．Ph | Single |
| C19861 | 5308 | 45 |  | 4 | 10 | \＄1．50 | 5 |
| C19863 | 4156 | 221／2 | $3 \times 3$ | 21 | 10 | ． 91 | 00 |
|  | A15S | 221／2 |  |  |  | \＄1．07 | 8 |
| C20683 | X30X | 45 | $16^{\times 1}{ }^{3} / 6{ }^{4} 4^{11} 16$ | 12 o |  | 2.60 | 2.86 |
| C19865 | Z30N | 45 | $\times 17 / 8 \times 4175$ | 16 oz | 10 | 1.62 | 1.78 |

## STANDARD＂C＇s BATTERIES

Dependable．long life batteries especially designed for receivers，amplifiers，etc．Also used in test equipment．
Burgess Type 2370 and 5156 are available with either knurled top bind－ ing posts or with sockets to take standard battery plugs，Type BコBPX screw terminals．Others available only with binding posts．

| Stock No． Posts Söckets $\dagger$ |  | $\begin{gathered} \text { Burgess } \\ \text { No. } \end{gathered}$ |  | $\begin{aligned} & \text { Dimensions } \\ & H_{i} \quad W . \quad \text { D. } \end{aligned}$ | $\begin{aligned} & \text { Shpg. } \\ & \text { Wt. } \end{aligned}$ | $\begin{aligned} & \mathrm{Std} . \\ & \mathrm{P} \mathrm{~kg} . \end{aligned}$ | Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | d． $1^{\text {² }} \mathrm{kg}$ ． |  |  |  |  | Sing |
| C19866 |  |  | 5360 |  |  |  | 10 | \＄0．30 | 10 |
| 67 | C19827 | 2370 |  |  |  | 10 | ．S2 |  |
|  |  |  |  |  |  | 0 |  |  |
|  |  |  |  |  |  | 0 | 1.19 | ． 31 |
| C20686 |  |  |  | 2988 ${ }^{13}$ 价现 | 21／2 |  |  |  |

＊Tas spring clips．＊Tapped at $3,41 / 2,16,221 / 2 \mathrm{~V}$ ．†Less plug．
NOTE：Pugs for batteries above are listed at right
IGNITION－LANTERN－TELEPHONE BATTERIES


## PERSONAL RADIO＂A＂BATMERE

Type No．2R．Not an ordinary flashlight cell， Designed and constructed especially for use in personal radio A service．Will outlast regular flashight cells when used in continuous duty listed above．


| Stock No． | $\begin{gathered} \text { Burgess } \\ \text { No. } \end{gathered}$ | Volts | Shpg． <br> Wt． | Size |
| :---: | :---: | :---: | :---: | :---: |
| C19858 | 4 FH | 11／2 | 11／2 ${ }^{\text {l }}$ bs． | $25 / 8 \times 28 / 8 \times 4{ }^{5} 16^{6}$ |
| C19846 | 4 F 2 H | 3 | 3 tbs． |  |
| C19837 | 4F4H | 6 | 7 lbs ． | $23 / 4 \times 1 / 4 \times 63 /{ }^{\circ}$ |
| C19838 | F4H |  | 13／4 lbs． | $25 / 5 \times 2$ \％$\times 37$ |
| C19839 | 4 F 5 H | 71／2 | 8 lbs． |  |
| C19841 | 4 F 6 H | 9 | 91／9 lbs． | $81 / 2 \times 3{ }^{31 / 22 \times 5} \times 12 / 10^{\prime \prime}$ |

LITTLE NO． 6 BATTERY


Type 4FH－11／2 volts．Utility type for ignition，telephone， type radio＂A．＂service．Ke： places round No． 6 cell．Size： $28 / 8^{\circ} \times 25 / 8^{3} \times 45 / 16^{\circ}$ ．Shpg．wt．．
$11 / \mathrm{l}^{2} \mathrm{lbs}$. $11 / 2$ lbs．
C19858－Each．．．． 4 th each

FLASHLIGHT CELLS
No．1， 2 and Penlite cells con－ rructed for intermittent use in anterns and flashights．
C20621－No． 1 cell． $17 / 8 \times 1^{\circ}$ ． C20622－No． 2 cell． $2 \frac{8}{3} \times 15 / 6^{\prime \prime}$ ．
 $6^{1 / 2}$


Either Above
Each．


RECOGNIZED BY THEIR STRIPES－REMEMBERED FOR THEIR SERVICE－BURGESS batteries have been used for many years by governmental departments and commercial organizations demanding superior quality and performance． There is good reason，too．These batteries are made only of the finest materials available and to the highest standard of the industry．Only high quality cells pass the acceptance tests．
Concord＇s terrific turn over and volume of business are assurance that you will receive only fresh，in－date batteries at the peak of their service life．

## RADIO＂A＂BATTERIES

| Stock No． | $\begin{aligned} & \text { Burgess } \\ & \text { No. } \end{aligned}$ | $\begin{array}{\|c} \text { Termi- } \\ \text { nals } \end{array}$ | Volts | $\begin{aligned} & \text { Shug. } \\ & \text { Wt. } \end{aligned}$ |  | W－ID－II Size |  | $\begin{gathered} \text { Your } \\ \text { Cost Ea. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C19844 | F2BP | Screw | $\begin{aligned} & 3 \\ & 111 / 2 \\ & 3 \\ & 6 \\ & 11 / 2 \\ & 3 \\ & 3 \\ & 3 v . \end{aligned}$ | 12 oz ． |  |  |  | \＄0．48 |
| C20678 | 2 FBP | Screw |  | 12 oz ． |  |  |  | ． 48 |
| C20679 | 2F2BP |  |  | 1 1b． 5 oz ． |  |  |  | ． 73 |
| C20680 | F4BP | Screw |  | $1 \mathrm{lb}$.6 oz ． |  |  |  | ． 47 |
| C20681 | 44 | Screw |  | 10 oz ． |  |  |  | 0 |
| C20611 | 422 | Spring |  |  |  |  |  | 44 |
| C20685 | 132BP |  |  | 3 oz ． |  |  |  | 4 |
| C19828 | 2012 | re |  | 15 lb ． |  |  |  | 3.31 |
| ＂A＂and＂B＂ |  |  |  |  |  |  |  | AIDS |
| Stock No． | $\begin{array}{c\|} \hline \text { Burgess } \\ \text { No. } \end{array}$ | Volts | Shpg． Wt． | Size |  | $\begin{aligned} & \text { Std. } \\ & \text { Pkg. } \end{aligned}$ | Price EachStd．IMg．Single |  |
| ＂A＂＇Batteries |  |  |  |  |  |  |  |  |
| C20688 | 1ES | 11 | 2 oz． | $15 / 16 \times 31 / 5 \mathrm{di}$ |  | 60 | 50．051／2 | 2 $50.071 / 3$ |
| C20689 | 2 ESS | 113 | 5 cz ． | $2^{13}{ }^{16} \times{ }^{15}{ }^{5} \mathrm{di}$ |  |  | ． $06.1 / 2$ | 2 ． $1971 / 2$ |
| C20691 | TE | $11 /{ }^{1}$ |  | 37／3 $\times 11.16 \mathrm{di}$ | am． | 96 100 | ．131／2 | 2 ． 19 |
| C20687 | 2ZE | 11／2 | $11 / 2 \mathrm{oz}$ ． | $11 / 8 \times 19$ ¢ $\times 12$ |  |  |  | ． 14 |
| Standard＂B\％＂Batteries |  |  |  |  |  |  |  |  |
| C20693 | X $\times 22$ |  | Oz | $23 / 8 \times 12$ 价 $\times$ ？ |  | 10 | ． 96 | 1.13 |
| C20694 | XX30E | 45 | 7 oz | $21 / 2 x^{29} 90 x^{3}$ | 3170 | 20 | 1.15 | 1.35 |
| C20677 | U10E | 1.5 | ${ }_{2}{ }^{\text {a }}$ oz． | $1 \times 2 / 6 x$ | 15，${ }^{2}$ | 20 | ． 52 | ． 57 |
| c20676 | U15E | 221／2 | $21 / 2 \mathrm{oz}$ ． | $\times{ }^{\text {－16x }}$ x | $1{ }^{1 / 2}$ | 20 | $\cdot 64$ | ． 81 |
| C2067S | U20E | 30 | 3 oz | $1 \times 16$ | 7／201 | 20 | ． 76 | 34 |
| For Western Electric Ortho－Technic Models |  |  |  |  |  |  |  |  |
| C20699 | T2WE | 3 ${ }^{1}$ |  | 13 价 $\times 2{ }^{27}$／9 $\times 4$ |  |  | ． 49 | ． 57 |
| C20698 | T3WE | $41 / 212$ | 2 oz ． | $13 / 15 \times 31 / 4 \times 4$ |  | 12 | ． 58 | ． 67 |



## STANDARD BATTERY PLUGS

Fit any make of dry battery．Check specifications carefully．When in doubt．give make and model number of battery on your order so that we can determine the correct type of plug you will require．

| No． | Illus． | Description | Used With | Ea． | $\begin{aligned} & \text { Lots } \\ & 10 \mathrm{Ea} . \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C20591 | （1） |  | 45 V ．＂B＂Batte | 9 c | \＄0．81 |
| C20592 | （2） | $\begin{aligned} & 3-\text { prong } \\ & 3 \text { - } " \mathrm{C} \text { " } \end{aligned}$ | $43.6 V^{\circ}$＂ $\mathrm{C}^{\circ}$ Batteries | 10c | ． 90 |
| C20593 | （3） | 5 －prong＂C＂＂ | $221 / 2$ \％＂＂C＂Batteric | 16c | 1.4 |
| C20590 | （4） |  | $41 / 2$ V．＂A＂Batteriea | $5 c$ 58 | ． 35 |
| ${ }^{\text {C20595 }}$ | （5） | $2 \text {-prong "A" "A" }$ | 11／2 V．＂A＂Batter Portable＂B＂Batt | 5c | ． 3 |
| C20596 C20597 | （6） | $\begin{aligned} & \text { 3-prong " } \mathrm{B} \text { " } \\ & \text { 4-nrong " } \end{aligned}$ | Portable＂B＂Batter | 7 c | ． 5 |
| C20598 | （8） | ${ }_{2}$－prong＂ A ＂ | $6 \mathrm{~F}^{6}$＂A＂Batteri | 5 c | ． 3 |
| C20599 | （9） | 4－prong＂A\＆B | Comb． 6 V．＇＂A＂\＆ 90 | 8 c |  |



ID

## SELENIUM Battery

## Eliminator

(A) Designed to replace "A" and A.m torteries in portable and larm set so that they may be used in the home directly from the house current j'rovides complete ly filtered and humfree reception. Excellent for modernizing all hat tery receivers using from 4 to 7 tubes. Operates from 110 volt. 60 cycle a c. lines. Contain no liquids and can be used in any any position. As easy to instald as batlerics. Universal sockets for no tupes of battery plugs. "ses A " and " 1 " power for farm or portable power uaing 4, 5 or 6 tubes. Desets uink ${ }^{1}{ }^{5}$ or 6 tubes. 90 " $13^{\prime \prime}$ " voltage. Size $24,8 \times 4^{1} 2 \times 6 \% /$
Shpy. wt. 5 lbs.
C15708
Your Cost
$\$ 9.85$
Same as above but uses tube rec citier.
Your Cost
$\$ 8.82$

## STANCOR Model 752

 Power Pack(B) Provides well filtered 6 volt He 12.5 amp. supply for autombile radio serpcing or sales demonstration, effectively operate's push button tuning atuto sets, for industrial and laboratory
testing All controls knobs yolt testing. All controls. knobs, voltmeter and terminals located on front panel. Can also be used for battery charging, magnetic lield exciting and electroplating. Op erates on 110 volts
criz240 Cost $\$ 43.90$

## GE "One-Day" 6-Volt Chargex

(C)

Alodern design. compact conse selenium rectitier tye piving highly elficient and extemely highly efficient and extremely quiet operation. Netivers $\frac{1}{}$ o amperes tapering charge. Equipped with durable AC cord, DC leads with battery clips, and pilot light to indicate operation. Capacity 3 cells. Dimensions $71 \% * *$
$\times 55^{\circ}$ depth. For 115 volt 60 ycle. Shpg. wt. 7 lbs.
Your Cost .... \$10.99 Lots of 6, ea.

## GE "Overnite" 6-Volt Charger

For car, truck and tractor Day" model but for use wher higher charging rate is required. lelivers 12 to $\hat{i}$ amperes tapering charge, will charge the average discharged hattery in 12 hours of wis697 Your cost $\$ 5.3$ C15697 Your C
Lots of 6 , each

## 5-Amp. Tungar Charger

 (D) Model 6R1326A1 for charg ivers 5 any 6 -volt battery Dehivers a anlperes and lapers of ashattery charges, preventing damhattery charges, preventing dam-
age to cells due to overcharging. age to cells due to overcharging. Fas receptacle for attaching to cat and ammeter so that battery can be chariged wit hout removing it from car. With tube and :ill ac-
cessories. For 110 v., 60 cyc. A.C. Shpg. wt., 13 lbs. C15699-1
Your Cost \$. 88



Model 6AC6

## 6-Volt Chaxger

(E)

Derines 6 to amperes tadisc rectifier. llas circuit breaker and large meter indicating rate of charge. "x814 $\times 4{ }^{1}$,". With AC cord, $D C$ cord and recrptacie dash mounting. $115 v$. 50 cycle AC operation. Shpg $\$ 10.42$ Model 6AC10 6-Volt Chargex
10 to 7 ampere charging rate Wheh will completey charg a hattery overnight. Employs a dryadisc rectiner, larger meter, circuit breaker and provision for thorough ventilation. With $6-\mathrm{ft}$. AC cord, $6-\mathrm{ft}$. DC cord and receptacle for dash mounting. Size: $6,4 \times 10^{3} 3 \times 5^{3}=115$ y, $50 / 60$ cycle AC. Shpg. Your Cost

## Model 12AC5

 12-Volt Charger(E) Heavy duty charger for 12volt batteries as used in aircraft, trucks. boats, buses, etc. Charging rate 5 to 3 amperes. Employs dry disc rectifier, meter, circuit breaker, and provisions for thorough ventilation. Complete with 1 C cord, DC cord and receptacle for dash mounting. Size: $63 \times 10^{3} \times 5 / 4$.
Chour Cost
C172.


## TUNGAR Bulbs

(F) "Ased in battery chargers place Rectigon bulbs of equal rating. 2 lb

C21900 A GE No. Rating Each | $C 21900$ | A | 289881 | 6 | Amp |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{C 2 1}$ | $\$ 2.94$ |  |  |  | C21901 ${ }^{\text {C }} 1206501$ 2 2 Amps. 2.94 C21904 В 20x C21903 I) 18.4019 Amps. 3.67 C21903 I) 1890196 Amps. 3.67 Tungar-Type Bulbs

C21907-Your Cost .... $\$ 2.2$ C21906 Your Cost.... $\mathbf{\$ 2 . 2 5}$ C21908 Your Cost ..... $\$ 2.5 \mathrm{~S}$ (D) -15 ลmp c21909. Your Cost . $\$ 4.50$ C21910. Your Cost . . . $\$ 11.25$ 6-Volt Battery Booster G Type 6AC4 Drydisc rectifier (G) type 4102 amperes tapering charge. Has external circui Mreaker with quick front resct Perforated for thorough ventila tion. With $6-\mathrm{ft}$. cord for light socket and a $4-\mathrm{ft}$. cord with clamp-on receptacle for dash mounting. Dimen.: $412 \times 71 / 2 \times 31 / 2$ deep. Finished in black wrinkle For 115 volts, 50,60 cycle a.c operation. Shpg. wi.
Your Cost.

# TUBEANDSET TESTERS 



## (G)

## WESTON Model 798 Mutual

 Conductance Tube Checker and Analyzer A) Cood-Bad or Mutual Conductance reading for all type receiving tubes. Volt-Ohmmeter-Millammeter section with most commonly used ranges for trouble-shooting. AC and DC volts $0-15 / 150 / 750$, DC Milliamperes $0-7.5 / 150$. Ohms $0-100,000 / 1,000,000$. 1,000 ohms per on senstivity on an AC and Werations. case with test-lead and tool compartment at left. Detachable hinged cover. Internal battery furnished for ohmmeter peration. Complete with Test Leads. For 105-125 volts i) cycles. Size: $17 \mathrm{~J} / \mathrm{a}^{2} \times 118 / 8 \times 61 / 8^{\circ}$ C21646 Your Cost\$204.05

## SIMPSON Model 330 Tube Tester

(B) For testing tubes in terms of percentage of rated dy namic mutual conductance. $4 \%$ meter with colored dial indicates good, fair, bad and doubtful. Sockets provided for all types of tubes. Ten push button and nine rotating switches provide infinite combinations in tube element and circuit selection. Tube clart for quickly identifying tubes and setting controls. Reset button returns al controls to normal position after use. c21714-Your cost
s96.53

## Model 330RCP

 Same as
C21719 Your Cost
$\$ 110.25$

## Model 305

(C) Emission type tester with 3 way switches makes it possible to test any type tube regardless of base or internal connections. Neon short iester, Line control from 100 to 130 volts. Size: $8 \times 10 / 4 \times 5$ B
\$48.51

## C21711-Your Cost

Model 305RCP
C2ame as above but wit
$\$ 58.31$

## GENERAL ELECTRIC Model YTW-1

## Tube Checker

(D) Tests all receiving type tubes on emission principle Extreme flexibility achieved through the use of element switches, allowing each element in a tube under test to be individually and independently connected to either side of the filament supply high or low side of 3 supply or disconnected entirely from all circuits. Hieh speed or chart placed beneath switches to indicate automatically correct position of each. Designed to expose immediately a tube with an open filament without usual warm-up a tube with an open flament without usual warm-up period. I'rotected by fuse on front panel. $41 / \mathrm{I}^{\prime \prime}$ meter with "Replace, I Doubtful and Cood"" sections in color. 1000 ohrms per volt DC volt metet with ranges of $0-10 / 100 / 1000$ volts. Modern, attractive steel case surfaced in grey
wrinkle finish. Size: $17^{3}{ }^{3} \times 12^{15 / 4}$. Shpg. wt. 15 lbs . For use on $105-130$ volts. $50 / 60$ cycles. C21581-Your Cost.
$\$ 5950$
EMC Mutual Conductance Tube Tester Checks mutual conductance of all tubes from 75 to 117 filament volts on a calibrated Micromho scale, as well as on a "Reject-Good" scale. Detects both shorted and open elements, checks for gas content. Complete switching flexibility allows all present and future tubes to be tested regardless of location of elements on tube base. Checks individual sections in multi-purpose tubes Tests for radio frequency and other noises. Individual sockets for each tube base type eliminate possible errors. Attractive four-color panel and large easy-to-read 3 meter.
(E) Model 200AC

In Sloping counter case. $12 \times 111 / 2 \pi 5^{\circ}$. Shpg. wt. 15 lbs.
C21582- Your $^{\text {Cost. . . . . . . . . . . . . . . . . . . . . }} 8$.
(F) Model 200AP

In hand-rubbed carrying case with compartment for storage of leads, etc. $121 / 2 \times 15 \times 51 / 2^{\prime \prime}$. Shyp. wt. 18 1bs. Your Cost

## PRECISION Model 920P Tube and Radio Analyzer

(A)A complete service laboratory including a dynamic mutual conductance type tube tester, battery tester and 33 range AC-DC multi-range set tester. Tests all type re ceiving tubes, all types portable dry batteries under proper load conditions, indicates when to replace. Rol type chart. AC and DC voltage measurements to 3000 volts. 1000 ohms per volt on both. ICC measurenents to 12 amps. Resistances to 10 megs. Decitrel readings to +64 db . Output readings to 3000 volts.

## c21700-Your Cost

$\$ 82.54$

## Model 912P Tube and Battery Tester

Same as Model 920P but less set testing feature. Shpg. wt. 19 lbs .
c21702-Your Cost
$\$ 59.98$

## PRECISION Model 954P Tube, Battery, Set Tester

Same as Model 920P but with the following features: 20,000 ohms per volt DC meter, AC and DC voltage ranges extended to 6000 volts, Resistance ranges to 60 Megohms, Decibel ranges to +70 db . IDC Microamp 0/60/300.
C21584-Your Cost.
\$97.22

## PRECISION Model 915 Tube and Battery Merchandiser

(B) Tube and battery testing features same as Model 920P but with case and external features designed for mer chandising tubes and batteries. $9^{\circ}$ square meter with easy reading three-colored scale indicating Replace-Weak Good. Full vision roller tube chart. Attractively finished in black ripple with chromium trim and meter lamp reflector. Case of heavy gauge steel. Size: $23^{\circ}$ high, $16^{\circ}$ wide. Bottom depth 10,* tapers to $4^{\circ}$ 30 lbs.
C21585-Your Cost.
$\$ 8972$


## SUPREME Model 504B Tube and

## Set Tester

(C) Small compact unit combining functions of tube tes ter, multimeter, condenser checker and battery condition ter, multimeter, condenser checker and battery conclition tester. Checks all tubes including loktals, octals, miniatures, data supplied by Mfr. for one year at no extra tube data supplied by Mfr. for one year at no extra charge. Rotary tube chart and ArrowWay indicator system. Rheostat line adjust ment. Section checks may be made on multi-section tubes. Large $4^{\prime \prime}$ meter with GoodBad reading in addition to other ranges. Push-button selector system. Measures DC volts 0 to 2500 volts in 7 ranges at 1000 ohms per volt. AC volts in 5 ranges from 0 to 1000 volts. DC current ranges of $0-500$ microamp. $0-2.5 / 10 / 50 / 250 \mathrm{ma}$. and $0-1-10 \mathrm{amps}$. Lowest reading 10 microamperes. Output volts measured in 5 ranges 0 to 1000 volis. No external condenser necessary. Ohmmeter with 5 ranges of $0-200 / 2000 / 20,000$ ohms and $0-2 / 20$ megs. Lowest reading .1 ohm. Con denser tester covers electrolytics and papers including high voltage filters and low voltage high capacity by pass condensers. Checks under normal working voltages Battery tests provide proper load for nost commonly used $A$ and $B$ batteries. Condition of battery is read on English Scale. For use on 100-1:33 volis, $50 / 60$ cycles Size: $148 / 8 x^{8121 / 8 x 47 / 8}$. Shpg. wt. 20 lbs . $\$ \$ 771$

## SUPREME Model 599A Tube and Set Tester

(D) Emission type tube checker with patented Double Filament Return selector system which is your guard against obsolescence. New tube data supplied by mir. at no extra cost. Roller chart, Arrow-Way indication system. Ranges $0-6 / 15 / 150 / 600 / 1500$ volts DC at 1000 ohms $/$ volt $0 / 5 / 150 / 600$ volits AC, $0-6 / 60 / 600$ Milliamperes. Output volts 0 to 600 volis. Resistance to 20 megs. in 4 panges. Paper condenser checks on high resistance range. ranges. Paper condenser checks on high resistance range. Portable
C21754-
\$61.25
Model 589A Tube and Battery Tester Same as Model 599A but less set testing features. Shpg.
wt. 10 libs. Your Cost. . . . . . . . . . . . . . .
C21753-Y


## TUBEANSET TESTERS

## HICKOK Model 534 Tube and Set Tester

(A) All purpose mutual conductance tube tester and se operating conditions. Voltake ranges ( $(1-20) / 2(x), 5(1), 1000)$ 5000 volis AC and DC. 20,000 ) ohms per volt sensitivity 100,1000 ohm per volt AC. Resistance from 0.1 ohnis to 100 megs in 3 ranges. No batteries needed. Capacitance checks from (X) (X) to 100 mid . Checks leakage of electro yyics and paper condensers. Inductance checks to 100 henries with or without DC component. -10 to +50 DIB
scale. For 110 volts, 60 cycles Sizu: scale. For C 21452 Your Cost
$\$ 138.30$
Model 532P. Similar to Model 534
C21454

## Cost

$\$ 121.20$

## All Purpose Tube and Set Tester

Curacy do Model 53.4 but with additional features, a curacy, dependability of particular interest to the exact ing technicitm and laboratory engineer. Especially valuable for use at electronic installations where couipment C21586 Your Cos
$\$ 215.76$
RCP Model 802N Tube and Set Tester (B) A complact service shop ready to talke out on the job. $4 \frac{1}{2}$ " meter with large (rood-Had-Doubtful section for tube texting. Clear, easily read ligures for set testing. capacitors for leakage. Ranges: $0.10 / 50 / 5(1) / 1000$ volts DC or AC at lox0 ohms per volt. DC milliameter 0-1/10/ $100 / 1000$ ma., 010 amperes. Ohmmeter $0-500 / 5000 /$ 100, (00) ohris, 10 megohms. 100 , (000 ohm range battery operated. Wecibel measurements from -8 through +55 db . Output meter $0-10 / 50 / 500 / 1(0)$ volts. In handsome hand rubbed hardwood carrying case with compariment and self-latching cover, battery and test leads. Size: $13 \times 9^{1} 2 \times 5^{\circ}$. Shpg. wt. 15 lbs. for $100-130$ volts, $50 / 60$ C21587
Your Cost
\$58.31

## Rolindex Tube Chart Model 103

(1)

Tube testing data at a glance Designed to lit snugly MO2N. Crackle finish steel case. $3 \times 8 \times 23$ " C21588 Your Cos

## TRIPLETT Model 3413 Tube Tester

(C)

Multi-purpose test circuit provides for emission test comparison open element test and transconductance tubes, 站soous rectifiers hallat tubes. Tests all receiving shore indicator. Meter indicates and miot lamps. Neon Bad or lhoubt ful. Built-in roll chart. For 110 vol is, 60 cy Size: 10x10x51/2". Shpg. wt. 12 Ibs.

\section*{\section*{C21603} <br> <br> Your Cost <br> <br> Your Cost <br> (E) Counter <br> Your Cost

\section*{JACKSON 637 Dymamic T

## JACKSON 637 Dymamic T <br> $\square$ <br> Combination tube Dynamic Tube Tester

receiving and television amplitice tubes and has two spare socket presitions, spare switch pexitions and cir-
 method finds pror tubes which might otherwise indicate good. High plate voltagess used for accurate results. All readings dirct on Goxd-13ad scale. Jacks provided for audille noise tests. Includes hallast-tube and neon con timuity testers. Push buttons select ranges with ninimurn of test-prod relocating. DC and AC voltmeter ranges sensitivity. DB's from
$-10)$
to milliammeter, $0-1 / 10 / 100 / 250$. 1$) \mathrm{C}$ ammeter, $0-10$. Ohm meter, 0.30 meg in 3 ranges. Complete with test prods and self-contained hattery, in case with removable hinged C21601 - Dions $14 \frac{1}{6} \times 13 / 6 \times 6^{\prime \prime}$. Shpg. w C21601-
\$87.71

## RCP "Dynoptimum"' Tube Tester

Model circuit Easy to operate. Exclusive "Dynoptimum circuit requires only 5 controls. Permits accluding the new miniature and suth-miniature receiving ylus. Provisions for checking individual sections of of tube noises. Neon lamp provided for headphone tests cakaye noises. Neon lamp for cyuick tests of shorts and cakake between elements. Operates on 100-1:30 volt, 50 to n) cycle AC power supply. Model 322 is open-face, in o. Shpg. wt. 1 Illibs.

## C21599- <br> Your Cost

$\$ 37.19$
Model 322 P in steel carrying case with detachable cover. C21600 Your Cost


(A) Permits

## R.C.A. RIDER Chanalyst

 (apere Any point testrd without interrupting operation of receiver Various conditions can bepting mined at tube elements while signal is present. Checks mined at tule elements while signal is present. Checkspresence or absence of signal. operating and control presence or absence of sixnal. operating and control voltages. Oncration of various types of filter circuits checked at radio, intermediate and audio, frequencies. Lucates failure's in minutes instead of hours and solves the problem of intermittents quickly and more pexitively
 oscillating AF stages and finds sources of noise. Complete with test leads prods and complement of 12 tuhes. Ciray crackle finish, steel case with carrying handles. Sx1fix $10 \frac{1}{4}$.. . Shpg. wt. 28 lbs .

## C21666

$\$ 162.50$

## JACKSON Model 655 Audio Oscillator

(Not illustrated.) Provides both AF for radio and sound work, and supersonic for bactericides, homowenizers, sonar, etc. $2(0)-2(x),(x) x)$ ciss in 1 ranges, accurate to $3 \%$ Permanently locked calibration of the R-C tuned circuit, no zero adjust. necessary. Fundamentals only, no har-
monics. 1 ransformer-counled or resistive outputs, immonics. iransformer-counled or resistive outputs, im-
pedances $10 / 250 / 500 / 51(k)$ ohms or continuously variable. Cutput power with transfornier coupling from 20 to $20,000 \mathrm{cps}$ is $1 / 2$ watt. Flat response curve, $\pm 1 \mathrm{db}$ from 30 to 15,000 cps with transformer coupling. Less than $5 \%$ waveform distortion from 30 to $15,0(0) \mathrm{cps}$. Hum down 60 db from maximum. Stable, large line-voltage changes do not affect frequency, waveform. or output voltage. Comes complete with its 5 tubes c21602
C21602-
Your Cost
s122.50

## MEISSNER Analyst

(B) New, Improved. Most modern complete servicing instrument on the market. Locates faults by signal
tracing nethod. Five separate channels, all of which may be operated at the same time. 4 range electronic voltmeter, wide range audio test channel, oscillator troubleshoxter channel. 95-1700 KC RF-1F test channel and the current indicator channel Controls accurately calibrated. Aligned and laboratory tested Complete with 12 tubes and ready for service. 110 volt, 60 cycle. Includes test calles, prods and instruction book. Size: $91\{2 \times 131 / 2 x$ $10)_{2}$. Shpg. wt. 35 lbs .
C21706
Your Cost

## $\$ 111.57$

## Analyst Manual

Contains a general discussion of the Analyst and its capabilities: schematic circuit; instructions on servicing C19994 Your Cost

## HICKOK 156 Indicating Traceometer

## (C) Permits operator to rapidly trace signal through re- <br> ceiver from anicnna to speaker. Operaton of RF, mix

 er, local oscillator, IF, detector", discriminator, limiter, AF and power supply can be checked simultaneously and without changing a test lead. Separate neters for each of tive channels. Built-in speaker for monitoring of IF RF , or AF channels. Vacuum tube volimeters cannot be damaged by overloads. Wattmeter permits measurements of power consumption from 0 through 150 watts. No test leads necessary. For operation on 105-125 volts, $50 / 70$ cycles. $14 \times 16 \frac{1}{2} \times 11^{\prime \prime}$. Shpg. wt. 32 lbs.
## C21590- <br> Your Cost

## ELECTRONIC MULITIESTERS

## RCA VoltOhmyst Model 195-A

(A) High values of resistance can be measured, constant protection against meter burn-out. Ranges: $0.5 / 10 / 50$. $100 / 500 / 1000 \mathrm{DC}$ volts at input impedance of 10 megs.; $0-5 / 10 / 50 / 100 / 500 / 1000 \mathrm{AC}$ volts on a linear scale; 0-1000 $10,000 / 100,000$ ohms $/ 1 \mathrm{meg} . / 10$ megs. $/ 1000$ megs. by using internal source of 3 volts, as an AF voltmeter has frequency response from 30 cycles to 100 KC . Input impedance 200 M ohms plus 170 mmid . $0-5 / 10 / 50 / 100$ volts -20 to +62 dh readings equivalent to volume nits for a reference level of 1 milliwatt across 600 -ohm line. FM alignment indicator with plus or ninus meter reading. New style easily read meter face 41 bs
\$79.50

## RCA Crystal Probe

(B) Designed for converting the DC circuit of any Volt Ohmyst to read AC so that voltages up to a frequency of 100 megacycles are indicated directly on the DC scale. C21775-Your Cost

## SUPREME Model 565 V. T. Voltmeter

 (C) A balanced highly degenerative bridge circuit. Negligible frequency error from 50 cycles to 100 megacycles. All ranges selected by push buttons. Zero adjustment control. Four-inch full-vision type meter. Fuse protected. Ranges: DC volts 0-1/2.5/10/50/250/500; megohms on 1-volt range, 40 megohms on 500 -volt range AC -40 megohms range, 40 megohms on 20 megohms on 2.50 volt range. Âudio frequency voltages up to $20,000 \mathrm{cycles}$ may be measured. The input capacity of the probe is 5 MMFDS. Attractive metal case with a hinged cover 0/60 cycles
C21682-Your Cost
\$62.23

## TRIPLETT Model 2450 Analyzer

(D) Electronic Volt-Ohm-Milliammeter. Long scale $6^{\circ}$ meter with three color markings. Full line voltage compensation. 51 megohms impedance on DC. Low frequencies loading equal to 8 megohms, 35 mm . Kigh requency loading equal to 8 megohms, 5 mmf . Detach able probe furnished. Ranges: AC and DC volts, $0-2.5$ 10/50/250. 00/1000, 00 milliamperes $10-1 / 100 / 100 / 000$ 50, 1000 (midscale 10 in 0.005 Megohms 0-1/10/100/1000; Capacity in Mr M; 0-.005) finished in brown hammered enamel. Brown leather strap handle, nickel plated hardware and rubber feet. 10x10x $58 / 6^{\circ}$ Shps
C2154-
$\$ 97.51$

## ELECTRONIC DESIGNS

## V-T Volt Ohmmeter

(H) The Model 100. Extreme care in the matching and choice of component parts has resulted in a high quality test instrument. DC Ranges: 0-3/10/30/100/, voits. All ranges have a constant input resistance of $30 / 100 / 300 / 1000$ volts. 1.000 ohms per volt sensitivity with accuracy of $5 \% \pm$. Eectronic Ohmmeter Ranges $0-1000 / 10,000 / 100,000$ ohms; $1 \mathrm{meg} / 10 \mathrm{megs} / 1000$ megs This extremely neat meter is complete with signal tracer probe, two test leads and batteries. $9^{5}{ }_{16} \times 6 \times 4 \%^{\prime \prime}$. Shpg ${ }^{\mathrm{wt}} \mathbf{2 1 7 1 0}$. $1 \mathrm{lbs} 110-120$ volts, $50-60$ cycles. $\$ 5250$ EDIPIROBE for use C21703. Your Cost
\$7.00

## SILVER "VOMAX"

(J) True vacuum tuhe voltmeter. Complete measure ments and visual signal tracing can be done on all AF AFC. AVC. IF, and RF circuits, over a frequency range of 20 cycles through over 100 MC , by withdrawable 12 F diode probe and test leads, Ranges: with zero adj. $03 /$ $30 / 75 / 300 / 750 / 3000$ VICC at 126 megohns, $0-3 / 12 / 30 /$ $120 / 300 / 1200$ VAC at 6.6 megohms and 8 mmifl., 0.2 $2 \mathrm{~K} / 20 \mathrm{~K} / 200 \mathrm{~K}$ ohms and $2 / 20 / 2000$ megohns, $0-1.2$ $30 / 120 / 300 / 1200 \mathrm{MA}$ and 12 amps. DC, and -10 to $+10 /+30 /+50 \mathrm{DB}$, I'olarity reverse switch on front panel separate ohms zero adj. Five non-confusing scales on $45 /{ }^{\circ}$ meter face, meter fully protected from overloads. wt. 131 bs . C21540-Your Cost
$\$ 59.85$

##  

## EICKOK Model 203 Electronic

## Multitester

(E) Compact universal test instrument for AC-DC volts, Ohms, DC milliamperes, Capacity and lnductance. Ideal for alignment of FM and Television receivers. Circuit prevents damage to meter. Voltage regulated power supply. Ranges: Volts AC or DC $0-3 / 12 / 30 / 120$ / power supply. Ranges: $300 / 1200$, Mils (dc) $0-3 / 12 / 30 / 120 / 300 / 1200$, Capacity $0-100,000 \mathrm{mmf}$. in 2 ranges, $0-1000$ in 5 ranges, Inductance 50 mh . 100 herries and Ohms 1 ohm-10,000 megohms in 7 ranges. AC to approx. 5 megacycles may be measured. Input impedance 15 megohms on DC, 12 megohms on $\Lambda C$. For $105-125$ v., $50 / 70$ cycles $9 \times 111 / 2 x$ $7^{\circ}$. Shpg. wt. 18 lbs. Satin chrome pancl, Blue haked acquert case. C21453-Your Cost.
s84.60

## HICKOK Model 214 Volt-Ohmmeter

(F) Compact, self-contained, battery operated electronic volt-ohmmeter. No warm-up. Always ready for instant use. Time switch automatically shuts off battery at end of 1 minutes. May be shut off manually. AC and 1 C voltage measurements from 0 to 1200 in 6 ranges. 15 megohm constant impedance. ( 10 mmf . on AC. Resistance from 0 to 1000 ohms in six ranges. Meter clectronically protected against hurn-out ibs. Finished ean


## PRECESION EV-10MCP

## V-T Multi-Range Tester

(G) $81 / 2^{\prime \prime}$ meter and a voltage regulated power supply. Ranges: eight zero-center vacuum-tube volt-meter ranges $0 / 3 / 6 / 12 / 60 / 300 / 600 / 1200 / 6000$ volts at 13 to 133 meg . input resistance; six circuit probing zero-center ranges. sensitivity as above, using coaxial cable for measurement in $A V \mathrm{~V}, \mathrm{AFC}, \stackrel{\mathrm{FM}}{\mathrm{M}}$ and television circuits. $0 / 3 / 6 / 12 / 60 / 300 / 600$ volts; resistance $0 / 2000 / 200,000$ $0 / 3 m s$ and $0 / 2 / 20 / 200 / 2000$ megohms: eight A.C. and ohms and $0 / 2 / 20 / 200 / 2000$ megohms; eight A.C. and D.C. voltage ranges at 1000 ohms $/$ vortit to $0 / 600$ microamps., $0 / 3 / 12 / 60 / 300 / 1200$ ma. I.C. current 0/600 microamps., $0 / 3 / 12 / 60 / 300 / 1200$ ma. $0 / 12$ amperes; output ranges from $\rightarrow 26$ to +70 db . C21765-Model with handle. $12 \times 10 \frac{1}{2} \times 6^{\circ}$ Your Cost Model EV-10p, as above, in hardwo 94.50 C21766Each.
$-10 p$, as above, in hardwood \$81.46 RF-10 PROBE: for Precision EVG10. For measurement of R.F. and U.H.F. voltages. With 955 acorn tube.
C21784-Each ................................. $\$ 13.04$

## WESTON Model 769 Analyzez

One instrument providing a conventionally Volt-OhmMilliameter with self-contained power source, a high impedance electronic Volt-Ohmmeter using 115 volt, 60 -cycle power and a stable, probe type vacuum tube voltmeter for use up to 300 Megacycles. When used as a standard analyzer, there are available six $10,0(1) \mathrm{ohm}$ / standard analyzer, there are available six /volt recitlier volt IC ranges to 1200 volts, six 1000 ohms/volt recither ranges to 200,100 ohms and six DC current ranges to ranges to 200,100 ohms and six DC current ranges to
$600 \mathrm{MA}-\mathrm{all}$ without use of external power. Using 115 600 MA-all without use of external power. Using 115
volt, 60 cycle power, it is a 15 megohms input resistance electronic $D C$ volt-ohmmeter with ohmmeter ranges extended to 2000 megohms. As an $\Lambda \mathrm{C}$ vacuum tube voltmeter with ranges of 3 to 120 volts, frequency coverage extends from 50 cycles to 300 megacycles, is completely isolated from any $1 \mathbb{D C}$ inlluences. All tubes including RE diode are standard commercial types. Input resistance is 5 megohms, 5 mmfd . Special DC probe. In hardwood


## RCP Electric Muititester Model 668

(K) A portable, highly accurate instrument. Matched resistors. Capacity meter reads directly in microfarads. Entire instrument thoroughly shielded. AC and DC vacuum tube voltmeter direct reading with input impedance of 16 and $1 f 0$ megohms, $00005 \mathrm{mfd} .0-3 / 6 / 30 / 150 / 600$ ) $1500 / 6010$ volts. Signal and output voltages from 10 c.p.s. to $10.0 \times 0$ c.p.s. Uhms from 1 ohm to 1000 megohms. perate in 200 mid on direct reading meter, Ready to wt. $71 / \mathrm{l}$ lbs.
C21793-Your Cost.
\$73.01
ILL. ATLANTA, GA.

# 目 <br>  <br> <br> ANALYZERS <br> <br> ANALYZERS MULITIESTERS 

 MULITIESTERS}

## PRECISION Model 832 S

(A) This compact 31 range tester measuring only x4. $2 \times 3^{\circ}$ and utilizing a square 800 microampere meter has the following scales: D.C. voltage ranges at 1000 ohms per volt: $0-6,0-30,0-150,0-300,0-600$, $0-1200$. A.C. volt ranges at 500 ohms per volt: $0-12$, $0-60,0-300,0-600,0-1500,0-2400$. D.C. current: $0-1.2$, $0-12,0-120,0-600$ milliamperes. Kesistance ranges: $0-5000 \mathrm{ohms}, 0-500,000 \mathrm{ohms}$, and up to 5 megs . by Lsing an external battery. 1 lecibels: -10 to +60 . Output ranges: 0-12-60-300-600-1200-2400 volts. Furnished in a c2ttery. Shpg. wt. 3 lbs.

## PRECISION Model 844P

(B) Single rotary master range selector. Large $48 / 8$ * rectangular meter. Ranges: $A C$ and $1 X$ C volts $0-12 / 60 /$ $300 / 600 / 1200 / 6000$ at 1000 ohms/volt; DC milliamperes $0-1.2 / 12 / 60 / 300 / 1200$ and $0-12 \mathrm{amps}$; $0 / 4(x) / 100,000$ ohms and $0.1 / 10$ megs. Decibel ranges from -12 to $+70 ;$ Output $0-12 / 60 / 300 / 600 / 12(10 / 10000$ volts. Hardwood case with cover. H.V. test leads and batterles. $9 \times 10 \times 6^{\circ}$. Shpg. wt. 9 lbs

## WESTON Model 779-1 Analyzer

(C) DC voltage ranges at a sensitivity of either 1000 or $20,000 \mathrm{ohms} / \mathrm{volt}$. Precision resistors used. Ranges: AC and DC volts, 0-2.5/1(1)/50/250/1000; DC current 0-.1/ $1 / 10 / 50 / 250$ milliamperes, $0-1 / 10$ amps ; $0-3000 /$ $30,000 / 300,000 \mathrm{ohms}$ and $0-30$ megohms: 1 cibe:s -14 to +54 . Solid oak case. $6 \frac{1}{8} \times 91 / 8 \times 4^{3} / 8^{\prime \prime}$.

## C21647-

CHICAGO
INDUSTRIAL Model 458
(D) $51 / 2$ rectangular meter set at 45 degree angle to DC volts, $(0-5 / 10 / 50 / 1(0) /[() 0 / 2000$. AC volts, $0-125 / 25$; 125/250/1250. I)C milliamps, $0-1 / 10 / 100$. AC milliamps $0-2.5 / 25 / 250$. Ohms full scale $1000 / 200$, (000 2000000 Output -5 to +55 db Enclosed standard 221 ,000 Output -5 to +55 db . Enclosed standard $22 \%$-volt Battery supplies test current. rurmished with test leads and bat ery. Sped inly reated aluminuin instrument panel is mounted on a welded steel case, finished in harmonizing brown wrinkle, equipped Shpg. wt. 8 lbs.
s25.48
SUPREME Model 567 Speed Set Tester in 0 to 100 microamperes to 500 ma . and 1 to 50 amps . in 9 ranges. AC current in 3 ranges: 0 to 50 amps. Total of $141 x$ voltage ranges, 7 each at 1000 and 20,000 ohms per volt to cover $0-5 / 25$ / $0-5 / 25 / 100 / 250 / 500 / 1000 / 5000$ volis. AC voltage ranges: volt, with same ranges for output measurements. No external capacitor required. Calibrated for $5(0)$ ohms line when working with DB measurements. 5 ranges -10 to +49 db . 7 resistance ranges. Low ohins: two ranges of +49 dh. 7 resistance ranges. Low ohins: two ranges of meg $/ 50$ meg. All ranges operated on self-contained batteries. Sturdy steel carrying case in grey wrikle $91 . \times 91,4553 / 4^{\circ}$. Shpg. wt. $1 \cdot 1$ lbs.

## c22570-Your Cost

\$62.13

## RCP Model 447P Multi-Tester

(K) 1000 ohms/volt. 1)C volts $0-5 / 50 / 25,0 / 500 / 2500$ $0-10 / 100 / 500 / 1000$. Ohms $0-500 / 100 \mathrm{M} / 1 \mathrm{Meg}$ I)B -8 Shpe wi fos In hardwood case with compariment cover. Test leads and battery supplied.

## Model 447

## Same as above but in open face hardwood case. Your Cost . . . . . . . . . . . . . . . . . . . . $\$ 178$.s

## RCP Model 461AP Multi-Tester

20,000 ohms per ments. AC sensitivity 1000 ohms per volt. AC \& DC voltmeter with ránges of $0 / 2.5 / 10 / 50 / 250 / 1000 / 5000$ volts each. $0-10 / 100 / 500$ DC milliamperes, $0-100 \mathrm{DC}$ microamperes. Ohmmeter has ranges of 0-2000/200,000/ ohms and ( $0-20$ megohms. Decibel meter with readings from -10 to +55 db . In attractive natural grain hard wood case, self latching cover and compartment for test leads. With test kads and self-contained batteries. $8 x 7 \mathrm{~s} \times 43 / 8^{\circ}$. Shpg. wt. 6 lbs . (Not illustrated.) C21571-
Your Cost
$\$ 42.53$


## TRIPLETT Model 2405

(E) $5.6^{\prime \prime}$ scale for greater accuracy. 0-10/50/250/500/ 1000 volts AC and LC. 25,000 ohms/volt on DC, 1000 ohms/volt on AC. $0-.5 / 1 / 5 / 10$ AC amps., $0-10$ DC amps, (o-1 $10 / 5 \times 0 / 250$ DC ma. $0-50$ microamperes $0-4000 / 40.000$ ohms $=0-4 / 40$ megohms on self-contained batteries. Condenser in series with AC volts ranges. Db ranges from -10 to +55 db . Capacity check of paper ase detachable


## TRIPLETT Model 625NA

(F) Multi-range, dual sensitivity. Large $6^{*}$ meter with mirrored scale. Ranges: IDC volts $0-1.25 / 5 / 25 / 125 / 500 /$ 2500 at 20,0000 ohms per volt, $0-2.5 / 10 / 50 / 250 / 1000 / 5000$ at 10,000 ohms per volt. AC volts $0-2 / 5 / 10 / 50 / 250 / 1000 /$ 5600 at 10,000 ohms per volt. DC microamps 0-50, DC milliamps $0-1 / 10 / 100 / 1000$, DC amps. $0-10$. All DC current measurements at 250 MV . Resistances $0-2000$ / 200,000 nhms $/ 40$ megs. Direct reading decibel ranges from - 30 to +69 db . Compact portable molded case $6^{\circ}$ high $\times \mathbf{5}=$ wide $\times 212$ deep. Leather carrying strap,

$\$ 5.14$

## G-E YMW-IA Unimeter

(G) Rapid, correct measurements of ohms, volts, current and decibels. Single rotary switch controls all ranges $4^{1} 2^{\prime \prime}$ meter. DC functions 20,000 ohms/volt. AC 1000 ohnes/volt. Kanges: AC and DC volts $0-2.5 / 10 / 50 / 250 /$ 1000. 3 resistance ranges from 1 ohm to 20 megohms. DC current scales from 0 to 500 ma, and 0 to 50 microamps. Db wale from -4 through +62 db . 0 level is 1 mw . in ons ohms. With test leads. In portable carrying case of fabricated steel finished in grey wrinkle. C27568-Your Cost
$\$ 39.50$

## High Voltage Multipliex Type YYW-1

 (H) Lead and prod for measuring up to 10,000 volts.

## TRIPLETT Model 2002 <br> Dual Appliance Tester

(L) Test power consumption of radios, small motors and household appliances under running conditions. Permits watts and line volts to be read simultaneously, Scale black on white, 10 amps. rated, 15 amps. max. AC-DC Volts: $0-130-260$ vol's at 125 ohms per volt. In heavy leather case with snap button cover and leather handle.


SIMPSON Model 390 Appliance Tester
Small compact meter for testing all types of AC single phase motors and appliances. Ranges; $0-150 / 300$ VAC; $0-3 / 15$ amps. AC; $0-300 /$ (6) (1/1500)/3000 Watts AC. Has 3 meter with easily read scales. Volts read in normal position. amps. or watts read by pressing respective button on the pancl. Complete with break-in plugs. Black bakelite case. Size: 3xa/8x2/2 . Shps C21705-Your Cost.
\$38.71

## Model S-10-A

## POCKETSCOPE Oscilloscope

(M) Complete with synchronization means and selfcontained power supply. Use for study of wave shapes, measurement of modulation, frequency, phase shift, volages, power, distortion-adjustments of audio-ampitfiers, radios, television and Moceivers. Cathode ray tube magnetically shielder. Controls placed to permit easy adjustment. Response of vertical and horizontal amplitiers within -2 db from 20 cycles to 100 KC and within -6 do tivity 1 volt RMS/inch; input resistance. 5 megohm; input shunt cap. 36 mmfd ; input series capacitance. 1 Mfd 600 volt. Linear time base oscillator 10 cycles to 50 KC with sweep from left to right. Uses miniature glass


# POCKET-SIZE MULITIESTERS 

RCP Model 420-S
(A) Basic meter is $0-400$ microamperes, accurate to within $2 \%$ Voltages multipliers are metallized natched pair resistors having a tolerance of $1 \%$. DC volts, $0-2.5$ 10-50-250-1000-6000. DC milliamperes, 0-1-10-100-1000 Ohmmeter, $0-500-100,000-1,000,000$. AC volts, $0-10-50-$ $250-1000-5000$. Output volts, $0-10-50-250-1000-5000$ Decibel meter: C22723-Your Cost
\$23.03

## MODEL 449

(B) Basic meter is 0-200 microamperes, accurate to within $2 \%$. Sensitivity 5000 ohms per volt. LC volts. $0-5-50-250-1000$. AC volts, 0-5-50-250-1000. Output volts 0-5-50-250-1000. DC MA, 0.5-10-100-1000. Ohms: 0 $2000 / 20,000 / 2$ meg. $/ 2$ meg. Decibels: -6 to +10 . -1 to $+26,-28$ to $+40,-40$ to +52 . 1)B ranges calibrated for 50

## c21724-Your Cost

## CHICAGO INDUSTRIAL INSTRUMENT

## Miniature Model 450 A

(C) Ideal for service where compactness and precision are required. Dustproof construction with sealed jacks and bakelite case this unique meter has sensitivity of 1000 ohms per volt. Multipliers are held to within $1 \%$ includes two standard penlight cells. Ranges: $0-5 / 10 / 50$ $500 / 1000$ volts DC; 0-1 milliamperes DC; $5000 / 50,000 /$ 500,000 ohms full scale, $30 / 300 / 3000$ ohms center scale C21506-Your Cost. .
$\$ 70.58$

## Model 451 A

Similar to above but for use on both AC and DC at 1000 ohms per Volt, all ranges. C21507-Your Cost. .
$\$ 1450$

## Model 451 B

## Same as Model 451A but 2500 ohms

 C21580 Your Cost

CHICAGO INDUSTRIAL INSTRUMENT Portable Volt-Ohm Milliamumeters Model 371
(D) Strictly a DC meter, its ranges are as follows: $0-3 / 15 / 30 / 300$ volts, $0-25$ milliamperes and a resistance scale of 0 to 10.000 ohnis. Uperates on two standard flashlight cells which are included. Size: $17 / 8 \times 23 / 4 \times 379^{\circ}$.
Shpe wt. 3 lbs. C21504-Your Cost

Model 312
Similar to above but for use on hoth AC and DC volts: $0-25 / 50 / 125 / 250$; Milliamperes to 50 mils.; up to 100,000 ohms. For use on l10 volt AC or DC

## c21505-Your Cost

## Model 431

(E) 400 microampere meter mounted on an etched aluminum panel, and set in a black wrinkle metal case Inclosed flashlight battery. Ranges include: $0-15 / 150$ volts $\mathrm{AC}-1000 \mathrm{ohms}$ per volt; $0-30 / 30(1 / 15$ ()) volts DC 2500 ohms per volt; $0-150$ milliamperes $1 \times(30(0) / 300,000$ ohms full scale: $35 / 35(x)$ ohms center scale. With $48^{\circ}$ test


## Model 421

(F) $2^{1 / 20} 650$ microampere meter. $0-7.5 / 15 / 150 / 750 / 1500$ volts AC and DC-1000 ohms per volt; 0-7.5/75 IDC milliamperes; $5000 / 500,(0)(0)$ ohms full scales; $35 / 3500$ ) ohms center scale. A copper-oxide rectifer. Ranges are brought out to silver-plated jacks, with engraved identifi cation. Battery and $48^{\prime \prime}$ test leads included. Shpg. wt C22500-Your Cost

## Model 432

(G) Three-inch square 1100 microampere meter. Sensitivity of 10,000 ohms per volt on all ranges. Four DC voltage and four resistance ranges. Volts DC: $0-3 / 30 /$ $300 / 600$. Ohms full scale: $0-2000 / 20,000 / 200,000 /$ 2,000,000. With test leads and batter C21573-Your Cost
\$21.02

## Model 433

Same as Model 432 hut 50 Micro-ampere meter move ment for 20,000 ohms per volt on all voltage ranges Ohms full scale: $0-5000 / 50,000 / 500,000 / 5,000,000$. C21574. Your Cost

(1)


A sensitive compact 100 microampere meter providing 10,000 ohms per volt sensitivity on all voltage ranges. $0-10 / 50 / 100 / 500 / 1000$ volts IX: $0-2010 / 20,000 / 200,000 /$ 2,000,000 ohms full scale, $30 / 300 / 3000 / 30,000$ ohms
center scale. Shpg. wt. 2 lbs. center scale. Shpg. wt. 2 lbs . c21508-Your Cost.

(B)


## SUPREME Model 542B

(A) A pocket size laboratory that incorporates a highly sensitive meter. Has pin jack terminals, includes the sensitive meter. Has pin jack ter minas, 4 , 30 and 150 ; 4 JXC volt ranges of $0-6,150-300$ and $1500 ; 4 \mathrm{ohm}$ ranges of $0-2000,20,000,200,000$ and 2 megs.: 4 AC volt ranges of $0-6,30,150$ and $600 ; 4$ output ranges of $0-6,30,150$ and 600; 4 decibel ranges of -6 to +10 , +8 to $+24,+22$ to +38 and +34 to +50 . Uses a fullsize $3^{\circ}$ meter with a rugged, accurate 200 microampere movement and a knife-edge pointer. Sensitivity of 5000 ohms per volt! All resistance ranges are operated by batterjes furnished with the unit. Housed in sturdy
 Your Cost
\$23.18

## Model 543B

Similar to above but 1000 O.P.V. Ranges: $0 / 2000 /$ 200,000 ohms; $(0 / 6 / 60 / 600$ I)C MA ; ( $0 / 15 / 150 / 600 / 3000$ volts $A C$ and DC. Shprg wt. 2 lbs .
C21745-
\$18.57

## EMC Model 100 Voltmeter

(B) Pocket meter of 1000 ohms per volt sensitivity. AC and DC voltage ranges of $(0-3 / 12 / 60 / 300 / 1200 / 6000$ volts. DC current ranges of $0-6 / 6 / 60 / 600$ milliamperes Resistance ranges of $0-30 \mathrm{KX}) / 300,000$ ohms and $0-30$ megohms. 4 db ranges from -10 to +48 . AC volts from 25 cycles to 1 megacycle with no temperature errors. Bakelite panel mounted in wood case prevent any voltage breakdowns between panel and case when measuring high voltage. $63 / 8 \times 31 / 2 \times 3^{\prime}$. Shpg. wt. 3 lbs. C21575-
Your Cost
\$21, 51

## TRIPLETT Model 666HH Pocket Meter

(H) (Above). 1000 ohms per volt. "RED DOT" life-time meter. $0-10 / 50 / 250 / 1000 / 5000$ volts AC and DC , (1-10/100)/500 milliamperes, IC at 250 MV . and $0 / 2000$; 400,000 ohms, center scale $12 / 2400$. Black ruolded case and panel. Complete with battery and 50" test leads and clips. Size: $3^{1 / 16} \times 57 / 8 \times 23 / \mathbf{g}^{\prime \prime}$. Shpg. wt. 3 lbs C21576 Your Cost
$\$ 19.60$ Carrying case for above. Heavy duty sewed leather with C21577-Your Cost
$\$ 3.92$

## SIMPSON Model 240 Hammeter

(C) Completely self-contained. Sensitivity of 1000 ohms per volt. Ranges: $0-15 / 150 / 750 / 3000 \mathrm{AC}$ volt $3,0-15 / 75$ / $300 / 750 / 3000$ DC volts, $0-15 / 75 / 300 / 750$ IC milliamperes, $0-3000 / 300,000$ ohms. Center scale $30 / 3000$ ohm accuracy $3 \%$ on DC and $5 \%$ on AC. All ligures engraved and filled with white enamel. Meter of shockproof hridge type construction with soft-iron pole pieces. Shpg. wt. 31 bs.
C21579-Your Cost
$\$ 2131$

## SIMPSON Model 260

(D) Black lBakelite Roll top safety case. Accurate full scale readings. Ranges: Volts AC and LDC $0-3.5 / 10,50 /$ $250 / 1000 / 5000$ at 20,000 ohms/volt DC and 1100 ) ohms/ volt AC. Output AC volts $0-2.5 / 10 / 50 / 250 / 1000 / 5000$ 1)C. Microamps 0-100, Milliamps 0-10/100/500. DC Amp $0-10$ [D13, five ranges from -10 to +52 db . Ohms: $0-2000$ / 200,000 and $0-20$ megohms, center scales $12 / 1 \approx 00 / 120 \mathrm{M}$.
 Same as above but without roll-top case. $\$ 38,77$
$\mathbf{C 2 1 7 1 3}$-Your Cost.................... 77
ILL. ATLANTA GA

#  

RCP Model 710 Pocket Signal Generator
(A) A real signal generator small in size, accurate in calibe conveniently slipped into the pucket and taken out on the job for quickly locating and localizing faults so that you may give an immediate, accurate repair estimate. Broadcast band alignment provided for by fixed frequencies of 1500 KC and 550 KC . 1 F alignment by using fixed frequencies of 156 and 465 KC . Suitable trimmers for recalis shielded AC or DC operation. Complete with tive wrinkle inished cabe, 16.0 S C21596
Your Cost
\$17.59

## RCP Model 705

(B) Wide range from 95 KC to 100 MC . Fundamental from 95 KC to 25 MC . from 95 KC to 25 MC . Self-contained modulator source is 400 cycle sine wave generator which modulates the carrier at $30 \%$ or $80 \%$ as desired. 400 -cycle frequency also available for external use. Alignment of $F M{ }^{\text {1 }}{ }^{1 F}$ " stages is accurately obtained by means of zero discriminator current method. Five step ladder attenuitor controls voltage from zero to maximum. Frequency calibration is accurate to $2 \%$ up to and including broadcast band and $3 \%$ for the high frequency bands. All coils not in use are automatically shorted. Individual shielding of RF circuits, conil assemblies and attenuator insures stable operation. High ratio planetary drive tuning condenser with choice of vernier or direct drive for ease of operation. hlack/crackle finished steel housing with white enamel hack/crackle linished steel housing with whit and cartying handle. $8 \times 118.5^{\circ}$ Shiame highug
13 lbs

## C21720-Your Cost

$\$ 48.51$

## SILVER FM/AM

(C) Eight fundamental ranges, direct frequency caliaudio oscillator provides 400 cycle AM modulation. variable from 0 to ncarly $100 \%$ FM 90 KC through 210 MCC with built -in electronic FM sweep variahle from 0 to 500 KC . Out put continuously variable from less than 1 microvolt, to over I volt. Metered output, dual variable and 4 position lidder attenuators, complete multiple shielding. ${ }^{4}$ section line filter, coils mounted in rotary turret. 10:1 vernier dial. Permits design and service of AM and FM receivers by aural. meter or visual align-built-in mains-isolating power supply, tubes, output cable ard terninal toox. $6^{\circ} \mathrm{ft}$. cord and plug. Size: $1233^{\circ}$ long. $73^{\circ} 8^{\circ}$ high, $533^{\circ}$ deep. In grey steel cabinet with ${ }^{\text {lealher }}$ Your Cost

s99.50

## HICKOCK Model 288X

(A)

Model 288X. High degree of accuracy for servicing amplitude and frequency modulated and television equipment. Fundamentals used throughout entire range of 100 KC to 110 MC on AMI output and 100 KC to
160 MC on FMI output. Variable audio out put: 0 to 15 KC is produced by heterodyne type oscillator. Decibel meter provides convenient means of neasuring power and voltage and determining restonance in allignnent work. A 110 KC and 1000 KC crystal controlled signal, accurate to $001 \%$ unmodulated or modulated at $4(0)$ cycles is oscillator, accurat multiples of 100 KC and 1010 KC . Complete with all tubes, necessary cables, instruction manual. For 110 volts, $50 / 60$ cycles. $14 \times 16^{1} 2 \times 8^{\circ}$. Satin chrome finish panel and C21455
$\$ 159.06$

## MEISSNER Signal Calibrator

(B) Fortable self-contained unit designed to generatefrequency Radio transmitters. receivers and laterat ofequipment easily and acurers, receivers and fratoryequipment casity and accurately set toa desired frequencyUnknown frequencies positively and quickly determinedcomponent parts mounted on a single chassis to whichfront panel is attached. All controls mounted on frontpanel. Incorporates a precision type quartz crystaloperating on 100 KC . Easily adjusted by front panelcontrol to exact frequency. Output signal may beamplitude nodulated at 50 cycles by front panel control.


\$7.17

(D)

©


APPROVED ELECTRONIC Model A-200
(D) Extremely stable signal generator covering long 25 MC in six bands of fundamentals and 19 MC to 75 MC in ino bands of harmonics. Internal modulation of MC in two bands of harmonics. Internal modulation of
4.10 c.p.s. variable from 0 to $100 \%$. RF and AF oscil4.to c.p.s. variable from 0 to 100 of. RF and AF oscil-
lators of new highly stable design. For 110 volt, 60 cycle Size $8 \times 10 \mathrm{x} 12^{\circ}$. Shps. wt. 19 lbs .
C21709-Your Cost..........

## PRECISION Model E200C

## (E) <br> Units are ind 120 on all 8 bands which range from 88 KC . to 120 MC . Fundamentals to 30 MC . Direct reading: no charts needed. large full vision $61 /{ }^{\prime}$ ' no-glare dial with a $0-1000$ point vernier scale allowing direct reading to one part in 1000 . 400 cycle sine-wave audio oscillator provides modulation and external test signal from zero to 50 volts Complete shielding including electrostatically shielded transformer and $A C$ inc is $R F$ filtered $0-100 \%$ shodulation control more than triples signal utility. 110 volt, $50 / 60$ cycle. F3lack tipple finished heavy gauge portable steel case. $10^{1} £ \times 12 \times 0^{\circ}$. <br> \$62.87

## SUPREME Model 576

(F) Compact Signal Gienerator incorporating electron coakled circuit giving great stability. Iron core coils. leakage minimized by double shielding. RF ranges from Audio frequency: 40 cycles- hormonics to 82 megacycles. Audio frequency: 400 cycles-voltage output continuously variable from minimum to maximum. Internal modulation at approximately 50 笈 on RF carrier. Jack provided for external modulation. 115 volts, 60
$7^{3} \mathrm{~s}^{\mathrm{g}}$ Shpg. wt. 19 liss. $7^{18}{ }^{8}$. Shpliwt 19 lhs
$c 21667-$ Your Cost
67.57

## SIMPSON Model 315


#### Abstract

(G) Designed for extreme accuracy, great stability, minImurm leakage and good wave form. $9^{*}$ meter type dial with knife edge pointer for high readibility and close settings. $30 \%$ modulation at 400 cycles. Six bands from 75 KC .1030 MC . with frequency accuracy of $1 \%$. Volume level of cach step of the ladder type attenuator is requlated by a smooth non-inductive control which provides RF output from microvolt 10.1 volt and 400 -cycle put from () to 5 volts. Coils attenuator and signal put from © to 5 volts. Coils, attenuator and signal sclector are individually shielded. Effective line filter and calihrated at the factory. Designed to retain original inductance regardlessof temperatureor hunidity changes. Inductance regardiessof temperat ure or hunnidity changes. 20 liss. C21712-Your Cost $\$ 66.00$ Mode! 415. Eight hands- 70 KC to $130 \mathrm{MC}, 0-100 \%$ modulation from $60 \mathrm{c} . \mathrm{ps.s}$ to 10 KC . $\$ 112170$ c21716-Your Cost..............


## HICKOK Crystal Controlled Microvolt Signal Generator

Model 191X. (Not illustrated). Accurate, dependable source of calibrated radio frequency test voltages ranging from 125 KC to 120 MC on fundamentals. $8^{\prime \prime}$ dia. dial. Signal leakage kept at minimum by use of newly developer accurate and direct calibration of RF output from for accurate and direct calibration of RF output from
$1 / 2$ microvolt to $1(0),(0) 0)$ microvolts. Modulation $30 \%$ at 400 cycles fixed, and $0.70 \%$ at $4(0)$ cycles, and variable. 'rovisions made for external modulation from 5 to 10,000 cycles. Decibel meter for power determination. 1'rovision made for measuring both input and output of unit under test. For operation on $105-125$ volts, $50-70$ cycles. Satin chrome finish panel with Blue haked lacquer finished case. ${ }^{\text {C21 }} 150$ Your Cost.
s145.92

## TRIPLETT Model 2432

(C) Extremely accurate Signa? Generator employing large arcs approximately 330 degrees each. Output connections on the front panel use the coaxial type littings-one for Al and one for RF. Voltage regulated power supply provides for greater accuracy. Six bands are used: 75-224, 50,000 kilocycles. $2450(-85000,8000-25,000$ and $24,000-$ 50,000 kilocycles. Output attenuators provide coarse and
fine control through two shielded resistor networks. Circuit selector provides for internally modulated signal ( $30 \%$ at 400 cycles), unmodulated signal or 400 cycle audio. Enameled finished case with rubber feet. Size:



## CATHODE-RAY OSCLLLOSCOPES

RCA 3-Inch Model 155C Oscilloscope
(A) Employs 906P1 tube and two 6SJ7's for vertical and horizontal amplifier stages, one 6C8Cs timing oscil lator stage and two $5 \mathrm{Y} 3 \mathrm{GT} / \mathrm{G}$ rectifier tubes; total of 6 tubes. Bar knob controls all located on front panel 20 volts (RMS) per inch deflection without amplitier; 0.5 volt (RMS) per inch with amplifier. Amplifier response flat from 10 to $60,000 \mathrm{c} . \mathrm{p} . \mathrm{s}$. Amplifier gain 10 db Timing frequency from 10 to 60,000 c.p.s. Operates on 110 volts, $50 / 60$ cycles a.c. Wrinkle lacquer metal case has etched panel. Size: $15 \times 8 \times 14^{\prime}$. Complete with tubes and instructions. Shpg, wt. 32 lbs.
c21447-Your Cost.
$\$ 115.00$

## DUMONT 3-Inch Oscillograph Model 164E

(B) Employs either 3AP1 or 3AP5 tube. Amplified sweep circuit over continuous range from 15 to 30,000 cycles. Input impedance vertically: $1,000,000$ ohms horizontally: 800,000 ohms. Max. potential 400 IX volts. Deflection sensitivity: max. vertical 0.80 r.m.s volt/in.; max. horizontal 0.65 r.m.s. volt/in. Frequency range: vertical and horizontal/amp. both uniform within $20 \%$ from 5 to 100,000 cycles. Ilandy deflection-plate terminals available at rear. Horizontal amp. may be switched to amplify either sweep circuit or external signal, so that Lissajou patterns for frequency determination may be employed. 115 volts, $40-60$ cycles. Size. $115 / 87 \frac{1}{8} \times 14^{F}$. Shpg. wt. 25 bs.

## Your Cost

## s 115.00

## DUMONT 5-Inch Model 208B

(C) Uses 5LPl tube. Has a calibrated removable scalcFrequency range: $Y$-axis, plus or minus $10 \%$ from 2 to 100,000 sinusoidal cycles; $X$-axis. plus or minus $15 \%$ from 2 to 100,000 sinusoidal cycles. A voltage kain of from 2 to 100,000 sinusoidal cycles. A voltage $A$ and Deflection sensitivity: max. $Y$-dxis $0.010 \mathrm{r} . \mathrm{m} . \mathrm{s}$. volt, in. Deflection sensitivity: max. Yoxis X -axis 0.500 r.m.s. volt/in. I irect deflection Max. X-axis 0.500 r.m.s. volts 21 in. Y-axis and X -axis respectively. Recurrent sweep over continuously variable range írom 2 to 50,000 cycles. 110 volts, $40-60$ cycles. $141 /{ }^{1} \times 8^{13} 1 / 5 \times 191 / 2^{7}$. Shpg. wt. 67 lbs. C21782-
$\$ 270.00$



## G-E Type CRO-3A 3-Inch Oscilloscope

(G) Ideal for accurate and rapid service work. Entirely portable and compact. Designed for general radio servicing. Sweep rates from 20 to 30,000 per second in seven ranges. Fine adjustment vermier. 5 ertical and horizonum input either amplifier. Input impedance vertical is $1 \mathrm{meg} ., 45 \mathrm{mmf}$, horizontal $1 \mathrm{meg} ., 50 \mathrm{mmif}$. Equipped with 3APl cathode ray tube with green screen. All controls conveniently located on front panel. Vertical amplifier frequency response 20 cycles to $100 \mathrm{KC} \pm 10 \%$ (sinusoidal). Horizontal 20 cycles to $70 \mathrm{KC} \pm 10 \%$ (sinusoidal). Welded steel case in gray wrinkle linish. Etched aluminum front panel. Size: $8 \times 121 / 2 \times 13^{\prime \prime}$. Shpg. wt. 301 lbs
Your Cost
998,50

## G-E Type CRO-5A <br> 5-Inch Oscilloscope

(H) Designed primarily for studying voltage and current wave forms. May also be used to study any variable which can be translated into electrical potentials by means of associated apparatus. 111 amplifier and sweep me potentials are electronically regulated to give a table trace even under adverse power line variations. stable uace even under advers 25 meg 50 mmf Horiinput 32 mpf Maximum input potential 5 or zontal 3.3 meg., 32 mmf . Maximum input potential 5 or 500 volts RMS on vertical and 5 volts RMS/inch, horizontal. Sensitivity. vertical V.02 volts RMS inch, horizontal. 2 volts RMS/inch. Vertical amplifier frequency response from 20 to 350,000 cycles (sinusoidal). Horizontal amplifier from 20 to 200,000 sinusoidal cycles. Both amplifiers flat within $-10 \%$. Sweep generator 20 to 20,000 cycles in five steps. Sync control internal, external or 60 cycles. Retrace is blanked. Direct connections available at rear of cabinet. $14 \times 8 \times 19^{\circ}$. Shpg. wt. 45 lbs. For use on 105.125
$C 21593$ C21593-
$\$ 195.00$

## 



## Electronic Development Laboratory 5-Inch Oscilloscope-Model 49

(D) Amplifiers compensated to give high frequency sine and square wave response, wide range linear sweep and freedom from hum effects. Horizontal and vertical sensitivity. 5 RMS volt s/inch through amplitier and 14.5 RMS volts/inch direct. Horizontal and vertical amplifier input impedance .5 megohm in parallel with 20 mmfd . Terminals at rear of instrument provide low capacitance connections direct to defiecting plates. For $105-120$ volts, $50-60$ cycles. $81 / 2 \times 141 / 2 \times 1813^{\prime}$. Shpg. C21595-
Your Cost

## \$113.00

## DUMONT 5-Inch Model 274

(E) Amplified Sweep Circuit over continuous range from 20 to 50,000 cycles. Input impedance: Ilorizontal, 5 megohms; Vertical, 1 megohm. Deflection sensitivity Max. vertical 0.65 RMS volt/in.; horizontal 0.65 RMS volt/in. Input signal may be applied to the vertical plates either directly or through the vertical amplilier through a switch provided on the front panel. Internal modulation of the horizontal beam is provided for by a separate terminal. Horizontal amphier may for 115 volts $50 / 60$ cycles. $14 \times 8 \frac{5 / 8 \times 198 / 8^{\circ} . \text { Shpg. w }}{}$ C21774. Your Cost
\$127.50

## SUPREME Model 552 <br> 5-Inch Oscilloscope

(F) Sweep oscillator with frequency range of 20 to 30,000 cycles. Linear control for fine adjustment. Syuc control for positive locking of pattern on screen. Vertical and horizontal amplifiers will pass oo cycle square wave IRated sensitivity at .3 volts RMS/inch deflection. Vertical amplifier 20 cycles 10100 KC ; Ilorizontal amplifier 20 cycles to 75 KC . Switches arranged for external sync and horizontal sweep. lleavy steel case. Gray wrinkle case. $12 \times 9,2 \times 18$. Shpg. wh 1701 C21591-Your Cost
497.51

## SUPREME Model 546-A

Same as Model 552 but $3^{\prime \prime}$ tube and vol tage sensitivity tubes. C21598

Your Cost
587.85

## HICKOK Model 195 <br> 5-Inch Oscillograph

(J) Sinusoidal sweep with phasing control. Wide range sweep circuit oscillator. Denection sensitivity, Vertical.05 volts RMS/inch, direct 15 volts RMS/inch. Hori-zontal- 15 volts RMS/inch, direct 20 volts RMS/inch. Vertical amplifier 30 cycles to 50 KC -Horizontal amplifier 10 cycles to 50 KC . Input impedance: vertical$1 \mathrm{meg} ., 25 \mathrm{mmf}$., I irect- 2.2 meg . Horizontal- 4 meg., 35 mmf ., Direct-2.2 meg. 1, ight shield and calibrated screen for accurate work in brightly lit rooms. 105-125 volts, $50-70$ cycles. $8^{5} / 66^{2} \times 18 \frac{1}{2} \times 13^{7}$. Shpg. wt. 30 lbs . Complete with tubes.

## C21594-

$\$ 132.00$

## HICKOK Model 505 5-Inch Oscillograph

(K) Wide band vertical amplifier from 30 cycles to 1 MC . Horizontal anmplifier 10 cycles to 50 KC . 1)eflection sensitivity .2 volts RMS/inch on vertical, 3 volts RMS/inch on horizontal, 45 volts RMS/inch on hori-zontal-direct. Input impedance is 1 megohm, 25 mm . on both vertical and hotizontal. Includes: built-in wide and narrow band $1 \cdot \mathrm{M}$ oscillator, 3 range frequency compensated attenuator network, Demodulator which permits modulated signal to be viewed, Signal tracer jack which permits signal being viewed to be heard hy phones. Self-contained mixer circuit for frequency modulated output with any good signal generator. Return eliminator speeds up FM and AM alignment. Modulation circuit permits FM oscillator to be either internally modulated or from an external source such as phonograph pick-up or microphones. Sinusoidal sweep with phasing control, Retractable light shield for use in brightly lit areas. Size: $14 \times 111 / 2 \times 151 / 2^{\prime \prime}$. Shpg. wt. 35 lbs . Complete with tubes.
C21451-
\$165.60


## INDUSTRIAL INSTRUMENTS R OSCILLATORS

## DUMONT Electronic Switch and Square Wave Generator

(A) Model 185A. l'ermits the simultaneous observation, for purposes of comparison, of two or more independent signals on the screen of a single cathode ray oscillograph. Square wave signals may be used in studies of vacuum tube amplifiers and other net works over a range of 10 to 500 c.p.s. Switching rate $10-2000$ times per second. Input resistance 100,000 ohms. Output resistance 50,000 ohms. All controls and connections on front panel. For 115 V. $40-60$ cycles. Complete with tubes. Black wrinkle unish steel cabinct. $111.2 \times 7,3 \times 13^{\prime \prime}$

## C21783-

Your Cost
\$105.00

## Type 215 Low-Frequency Linear Time Base Generator

(B) Sweep frequency range of 2 to 125 cycles per second. Balanced output signal voltage. Maximum undistorted output of approximately f(k) volts peak to peak. Single sweep initated either manually or hy observed signal. Excellent linearity assured by compensating circuit. Return trace blanking. For 115 or 230 volts, $40-60$ cycles. In black wrinkle linished steel case. $1.11 / \mathrm{x}$ $83 / 4 \times 19 / z^{\circ}$. Shpg. wt. 40 Ibs. C21556-Your Cost
$\$ 215.00$

## Type 224-A 3-Inch Oscillograph

(C) For study of signals such as pulse and square waves involving frequency components as high as 2 nicyacycles. Wide band vertical ampliler response within 3 db. to 2 megacycles. Provision for intensity modulation. Uses Type 3GPl C.R. tube. For use on 115 wolts. Fi) (i) cycles.
In portable steel cathinet with carrying handle. Rugged In portable steel cabinet with carrying handle. Rugged $141 / 8 \times 83 / 8 \times 151 /{ }^{\circ}$.
C21558-Your Cost
\$290.00

## FERRET Audio Oscillator

(F) Incorporates recently engineered developments. Uses four miniature tuixes to acheve a range of 20 to 24,000 cycles. R/C type oscillator with sitke or square wave on same calibrations with accuracy of $2 \% 0$ on all bands. selected by a simple rotary switch. Uutput lead is coaxial cable. Three colored dial with 3 to 1 vernier glass enclosed cable. Three colored dial with 3 to vernier glass enclosed for protection against damage and dirt encased in a molded escutcheon. Front panel of three color uridescent hlue-gray linish. Houed in an attractive blue-gray Hammer-tone finish aluminum case with leather carrying handle. For use on $110-120$ vol
$101 / 4 \times 101 / 455 /^{\circ}$. Shpg. wt. 10 lbs.
C21431-Your Cost
\$89.95

## G-E Signal Generator-YGS-3

(G) Camprised of four units, any of which may be used independently or in any logical combination by switching front panel controls. Includes KF oscillator with fundamental frequency range of 100 KC to 150 MC : FM oscillator with center frequencies of 1,20 and 50 MIC and frequency deviations of 20.300 and 750 KC respectively; 1 megacycle crystal calibrator; variable frequency audtain any desired FMI freguency within the beat fre quency range of the RF and $F M$ oscillators. both AMI and FM oscillators may be modulated at any frequency within the range of the audio oscillator or by an external within the range of the audio oscillator or by an external continuously variable and is indicated by calibrated sections of a dual electron ray gun. RF level control in conjunction with step and fine attenuators provides control of the output lesel with negligible frequescy output throughout the entire frequency range of too) to 12,000 cycles is provided by an RCC tyle audio oscillator. A one megacycle low drift erystal in the calitrator unit provides modulated or unmodulated harnonics to 150 MC. Separate audio and R2F output cables are supplied. In copperplated fabricated steel case. outside gray wrinkle finish. Leather carrying handle. Removable cover with compartment for output cables. $17,16 x 98 \mathrm{x}$
911 , $105-125$ volts, $50 / 60$ cycles. Shpg. wt. 35 ibs. C21562
Your Cost
\$225.00

(H)

ost.

## RCA WV-75A Voltohmyst

(D) Model WV-75A Voltohmyst is an electronic voltmeter with full wave diode probe for reading peak-topeak RF voltages to frequencies of 250 MC . Push-pull DC VTVM circuit is excentionally stable and Linear Large electronically controlled burn-out proof DC meter with crystal clear anti-static coated one-piece unbreak able front
Ranges: $0.3 / 10 / 30 / 100 / 300 / 1000$ VDC; with diode probe $0-3 / 10 / 30 / 100 \mathrm{VAC}$. Frequency with diode probe 30 c.p.s. to 250 MC . diode probe and lead $30 \mathrm{c} . \mathrm{ps}$ to 30 MC and probe with AC multiplier $30 \mathrm{cp.s}$ to 15 $\mathrm{KC}: \mathrm{DC}$ resistance $0-1 \mathrm{M} / 10 \mathrm{M} / 100 \mathrm{M}$ ohms and $0-1 / 10$ / 100 megohms. Input impedance using diode probe; 650 M ohms and 15 mmid . at 1 MC .32 A 1 ohms and 14.5 mmfd at 10 MC and 100 ohms and 13 mmfd at 250 MC Input impedance using diode probe with AC multiplier:
1.65 megehnis and 2 mmfd , at 1 KC and 1.65 megohms Steel case with grey wrinkle finish and etch brush chrome imish front parnel. complete with tubes, diode probe, test leads, and instructions. 100-110 volt
ation. Shpg. wt. 18 lbs.
C21772-Yole oper

## RCA Audio Voltmeter

(E) Unusual sensitivity and wide range of 001 to 1000 volts AC. Excellent frequency response over the audio range ( 20 cycles to 20 KC ). May be used as an AF amplifier with high gain and good lidelity. Unvarving meter readings despite line voltage changes or tube replacements. Logarithmic scale and overlapping attenuator provide accuracy even when pointer is at either end of scale. Can be connected across hish DC potentials without harm. Iligh level rectifier designed to produce an output proportional to the average value of the full wave, giving a meter reading that agrees very closely with an RMS meter for all usual distorted wave forms. Input impedance 1 megohm and 25 mmf . Attractive cabinet finished in dark cobalt gray Metalustre with front panel of scratch C21561 Your Cost
\$175.00

## SUPREME Andio Oscillator

(H) 15 to 15,000 cycles. Dial calibration spread over a 12 -inch arc covering 280 degrees. Large 6 -inch metal dial with laboratory type tuning knob. Output impedances of $250 / 000 / 5000$ ohms. Each center-tapped for push-puli and other balanced input systems. Output continuously variable from minimum to maximum Open circuitvoltage approx. 65 RMS volts at 5000 ohms section. Propery loaded, produces 50 volts total or 25 volis either side of distortion. Sinusoidal type wave form with harmonic distortionatieast do below fundamentan at hou cycles. Mutput virtually fat over the entire frequency range.
Plus or minus 1 db from 30 cycles to 10,000 cycles. 2 db down at 15 and 15 (ron) cycles. All controls arranged for speed and simplicity of operation. Neon lamp for zero adjustment. Housed in grey wrinkle finish steel case Steel prnel finished in grey wrinkle, with white letters and markings, red highlights. leather carrying handle. For C21563 volts, 50/60) cycles. Siz C24563-Cost
$\$ 61.69$

## SUPREME AF and RF Oscillator

(J) Designed to produce all the various signals required for test and repair of radio receivers Two distinct and separate instruments-either of which may be operated independently or together. FM oscillator for visual alignment of 1 F ampliters in amplitude modulated re ceivers. 1 arge three-inch round meter used to set amount of modulation. Variable from 1 to $80 \%$. AF Oscillator flat to within I db from 30 to 10,000 cycles. 15 cycles and 15,000 cycles down approx. 2 db . Center tapped transformer with push-button selector of output impedances at $50 / 500 / 5000)$ ohms. Iligh impedance resistor of 50,000 ohms. Attenuator controls voltage from 0 to open circuit MC in or 35 , 60 MC . Tuning knob geared to canacitor with a ratio of 5 to 1 . Meter used to set carrier level at a predetermined value, aligned for accurate and variable per cent of modulation by AF oscillator FM signal available over modulation by AF oscilator. FM signal available over the range of the RR oscillator. Ladder type four-position resistor push-button attenuator. Vernier control from maximu 125 minimum any of the four ceps. For use Shpg. wt. 33 tbs.
\$133.87

## CAPACITOR CHECKERS SIGNAL TRACERS

## SOLAR Exam-Eter CE-1-60


(A)

(C)

(A) Accurate Wien bridge for capacitance and power factor measurements. Maly be switched to Wheatstone type bridge for resistance measurements. Capacitance from 10 mmfd to 2000 mfd . Insulation resistance from 3 to 10,000 megs. and resistance of resistors from 100 ohms to 7.5 megs. may be accurately checked. Use


## SOLAR Capacitor Analyzers

> (B) For measuring the capacity of any electrolytic, paper of $00(0) 1$ and 800 nifd. Difectron ray bridge-balance indicator. Also measures power factor of electrolytics in percentage. Detects defective condensers. Checks resist ance from 50 ohms to 2 megs. Inculation resistance tests with tubes. For
> C21781 Your Cost
> $\$ 39.00$
> Model CBE-2-U. Same as above but
> \$ 45.5

## SILVER Model 904 C-R Bridge

(C) Jighly accurate, wide range, electronic bridge Measures resistors and capacitors of all types. Ila eye with variable sensitivity for accurate readings power factor and insulation resistance tests, and variable applied test voltages of 0 to $5(x)$ volts 1$)^{\circ}$. Four ranges each for resistance and capacitance: 10 ohms to 1000 megohms, 10 mmifl to $1(0 \times 0 \mathrm{mfd}$ for 115 volts, $50-60$ cycle AC with tubes and test leads. Size: C21541-Your Cost

## GE Model YCW-1 C-R Bridge

(D) Wein Bridge principle assures accurate measurements Alensure. Cipacity from $0 \times x \times 105 \mathrm{mfd}$. 10200 mid. in three ranges, Electrolytic leakage, Insulation mid. in threem 0 or 500 mequms, kesistance from resistance from to to 20 megohms in two ranges. power factor and ohms to 20 megohms in two ranges, power factor and turns ratio of transformers. Colmmeter reads $0-50$ D Push-button switching. Sensilive electron-ray tube for bridge-balance indication. Completely portable-weigh 10 lhw. 115 volt, 50 or 60 cycle. Size: $98 / 12 \times 7$. Steel
case, with cover
C21597-Your Cost. . . . . . . . . . . . . . .



## C-D "BF-50" Analyzer

(E) Incorporates a "Wien" bridge with single stage of amplitication and visual "eye" for measurements. Built-in power supply for making leakage and insulation resistance tests. Measures paper, mica, air and electrolytic condensers, from 00001 to 240 mfds Measures power factor leakage, tests for shorts. Complete with tubes. In W alnut portable case, dimension: $61 / 2 \times 12 \times 92 / 4$ " C21727 Your Cost
\$41.80

## C-D "BN/' Capacitor Bridge

(F) Measures accurately and quickly all capacitors between ( $0(H)(0)$ and 50 mfds. Employs Wien bridge cir cuit, with visual "eye" to indicate balanced conditions Ihs direc reading cale and employes 2 tubes, a 12A7 Has direct reaning scate, and employes shorts, etc. In Win indicates power factor. shorts, With test leads and instructions, and tubes. For 110 V to Chpr. wit. 4 tbs.
\$19.50

## C-D Capacitor Decades

(G) Accurate standards covering a wide range of capacity in 3 units. For use with Type " $33 N$ " Capacity capacity in shown above or similar precise unit. Capacity range: (0) 1 to 11.1 mfd . Calibration chart with each Kating (GXVV. $1 \mathrm{C}-220 \mathrm{~V}$. $A C$; Tolerance $\pm 5 \%$. Walnut Bakelite case, dimension: $3^{3}{ }^{3} \times 5 \times 5 \times$ C21729-011 mid. in (hr)l steps. C21730
 Your Cost

## SPRAGUE TO-3 Tel-Ohmike

## 4) Speedy check lucates open intermittent or shorted

 condensers without removing them from the circuit. Dial of direct reading calibrated $t$ ype, color coded to correspond to selector switch. Measures .00001 to $2,(000 \mathrm{mfd}$ in 1 rances. power factor from 0 to $50 \%$ at 60 cycles () to 2.500 megohms insulation resistance, 2.5 ohms to 05. Xegohms in 3 resistance ranges, and 1)C voltage in three raners to 7.0 volts. InC ma, in three ranges to 75 ma. (ilpacity and power factor of electrolytic condensers monsured with rated polarizing voltage applied. Electrolytic leakare measured in NiA at rated DC voltage. For 115 volts, 60 cycles. $131 / 4 \times 101 / 3 \times 5$ C21787Your Cost

## FEILER Signal Tracing Analyzer Model TS-3

(A) New electronic "stethoscope" that gets to the hear of radio troubles in a thash. Completely portable and AC operated. Uses biased diode detector probe. Dees not upset the most criticil circuits. F (1) dynamic speaker included. Makes audible all signal-30 cys to 120 MCRF, IF, Audio-without using special controle or tuning; Provision for output meter tor silent tracing and Ior Re some brown iridescent limish. C.21778-Your Cost

Model TS-2
Same electrical characterist ics and but battery operated. Less batteri
C21798 Your Cost. . . . . . . . . Burgess M30 batteries. 2 required. C20617-Your Cost Each Burgess G3 batteries. 1 required C20610-Your Cost Each


## PRECISION Signal Tracer

8) Unit complete with high frequency probe and tubes, ready to operate on $110-130$ volis A.C. (i) cycles covering A.M.M.M. and television sound. 30 cycles to well over 100 Megacycles with a separate channel for audio fre quency. Iigh frequency tube in probe with 3 -tube ligh Gain Amplisier of 5 watts for $\mathrm{R} \mathrm{F}^{\circ}-\mathrm{IF}$ requency makes all signals audible. Full control of the RF-1F tage is provided by a varia
attenuator. Shpg. wo. 111 bs

## C21799 Your Cost

PRE-CHECK Midget Analyzer
(C) Makes fast accurate tests for open circuited condensers. AN I 1 it. in rouble shooting for low volume. excessive oscillation or distortion. Test for presence or ack of voltage on filament, plate or screen; open bleeder resistors and cathone resistors; continuity of any receiver circuit. Made of highy polished libre ubing. Ant joints all $88 / 4^{\prime \prime}$ dia. IVurnished with test lead, neon lamp and C11305

## Cilur Cos

## ubber insulated alligator cli,3. Shpg, wit 1 <br> $92-25$

## FERRET Deluxe Test Set

(D) Designed to eliminate the necessity of removing set peaker from radios, for servicitig. Yoice coil connections permit sulstitution of any output transformer. Input and field switches on front panel permil matching to any single or push-pull output tulx'c. I'rovides substitution for chokes, electrolytic condeneers. coupling, by-pass con densers and a wide range of resistore. Eliminates solderin until all defective parts are located and substituted. $A$ compact, portable lightweight unit $\mathrm{f}^{\circ}$ IM speaker Altractive front panel with red and whice lottering Completely enclosed in black wrinkle aluminum case with leather handle. Size: $10 \frac{1}{4} \times 101 / 4 \times 5$ C21430-Your Cost


## Model TS-1

Rapid point to perint testing. Portable metal case contains compartment for cable, probe and batteries
Handy sized probe contains tube and circuit conijonents Operates on one 22 $4_{2}$-volt hattery and one No. 2 liash light cell. Reouires set of magnetic headphones. With operating instructions. Size: $63 / 4 \times 43 / 4 \times 3 \frac{3}{4}{ }^{4}$. Shpg. wt. 6 lbs. Not illustratcd.
C21797-
Your Cost (Less batteries and phones)
$\$ 9.85$
C19862-221/2-volt Battery C20622-No. 2 Cell
C13892-2000 Ohm Headset



## ICA Aligning Kit

(A) 14 tools telescope into six units: a flexible scruwdriver. alignment tool. alligator side wrenç, , $^{\circ}$ insulated driver -meta! nib, ${ }^{3} 16^{\circ}$ and $1_{1} 4^{\circ}$ nut wrench.
insulated
scquare nut wrench hex metal side wrench. $2 / \mathfrak{l}^{2}$ insulated driver with metal nib. "1 hex slotted insulated wrench driver. ${ }^{3} 1^{\circ}{ }^{\circ}$ hex insulated nut wrench, $5^{\circ}$ nisoss Your Cost
$\$ 4.41$
like aloove, but lecs flexible screw: driver and aligning tos) C15089 Your Cost. ..... $\mathbf{5 2 . 7 5}$
Neon Electrical Tester
(B) Indicates from frot to shor) V AC ${ }^{\text {krounded circuits. }} \mathbf{c} 12958$. Your Cost...29

## Neon Circuit Tester

(C) Shows open circuits, polarity. continuity, etc. Checks fuses in circuits. Tiny neon lamp glows on only 1 ma . Coded leads have phon
C11310 Eac
Low V
50) v. LAadse Type, Rang C11308-
Each.
s1.10

## Hex. Socket Aligner

(D) 6" long with brass river bit Shalt dia $7^{\circ}$ cis104-Your Cost \&

## ICA Aligning Tool Set

(E) Two tools, one fits within other. Ore is $6{ }^{2}$ l long, "乍" diameter with fitted brass wrenches
 nib rod hitted with screwdriver C15083 - Your Cost...
AMPHENOL
U.H.F. Aligning Tool (F) Pure Polystyrene - no ca C15075 -Each

15 \%

## 1CA Low "C" Aligner

## (G)

 for aligning superhets !. bone fibre, with 2 driver nibs. One extends $\because$. lor padding condensers (ther has recessed screwdriver for permeability tuned c15145.Your cost 43 4 ICA 5-in-1 Aligner Kit
(14) Combines in a fountain pen wrencher, miniature blade screw where for all aligning and a full-$15082-$ Your cost 794

## FIBRITE Screwdriver

(1) $7^{7 *}$ long: driver at both ends C15150 rimmer condensers c15151- $5_{10}^{\circ}$ " diameter...... ${ }_{\text {4ic }}^{23 \mathrm{c}}$
Flexible Tuning Wand (1) For determining correct ane end brast. A $6^{\circ}$ fiexible rod: core steet llacing-the other magnetic ficid of coil will show inductive condition
c14978-Your cost
S.

## Solid Tuning Wand

 Similar to above, except that the C14976-Your Cost Ea. 59 个
## Neon Test-O-Lite

(L) Will check any voltage be cither a.c. or dc. Will also check ppark-plugs radio sets check ances. etc. IDistinguishes appli rum d.c. Bakelite case with pocket clip $\mathbf{1 2 9 8 3 \text { Your cost } 9 8 4}$ Neutralizing "Driver" (M) For aligning coils, condens-


4-1 Neutralizing Tool
(N) Has pen clip for pocket. Y: aligning screwdriver. alicning screwdriver.
$50^{\circ}$

## Heavy Duty Test Prods and Leads

(O) Spring prongs at the end of prods allow changing I landles are $i^{\circ}$ lugs to phone tips or to spring clips. hlack kinkless wire. Complete with t wo alligator clips. two needle point phone tips and two taperred lugs. Your Cos
$\$ 1.47$
Similar to above, but fixed Epring (Clip Ends.
C12883-Per Set With Phone Tip Ends.....68c

## ICA Test Lead Kit

(P) eatherette pocket case. With one pair of test one end has insulated phone tips, the other insulated removable banana plugs. Also includes one pair each: insulated alligator clips; insulated spade plugs: insulated needle points (all 1 red, 1 black C12861
\$2.06

## Weston Type Test Leads

(B) $5^{\circ}$ Ing handles of red and hack phenolic. With with set serews. fis overadl.
c12988 Your Cost

## Test Prods

(5) High grade insulated proxls, available with three less phene tip with knurled collar: Type B has chuck and nut 10 hold plain pheno needle; Type C has annana nlug to fit standard hanana jack. Red or Black-specify color. SOLDERLESS PROD (A)
C12881
Length
C12884
PHONO NEEDLE TIP (B)
C12869 BANANA PLUUG TIP (C)
C12910
Alligator Clip Test Leads
(7) Has s. red and black handles and a remoubale C12Sto-Your Cost.

IMMEDIATE SHIPMENT FROM CHICAGO OR ATLANTA
(v) Safety test up to 10.000 volts. A necessity and repair jobs and transmitter work tula work. X -ray bakelite proxds is inches long with guarded midget phone-tip prods on one end and 2 inch phone tips on heavily insulated calles. Is gauke stranded timued copper for low voltage drop. Cables 500 inches long. One lead is red, the other black. Shpg. w C12885.
Per Pair.
\$2.35

## ICA "No Break" Prods

(V) Of solid brass, nickeled and covered with shocktips. Other end of $)^{-1}$ red. 1 black; sharp pointed solderless insulated phone tips.
C12999-Pair
684

## ICA Laboratory Prods

(X) Removable phono needle chucks, Extra-long for easy brip). Vatndles fed handles knurled at end duty kinkless tlexible rubber wire. Each C12978-Spade Tips


NEEDLE TIP PRDDS (A)

(5)



Incorporate precision engineering, the finest materials and workmanship. Molded cases, all terminals nolded in. Sapphire jewels in adjust able screws. Accuracy within 2
D.C. Milliammeters-Round and Square Case

|  | $\left\|\begin{array}{c} 2^{8} \text { Round } \\ 221 \end{array}\right\|^{2}$ | Square 227A |  | $\begin{array}{\|c\|} \hline 3^{*} \text { Round } \\ 321 \\ \hline \end{array}$ | $\begin{gathered} 3^{\circ} \text { iquare } \\ 327 \mathrm{~A} \end{gathered}$ |  | $\begin{gathered} 4^{*} \text { : iquare } \\ +26 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rang | 112 | No. | Each | No | No | Each |  |  |
| $0-1$ | C11208 | C11288 | \$6.08 | C11200 | C11320 | \$7.35 | C11 | \$8.92 |
| 0-1.5 | C11209 | C11289 | 6.08 | C11201 | C11321 | 7.35 |  |  |
| 6-3 | C11415 | C11290 | 6.08 | C11411 | C11322 | 7.35 |  |  |
| O-5 | C11416 | C11298 | 5,10 | C11412 | C11323 | 6.08 | C11337 | 7.64 |
| 0-10 | C11210 | C11299 | 5.10 | C11202 | C11324 | 6.88 | C11338 | 7.64 |
| 0-15 | C11211 | C11300 | 5.10 | Cl1203 | C11325 | 6.08 | C11339 | 7.64 |
| 0-25 | C11398 | C11306 | 5.10 | C11394 | C11326 | 6.08 | C11340 | 7.64 |
| 0-50 | C11212 | C11309 | 5.10 | C11204 | C11327 | 6.08 | C11341 | 7.64 |
| (0-100 | C11213 | C11311 | 510 | C11205 | C11328 | 6.08 | C11342 | 7.64 |
| 0-150 | C11417 | C11312 | 5.10 | C11413 | C11329 | 6.08 | C11343 | 7.64 |
| 0-200 | C11214 | C11313 | 5.10 | C11206 | C11330 | 6.08 | C11344 | 7.64 |
| (0-250 | C11418 | C11314 | 5.10 | C11414 | C11331 | 6.08 | C11345 | 7.64 |
| 0-300 | C11287 | C11315 | 5.10 | C11395 | C11332 | 6.08 | C11346 | 7.64 |
| (0-500 | C11215 | C11316 | 5.10 | C11207 | C11333 | 6.08 | C11347 | 7.64 |
| 0-750 | C11400 | C11317 | 5.10 | C11396 | C11334 | 6.08 | C11348 | 7.64 |
| 0-1000 | C11401 | C11318 | 5.10 | C11397 | C11335 | 6.08 | C11349 | 7.64 |

D.C. Microammeters-Round and Square Case

| ${ }^{(1-50 *}$ |  |  |  | C11352 | C11354 | \$17.05 | C11358 | \$22.74 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-100* |  |  |  | C11353 | C11355 | 15.29 | C11359 | 20.38 |
| 0-200 | C11432 | C11350 | 58.92 | C11434 | C11356 | 12.45 | C11360 | 14.01 |
| (0-500 | C11433 | C11351 | 7.64 | C11435 | C11357 | 9.51 | C11361 | 10.78 |

## *With Cobalt Maenet

|  | $\begin{gathered} 2^{\circ} \text { Round } \\ 231 \\ \hline \end{gathered}$ | $\begin{gathered} 2^{\prime \prime} \text { Square } \\ 237 \mathrm{~A} \\ \hline \end{gathered}$ |  | $\begin{gathered} 3^{\prime \prime} \text { Round } \\ 331 \end{gathered}$ | $\begin{gathered} 3^{\prime \prime} \text { Square } \\ 337 A \\ \hline \end{gathered}$ |  | $\begin{gathered} 4^{\circ} \text { Square } \\ 436 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Range | No. | No. | Each | \$0. | No. | Each | No. | Each |
| $0-5$ | C11280 | C11449 | \$5.10 | C11273 | C11459 | \$6.08 | C11466 | \$7.64 |
| 0-10 | C11281 | C11454 | 5.10 | C11274 | C11460 | 6.08 | C11467 | 7.64 |
| 0-15 | C11282 | C11455 | 5.10 | C11275 | C11461 | 6.08 | C11468 | 7.64 |
| 0-25 | C11283 | C11456 | 5.10 | C11276 | C11462 | 6.08 | C11469 | 7.64 |
| 0-50 | C11284 | C11380 | 5.10 | C11277 | C11381 | 6.08 | C11382 | 7.64 |
| 0-150 | C11286 | C11457 | 6.08 | C11279 | C11463 | 7.35 | C11470 | 9.31 |
| $0-300$ | C11409 | C11458 | 7.45 | C11406 | C11464 | 8.43 | C11383 | 10.29 |
| 0-15-150 |  |  |  | C11408 | C11465 | 9.60 |  |  |




## TRIPLETT <br> D. C. <br> Ammeters

These precision instru ments incorporate the finest materials. and are assembled by skilled cases; terminals molded

in. With external shunt. Prices on higher range meters, or on a.e. ammeters with current transformers, available on application.

| Range | $221-2^{\circ}$ | Kound | $321-3^{\circ}$ | Round Each | $\begin{gathered} 426-4^{\prime \prime} \\ \mathrm{N}_{0} \end{gathered}$ | Square | $626-6^{\circ}$ <br> No. | Square |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C10926 | 5 6.86 | C10937 | 58.23 | C10948 | \$10.29 | C10959 | \$12.15 |
| 0-75 | C10927 | 6.86 | C10938 | 8.23 | C10949 | 10.29 | C10960 | 12.15 |
| 0-100 | C10928 | 10.39 | C10939 | 11.66 | C10950 | 13.52 | C10961 | 15.39 |
| 0.150 | C10929 | 10.39 | C10940 | 11.66 | C10951 | 13.52 | C10962 | 15.39 |
| 0.200 | C10930 | 10.39 | C10941 | 11.66 | C10952 | 13.52 | C10963 | 15.39 |
| 0-300 | C10931 | 11.37 | C10942 | 12.45 | C10953 | 14.31 | C10964 | 16.37 |



## Power Level Indicators

For measuring noise levels in P.A., theaters, hroadcast slationso elc. Ranke reads up 6 and down 10 dh . Yero dt at 1.73 volts. W0 ohm
lines, 6 milliwatts. Siandard damping. Wt. 3 lbs. C11446- Model 321. $3^{\prime}$ dia. Your Cost
$\$ 12.15$ $\underset{\substack{\text { C11447-Model 141. } 4^{2} \text { sq. } \\ \text { Your Cost }} \mathbf{\$ 2 0 . 3 8}}{ }$


1000 Ohms-per-Volt Foundation Meters


$0-1$ d.c. milliammeter Foundation Instruments with internal resistance of 100 ohms ( 1000 ohms-per-volt). Scales read: 0-10-50-250-500-1000 to 5 ;0); high ohms to 100,000 . Shpg. wt. tach, 3 lbs. | C11442-Model 321. $3^{\prime}$ Round. . . . . . . . . $\$ 7.84$ |
| :--- |
| C11388-Model $326.3^{\prime}$ ' Square... . . . . |
| .84 | C11278-Model-421. 4' square. . . . . . 9.90 C11297-Model 521. $5^{\circ}$ Kound C11285-Model 726. 7" Square 10.98 18.23



TRAPLETT equipment not listed on this page is available on special order at regular prices. Send for FREE TRIPLETT catalog and write us your requirements. Your correspondence will receive prompt and courteous attention.

## LITTELFUSES For Test Instruments



Protect delicate instruments. Break circuit immediately on reaching blow point Iensth diam $1 / 4$. May be used on 250 volts, AC or DC. Iligh Speed action. Type 8AG

| $\begin{aligned} & \text { Stoch } \\ & \text { No. } \end{aligned}$ | Rat ing Anms. | $\begin{aligned} & \text { oux } \\ & \text { Iand } \end{aligned}$ | Res. on , Ma. Loud | Your Cost Each | $\begin{aligned} & \text { Your } \\ & \text { Cost } \\ & \text { Per } 100 \end{aligned}$ | V-M <br> Ohms <br> Per 1 | Tol'rotect Alilliam. meters |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C12339 | 1/2(1) | 5 | 480 | 18c | \$14.70 | over 100m | Galv. |
| $\begin{aligned} & \mathrm{C} 2385 \\ & \mathrm{C} 12396 \end{aligned}$ | $1 / 1(\%)$ | 10 <br> 25 | $\begin{aligned} & 160 \\ & 40 \end{aligned}$ | 12 | \$9.80 | $\begin{gathered} 1000 \\ 500-1(000 \end{gathered}$ | $\operatorname{up}_{1.10}^{100-1}$ |
| C12387 | ${ }^{1} 15$ | 60 | 5 |  |  | 100500 | $10-25$ |
| C12388 | 1/8 | 100 | 2 |  |  | 20-100 | 25-75 |
| C12390 | 1/6 | 200 | 3.5 | - | 57.35 | 10-20 | 75-150 |
| C12391 | \% | 300 | 3 |  | $\underline{-3}$ | 510 | 150-250 |
| C12392 | 3 | $400$ | 2 |  |  |  | 2500350 |
| C12393 | 8/4 |  | 2 |  |  |  | 350) 500 |
| $\begin{aligned} & \overline{\text { C12394 }} \\ & \text { C12395 } \end{aligned}$ | 1 | $\begin{aligned} & 1000 \\ & 2000 \end{aligned}$ | $\begin{gathered} .24 \\ .10 \end{gathered}$ | $54$ | \$4.90 |  | $\begin{array}{r} 50(1) \cdot 750 \\ 1000-1500 \end{array}$ |

## Reliarese Meter Cases Blac. crackle inish steel cases $4 \times 4 \times 41 / 6^{\prime}$ inshlators. 2 lbs. insulators. c10398- $2^{3} / 1_{6}$ hole C10399-2 $2^{13,166^{\circ}}$ hole <br> Your \$1.09 <br> "Meter Back" Tuse Mount Mounts directly on any meter terminal. any meter terminal. Will not touch other posts. Takes $1 \times 1 / 6$, instrument fuses only. <br> Each <br> 

## 78

CONCORD RADIO CORP., CHICAGO, ILL. ATLANTA, GA.


|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  | 1.96 | 0-3 | C111 |  |
| 10 | 1.81 | 0-5 | C11150 | 1.96 |
| c11100 | 1.71 | $0-10$ | C11151 |  |
| C11101 | 1.32 | 0-15 | C11152 |  |
| C11102 | 1.27 | $0-25$ | C |  |
| 110 | 1.27 | 0-50 | C11 | 1.42 |
| c11104 | 1.27 | 0-100 | c11155 |  |
| C11105 | 1.27 | 0-150 | C11156 |  |
| c11106 | 1.27 | 0-200 | C11157 |  |
| 1107 | 1.27 | 0-300 | C111 |  |
| 108 | 1.22 | 0-400 | c111 | 1.3 |
|  | c. | AMM |  |  |
| 091 |  |  | C11162 |  |
| C11092 | 1.27 | 0-3 | C1116 |  |
| C11093 | 1.27 | (1-5 | C111 |  |
| C11094 | 1.27 | $0-10$ | c11165 |  |
| 1096 | 1.27 | 3-1)3 | c11167 | 1.42 |
| C11097 | 1.27 |  | C11168 |  |
| C11098 | 1.27 | 10-1-10 | c11169 |  |
| C11099 | 1.37 | 20-0-20 | c11170 | 1.52 |
|  |  | LLIA |  |  |
| c | $52.30$ |  |  |  |
| C110 | 2.30 | (1)-100 | C11001 |  |
| C11089 | 2.30 | (1-2.50) | C11002 |  |
| C11090 | 2.30 | 0-500 | C11003 | 2. |
|  | A.C. | AMN |  |  |
| 81 | 52 |  | C11004 |  |
| C11082 | 2.30 | 0-3 | C11005 |  |
| c1 | 2.30 | 0-5 | C11006 |  |
|  | 2.30 | (1)-10 | 7 |  |
| 1085 | 2.94 | 0-50 | C11008 |  |



Flange for Round Meters Diampert 23/0 Black Finish.

## MARION Multi-Ranger Meters

() Foundation meter is designed to pernut the user to assemble a highly ascurate Volt-()hm-Milliammeter. Ilave full 100 degree three-color scales. Uses the new Alnico magnet. Scale readings are AC-DC Volts $0-10$, $0-56,0-250,0-1000$ Volts. Milliamps $0-1,0-10,0-50,0-500$ Milliamps. Ohms $0-500,0-100 \mathrm{M}, 0-1 \mathrm{Meg}, 0-10 \mathrm{Meg}$. Decibels -10 to 54 . Availahle in three electrically inierchangeable sizes.

| Stock No. | Model | Size | Your Cost |
| :--- | :---: | :---: | :---: |
| C10720 | $53 S N$ | 3. Square $^{2}$ | $\$ 7.84$ |
| C10721 | 55 | $45^{\circ} \times 41 \%$ | 9.80 |
| C10722 | 57 S | $7^{\circ} \times 8 \%$ | $\mathbf{1 3 . 0 6}$ |

## Shunt and Resistor Kit

Kit for Marion Multi-Ranger foundation meter. Consists of 14 metalized schematic diagrams.

## MARION Hermetically Sealed Meters

(O) These precision meters will withstand extremes in temperature without affecting the calibration. Ileavy steel case affords magnetic and
electrostatic shielding for use with hi-freq. equipment. I'rotected perelectrostatic shielding for use with hi-freq. equipment. Irotected permanently against dirt. dunt and moisture.
Guaranteed! If seal has not beern broken, meters will be replaced FREI: within 6 months from date of purchase; after 6 months, provided seal has not been broken. meters will be replaced at a charge of $\$ 1.50$ to $\$ 3.50$, depending on sensitivity. ©uartintee apples regardless of electrical use or misuse of ineter.
D.C. MILLIAMMETERS

| .C. Milliammeter |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. C10723 | Range | Your Cost | Stock No. | Ran | Your Cost |
| C10724 | (0)-5 | $\$ 7.18$ |  |  | $\$ 7.18$ |
| C10725 | 0. 10 |  |  |  |  |
| C10726 | 0-25) |  | C10730 | 0-300 |  |
| C10727 | 0-50) |  | C10731 | 0-500 |  |
| $\begin{aligned} & \text { Stock No. } \\ & \text { C10732 } \\ & \text { C10733 } \end{aligned}$ | D.C. MICROAMMETER |  |  |  |  |
|  | Range | Your Cost | Stock No. | Range | Your Cost |
|  | 050 | \$14.70 | C10734 | 0.200 | 59.48 |
|  | 0-100 | 11.44 | C10735 | 0-500 | 8.65 |
| $\begin{aligned} & \text { Stock No, } \\ & \text { C10736 } \\ & \text { C10737 } \end{aligned}$ | Range V.C. AMMETERS |  |  |  |  |
|  | Range | Your Cost | Stock No. | Range | Your Cost |
|  | 010 | 57.18 | C10738 | 0-25 |  |
|  | 0-15 | 7.18 |  |  |  |
| $\begin{aligned} & \text { Stock No. } \\ & \text { C10739. } \\ & \text { C10740 } \end{aligned}$ | D.C. VOLTMETER ( $\mathbf{1 0 0 0}$ ohms per volt) |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | 0-10 | 58.82 | C10741 | 0-150 | \$9.31 |
|  | 0-50 | 9.14 | C10742 | 0-500 | 10.12 |
| $\begin{aligned} & \text { Stock No. } \\ & \text { C10743 } \\ & \text { C10744 } \end{aligned}$ | A.C. VOLTMETER |  |  |  |  |
|  | Range | Your Cost | Stock No. | Range | Your Cost |
|  | 0-15 | \$10.29 | C10745 | 0-150 | \$10.78 |
|  | 050 | 10.61 | C10746 | 0-250 | 10.95 |
| Interchangaeble round and square flanges for ahove meters. C10747-Square 31\%. Your Cost. |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| C10747-Square 31 . Your Cost. C10748-Round 3'\% Your Cost |  |  |  |  |  |

AC

## Instrument Rectifiers

General replacement rectifiers forall types of meters and relays.
Type E for applications requiring more than one milliamp current output. Disc diameter .50 inch.
Type $F$ for applications requiring good irequency response and less than one Type C. Same char.
bype d. Same characteristics as Type F (F) standard midget fuse clip. Ratings shown are continuous peak ratings. Intermittent ratings are twice figures shown. Instan taneous ratings are three times the figures shown.

| Stock No.$\qquad$ | Diag. | Fig. | Rating |  | Yourr Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Volts | M.A. |  |
| C10569 |  |  | 10 | 30 | \$2.06 |
| C10550 | 2 | E | 5 | 30 | 1.59 |
| C10551 | 3 | E | 10 | 30 | 1.59 |
| C10552 | 4 | E | 5 | 30 | . 88 |
| C10572 | 1 | F | 10 | 5 | 2.06 |
| C10553 | 2 | F | 5 | 5 | 1.59 |
| C10554 | 3 | F | 10 | 5 | 1.59 |
| C10555 | 4 | 1 | 5 | 5 | .88 |
| C10556 | 1 | (; | 10 | 5 | 2.06 |
|  |  |  |  |  | $\underbrace{\text { [ }}_{\text {4 }}$ |

BRADLEY Universal Rectifier (H) New "Coprox" model CX2E4U copper oxide rectifier fills all circuit needs within the rectifier rating. Circuit uses include :


Double half wave Full wave...
$\left\{\begin{array}{l}6 \text { volts AC } 3 \mathrm{ma} \text { DC } \\ 12 \text { volts AC } 3 \mathrm{ma} \text { DC }\end{array}\right.$ Full wa
C10565 Your Cost $\qquad$ 12 volts AC 3ma DC
6 volts AC 3ma DC 6 volts AC 5 ma DC ${ }^{6}$ volts AC 5ma DC

ELECTROX Rectifier Unifs
Es
(J) metal housing oxide rectilier in 3 -inch leads. Continuous our insulated $\Delta$ at max. of 3 volts DC. Max.

## C10566-Your Cost

\$2.59
(K) Full wave conper oxide rectifier in 3-inch leads. Consinguous output insulated at max. of 3 volts Inc

## C10567-Your Cost

$\$ 1.95$
(L) Full wave copper oxide rectifier with Us output of $6-4$ ma at - leads. ContinuDC. Nax. input 4.1 volts AC. $\$ 75$ C10568 Your Cost

## BRUJAC Meter Rectifier

(M) Replacement for meter circuits vary imps. Will stand surges 50 mp to 5 milliamps. Will stand surges up amps. Size $1 / 4 \times 3$.
C10570 Your Cost
\$2.95

## RCA Testpoint Adaptor Set

(N) Permits point to point and stage by fiers above the chassis, witers and amplifrom the cabinet. Voltage tests removing tracing accomplished at the and signal after inserting in the the tube base placed in the tube socket. Complete set Haced in the tube socket. Complete set consists of one each of 4,5,6, and 7 prong small, 7 prong large, octal and loktal types mounted
ShpI. wt. 2 lbs.
C2173-Your cost
$\$ 7.50$

## （s）shavere

## SPRAGUE＂ATOMS＂Ultra－Compact

## Dry Electrolytics

Ultra－compact capacitors sealed in tubes with outer insulatinys sleeve Protected against＂Blow－ups．＇ All have $31 / 2$ bare wire leads riv－ eted to end caps．

| No． | Mid．Wh．V．D．L． |  |  | Each |
| :---: | :---: | :---: | :---: | :---: |
| C769 | 10 | 25 | ${ }_{7} \mathrm{cax}^{15}$ | 44 c |
| C770 | 25 | 25 | 9， 1 ¢ 18.4 | 50 c |
| C2680 | 5 | 50 | P㑑 $\times 15$ | 44 |
| C2682 | 10 | 50 | 110615／8 | 47 |
| C771 | 25 | 50 | ${ }_{56} 5^{1 / 8}$ | 53 |
| C2841 | 50 | 30 | 11／6x ${ }^{17}$ | 62 |
| C772 | 4 | 150 | $5,6 \times 15 \%$ | 44 |
| C773 | 8 | 150 | $5{ }^{\text {\％}} \times 15$ | 7 |
| C774 | 12 | 150 |  |  |
| C775 | 16 | 150 | $1 \mathrm{~m} \times 15$ |  |
| C776 | 20 | 150 | $3^{3} \times 18{ }^{1 / 8}$ |  |
| C2840 | 30 | 150 | ${ }^{18} 4 \times 1{ }^{\text {7 }}$ |  |
| C777 | 40 | 150 | $8 \times 15$ |  |
| C778 | 4 | 450 | $3 / 8 \times 15$ | 53 |
| C779 | 8 | 450 | 3／815 ${ }^{\text {S }}$ |  |
| C780 | 12 | 450 | 7／8×15／8 |  |
| C781 | 16 | 450 | 136021s |  |
| C782 | 20 | 450 | 3，$\times 21 / 5$ |  |
| C783 | 10－10t | 50 | $5 \times 12$ |  |
| C3164 | 8－8＊ | 150 | 515 |  |
| C2842 | 12－20＊ | 150 | 1110x23／\％ |  |
| C3165 | 20－20＊ | 1.50 | ${ }^{3} \times 1 \times 23$ |  |

Type＂EL＂Prona－Base Dry Electrolytics


In uninsulated mounting feature： metal ears bend back under chassis． Lug terminals are coded．All are per－ ectly sealed and are mper Bakelite and metal mits．plates listed below at right． Wkg．


400 VOLTS WORKING No．Mid．Dimen．Each
 600 VOLTS WORKING
C2781 $2^{3}$ 多×1 $12 \times 6 \times 11 / 8 \quad \$ 0.82$ C2782 ${ }^{2000}$ VOLTS YORKING C2783 $\quad 1 \quad 41 / 2 \times 17 / 8 \times 12 / 8 \quad \$ 1.35$ C2784

| No． C2683 | Mfd．Thg．V．D．－L． |  |  | Each |
| :---: | :---: | :---: | :---: | :---: |
|  | $20-20 \dagger$ | 150 | 1 x 1／8 | \＄1．18 |
| C744 | 30－30＊ | 150 | ${ }^{2} 8 \times 23 / 8$ | ．82 |
| C797 C 745 |  | $\begin{aligned} & 150 \\ & 150 \end{aligned}$ | $1519 \times 2{ }^{3}$ | ．88 |
| C746 | 40－30＊ | 150 | 1×2\％ | ． 94 |
| C798 | 40－50＊ | 1.00 | 1125 | 1.00 |
| C799 | 50－304 | $1: 0$ | $1 \times 2{ }^{2} 8$ | 1.00 |
| C747 | $50-50$＊ | 150 | $15 / 8 \times 338$ | 1.09 |
| C2843 | 40－201 | 1.20 | $1{ }_{16}^{16 \times 24}$ | 1.38 |
| C784 | 12－12＊ | 200 | ${ }^{4} 16 \times 23 / 4$ | ． 76 |
| C785 | 8－16＊ | 200 | ${ }^{13}$ 你233 | ． 76 |
| C2844 | 8－16＊ | 250 | $3 \times 27 / 8$ | ． 94 |
| C2845 | 8－16 $\dagger$ | 250 | $1 \times 23$ \％ | 1.32 |
| C787 | 16－16＊ | 200 | $71 / 8 \times 23$ \％ | ． 88 |
| C2846 | 16－16＊ | 250 | 1x23／8 | 1.00 |
| C2684 | 16－16 | 250 | 1827／6 | 1.50 |
| C786 | 8－8＊ | 450 | ${ }^{15} 16{ }_{16} 2^{3}$ ， | 1.00 |
| C2685 | 8.81 | 450 | $11 / 1 x^{3} 3^{3 / 8}$ | 1.23 |
| C2847 | 8－16＊ | 450 | $12^{25}{ }^{\circ}$ | 1.18 |

Photo Flash Brochure
Spracue＇s complete Brochure on Photoflash，I＇rinciples，How to Bhotd 5 lash Unit，Jow to Use． C19997－
Your Cost
$25^{6}$
Write for Sprague Tel－U－How Wall Chart．
C19999－FREE．

## ＂LM＂Cardboard Tube Compact

 Dry Electrolytics| All p unive that on to anch screw throu chas under arate positi ends with pound | ovided al mtg $n$ be sol of red or ext h hol $s$ and All hav regativ e leads high m units | with lugs ered assis． ilh nded $s$ in bent sep－ and Lead lting are m |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock No． | $\begin{aligned} & \text { Cap. } \\ & \text { Mfu. } \end{aligned}$ | $\underset{\text { Whg. }}{\substack{\text { Whg. }}}$ | $\begin{gathered} \text { Size } \\ \text { D-L. } \end{gathered}$ | Your |
| C2662 | 20 | 159 | 312012 | \＄0．68 |
| C2663 | 8 | 450 | $3 / 4 \times 21 / 2$ | 68 |
| C2664 | 16 | 450 |  |  |
| C2665 | 20－20 | 150 | $1: 21$ | 1.29 |
| ${ }^{C 2666}$ | 8－8 | 250 | 76x 23 | 1.29 |
| C2667 | 16－16 | 250 | $1 \times 3$ | 9 |
| C2668 |  | 450 | $1 \times 3$ |  |
| C2669 | 8－16 | 450 | $1{ }^{3}{ }_{k} \times 3^{3}$ |  |
| C2670 | 16－16 | 45 | $1{ }^{13} \times \times 43$ d |  |

Type AP Hi－Voltage Can


Dry Electrolytic for public ad－ dress and theater applications where working voltage is high and surge voltage runs over 600 Stock Voltage Dim．Your No．Mfd．DCW Surge D L Cost $\begin{array}{lllllll}\text { C2776 } & 4 & 600 & 800 & 1 & 43 \text { 伯 } & \$ 1.76\end{array}$ | C2777 | 8 | 600 | 800 | $13 / 8$ | $43 / 6$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{C} 2778$ | 16 | 600 | 800 | $11 / 25$ |  |
| 426 | 2.94 |  |  |  |  |

## Type PLS

＂Tiny Mike＂
Dry electrolytic can type．May be mounted in any position．Stand－ ard through－chassis by threaded bushing on can which is completely in－ sulated from the sec－ and negative leads．Ex－ tremely small size made possible by use of exclusive Sprague etched foil process．
450Volts Working 525 SurgeVolts

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2795 | 4 | 2 | x2 3／1／ | 00 |
| C2796 | 8 |  | 13 | 1.03 |
| 797 | 12 |  | $\pm 3$ | 1.26 |
| 2798 | 16 | 2 | x 3 | 1.4 |
| C2786 | 20 | 2 | $13 / 8 \times 2{ }^{15}$／6 | 1.56 |
| C2787 | 25 | 2 | 18 \％${ }^{\text {d }}$ | 1.68 |
| C2788 | 30 |  | 18／8×3 | 1.76 |
| 2789 | 40 | 2 | $13 / 8 \times 3^{13} / 6$ | 2.00 |
| C2790 | 4－8 | 4 | $13 / 8 \times 215$ | 1.47 |
| C2799 | 8－8 | 4 | $11 / 2 \times 256$ | 1.62 |
| 2791 | 8－16 | 4 | $11 / 2 \times 4$ | 1.91 |
| 2801 | 16－16 | 4 | 112x | 2.0 |
| 2800 | 8－8－8 |  |  |  |

## 600 Peak Volt

## Replacement Drys

Jighly formed dry electrolytics especially designed to replace wet electrolytics．Guaranteed to carry the ac ripple．Similar in appear－ ance to PLS units．

| $\begin{array}{c}\text { Stock } \\ \text { No．}\end{array}$ | $\begin{array}{c}\text { Cap．} \\ \text { Mid．}\end{array}$ | $\begin{array}{c}\text { Replaces } \\ \text { Wet }\end{array}$ | $\begin{array}{c}\text { Your } \\ \text { Cost }\end{array}$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{C 2 5 1 5}$ | 8 | 4 to 8 mfd. | $\$ 1.47$ |
| C2516 | 16 | 12 to 18 mfd. |  |
| $\mathbf{C 2 5 1 7}$ | 25 | 20 to 40 mfd. | 2.35 |

＂600＂Line－Type TC Paper Tubulara


Popular Compact tubular condens－ ers．Non－inductively wound．Oil impregnated．The Sprague slogan Not a Failure in a Million＂is convincing proof of the efficiency of these condensers．Universal for a wide variety of replacements．Test voltage 1200

| No | Mfd． | E |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2627 | ． 0001 | 15 c | C2636 | ． 006 |  |
| C2628 | ．00025 | 15. | C2637 | 01 | 18c |
| C2629 | ． 0004 | 15. | C2638 | ．0＇\％ | 8 c |
| C2630 | ． 0005 | 15. | C2639 | ． 05 | 4 e |
| C2631 | ． 001 | 15 | C2640 | ． 06 |  |
| C2632 | ． 002 | 15. | C2641 | 1 | 6 |
| C2633 | ． 003 | 15. | C2642 | ． 25 |  |
| C2634 | ． 004 | 15 c | C2643 | ． 5 | 7 |
| C2635 | ． 005 | Line－Type AA |  |  |  |
| ${ }^{1} 4$ | 1 |  |  |  |  |
| Slightly smaller than the above． 400 volts d．c．working voltage． |  |  |  |  |  |
| No． | Mfd． | Each | No． | Mfd． | Each |
| C2604 | ． 03 | 18 e | C2610 | ． 25 | 26 |
| C2605 | ． 05 | 18 e | C2611 | ． 5 |  |
| C2606 | ． 06 | 21 c | C2612 | 1.0 |  |
| C2608 | ． 1 | 21. |  |  |  |

Oil imprermated and was filled 1600 Volts Working

| No． | Mfd． | Dia．L．gt | Ea． |
| :---: | :---: | :---: | :---: |
| C2690 | 001 | $3 / 8 \times 13$ | 32 c |
| C2691 | ． 002 | $3 / 8 \times 18$ | 32c． |
| C2692 | ． 005 | 3，16x13／8 | 32c |
| C2693 | ． 01 | 1，$\times 2$ | 35c |
| C2694 | ． 02 | $\times 2$ | 35 c |
| C2695 | ． 05 | $15 / 16 \times 2 \frac{1}{8}$ | 41 |

## Photo－Flash Condensers

light weight．Hermetically sealed units with＂Viti－ man $Q^{\prime \prime}$ impregnation．Designed for continuous apid operation．10，000 peak flashes guaranteed． 800 peak flashes per hour maximum permissible． Adaptable to other uses where accurate time con－ stants are required．

| No． | Sprague | Mfd． | DC Peak V | Watt／sec | Size | Cach |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C3144 | PQ 2510 | 10 | 2500 | 31 | 38／4x135x47／8 | \＄10．00 |
| C3145 | PQ 2515 | 15 | 2500 | 47 | $38 \times 21 \frac{1}{2} \times 47 /$ | 11.76 |
| C3146 | PQ 2525 | 25 | 2500 | 78 | $33 / 4 \times 49645 \%$ | 15.58 |
| C3147 | PQ 2535 | 35 | 2500 | 100 | $33 / 4 \times 4016 \times 6$ | 19.11 |
| C3148 | PO 315 | 15 | 3000 | 67 | $324 \times 4976 \times 45 \%$ | 14.41 |
| C3149 | PQ 425 | 25 | 4090 | 200 | $33 / 4 \times 49 \times 814$ | 24.99 |

## Type 68P Midget Tubulars

| No． | Mid． | Work Volts | Dimen． | Each |  |  | Wor |  | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | No． | Mfd． | Volts | Dimen． |  |
| C2500 | ．001 | 400 | 1／4 $\times^{11 / 16}$ | 30.21 | C2509 | ． 005 | 200 | 1／4 $\times^{11,16}$ | \＄0．21 |
| C2501 | ． 002 | 400 | $1.2 x^{13} 16{ }^{11}$ | ． 21 | C2510 | ． 006 | 200 | $1 / 1 x^{11} 168$ | ． 21 |
| C2502 | ． 003 | 400 | $1 / 4 x^{11,166}$ | －21 | C2511 | ． 01 | 200 | ${ }_{9}{ }^{5} \times 1316$ | －24 |
| C2503 | ． 004 | 400 | 1／4 $x^{11} / 16$＂ | .21 | C2512 | ． 02 | 200 | $9^{28} x^{13} 7^{\prime \prime}$ | ． 26 |
| c2504 | ． 005 | 400 | $1 / 4 \times 13,16{ }^{1 / 2}$ | ． 21 | C2513 | ． 05 | 200 | ${ }^{516} \times 1$ | －29 |
| C2505 | ． 006 | 400 | ${ }_{3}^{1 / 4} \times{ }^{13} / 16$ | .21 | C2514 | ． 1 | 200 | 13501＂ | ． 35 |
| C2506 | ． 01 | 400 | ${ }_{3}^{3} \mathrm{l}^{1} \mathrm{x}^{13}, 16^{\prime \prime}$ | ． 24 | C2520 | ． 25 | 100 | 15120118 | ．41 |
| C2507 | ． 02 | 400 | ${ }^{3}$ 仵x1\％ | ． 26 | C2521 | ． 5 | 100 | 5\％813\％ | ． 47 |
| C2508 | ． 05 | 400 | 13／3x ${ }^{\text {c／}}$ | ． 29 |  |  |  |  |  |

## SPRAGUE Condenser Kits

Paper Tubular Kit of 10 type T C condensers．Contains three．05，two
each． $01,02, .1$ and one .25 all 600 v ． C2676－Your Cost
aper Tubular Kit of 10 condensers．Contains four ．01，three 0.2 ，two 05
and one．．All 600 v ．
c2677－Your Cost．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．$\$ 2$ C2677－Your Cost
Kit of 5 Atom electrolytics．Contains two 8 mid at 450 v ．one each 16 ，
$20,20 / 20$ at 150 v ．
C2678－Your Cost．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．

C267\％－Your Cost

## c2679－Your Cost <br> \＄3．49

## ＂Ir／Noise Filters


mall compact units for elimination of electrical noise．＇Types 15 ＇ 15 and $11^{\prime} 21$ for snall motors．＂I ype 1 tor 1 H1＇motors or larger．Type 1 F S 1 for ther mo－ stats，relays，door－bells，etc．IV ve 1 F 37 for single
fiuorescent lamps．All rated 220 VAC DC．

 C12487 1F 21 2 1182

जBITE BEATAR＂I Type BR Dry Mlectrolytics
Extremely small and very handy to use．Feature：ElectrotChemical etching that eliminates corrosion；Hi－Formation Process that af－ fords higher voltage breakdown；HI－PTessure Centrifuge that pro－ vides better imprernation and gives a lower power factor

| No． | Mid． | Wikg．Vits． | In． | Each | No． | Mid． | Wkg．Vits． | In． | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1090 | 10 | 25 | 8／8×1760 | 50.44 | C1104 | 40 | 150 | 8／82 | \＄0．65 |
| C1091 | 20 | 25 | $56 \times 1 \%$ | .47 | C1105 | 4 | 250 | 581116 | ． 47 |
| C1092 | 25 | 25 | 6／8x11／4 | ． 50 | C1106 | 8 | 250 | 8／88130 | ． 47 |
| C1093 | 50 | 25 | $88 \times 17 \%$ | ． 56 | C1107 | 12 | 250 | 8／8） 2 | ． 57 |
| C1094 | 5 | 50 | 8 8，$\times 1{ }^{1 / 5}$ | .44 | C1108 | 16 | 250 | $8 / 81110$ | ． 65 |
| C1095 | 10 | 50 | 5， $6 \times 11 / 16$ | .47 | C1109 | 20 | 250 | $87 \times 1{ }^{11 / 16}$ | ． 71 |
| C1096 | 20 | 50 | 8 的17\％ | ． 50 | C1110 | 40 | 250 | 76x 215 | ． 82 |
| C1097 | 25 | 50 | 6／917\％ | ． 53 | C1111 | 4 | 450 | $518 \times 1716$ | ． 53 |
| C1098 | 50 | 50 | 8／8x11／8 | ． 62 | C1112 | 8 | 450 | \％${ }^{1} \times 2$ | ． 56 |
| C1099 | 4 | 150 | 5／xx11／6 | .44 | C1113 | 12 | 450 | 7／82 | ． 68 |
| C1100 | 8 | 150 | $5 \times 115$ | ． 47 | C1114 | 16 | 450 | 16821／2 | ． 79 |
| C1101 | 12 | 150 | 8 \％ 817 釈 | ． 50 | C1115 | 20 | 450 | $1 \times 21 / 2$ | ． 88 |
| C1102 | 16 | 1.50 | 5／8×17\％ | ． 53 | C1055 | 30 | 450 | $1 \times 3$ | ． 97 |
| C1103 | 20 | 1.00 | $5 \times 111 / 1$ | ． 56 | C1116 | 8 | 500 | 3／8x ${ }^{11 / 16}$ | ． 76 |
| C1054 | 30 | 1.50 | $3 \times 2$ | ． 57 | C1117 | 16 | 500 | $1 \times 21 / 2$ | 1.18 |

No．Mfl．Wkg．Vlts．
C1118 C1118 C1120 $C 1121$ 10－10
C1123
color－coded leads． $\begin{array}{ll}1 \mathrm{n} & \text { Each } \\ 6 \mathrm{I}^{3} & 50.56\end{array}$

Mfd．Wkg．Vlts．In．Each


Smallest can type dry electrolytics．Hermetically seiled in aluminum cans with erminal lugs on Cin negative．Projecting longues for vertical
mounting on chassis or mounting on chassis or Tongues have wire holes． Feature low leakage and power factor，dependable perature tange．
＂KR＂Dry Electrolytics


Extremely compact etched foil dry electrolytics with color coded leads．May be mounted in any position sub－panel．Seamlessdrawn metal can equipped with mounting nut．Fur－ nished woded leads Dua units have separate sec unting nut supplied．

| 450 Volts DC Working |  |  |  |
| :---: | :---: | :---: | :---: |
| Stock | ap． |  |  |
| No． | Mid． | Ins． | Cost |
| C1295 | 4 | x21／6 | \＄1．00 |
| C1296 | 8 | $\times 2$ \％ | 1.03 |
| C1297 | 12 | x23／2 | 1.26 |
| C1298 | 16 | $1 \times 31 / 2$ | 1.41 |
| C1299 | 4－8 | $18 \% \times 3$ | 1.47 |
| C1300 | 8－8 | 14893 | 1.62 |
| C1354 | 8－16 | 13，$\times 41 / 2$ | 1.91 |
| C1302 | 8－8．8 | 12041／2 | 2.50 |
| 600 Volts D．C．Working |  |  |  |
| Stock | Cap． | Size | Your |
| No． | Mfd． | In． | Cost |
| C1050 | 8 | 136841／2 | \＄2．35 |
| c1051 | 16 | 139x．41／2 | 2.94 |

Type＂WR＂Dzy to Replace Wet Electrolytics


Dry electrolytic capaci－ tors in round aluminum cans especially desiyned nis can is negative terninal．Rated at 450 types．The 10 mid．dry unity wis freplace wet elec 16 ytics from 412 mfd to 20 mid．， 30 nid． mid． $3 \mathrm{~s}^{\circ}$ mid． $40 \mathrm{mid} ., 30$ to 40 mid．$\%$ mounting stud with palnut．

|  | Mid． | Siz | Each |
| :---: | :---: | :---: | :---: |
| 1052 | 10 | 1318 | 82 |
| 1057 | 20 | 1.15 | 1.5 |
|  | 30 |  |  |



Triple Units，Common Neg．

| C1258 | $2+16,21$ | 150,25 | 1 | $\times 3$ |
| :--- | :--- | :--- | :--- | :--- |
| C1332 | $30-10,20$ | 180,25 | 1 | $\times 3$ |
|  | 1.21 |  |  |  | C1259 40－20， $20 \quad 150,2511,33$ $\begin{array}{lllll}\text { C1333 } & 301020,10 & 150 & 11 / 5 \times 23 / 4 & \mathbf{1 . 2 6} \\ \text { C1260 } & 40-20.20 & 150 & 11 / 8 \times 3 & \mathbf{1 . 3 5}\end{array}$ C1261 $15-10,20 \quad 350,25 \quad 11 / 8 \times 31 / 21.35$ $C 1335$

$20-10,25400-350,11 / 8 x 31 / 2$
25 1.67

＂BrL＂Dual Beavers（Com．Neg．）
Dual＂Beavers＂with common negative．Pro－ vided with sturdy center mounting strap；only one screw mounts to chassis．With long

# IGomentevenult Comoensers 

＂TVC＂Metal Tubular Capacitors<br>

Compact tubular metal can type units designed to withstand severe climatic conditions．Noninductively wound，inpregnated and billed with 1）ykanol sulation resistance．


| Stock |  |  |  |
| :---: | :---: | :---: | :---: |
| No． | MFD | Size | Eack |
| C1175 | ． 005 | ${ }^{17} 5_{2} \times 1$ 13／6 | \＄0．65 |
| C1176 | 01 |  | ． 65 |
| C1177 | ． 015 | ${ }^{17} 9 \times 12 / 6$ | ． 71 |
| C1178 | ． 02 | ${ }^{17}{ }_{\text {ax }} \times 1515$ | .71 |
| C1179 | ． 03 |  | ． 71 |
| C1180 | 04 | $5 / 8 \times 2$ ！ | ． 71 |
| C1181 | ． 0.5 | －5x21 ${ }^{16}$ | ． 76 |
| C1182 | ． 1 | $3 / 4 \times 2$／i6 | 88 |
|  | 1600 Volts D．C． |  |  |
| C1183 | ． 005 |  | .71 |
| C1184 | ． 01 | $1.3 \times 19$ 伯 | ． 71 |
| C1185 | ． 015 | $8 / 8 \times 196$ | ． 73 |
| C1186 | ． 02 | $5 / 8 \times 2{ }^{1 / 16}$ | ． 76 |
| C1187 | ． 03 | 7／8x21，16 | ． 76 |
| C1188 | ． 04 | 7／8×210 | 76 |
| C1189 | ． 05 | 3／8×21／10 | ． 82 |

＂DA＂Metal Cased Paper By－Pass Condenser：


## ＂DT＂Paper Tubular

Ifalowar
imprey－
multi
laminat－

ed Kraft tissues，Wax impregnated tube，wax－potted ends，oil－cooled Conservative $D C$ rating．

400 Volts D．C．Wkg
No，Mid．EachNo．Mfd Each $C 1221.01 \quad 15 c$ C1228 ． 06 21c

 $\begin{array}{lllll}C 1223 & .02 & 15 c & \text { C1230 } & .2 \\ \text { C1224 } & .025 & 15 c & \text { C1231 } & .25 \\ \text { 26e }\end{array}$ $\begin{array}{llllll} & 1225 & 03 & 15 \mathrm{c} \text { C1232 } & .5 & 35\end{array}$ $\begin{array}{llllll}C 1226 & 04 & 15 \mathrm{c} & \mathrm{C} 12331.0 & 53 \mathrm{c}\end{array}$ 600 Volts D．C．Wkg． C1234．0001 15c C1247 ． 02 18c $\begin{array}{ccccc}C 1235 & (0) \times 25 & 15 c & C 1249 & .03 \\ \text { 21e }\end{array}$ \begin{tabular}{llll}
$C 1237$ \& ．（0） \& $15 c$ \& C1250 <br>
C1238 \& .04 \& 21 c <br>
\hline $15 c$ \& C1251 \& .05 \& $24 c$ <br>
\hline

 $\begin{array}{llllll}C 1240 & .004 & 15 c & \text { C1252 } & .06 & 24 c \\ C 1241 & 005 & 15 c & \text { C1253 } & .1 & 26 c\end{array}$ 

$C 1242$ \& .006 \& $15 c$ \& $C 1255$ \& .25 <br>
C12 \& 32c <br>
\& .01 \& $18 c$ \& C1257 \& .5 <br>
\hline $17 c$
\end{tabular} Oil impregnated units especially de－ signed for auto radio use．

| c1262 | ． 005 | 32c C1269 | ． 03 35c |
| :---: | :---: | :---: | :---: |
| C1264 | ． 007 | 32e C1270 | ． 0438 |
| C1266 | ． 01 | 35 c C1271 | ． 0541 |
| C1268 | 02 | 35 c |  |

BRRI＇High Capacity
Low Voltage Units


Etched foil electrolytic capacitors that are widely empluyed in port－ able radio power rectifying circuits， electric fence devices．etc．In drawn aluminum cans with cardboard sleeves．Center mounting strap．


C－D＂Milvex Mikes＂


Designed for use in electronic cir－ cuits where frequency stability cuits where frequency stabslity
must be naintained．Molded in mustoss red bakelite and provided low－loss red bakelite and provided with tinned brass wire leads．Ang，
units rated 500 volts d．c．working， 1000 volts d．c．test except on 1000 volts d．c．test except capacities higher than .0025 which
are rated at 300 V. d．c．wkg．， 600 vults d．c．tes
 C1351 000005 26c｜C1386．00015 26c C1352．00001 24c C1387．0002 26e C1353．000025 24c C1388．00025 26c
 C1385．0001 24c

 \begin{tabular}{llr|rrr}
C1392 \& .001 \& $\$ 0.65$ \& C1396 \& .003 \& $\$ 1.27$ <br>
C1393 \& .0015 \& .79 \& C1397 \& .004 \& 1.26

 

C1393 \& .0015 \& .79 \& C1397 \& .004 <br>
C1394 \& 1.202 \& .79 \& C1398 \& .005 <br>
1.32
\end{tabular} $\begin{array}{ll}C 1395 \\ \text { C1 } & .0025 \\ 1.06\end{array}$

# Mallory Contoristers 

TC Dry Electrolytics


Small dependable hermetically sealed aluminum case type conand insulating tube. Ideal for under chassis mounting. Can be used under all climatic conditions. Averagediameter one inch.
Singfe Section-Type TC.

| $\begin{gathered} \text { Stock } \\ \text { No. } \end{gathered}$ | Cap. Mfd. | WkgVolts | Your |
| :---: | :---: | :---: | :---: |
| C829 | 1000 | 3 | \$1.06 |
| C830 | 500 | 6 | 1.00 |
| C831 | 1000 | 6 | 1.32 |
| C832 | 500 | 15 | 1.23 |
| C848 | 10 | 25 | . 44 |
| C875 | 25 | 25 | . 50 |
| C876 | 50 | 25 | . 57 |
| C833 | 100 | 25 | . 71 |
| C987 | 10 | 50 | . 47 |
| C897 | 25 | 50 | . 53 |
| C898 | 50 | 50 | . 62 |
| C834 | 5 | 150 | . 44 |
| C835 | 10 | 150 | . 50 |
| C836 | 15 | 150 | . 53 |
| C837 | 20 | 150 | . 56 |
| C882 | 30 | 150 | . 57 |
| C988 | 40 | 150 | . 65 |
| C838 | 50 | 150 | . 71 |
| C839 | 60 | 150 | . 76 |
| C840 | 10 | 250 | . 56 |
| C841 | 20 | 250 | . 71 |
| C842 | 10 | 350 | . 57 |
| C843 | 20 | 350 | . 76 |
| C844 | 5 | 450 | . 53 |
| C888 | 8 | 450 | . 56 |
| C889 | 10 | 450 | . 62 |
| C845 | 15 | 450 | . 76 |
| C846 | 20 | 450 | . 88 |
| C847 | 30 | 450 | . 97 |
| C849 | 40 | 450 | 1.18 |
| C850 | 10 | 500 | 1.59 |
| C851 | 10 | 600 | 1.73 |

"TP' Paper Tubulars


Oil treated non-inductive units, wax tilled and impregnated. All triple sealed. Not affected by humid climatic conditions. All have wire leads.

|  | Mfd. | Volts | Each |
| :---: | :---: | :---: | :---: |
| C3896 | . 01 | 400. | 15c |
| C3897 | . 02 | 400. | 15c |
| C3898 | . 05 | 400. | 18c |
| C3899 | . 1 | 400. | 21e |
| C3818 | . 2 | 400. | $24 c$ |
| C3900 | . 25 | 400. | 26c |
| C3901 | . 5 | 400. | 35c |
| C3819 | 1.0 | 400. | 53c |
| C3902 | . 0001 | 600 | 15c |
| C3903 | . 00025 | 600 | 15c |
| C3904 | . 0005 | 600. | 15c |
| C3905 | . 001 | 600. | 15c |
| C3906 | . 002 | 600 | 15c |
| C3907 | . 005 | 600 | 15 c |
| C3908 | . 006 | 600. | 15c |
| C3909 | . 01 | 600 | 18c |
| C3910 | . 02 | 600. | 18c |
| C3820 | . 03 | 600 | 21 c |
| C3821 | . 04 | 600 | 21 c |
| C3911 | . 05 | 600. | 24 c |
| C3912 | . 06 | 600. | 24 c |
| C3913 | 1 | 600. | 26 c |
| C3914 | 25 | 600. | 32c |
| C3915 | 5 | 600. | 47c |
| C3823 | 1.0 | 600. | 73 c |

Compact Type TCD and TCS Tubulars


Similar to TC types, extremely compact, averaging one inch in diameter. Ilermetically sealed in aluminum casing. Withstand moderately high humidity. Common negative with insulating
covering. Type TCS is the same covering. Type TCS is the same
but two independent sections.

Dual Common Negative-
Type TCD

| Stock <br> No. | Cap. <br> Mid. | Wkg. <br> Volts | Your <br> Cost |
| :---: | :---: | :---: | ---: |
| C852 | $25-25$ | 25 | $\mathbf{\$ 0 . 6 5}$ |
| C853 | $20-20$ | 150 | .76 |
| C854 | $30-30$ | 150 | .88 |
| C855 | $40-40$ | 150 | $\mathbf{1 . 0 0}$ |
| C856 | $10-10$ | 250 | $\mathbf{8 8}$ |
| C857 | $20-20$ | 250 | $\mathbf{1 . 0 6}$ |
| C858 | $10-10$ | 350 | .94 |
| C859 | $20-20$ | 350 | $\mathbf{1 . 2 3}$ |
| C860 | $8-8$ | 450 | $\mathbf{1 . 0 0}$ |
| C861 | $10-10$ | 450 | $\mathbf{1 . 0 9}$ |
| C862 | $15-15$ | 450 | $\mathbf{1 . 2 9}$ |
| C863 | $20-20$ | 450 | $\mathbf{1 . 4 1}$ |

Dual separate section-
ype TCS

| $\mathbf{C 8 6 4}$ | $15-15$ | 150 | $\$ 1.15$ |
| :--- | :---: | :---: | ---: |
| C865 | $20-20$ | 150 | 1.18 |
| C866 | $30-30$ | 150 | $\mathbf{1 . 3 5}$ |
| C867 | $40-40$ | 150 | $\mathbf{1 . 4 7}$ |
| C868 | $10-10$ | 250 | $\mathbf{1 . 2 9}$ |
| C869 | 20.20 | 250 | $\mathbf{1 . 5 9}$ |
| $\mathbf{C 8 7 0}$ | 8.8 | 350 | $\mathbf{1 . 2 3}$ |
| C871 | $15-15$ | 350 | $\mathbf{1 . 5 9}$ |
| C872 | 8.8 | 450 | $\mathbf{1 . 2 9}$ |
| C874 | $15-15$ | 450 | 1.76 |

Oil Impregnated Tubulars
 Compact nil impregnated paper dielectric condensers
available in two types:
OW: oil impregnated and filled. Suitable for vibrators, etc. Paper tube, with mounting bracket. 1600 working volts d.c.
OT: oil impregnated and oil filled. Metal tubes. 2000 whg. volts d.c.

Type OW (1600 V.D.C.)
No. Cap. Mid.

| No. | Cap. Mid. |
| :---: | :---: |
| C4011 | .0005 |
| C4012 | . 001 |
| C4013 | .002 YOUR COST |
| C4014 | .003 EACM |
| C4015 | . 004 |
| C4060 | .005 |
| C4016 | . 006 |
| C4017 | . 007 |
| C4018 | .008) |
| C4062 | . 01 |
| C4063 | $.015\}$ |
| C4064 | . 02 |
| C4065 | . 03 ) |
| C4066 | . 04 ) 4 |
| $\mathrm{C4067}$ | . 05 |
| Type | OT (2000 V.D.C.) |
| No. | Cap. Mifd. Your Cost |
| C4021 | .0025 ....... ... .73c |
| C4022 | .005.... . . . . 73 c |
| C4023 | . $0075 \ldots . . .73 \mathrm{c}$ |
| C4024 | . $01 . . . . . . . . . . .73 c$ |
| C4026 | .015.......... 76 |
| C4027 | .02 ...... . . . . . 79 c |
| C4028 | . $03 \ldots . .$. |
| C4029 | .04 . . . . . . . . . . . . . . $82 \mathrm{8c}$ |
| C4030 | .05. . . . . . . . . . . 85 c |



## Type FP and WP Compact Dry Electrolytics

These capacitors, long considered standard for metal encased units, are ideal for many types of service. Light in weight, compact and provided with a complete mounting feature, they save assembly space and time. Thousands of these units have given excellent service under extreme conditions of high altitudes and humidity.

| Stock No. | Cap. Mfd. | Wkg. Voles | Slze | Your Cost | Stock No. | Cap Mtd. | Wkg. Volts | Size | Your <br> Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C3700 | 1000 | 15 | $1 \times 3^{\prime \prime}$ | \$1.91 | C3699 | 30 | 350 | $1 \times 2$ " | \$1.00 |
| C3701 | 2000 | 15 | 18/83 ${ }^{\prime}$ | 2.76 | C3707 | 50 | 350 | $1 \times 3$ " | 1.21 |
| C3702 | 100 | 25 | 1×2= | . 85 | C3658 | 10 | 450 | 5 $\times 2=$ | . 76 |
| C3703 | 500 | 25 | $1 \times 3$ | 1.44 | C3659 | 15 | 450 I | $1 \times 2{ }^{1}$ | .91 |
| C3704 | 1000 | 25 | $1^{1 / 1} \times 3^{*}$ | 2.09 | C3708 | 20 | 4501 | 1×2" | 1.03 |
| C3705 | 500 | 50 | 1818930 | 2.09 | C3791 | 30 | 450 | $1 \times 3{ }^{\prime \prime}$ | 1.15 |
| C3790 | 50 | 150 | $1 \times 2=$ | . 85 | C3709 | 40 | 450 | $1 \times 3{ }^{\prime}$ | 1.32 |
| C3706 | 100 | 150 | $1 \times 3$ - | 1.15 | C3681 | 80 | 4501 | 11/8x3" | 2.29 |
| Dual Section |  |  |  |  |  |  |  |  |  |
| C3710 | 50-50 | 150 | $1 \times 3$ - | 1.23 | C3665 | 20-20 | 4501 | $1 \times 3$ - | 1.56 |
| C3793 | 15-15 | 350 | $1 \times 2$ " | 1.23 | C3711 | 40-40 | 4501 | 13/873" | 2.35 |
| c3792 | 20.20 | 350 | $1 \times 3$ " | 1.38 | C3712 | 80-10 | 4501 | $13 / 8 \times 3$ | 2.50 |
| Stock Multiple Section |  |  |  |  |  |  |  |  |  |
| Stock |  |  |  |  |  |  |  |  | Your |
| No. |  | Cap. M | fid. |  | g. Volt |  | Size |  | Cost |
| C3713 |  | 20-20. | 20 |  | 150 |  | $1 \times 2$ " |  | \$1.29 |
| C3795 |  | 40-40- | - 10 |  | 150 |  | $1 \times 3$ - |  | 1.53 |
| C3714 |  | 10-10- | -10 |  | 350 |  | $1 \times 2=$ |  | 1.41 |
| C3670 |  | 10-10- | -10 |  | 450 |  | $1 \times 3^{\prime \prime}$ |  | 1.47 |
| C3798 |  | 15-15- | -10 |  | 450 |  | $1 \times 3$ - |  | 1.68 |
| C3715 |  | 0-20) (2 |  |  | (150) (25) |  | 1×2" |  | 1.35 |
| C3716 |  | 0-30)(10 | 100) |  | (150) (25) |  | 1×3 |  | 1.76 |
| C3717 |  | 5-10) (20) | 20) |  | (350) (25) |  | $1 \times 2$ " |  | 1.35 |
| C3718 |  | 0-10) (2 | 20) |  | (350) (250 |  | 1×3" |  | 1.68 |
| C3719 |  | -20) (20) | 20) |  | (350) (25) |  | 1 $\times 3$ |  | 1.65 |
| C3668 |  | 0-10) (2) |  |  | (450) (25) |  | $1 \times 2$ " |  | 1.38 |
| C3799 |  | -0-20) $(2$ | 2) |  | (150)(25) |  | $1 \times{ }^{\prime \prime}$ |  | 1.73 |
| C3720 |  | 0-40) (2) | 2) |  | $(450)(25)$ |  | $13 / 4 \times 3{ }^{4}$ |  | 2.15 |
| C3721 |  | 0-10-30 | (20) |  | (150) (25) |  | 11/8×2* |  | 1.82 |
| C3673 |  | 5-15-10 | ) (20) |  | (150) (25) |  | 11/820 |  | 2.00 |
| C3722 |  | -15) (20 | 20-20) |  | $(450)(25)$ |  | 15:820 |  | 2.00 |
| C3723 |  | 0-30-10 | ) (20) |  | (450) (25) |  | 13/83 ${ }^{\text {² }}$ |  | 2.47 |
| C3724 |  | -10-10- | 10 |  | 450 |  | $13 / 8 \times 2$ * |  | 1.91 |
| Mounting Plateg For Above Condenser: |  |  |  |  |  |  |  |  |  |
| For $3 / 10$ | dia. cans | C36 | 74 -Bak | selite | C3677 | -Meta! |  |  |  |
| For ${ }^{\circ}$ | dia.cans | C36 | 75 - Bak | crlite | C3678 | -Metal |  | $2$ |  |
| For 13/4. | dia. cans* | - C367 | 76-Bak | crlito | C3679 | -Metal |  |  | en. |

## Alum. Can Dry Electrolytic Capacitors

A high quality line of compact round can type filter condensers. Furnished complete with palnut and flat washer. All have color coded insulated leads. Shpy. wt. 8 oz


## Separate Sections, insulated leads.

## Cardboard Tubular Dry Electrolytics



In waxed cardboard tuhes furnished with an adjustable strap for horizontal mounting. Insulated leads. Mallory type numbers marked ${ }^{*}$ ) have leads out both ends. The other types have all leads out one end only. 'The convenience of the insulated leads and the mounting ease make these capacitors popular for replacement and original application.



## Cornell-Dubilier "Quietones"

Most satisfactory results are obtained when Quietones are installed at the source of the interierence. Wher source of interference cannot be located a Quietone connected to the electric supply line of the radio tion. Each has plug end and receptacle



IF-18

For These Use For These Use Adding Machines $\quad$ IF-18 (Cash Itcgisters IF-18 Addressing Machines IF-18 Dishuashurs IF-19 | Billing Machines | IF-18 | JFow Polishers | IF-18 |
| :--- | :--- | :--- | :--- |
| IF-19 |  |  |  | Dental Machines IF-19 Food Mixers Dictating Machines IF. 19 Fins Drilling Machines IF-19 Juiee Ex!ractors Washing Machin's IF-19 Massagers Ais Conditioners IF-18 Kadius Auto Call systems IF-18 Reirigerators IF-18 1F-21. All-Wave capacitive-inductive filter. lor 110 max. In Walnut bakelite casc. Slupg. wt 2 lbs. C12495 Your Cost Each IF-19. Like above, but 5 amps. Max.

C12494-Shpg.wt. 2 Ibs. Your Cost Each IF-18. All-Wave callacitive-inductive lilter. For 110 volis max. In Walnut hakclite case. Shyg. wi. 5 lbs.
\$4.91 C12425-IF-6-Your Cost Each . . . . . . . . . . . . . . . . . . .............. $\$ 1.03$


Special Type "Quietones"
 C12496-Your Cost Each
shavers. ngton-Rand, Ronson, etc. shavers. F243-Your Cost Each ence from oil burners, nootors, etc. For 110 max. Steel box; flexible leads. 1F-28. Same as alove, but for e $\$ 4.12$ 1010 amps max. Shpg. Wt
c12499-Your Cost Each


## MALIORY Interference Filters



X-3 Plegetin
Deluxe "Plug-In" type for use between set
 C12510 Each 1.06 at $105-220$ v. $13 / 8 \times 2$ C12511\$1.29
W-7 Motor Type
 1)ual capacity unit. Use on
motor brushes Or rings.
Bracket for mitg. to frame. For moderage in erierence. 110-220 ${ }^{114} 12512$-Each 79


## Heavy Duty Filters

 LC-5. Induct ance-capacity
filter for severe interference. Y... 5 amps. 11 las cord, plug and
receptacle. 27. $3 \times 31 / \mathbf{n}^{\prime}$ high. Case has
Wt. 8 his.
C12514 $\$ 6.61$ C-10. Same as abo 220 V .10 amps C12515 Each

2-6. A dual induclancecapacity filter or return lead o ground
 Recommended for suppressing severe interference. Rated 110-220 cill Heavy Duty Type LB Industrial Filters


## "Mites" Ultra Compact Dry Electrolytic Condensers

Ultra compact units that can be used in a large percentage of radio repair requirements. Especially well suited for use in a.c.-d.c. midgets, and wherever space is limited. Self-supporting wire leads are permanently attached to the end plates. All have cardboard outer sleeves. Conservatively rated

| Stock | Cap. | Wkg. | Size | Your |
| :---: | :---: | :---: | :---: | :---: |
| Nu. | Mfd. | Vits. | $\ln$. | Cost |
| C766 | 4 | 450 | $1160 \times 17 / 8$ | 34 c |
| C767 | 8 | 450 | $13,16 \times 17 / 8$ | 37c |
| C768 | 12 | 450 | $13,16 \times 17 / 8$ | 47 c |
| C788 | 16 | 450 | $7 / 8 \times 2$ | 56e |
| C789 | 20 | 450 | 13 in $21 / 6$ | 62c |
| C790* | 10-10 | 50 | $5 / 8 \times 238$ | 50c |
| C3285* | 8-8 | 150 | ${ }_{11} 16 \times 28$ | 51c |
| C3287* | 20-20 | 150 | ${ }_{15}^{16} \times 2 \times$ | 45c |
| C792* | 8-16 | 200 | 18,66x23/6 | 52c |
| C793* | 16-16 | 200 | 7/8x $23 / 8$ | 64 c |
| C794* | 8-8 | 450 | $1 \times 2^{3}$ | 62c |
| C3289* | 8-16 | 450 | 1 x 2 | 84 c |
| C3290 $\dagger$ | 20-20 | 150 | $\times 2$ | 85 c |
| C3296 ${ }^{+}$ | 88 | 450 | $1{ }_{16} \times 3,8$ | 85c |
| - 3 lead | ds: $\uparrow$ | 4 leads |  |  |
| Buy in | 1 Qu | ntity | and | vel |
| In Lots | s of | asso | ted a | ad- |
| difiona | l $10 \%$ | dis | count | may |
| be ded | ucted |  |  |  |
| Midget Molded Micas |  |  |  |  |

 Tiny mica condensers in molded bakelite housings. pigtan wirc leads. Sizes through $0(1) \mathrm{mfd}$. are 1000 v . test, 500 v . d.c. wkg.g alove . 004 mfd . are 600 v. d.c. test, 300 v. d.c. wkg.

| Stock No. | $\begin{array}{ll} \text { Capi, Your } \\ \text { Hfid } & \text { Cost } \end{array}$ | Nitack No. | Cay. Mfd. | Your Cost |
| :---: | :---: | :---: | :---: | :---: |
| C3438 | . 1000188 | C3411 | . 0005 | c |
| C3439 | .000025 8c | C3402 | . 0006 | c |
| C3403 | . $10000{ }^{5} 8$ | C3416* | . 001 | 11c |
| C3405 | . 00018 C | C3400* | . 0015 | 11c |
| C3440 | . 00015 8c | C3418* | . 002 | 14c |
| C3407 | .0002 8c | C3404* | .003 | 18c |
| C3408 | . 00025 8c | C3446* | . 004 | 21 |
| C3409 | . 00033 Sc | C3406* | . 005 | 23 |
| c3441 | .0004 9c | C3401* | . 006 | 2 |
| - ${ }^{3} 1^{\circ}$ | square; other | s $30 \times 1$, 6 |  |  |
| Dry Electrolytic Condensers |  |  |  |  |

"Metal-Can" type in insulated cylindrical screw base aluminum cans with $6^{\circ}$ flexible insulated leads. 1'alnut for mounting, Maximum protection against humidity. For upright mounting.

| Stock |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Mfd. | V7ts. | D.-L. | Each |
| C810 | 16 | 450 | $18 / 8 \times 31 / 8$ | \$0.95 |
| C811 | 20 | 450 | $1^{3} \times 3 \times 31 / 8$ | . 1.89 |
| C812 | 30 | 450 | $13 / 8 \times 31 / 8$ | 1.15 |
| C813 | 40 | 450 | $1^{3} \times 31 / 8$ | 1.32 |

## 1CA "EILTERYOETS"

II-Wave Model-Contains heavyduty R.F. chokes, arge lifter capucitors and has "PI" filter unit. Elimiousters, vacuum cleaners, etc. Rated 250 watts, at 32,
10 and 220 volts a.c. or d.c. For use with arry all.
las cord, blug and receptacle. Wi. 5 lbs. $\$ 4$


## Intermediate Model

Fliminates extremely noisy radio reception due to oower line disturbances. caused by lights, electrical appliances, etc. Can be installed at set or at source of interference. Metal case has receptacle, cord, plug, and ground binding post. Size: $48 \times 3$. 2 lbs.
Shpy, wt.
C12597-Each.


## SOLAR Dry Electrolytic CONDENSERS

The "MINICAP" Dry Electrolytics are small hermetically sealed axial bare wire leads. Dual units insulating tube. Single upits have axial bare wire leads. Dual units have negative common, three hare wire leads and metal mount ing strap. Ideal for under chassis mounting. fiexible leads. Provides excellent protection against humidity. Mounts in 38 hole.
Type "DY Twist Prong" is a standard metal cased unit. I fermetically
sealed base assures long life, proper venting and great rigidity: Ideal for many types of service. Light in weight, compact, and provided with one bakelite and one metal mounting plate. They save assembly space and time. Terminal codes clearly stamped on case.
Type DS-B are single, dual and tripie section condensers in impregnated. wax coated cardboard tubes with sturdy center mounting straps. Mounts to chassis with only one screw. $5^{\circ}$ long color-coded leads,


## AEROVOX Dry Electrolytic CONDENSERS

## "DANDEE"

UKra-Compact Tubular Dry Electrolytics are space saving yet full rated capacity and voltage Ideal for midgets, $\Lambda($ - $D C$ and auto radios where maximum capacity and working voltages are required in a minimum of space. Varnished paper insulating jacket over can. Daper insulating jacket over can. Don units have two leads plus common negative.


## Type PRV Universals

Cardboard electrolytics. A thor oughly satisfactory unit for uni versal top chassis mounting. Takes the place of standard aluminum can electrolytics requiring a hole in chassis for mounting.
Stock Cap. Wkg. Size Each No. Mfd. Volts Ins. Each $\begin{array}{lllll}\text { C4705 } & 8 & 600 & 11 / 4 \times 41 / 2 & \$ 1.73 \\ \mathbf{C 4 7 0 6} & 8 & 450 & 1 / / 8 \times 4 & .68\end{array}$ $\begin{array}{lrrrr}C 4706 & 40 & 450 & 1 / 4 \times 4 & .68 \\ \mathbf{C} 4712 & 40 & 450 & 1 \% \times 4 & 1.29\end{array}$ $\begin{array}{lllll}\text { C4713 } & 8.8 & 450 & 1 \% / 4 \times 4 & 1.35\end{array}$ Inverted Dry Electrolytics Screw mount, supplied with lock washer nut. $8 / 4^{\circ}$ screw bushing. All have two 8 color-coded leads per section for terminals. Available in Insulated and couble section units. Insulated large size can.
Stock Cap. Wkg. Size Each No. " Mid. Volts Ins $\begin{array}{lllll}\mathrm{C} 4517 & 8 & 600 & 18 / 8 \times 41 / 2 & \$ 2.3 \\ \mathrm{C} 4652 & 8 & 450 & 13 / 8 \times 4 & 1.03\end{array}$ $\begin{array}{lrlll}C 4652 & 8 & 450 & 13 / 8 \times 4 & 1.03 \\ C 4653 & 12 & 450 & 1 / 8 \times 4 & 1.26 \\ C 4654 & 16 & 450 & 13 / 8 \times 4 & 1.41\end{array}$ $\begin{array}{lllll}C 4854 & 16 & 450 & 18 / 8 \times 4 & 1.41 \\ \text { C4656 } & 8-8 * & 450 & 18 \times 4 & 1.62 \\ \text { C4686 } & 8-16 * & 450 & 18 \times 4 & 1.91\end{array}$ $\begin{array}{lclcc}C 4686 & 8-16^{*} & 450 & 11 / 1 \times 4 & \text { 1.91 } \\ \text { C4574 } & 16-16^{*} & 450 & 11 / 2 \times 4 & 2.06 \\ \text { C4664 } & 8 & 450 & 1 \times 2{ }^{11} & 1.03\end{array}$ $\begin{array}{lcccc}C 4664 & 8 & 450 & 1 & 1211 / 10 \\ C 4666 & 16 & 450 & 1.03 \\ \mathrm{C} 4518 & 8.8 * & 450 & 1831 / 4 & 1.41\end{array}$ *Each section has 2 lears.

## Metal Can Drys

Standard size inverted units fur nished in grounded can nrounting type only. Aeruvox type $\mathrm{G}-150$. bushing.
$\begin{array}{llll}\text { Stock } & \text { Cap. Wkg. } & \text { Size } \\ \text { No. } & \text { Mfd. Volts } & \text { Ins. }\end{array}$ $\begin{array}{llllll}\text { C4510 } & 12 & 450 & 18 / 8 \times 416 & \$ 1.26\end{array}$


## Paper Tubulars

 Non-inductively wound. fully waximpregnated. All have pigtail wire leads.
High quality, small size, inexpensive units. Completely sealed in wax impregnated tubes with filled ends.

## 400 Volts Working

No. Mfd. Each $/$ No, Mfd. Each

 600 Volts Working
C4747 . 002 15e|C4752 . 01 18c
 C4750 . 006 15c
$\begin{array}{llllll}C 4754 & .02 & 18 c & C 4758 & .1 & 26 c\end{array}$ $\begin{array}{llllll}\text { C4755 } & .03 & 21 c & \mathbf{C 4 7 6 0} & .25 & 32 c \\ \text { C4756 } & .05 & 24 c & \mathbf{C 4 7 6 2} & .5 & 47 c\end{array}$



## GENERAL ELECTRIC <br> Industrial Capacitors

Pyranol filled high votage capacitors in hermetically sealed metal containers with pre-mounted rigid base hrackets. |'orcelain insulators. Screw terminals. Sizes given are overall dimensions.

|  | D W. |  | Each | No. MFDW.V. $H \times D \times W$ |  |  |  | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C3768 | 1 tow | $37 \times 1{ }^{3} \times 1{ }^{15}$ | \$2.60 | C3758 | 4 |  |  | 30 |
| C3769 | 2600 |  | 3.15 | C3759 | 1 | $2000$ | $42 x^{2} \times 11^{3}$ | 13 |
| C3770 C 3753 | 600 1000 |  | 4.08 2.77 | C3760 | 2 | 2000 | $5^{-5} 51{ }^{5} \times 3 \times 3$ | 4.81 |
| ${ }^{C 3754}$ | 1000 |  | 3.70 | C3654 | 4 | 2100 | $6^{1} \times 183 \times 33^{3}$ | 6.66 |
| C3755 | 1000 |  | 4.63 | C3651 | 1 | 3000 |  | 8.85 |
| C3756 | 1.500 | $5^{3} \times \times 1116 \times 1{ }^{1 / 5} /{ }_{5}$ | 3.33 | C3652 | 2 | 3000 | $6^{1}{ }^{2} \times 11^{8} \times 3^{3} 3^{3}$ | 11.11 |
| C3757 | 1.510 |  | 4.63 | C3653 |  | 3000 | - 3 | 16.2 |

## PLASTICON Capacitors

Sturdily huilt plastic film dielectric capacitors which :-e smaller, ighter and more economical. These units have been specinced by Signal Corps, Air Corps and Navy for more severe operating conditions
ihan other oil billed types. Extremely wide temperature range, greater than other oil tilled types. Extremely wide temperature range: greater
safety factor, closer tolerances all insure much longer life. Complete with mounting brackets as illustrated and siv-months guarantee slip. Thece nationally advertised condensers are without comparison. If weight is a factor, specily "llasticons." Average weight saving of $10 \%$ over low voltage types and as much as
Operate continuously at 220 degrees

| Rectangulars |  |  |  | Stor |  | Volts |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock ripp. | Voits |  | Your | C2162 | 2 | 3000 | 4 , $3^{3} 1{ }^{1} 1^{1}$ | \$9.06 |
| No. Mfd. | DC. | Size | Cosit | C2163 | 4 | $30 n 0$ |  | 12.51 |
| C2158 | 600 |  | \$3.30 | C2164 | 1 | 4000 | 4 $\times 33^{3}$, | 16.17 |
| C2151 | 1040 | $23 / 8 \times 13 / 8 \times 1$ | 2.36 | C2165 | 2 | 4пм) | $1.33^{3} \times 11^{3}$ | 19.4 |
| C2159 : | 1000 | $4 \times 1313 \times 1$ | 3.17 | C2166 | 2 | 5000 | $3^{1} 2 x^{3}{ }_{4}^{3}$ |  |
| C2153 4 | 1010 |  | 3.85 | Ovals |  |  |  |  |
| C2154 8 | 1000 | $45 / 813{ }^{3} \times 13 / 4$ | 5.43 |  |  |  |  |  |
| C2160 1 | 2000 | 31, $1^{3} \times 1$ | 3.46 | C2150 | + | 600) | $4 \mathrm{xanl}^{1}$ | \$3.1 |
| C2156 2 | 200 |  | 4.01 | C2152 | , | 10.6 | $3120 \times 15$ | 3.0 |
| C2157 4 | 2000 | $31 / 2 \times 3{ }^{3} \times 13$ | 5.43 | C2155 | 1 | 2000 | 23,82011 | 3.36 |
| C2161 1 | 3000 | $4 \times 21$-2 $\times 13$ 自 | 7.11 | C2167 | 2 | 2000 | $4 \mathrm{xax}^{21}{ }^{1}$ | 3.8 |

We can supply a complete line of ILASTICON capacitors ranging up to 10,000 volts. Write us for prices, stating complete specifications. Your correspondence will receive our usual promnt reply


Type TZ canaciturs are for low power transmitting, industrial and television circuits, as well as power ampliner alphiritions. Type TX and television applications. Buth are conservatively rated and compact in size.

Type Tz-Round Can

| No. | Mfl | V.V. |  | Each | No. M | W | Nize | Eac |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C4004 | $\because$ | (ix) | $1^{3}, \times 3$ | \$2.73 | C4008 | 1010 0 | $2 \times 3$ | \$4.2 |
| C4005 | 4 | 600 | $1{ }^{3}$ ¢489 | 3.65 | C4009 . 5 | 15: 5 | $1{ }^{3} \times \times 31$ | 2.97 |
| C4006 | 1 | 1000 | 13 ¢03 | 2.53 | C4010 | 1,04) | $13 \times 5$ | 3.2 |
| C4007 | 2 | 1000 | 1 | 3.20 | C4036 | 130 | 2 xt | 4.2 |
| Type TX-Rectangular Can |  |  |  |  |  |  |  |  |
| C3976 | 1 | 600 | ${ }_{21}^{1}{ }_{5} \times 1{ }^{3}$, $x^{1} \times 1$ | \$3.06 | C3981 | 1009 |  | \$4.4 |
| C3977 | 2 | 000 | $23: 11^{3}+1$ | 3.82 | C3982 | 1000 |  | 5.6 |
| C3978 | 4 | (0) | $4^{1} \times 1{ }^{3} \times 1$ | 5.60 | C3983 | 2000 | $4 \times 1{ }^{3}+41$ | 4.9 |
| C3979 | . 5 | 1010 | $2 \times 1$ ¢ ${ }^{1}$ | 2.68 | C3984 | 2000 | $4^{1}+\lambda^{2} 5^{2} \times 13{ }^{3}$ | 5.8 |
| C3980 | 1 | 1000 | 25/8×13/3 $\times 1$ | 3.35 | C3985 | 2000 | $\mathrm{x} 3^{3}{ }_{4} \times 13$ |  |

## SANGAMO X'mitting Micas

(C) For low and high power transmitters, powersupplies, power amplifiers, ed rakelite housings with tapped $t ; 32$ screw ierminals on each end. Size: $13 / 4^{\circ}$ long,
$12 / 4$ long
Mf.
.000105
.0001
.00015
.00025
.0005
.001
.012
.005
.006
.01

## (-) Transmititing

CORNELL-DUBILIER Transmitting Condensers "TQ" DYKANOL "A" (A) A ) lesigned to stand up under voltages and line surges and continuous duty operation. In cylindrical aluminum containers, with 2 insulated terminals and unimounted in any position

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2962 | 2 | (\%) | $21 / 8$ |  |
| C2963 | 1 | (3)0 | $2 \times 4 \times 2$ | 4.03 |
| C2964 | 1 | 1000 | 17.52 | 2.47 |
| C2965 | 2 | lix) | 21 $\times 2$ | 3.35 |
| C2966 | 4 | 1000 | 37.82 | 4.26 |
| C2967 | 1 | $15 \times 0$ | $23 \times 2$ | 3.12 |
| C2968 | 2 | 1500 | $3^{5} \times 2$ | 4.26 |
| C2969 | 1 | 2000 | $31 / 8 \times 2$ | 4.03 |
| C2970 | 2 | 20)(1) | $47 / 8 \times 2$ | 4.47 |
| C2971 | 4 | 2000 | $42 / 8 \times 3$ | 6.32 |
| C2972 | 1 | 3000 | $314 \times 3$ | 8.0 |
| C2973 | 2 | 300') | 514 | 9.8 |

"TLA" DYKANOL "A" Filter Capacitors In Sealed aluminum $m f d . f(x)$ v. and 1 mfd l(x) 0 v. are $27 / 8^{\circ}$ high). Wount in any position

| No. Cup. Mifd. Wkg. V. Esch |  |  |  |
| :---: | :---: | :---: | :---: |
| C4195 | 2 | 600 | $\$ 2.44$ |
| C4196 | 4 | 600 | 3.35 |
| C4197 | 1 | 1000 | 2.23 |
| C4198 | 2 | 1000 | 2.91 |
| C4199 | 1 | 1500 | 2.91 |


"TJU" DYKANOL "A"
(B) New universal mounting sers a better buy than ever. DYKANOI. filled and impregnated. Porcelain hied tension terminals. Shpg. wt. 1 lb

| No. | Mfd. | Wkg. V. | Ht. | Each |
| :---: | :---: | :---: | :---: | :---: |
| C2994 | 1 | 600 | 21/8* | \$3.09 |
| C2995 | 2 | 600 | $27{ }^{\circ}$ | 3.82 |
| C2996 | 4 | 600 | 37. | 4.85 |
| C2957 | 8 | (0)0 | 319. | 7.20 |
| C2997 | 1 | 1000 |  | 3.38 |
| C2998 | 2 | 1000 | 4 | 4.41 |
| C3004 | 4 | 1000 | $4 \frac{1}{6}$ | 5.59 |
| C2958 | 8 | 1000 | $4 \frac{14}{4}$ | 8.08 |
| C2959 | 10 | 1000 | $4 \%$ \% | 8.97 |
| C2999 | 1 | 1500) | $4^{*}$ | 3.97 |
| C3090 | 2 | 1500 | $41 / 80$ | 5.59 |
| C3005 | 4 | 1500 | $43{ }^{\circ}$ | 7.50 |
| C2960 | 8 | 1:00 | $4 \%{ }^{\circ}$ | 11.17 |
| c3001 | 1 | 2000 |  | 4.85 |
| C3003 | 2 | 2000 |  | 5.73 |
| C3021 | 4 | 2000 | $3 \frac{1}{4}$ " | 8.08 |
| C3019 | 1 | 3000 | $3 \%$ * | 10.73 |
| C3020 | 2 | 3000 | $41 /{ }^{\circ}$ | 13.38 |
| C3022 | 2 | 5000 | 6 | 28.66 |



Type 4
600 V. Wkg. 1000 V. Test

| Stock | Cap. | C.D. | Your |
| :---: | :---: | :---: | :---: |
| No. | Mid. | No. | Cost |
| C4156 | . MOO | 4-14050 | \$0.41 |
| C4157 | . 0101 | 4-13010 | . 41 |
| C4158 | . (0)2 | 4-13020 | 41 |
| C4159 | (0)025 | 4-13025 | . 41 |
| C4160 | .0005 | 4-13050 | . 41 |
| C4151 | (x) 1 | 4-12010 | . 41 |
| C4162 | . 002 | 4-12020 | . 47 |
| C4163 | .0\% | 4-12060 | . 71 |
| C4164 | . 01 | 411010 | . 94 |
| C4165 | (1)2 | 4-11020* | 1.29 |
| C4166 | . 03 | 4-11030* | 1.73 |


| 1200c4168 | V. Wkg |  |  |
| :---: | :---: | :---: | :---: |
|  | ( $\mathrm{C} \times 1 \mathrm{l}$ | +23010 | \$0.57 |
| C4169 | . $(\mathrm{x} \times 2 \mathrm{2}$ : | 4-23025 | . 57 |
| -C4170 | . 0005 | 4-23050 | . 57 |
| CA171 | (0)1 | 4-22010 | 73 |
| C4172 | (0)2 | 4.22020* | 1.12 |
| C4173 | . 005 | 4-22050* | 1.41 |
| C4174 | . 01 | 4-21010* | 2.29 |
| 2500 V. Wkg. |  | 5000 V | est |
| C4175 | . 1001 | 4-5.3010 | \$0.73 |
| C4176 | . 0002 | 4-53020 | . 82 |
| C4177 | .00025 | 4-53025 | 88 |
| C4178 | . 0005 | 4-53050 | 1.00 |
| $C 4179$ | . 001 | 4-52010 | 1.21 |
| CA180 | . 002 | 4-52020* | 1.82 |
| C4181 | . 004 | 4-52040* | 2.56 |
| C4182 | . 005 | 4-52050* | 2.7 |
| All thickness ${ }^{11 / 2}$ |  |  |  |
| Type 9 | ickn | , exce | - |

Moulded in bakelite; mechanically strong; special impregnation; high insulation resistance. No magnetic mate-rial-reduces losses at all frequencies. Short, heavy termicontact resistance R.F. and of gauged thickness. Used for grid and plate blocking purposes.

## Type 9

600 V. Wkg. 1000 V. Test

| Stock | Cap. | C.D. | Your |
| :---: | :---: | :---: | :---: |
| No. | Mid. | No. | Cost |
| C4200 | . 00005 | 9-14050 | \$0.50 |
| C4201 | .000) | 9-13010 | . 50 |
| C4202 | .()0025 | 9-13025 | . 50 |
| C4203 | . 0005 | 9-13050 | . 50 |
| C4204 | . 001 | 9-12010 | . 50 |
| C4205 | . 002 | 9-12020 | . 53 |
| C4206 | . 01 | 9.11010 | 1.15 |
| C4207 | . 02 | 911020 | 1.53 |
| C4208 | . 03 | 9.11030 | 2.03 |
| C4209 | . 04 | 9-11040 | 2.65 |
| C4210 | . 05 | 9-11050 $\ddagger$ | 3.15 |

1200 V. Wkg. 2500 V. Test

| 1183 | 000 | 9-23010 | \$0.57 |
| :---: | :---: | :---: | :---: |
| C4184 | . $0 \times 025$ | 9-23025 | . 57 |
| C4185 | .0005 | 9-23050 | . 57 |
| C4186 | . 01 | 9-22010 | 73 |
| C4187 | . 012 | 9-22020 | 1.12 |
| C4188 | . 015 | 9-22050 | 1.41 |
| C4189 | . 01 | 9-21010 | 2.29 |
| C4190 | . 02 | 9-21020 $\ddagger$ | 3.20 |
| C4191 | . 03 | 9-21030 | 3.76 |
| 2500 V. Wkg. 5000 V. Test |  |  |  |
| C4211 | . 0001 | 9-53010 | \$0.73 |
| C4212 | .00025 | 9-53025 | 88 |
| C4213 | . 0005 | 9-53050 | 1.00 |
| C4214 | . 0101 | $9-52010$ | 1.21 |
| C4215 | .002 | 9-52020 | 1.82 |
| C4216 | .00-4 | 9-52040 | 2.56 |
| C4217 | . 005 | 9-32050 | 2.76 |
| C4218 | . 01 | 9-51010 $\ddagger$ | 3.35 |

Resicions

## IRC Insulated Resistors Type BT Metallized


-D) DMa

Newly-designed compact size general purpose resistors with a metallized element sheathed in an overall covering of moisture proof phenolic compound. Meet rigid JAN-13F specifications. Non-inductive. Have pig-tail wire leads. Tolerance $\pm 10 \% .5 \%$ available BTS on special order at slightly higher
STANDARD RMA CODE-SPECIFY RESISTANCE


## "BW" Insulated Wire-Wound Resistors

Similar to the BT units listed above, but contain a wire wound element, completely encased in molded compound. Tolerance $\pm 10 \%$. Order sizes desired from tabulated listing above. Specify Resistance.
 0.47 to 820 ohm
C5298-C5298-
Each.
Lots of 100 of one value
Each..........

1-Watt-BW-1
Size $11 / 11 / 0^{\text {Range }}$
0.47 to 4700 ohms.
C5259.
Each...... 10 .
Lots of 100
of one value Each........... $)^{4}$ Each. Precision Resistors Wire-Wound


Scientifically designed and constructed. Dependable precision meter multipliers and shunts. inductively wound. Winding is specially impregnated, which insures constant resistance at all
 binding post terminals. WW-4 has lug type terminals.

$$
\begin{aligned}
& \text { Type WW-4 } \\
& \text { Your }
\end{aligned}
$$

Stock Res. Your Stock - Res. Your No. Ohms Cost No. Ohms Cost $\left.\begin{array}{ll}\text { C5125 } & 200 \\ \text { C5126 } & 300\end{array}\right\}$ Off $\left.\left\lvert\, \begin{array}{ll}\text { C5136 } & 30000 \\ \text { C5138 } & 40000 \\ \mathbf{C 5 1 3 9} & 5000\end{array}\right.\right\} .04$

\(\left.\begin{array}{ll}\mathbf{C 5} 5129 \& 5000 <br>

\mathbf{C 5 1 3 0} \& 7500\end{array}\right]\)| C5142 | 100000 | $\mathbf{1 . 4 2}$ |
| :--- | :--- | :--- |
| C5099 | 150000 | 1.80 | C5131 10000 $\begin{array}{llll}\text { C5100 } 200000 & 1.80\end{array}$


 Type WW-2
C5193 750,0003.44|C5202 11/2 Meg. 5.73 C5194 1 Mog. $4.02 \mid \mathrm{C} 51152 \mathrm{Meg} .7 .64$


## IRC Power Wire-Wound Variable Resistors

For all industrial and Radio uses. Dissipate heat rapidly, withstand heavy overoads, have great mechanical strength. All (except 10 watt units) are supplied with a has a stainless steel spring spot-welded to it. The spring carries a sliver contact button on which the pressure never varies-no torn resistance wire, no corroded contacts. Band is threaded. Mounting brackets with all but the 10 -watt units.

Check sizes avallable in type desired before ordering, as ali types are not available in every resistance value listed below. Ohms

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: |
| 5 | 250 | 2500 | 15000 |
| 10 | 500 | 3000 | 20000 |
| 25 | 750 | 4000 | 25000 |
| 50 | 1000 | 5000 | 40000 |
| 100 | 1250 | 6000 | 50000 |
| 150 | 1500 | 7500 | 75000 |
| 200 | 2000 | 10000 | 100000 |

Type ABA- 10 Watts $13 / 4 \times^{5} / 6$. Range up to 10,000 ohms. (See list above)
C5262-
$\ldots-34$
Your Cost Each
Type DHA-25 Watts
$21 / 2 x^{6} 10^{\circ}$. Range up to 25,000 ohms.
(See list above).
$\begin{array}{lcrc}\text { No. } & \text { From } & \text { To } & \text { Each } \\ \text { C527i } & 5 & 5,000 & 73 c \\ \text { C5275 } & 6,000 & 15,000 & 84 c \\ \text { C5276 } & 20,000 & 25.000 & 92 c\end{array}$
C5219-Extra slider (silver).. 16c
Type EPA- 50 Watts
$43 \times 2 /$. Available in sizes up to with brackets and one slider. $\begin{array}{lrrr}\text { No. } & \text { From } & \text { To } & \text { Each } \\ \text { C5286 } & 5 & 5,000 & \$ 1.15 \\ \text { C5287 } & 6,000 & 25,000 & 1.26 \\ \text { C5288 } & 40,000 & 50.000 & 1.45\end{array}$

Type ESA-80 Watts
$61 / 2 x^{3} / 6^{\circ}$. Available in all sizes as 55, at left (except 150, 1250 and 75,000 ohms). Each with brackets and one slider.

| No. | From | To | Each |
| :--- | ---: | ---: | ---: |
| C5196 | 5,05 | 5,000 | $\$ 1.49$ |
| C5197 | 60,000 | 25,000 | 1.69 |
| C5198 | 40.000 | 50.000 | 1.91 |
| C5199 | 100,000 | $\ldots \ldots$ | 2.11 |
|  |  |  |  |

Type HAA- 100 Watts 2/9x13/8. Available in the following resistances.

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | ---: |
| $100^{*}$ | $2500^{*}$ | $10000^{*}$ | $50000^{*}$ |
| $500^{*}$ | $5000^{*}$ | $15000^{*}$ | $75000^{*}$ |
| $1000^{*}$ | 7500 | $25000^{*}$ | $100000^{*}$ |
| No | From | To | Each |
| C5266 | 100 | 5,000 | $\mathbf{\$ 1 . 6 9}$ |
| C5267 | 7,500 | 25,000 | 1.91 |
| C5268 | 50,000 | 100,000 | 2.11 |
| C5269 | 75,000 | 100,000 | $\mathbf{2 . 2 9}$ |

Type HOA-200 Watts
$1012 \times 1 y^{\circ}$. In sizes marked by

| asterisk in list above. |  |  |  |
| :--- | :--- | :--- | :--- |
| No. | From | To | Each |
| C5270 | 500 | 10,000 | $\$ 2.52$ |
| C5271 | 25,000 | 100,000 | 2.95 |


| Extra Sliders |  |  |
| :---: | :---: | :---: |
| Silver contact type to fit sizes listed. |  |  |
| Size | Silver | Each |
| $50-80 \mathrm{~W}$ | $\mathbf{C 5 2 2 7}$ | $\mathbf{1 6 c}$ |
| $100-200 \mathrm{~W}$ | $\mathbf{C 5 2 1 8}$ | $\mathbf{2 0 c}$ |

## IRC Wire Wound Power Resistors

Machine wound on non-hygroscopic cores; cement coating

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 75 | $500 *+$ | 2000* $\dagger$ 缶 | 4000\% | 7500* + 苟 | 15000* $\dagger$ \% | 40000 ${ }^{\text {P }}$ |
| 51 | $100 * 14$ | 750* | 2250 | 4500 | $10000 *+$ | 20000* + | $50000{ }^{*}$ |
| $10 \%$ | 150 | -1000* $\dagger$ | 2500* $\dagger$ | 5000* 1 | 12000 ${ }^{\text {P }}$ | 25000* $\dagger$ | 600004 |
| 25\% | 2004 | 1250** | 30001 | 6000\% | 12500\% | $30000{ }^{4}$ | 750 |
| 50. | 250*4 | 1500* $\dagger$ | 3500 | 70004 |  | 35000 | 100000 |

Type "AB" 10-Watt Rating
$13 /{ }^{\prime \prime}$ long. $5 / 10^{\prime \prime}$ diam. Range up to 25,000 ohms (see list)
C5210-Up to 10,000 ohms. . . 34e Above 10,000 ohms. Each. . . . 38e Type "DG" 20-Watt Rating
$2^{2}$ long, ${ }^{\circ}$ " diam. Range up to 50,000 ohms (see list).
Stk. No. From To Each Stk. No. From To Each Type "EP" 50-Watt (Max.)
43" long. $8^{\prime \prime}$ diam. Range up to 100,000 ohms. Only in sizes marked with (*) (see list)

| Stk. No. | From | To | Each | Stk. No. From | To Each |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5248 | 5 | 5,000 | 92c | C5254 | 30,000 | 100,000 | $\$ 122$ |

C5249 6,000

Type "HA" 100-Watt (Max.
$61 / 6^{\circ}$ long, $11 / /^{\prime \prime}$ diam. Range up to 100,000 ohms. Only in sizes marked with asterisk* (see list)

| Stk. No. | From | To | Each | Stk. No. Resistance | Each |  |
| :---: | ---: | ---: | ---: | :---: | :---: | :---: |
| C5260 | 100 | 5,000 | $\$ 1.26$ | C535. | 75,000 ohms | $\$ 1.91$ |
| C5261 | 7,500 | 25,000 | 1.49 | C5236 | 100,000 ohms | $\mathbf{2 . 1 1}$ |
| C5234 | 50,000 ohms | $\mathbf{1 . 6 9}$ |  |  |  |  |

Type "HO" 200-Watt (Max.)
 with ( $\dagger$ )
(see list).

From To Each Stk. No. From To Each | C5237 | 100 | 10,000 | $\$ 2.11$ | C5238 | 15,000 | 100,000 | $\$ 2.52$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## IRC Resisto-Cabinet

Free with any of the following resistor kits. Sturdy, 4 drawer ( 7 compartments in each) cabinets $11 \times 51 / 2 \times 51 / 3^{\circ}$. Blue \& Silver finish Shpg Wt 7 lbs
Kit No. 1: 8 Type BTS 1/2 W. resistors. 37 type BTA 1 W.resistors, 10 -type AB 10 W fixed resistors, 4 -type ABA 10 W . adjustable resistors. Total 59 resistors. $\$ \mathbf{8}$. Your Cost, Complete. . .
C5281-List value.. \$15.03. Your Cost, Complete
$\$ 7.71$
C5280-List value. $\$ 13.12$. Your Cost, Complate
48.30

## "BROWN DEVIL" <br> Fixed Resistors



Wire wround, vitreous enameled units suitable for use on all electronic and industrial equipment Tinned copper wire terminals. Protected against humidity and
mechanical danage. Tol. $10 \%$. Wt. 3 oz .


## Vitreous Enameled Fixed Resistors

Lug type resistors, wire-wound on porcelain cores. The vitreous enameled coating both protects and insulates the wire. The best alloy and largest nossible size wire are used for each resistance. The vireous enameled coating retains the uniform spacing of the turns, chanically locked and soldered to the terminal lugs. Tolerance $10 \%$.

| 25 WATT |  |  |  | 50 Watt |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 150 | 3,000 | 25.000 | 1 | 150 | 3,000 | 35,000 |
| 2 | 200 | 3,300 | 30,000 | 2 | 200 | 4,000 | 50,000 |
| 3 | 250 | 4,000 | 35,000 | 3 | 250 | 5,000 | 75,000 |
| 4 | 500 | 5,000 | 40,000 | 4 | 500 | 7.500 | 100,000 |
| 5 | 750 | 6,000 | 45,000 | 5 | 750 | 8,000 | 125,000 |
| 10 | 800 | \% 7.500 | 50,000 | 10 | 800 | 10,000 | 150,000 |
| 25 | 1,000 | 10,000 | 60,000 | 25 | 1,000 | 12,000 | 175,000 |
| 50 | 1,500 | 12,000 | 70,000 | 50 | 1.500 | 15,000 | 200,000 |
| 75 | 2,000 | 15,000 | 80,000 | 35 | 2,000 | 20,000 | 225,000 |
| 100 | 2,500 | 20,000 | 100,000 | 100 | 2,500 | 25,000 | 250,000 |
|  |  |  | Each |  |  |  | Each |
| C7125-1 to 5M............61e |  |  |  | C7132-1 to 5M.... . . . . 92c |  |  |  |
| C7125-6M to 15 M .......... . . 69 c |  |  |  | C7133-7,500 to 25M.... $\$ 1.07$ |  |  |  |
| C7127-20M to 50M..... . 84 c |  |  |  | C7134-35M to $100 \mathrm{M} . . . .1 .22$ |  |  |  |
| C7128-6i0M ohms. . . . . . 96.9 |  |  |  |  |  |  |  |
| C7129-70M ohms. . . . . $\$ 1.03$ |  |  |  | $\mathrm{C} 7136-150 \mathrm{M}$ to $175 \mathrm{M} \ldots . .1 .91$$\mathrm{C7137}-200 \mathrm{M}$ to $225 \mathrm{M} \ldots 2.11$$\mathrm{C7138}-250 \mathrm{M}$ |  |  |  |
| C7130-80M1 ohms. . . . . . 1.15 |  |  |  |  |  |  |  |
| C7131-1)0M ohms ...... 1.45 |  |  |  |  |  |  |  |
| , 100 WATT |  |  |  | 200 WATT |  |  |  |
| 1 | 75 | 1,500 | 20,000 | 1 | 75 | 2,000 | 25,000 |
| 2 | 100 | 2,000 | 25,000 | 2 | 100 | 2.500 | 30,000 |
| 3 | 125 | 2,500 | 30,000 | 3 | 150 | 3.000 | 40,000 |
| 4 | 150 | 3,000 | 40,000 | 4 | 250 | 5.000 | 50,000 |
| 5 | 250 | 5,000 | 50,000 | 5 | 500 | 7,500 | 60,000 |
| 10 | 500 | 7,500 | 60,000 | 10 | 750 | 10,000 | 75,000 |
| 25 | 750 | 10,000 | 75,000 | 25 | 1,000 1,500 | 15,000 20,000 | 100,000 |
| 50 | 1,000 | 15,000 | 100,000 | 50 | 1,500 | 20,000 | Each |
|  |  |  | Each | C7144-1 ohm. . . . . . . . $\$ 2.75$ |  |  |  |
| c7139-1 to 5M........ \$1.26 |  |  |  | C7145-2 ohm. . . . . . . . . . 2.56 |  |  |  |
| C7140-7,500 to 25 M . . . . 1.49 |  |  |  | C7146- 3 ohm. . . . . . . . . . 2.37 |  |  |  |
| $\begin{aligned} & \text { c } 7141-30 \mathrm{M} \text { to } 50 \mathrm{M} . . .1 .69 \\ & \mathrm{c} 7142-60 \mathrm{M} \text { to } 75 \mathrm{M} . . .1 .91 \end{aligned}$ |  |  |  | C7147-4 ohm ... 10 M ..... 2.21 |  |  |  |
|  |  |  |  |  |  |  |  |

## OHMMTE

## OHMITE"Little Devil"Insulated Resistors



Ready for any job anywhere are these iny completely sealed and insulated molded plastic constructed resistors meeting all Joint Army / Navy specifiations. Soft copper wire pigtail leads. Used in critical equipment and in the nation's foremost laboratories. Dissiwate heat rapidly, have low noise level and low voltage coefficient. Tolerance $\pm 10 \%$

Standard RMA Code-Specify Resistance

| ()hms | Ohnts | ()hms | (thnis | Megohms | Megohms | Megohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 100 | $1 .(0) 0$ | 10,000 | 0.1 | 1.0 | 10.0 |
| 12 | 120 | 1,200 | 12,000 | 0.12 | 1.2 | 12.0 |
| 15 | 150 | 1,500 | 15,000 | 0.15 | 1.5 | 15.0 |
| 18 | 180 | 1,800 | 18,000 | 0.18 | 1.8 | 18.0 |
| 22 | 220 | 2.200 | 22,000 | 0.22 | 2.2 | 22.0 |
| 27 | 270 | 2,700 | 27,000 | 0.27 | 2.7 |  |
| 33 | 330 | 3.300 | 33,000 | 0.33 | 3.3 |  |
| 39 | 390 | 3,900 | 39,000 | 0.39 | 3.9 |  |
| 47 | 470 | 4,700 | 47,000 | 0.47 | 4.7 |  |
| 56 | 560 | 5,600 | 56,000 | 0.56 | 5.6 |  |
| ©8 | 680 | 6.800 | 68,000 | 0.68 | 6.8 |  |
| 82 | 820 | 8.200 | 82,000 | 0.82 | 8.2 |  |
|  |  |  | 1 Watt <br> Size ${ }^{1} / \mathbf{c o}^{7}$ 血". <br> Max. volts 500 . c7101Each |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Lots of 100 of one value-Each. .... 4 c |  |  | Lots of 100 of one value-Each . . . . . 6c |  | Lots of 100 of one value-Each. . . . . 8c |  |

NOTE:
We can supply all RMA standard value resistors in $5 \%$ tolerance. Send us your specifications and we will gladly submit quotations.

## OHMITE "DIVIDOHM"

## Adjustable Resistors



Wire-wound units that make ideal voltage dividers for original equipment and replacentent in transmitters, rectiliers and other apparatus. landy for obtaining odd resistatice values, for adjusting circuits and or use on equipment which must be set to meet various line voltages. Vitreous enameled on porcelain cores with a narrow strip of the tum of wire exposed to form a contact surface for embossed contact on the adjustable lug. (Every turn is securely held against shifting.) Slider and mounting bracket included.

|  |  |  |  | 25 WATT $2 \times 8$ 侣 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 100 | 1,000 | 4,000 | 5 | 250 | 2,500 | 10,000 |
| 10 | 250 | 2.000 | 5,000 | 10 | 500 | 3,000 | 15,000 |
| 25 | 500 | 2,500 | 7,500 | 25 | 750 | 4.000 | 20,000 |
| 50 | 750 | 3.000 | 10,000 | 50 | 1,000 | 5,000 | 25,000 |
| c7174 <br> Your Cost |  |  |  | 100 | 2,000 | 7,500 | Each |
|  |  |  |  | C7175-5 ohms to 5 M ..... 73c C7176-7,500 to 15M...... .84c C7177-20M to 25M1...... .92c |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 50 WATT $4^{\circ} x^{9} K^{\prime \prime}$ |  |  |  | 100 WATT $6 \frac{1}{2} 2^{2} \mathrm{E}^{3} /{ }^{\prime \prime}$ |  |  |  |
| 1 | 250 | 3,000 | 12,000 | 10 | 250 | 5,000 | 25,000 |
| 2 | 300 | 3,500 | 15.000 | 25 | 500 | . 10,000 | 30,000 |
| 3 | 400 | 4,000 | 30,000 | 50 | 1,000 | 15,000 | 40,000 |
| 4 | 500 | 4.500 | 25,000 | 100 | 2,500 | 20,000 | 50,000 |
| 5 | 750 | 5.000 | 30,100 |  |  |  | Each |
| 10 | 800 | 6,000 | 40,000 | c7182-10 ohms to 5 M . . $\$ 1.69$ |  |  |  |
| 25 | 1,000 | 7,000 | 59,000 | C7183-10M to 25 M . ... . 1.91 |  |  |  |
| 50 | 1,250 | 7.200 | 60,000 | C7184-30M to $50 \mathrm{M} \ldots . . .2 .11$ |  |  |  |
| 75 | 1,500 | 8.000 | 100,000 | 200 WATT $10 \frac{1}{2} \mathbf{2 1 1 ]} 8^{\prime \prime}$ |  |  |  |
| $\begin{aligned} & 100 \\ & 150 \end{aligned}$ | 2,000 |  |  |  |  |  |  |
|  | 2,250 | 9.000 |  | 55 250 5.000 25.000 |  |  |  |
| 200 | 2,500 | 10.000 |  | 10 | 500 | 10.000 | 30,000 |
|  | Each |  |  | 25 | 1,000 | 15,000 | 40,000 |
| c7178-1 ohm to 5M.... \$1.15 |  |  |  | 50 | 2,500 | 20,000 | 50,000 |
| C7179 - 6 M to 25 M ..... 1.26 |  |  |  | 100 \| |  |  | Each $\$ 2.52$ |
| C7180-30M to 50 M .. . . . . 1.45 C7181-60M to 100M..... 1.69 |  |  |  |  |  |  |  |
|  |  |  |  | c7185-5 ohms to 10M. . $\$ 2.52$ C7186-15M to $50 \mathrm{M} . . . .2 .94$ |  |  |  |

Standard Adjustable Sliders
SCREWDRIVER
BAKELITE KNOB
TYPE
Diam. Inches

Stock No. Your Cost

| c7197 | 12c |
| :--- | ---: |
| C7198 | 20c |
| C7199 | 20c |


eliance 5\&10Watt Wire-WoundResistors Toleramce Within 5\%
These Reliance resistors are wound with genuine nichrome wire on fine ceramic tubes. Guaranteed accuracy $5 \%$. Tinned copper wireleadsand lugs ior easysoldering.
When ordering, specify size desíred.

Reliance
Resisions
Reliance $1 / 2$ and 1 Watt Resistors

* Insulated Shells $\star$ Low Drift

$\star$ Meet JAN-BF Specifications
Improved RMA Color Coded insulated resistors. Moisture and heat resistant. Have securely anchored pig-tail wire leads. Ideal for congested wiring in compact equipment. Half-Watt units- $235^{\prime \prime}$ dia. by $.580^{\circ}$ length, ineet IAN meet JAN RC-31 BF specitications. RMA preferred values only. Guaranteed accuracy $\pm 10 \%$.

| Resis. Ohms | $1 / 2$ Watt Stock No. | 1 Watt Stock No. | Resis. Ohms | 1/2 Watt Stock No. | $\begin{aligned} & \text { 1 Watt } \\ & \text { Stock No. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 220 | C4250 | C4300 | 56,000 | C4278 | C4328 |
| 270 | C4239 | C4354 | 68,000 | C4279 | C4329 |
| 330 | C4245 | C4348 | 82,000 | C4280 | C4330 |
| 390 | C4251 | C4301 | 100,000 | C4281 | C4331 |
| 470 | C4252 | C4302 | 120,000 | C4282 | C4332 |
| 560 | C4253 | C4303 | 150,000 | C4283 | C4333 |
| 680 | C4254 | C4304 | 180,(000 | C4240 | C4355 |
| 820 | C4255 | C4305 | 220,000 | C4284 | C4334 |
| 1000 | C4256 | C4306 | 270,000 | C4285 | C4335 |
| 1200 | C4257 | C4307 | 3330.000 | C4286 | C4336 |
| 1500 | C 4258 | C4308 | 390.000 | C4247 | C4350 |
| 1800 | C4259 | C4309 | 470,000 | C4287 | C4337 |
| 2200 | C4260 | C4310 | 560,000 | C4241 | C4356 |
| 2700 | C4261 | C4311 | 680,000 | C4242 | C4357 |
| 3300 | C4262 | C4312 | 820,000 | C4298 | C4353 |
| 3900 | C4263 | C4313 | Megohms |  |  |
| 4700 | C4264 | C4314 | 1.0 | C4288 | C4338 |
| 56500 | C4265 | C4315 | 1.2 | C4243 | C4358 |
| 6800 | C4266 | C4316 | 1.5 | C4248 | C4351 |
| 8200 | C4268 | C4318 | 1.8 | C4244 | C4359 |
| 10,000 | C4269 | C4319 | 2.2 | C4289 | C4339 |
| 12,000 | C4270 | C4320 | 2.7 | C4249 | C4352 |
| 15,000 | C4271 | C4321 | 3.3 | C4290 | C4340 |
| 18,000 | C4272 | C4322 | 3.9 | C4291 | C4341 |
| 22,000 | C4273 | C4323 | 4.7 | C4292 | C4342 |
| 27,000 | C4274 | C4324 | 5.6 | C4293 | C4343 |
| 33,000 | C4275 | C4325 | 6.8 | C4294 | C4344 |
| 39,000 | C4276 | C4326 | 8.2 | C4295 | C4345 |
| 47,000 | C4277 | C4327 | 10 | C4297 | C4347 |
| $1 / 2$-Watt Size 1-Watt Size <br> Your Cost |  |  |  |  |  |

Your Cost


## Filament Resistors

Dependable wire wound filament resistors, accurately rated. Have solder lug terminals and mounting feet. Available with tap at the clectrical center or without any lap. Supplied in the following resistances only:
$10,20,30,10,50,60$ and 100 ohms. With Center Tap C3999- Specify resistance desired. 10 F'or \$1.53.
Your Cost Each.
$17^{4}$
c3998-. Specify resistance sired. 10 For $\$ 1.26 . \quad$ Cour Cost Each. roment readings be set in a moment readings are accurate indicator. C3847-YourCostEach. ©

NOTE: Calculator above supplied FREE with orders for 20 or more Reliance Carbon ${ }^{\text {or.... } 40 \mathrm{c}} 100$ For.... 53.60
 Indicator Permits in
stant calcula tion of the value in ohms of any R.M.A. color coded resistor. The circular rule

Ohms Ohms Ohms Ohms Ohms Ohms Ohms Ohms

| 5 | 50 | 250 | 800 | 1500 | 2750 | 8000 | 20000 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 10 | 75 | 400 | 900 | 1750 | 3000 | 9000 | 22500 |
| 15 | 100 | 500 | 1000 | 2000 | 4000 | 10000 | 25000 |
| 20 | 150 | 600 | 1100 | 2250 | 5000 | 12500 | $30000^{*}$ |
| 25 | 200 | 750 | 1250 | 2500 | 6000 | 15000 | $40000^{*}$ |
| * Available in 10 -wat size only. |  | 7000 | 17500 | $50000^{*}$ |  |  |  | C4438-RELIANCE 5-Watt Resistors Your Cost Each, Any Size

C439-RELIANCE 10-Watt Resistors
Your Cost Each, Any Size

$\qquad$
10-Watt Adjustable Wire Wound


C4446-Extra Slider for above. Each


Vitreous Resistors
Guaranteed plus or minus 10 m . All are positive lug contacts and do not change in value. Each marked for resistance.




Reliance Semi-Variable Wire-Wound Resistors Vitreous enamel coated. Adjustable lugs have small contact buttons
so that several taps can be used without shorting out much resistance. Brackets and one slider furnished.

## WIRT Resistor Cabinet

## + 24 Compaxtments

File and Protect your resistors, condensers and parts from damage by contact with tools.
Handsome blond finish wooden cabinet designed for the systematic and sate storage of resistors, small condensers and hardware or small precision tools. Resistor or condenser leads need not be bent, as drawers measure $51 / 4$ deep. Six drawers with four compartments each assure ample space to file hundreds of 1 -wat tresistors. Flat topand
 bottom allows cabinets to be stacked when 25 Watts (2x $\left.9 / 16^{\circ}\right)$
No. Ohnts Each
 ondruction ce2s 6
Your Cost
$\$ 3.90$

SPRAGUE "ROOLORM" Resistor:
 20,000
25,000 25,000
30,000 40,000 $50,000^{\text { }}$ $50.000^{\text { }}$
$60,0(0)^{*}$ $60,00)^{*}$
$70,000^{*}$

35 c
39 c

1
$34 c$

40,000 53c

New Tropicalized fixed resistors Insulation has high di-electric strength, withstands red heat and is impervious to moisture. Units are encased in tubular ceramic shells which permit mounting in contact with metal parts without shorting. $2 \%$ tinned copper wire leads. Meet requirement of television and other high-voltage circuits. Negligible re sistance drift. Insulated for 10,000 volts. Accuracy maranteed $\pm 5 \%$ Non-inductive ghes show $\pm$ oro Non-inductive types show zero in ductance up

Standard
Adjustable
Type10AD-10 Watt.19x13/a Ohms Ohnis Ohms Ohms


| 10 | 200 | 750 | 3000 |
| ---: | ---: | ---: | ---: |
| 25 | 250 | 1000 | 4000 |
| 50 | 300 | 1500 | 5000 |
| 100 | 400 | 2000 | 7500 |
| 150 | 500 | 2500 | 10,000 | C7534-Any above 584 Non-Inductive Fixed Type 10NIT-10 Watt. $18 x^{3} 6^{2}$


| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | ---: |
| 10 | 70 | 500 | 2500 |
| 20 | 80 | 750 | 3000 |
| 30 | 90 | 1000 | 3500 |
| 40 | 100 | 1250 | 4000 |
| 50 | 250 | 1500 | 5000 |
| 60 | 400 | 2000 | 7500 |
|  |  | 10.000 |  |
| Stock No. | Ohms | Each |  |
| C7528 | 10 to 1000 | $46 c$ |  |
| C7529 | 1250 to 2000 | $54 c$ |  |
| C7530 | 2500 to 4000 | 58 c |  |
| C7531 | 5000 | $61 c$ |  |
| C7532 | 7500 | 68 c |  |
| C7533 | 10.000 | $88 c$ |  |

MALLORY Yard-Ohm Resistance Kits
The Yard-Ohm Kit provides a real solution to the odd-value resistor problem. Ideal for meter shunts, for experimental lab. etc. Contain all the necessary materials to construct flexible resistors of a wide range of values Each kit con-
sists of 1 yard spiral wound resistance wire 1 yard sists of 1 yard spiral wound resistance wire, 1 yard insulated braid and 24 spiral wire leads. Available in eight resistance Stk. Ohms Cap. in tyour $1 / 2$ watt per inch. nstructions included No Onms Cap. in No: Per In. Amps
C4407
C4408
C4409

## - 1 NTM


CENTRALAB Power Rheostats
Irleal for use as motor speed controls, charging rate regulators, etc. All metal frame; core insulated with mounting; knob supplied Dinmeter 2 . bushing $3 / 8 \times 1 \cdot{ }^{*}$ long. Depth belind panel: 25-watt units $84^{5}$; on-watt units $11 / 4$. All have tinned solder lug terminals for easy connections. Shipping wt. 1 lb .


| 25 Watts |  |  |  |  | 50 Watts |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Ohns | No. | Ohms | No. | Ohms | No. | Ohms |
| C8977 | 2 | C8957 | 250 | C8962 | 2 | C8994 | 300 |
| C8978 | 6 | C8982 | 400 | C8985 | 10 | C8990 | 500 |
| C8979 | 15 | C8958 | 500 | C8987 | 25 | C8991 | 1000 |
| C8980 | 50 | C8983 | 1000 | C8988 | 60 | C8960 | 2500 |
| C8976 | 100 | C8984 | 5000 | C8986 | 100 | c8962 | 5000 |
| C8981 | 150 |  |  | C8989 | 150 |  |  |
| Your Each | ost |  | 18 | Your <br> Each |  |  |  |

## IRC All Metal Rheostats

Nil-metal units with die-cast aluminum case. Heat is uniformly distributed throughout the clement regardless of percentage of element actually used. Flat clockspring (Silent Spiral Connector) gives positive contact between rotor arn and center connector. 25 -W att units 121 sfor dia. " ${ }^{11}$ ba $^{\circ}$ behind panel; 50 - Watt units $2 \%{ }^{\circ}$ dia., $1 \%^{\circ}{ }^{\circ}$ behind panel. Shpg. wt. 2 lbs.
50-Watt Rheostats

| No. | Ohins | Amps. | Each |
| :---: | :---: | :---: | :---: |
| C9150 |  | 2.04 |  |
| C9151 | 10 | 1.58 |  |
| C9152 | 25 | 1.00 |  |
| C9153 | 50 | . 709 |  |
| C9154 | 75 | . 575 |  |
| C9155 | 100 | . 500 | - |
| C9156 | 250 | 315 |  |
| C9157 | 350 | 267 |  |
| C9158 | 500 | . 222 |  |
| C9159 | 750 | . 173 |  |
| C9160 | 1000 | . 155 |  |
| C9161 | 1500 | . 129 |  |
| C9162 | 2500 | . 100 |  |
| C9163 | 5000 | 070 |  |



## OHMITE Power Rheostats



Designed to produce permanently smooth. close control. Ceramic and metal construction. Provided with insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid porcelain core. Each turn is locked against shifting by vitroous enamel, which also covers the core and base. lequires $8 / 8^{\prime}$ Hole. Wt. 1 lb .
New resistor involving the metal film principle, having the accuracy of a wire wound unit. No carbon used. Metallic resistance film is formed on the surface of a low loss ceramic tube, then hermetically sealed hollow and allow greater area for heat dissipation. Excellent resistance stability and negligible noise characteristics. Will withstand overloads of 200 ) $\%$ and temperatures of $400{ }^{\circ}$ without change in value upon return 10 room temperature. Critical tol-


| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | ---: | ---: |
| 1 | 2950 | 9950 | 85 M |
| 10 | 3500 | 10,000 | 90 M |
| 25 | 4000 | 13,500 | 100 M |
| 50 | 4.450 | 15 M | 150 M |
| 100 | 4950 | 20 M | 200 M |
| 200 | 5000 | 25 M | 240 M |
| 400 | 5500 | 30 M | 250 M |
| 500 | 5950 | 40 M | 300 M |
| $10(150$ | 7450 | 50 M | 400 M |
| 1150 | 8500 | 60 M | 450 M |
| 2000 | 8950 | 75 M | 490 M |

## C7105-Specify Resistance.

OHMITE Model Train Confrol Rheostats
MT-16 for "HO" Gauge
Ideal for providing realistic single knob starting, stopping, speed and reversal. Will control one "HO" gauge locomotive pulling normal load. Single hole mounting. $2^{3}$ /10 dia. $\times 17{ }^{\circ}{ }^{\circ}$ deep C8388 Your Cost

MT-14 for "o" Gauge
Will control one " O " gauge locomotive pulling normal load. Off position for operating sequence reversers. ${ }^{2}$ our Cost....


| Model "H"-25W (19/0" dia.) |  |  |  | Model "f"-S0 Watt ( $\mathbf{2}^{5}$ /6 ${ }^{\text {d dla. }}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Total | Max. |  | No. | Ohms | Amps. | Each |
|  | Ohms | Amps. | Each | $\overline{C 7200}$ | 0.5 | 10.060 |  |
| C8350 | 1 | 5.000 | \$3.44 | C7201 | 1 | 7.070 | \$3.82 |
| C8362 | 2 | 3.540 |  | C7202 | 2 | 5.000 |  |
| C8351 | 3 | 2.880 |  | C7203 | 4 | 3.530 |  |
| C8363 | 6 | 2.040 |  | C7204 | 8 | 2.500 |  |
| C8352 | 8 | 1.770 |  | C720S | 12 | 2.040 |  |
| C8364 | 10 | 1.580 |  | c7206 | 16 | 1.760 |  |
| C8365 | 15 | 1.290 |  | C7207 | 22 | 1.500 |  |
| C8366 | 25 | 1.000 |  | $\overline{C 7208}$ | 35 | 1.190 |  |
| C83S3 | 35 | . 845 |  | C7209 | 50 | 1.000 | \$3.44 |
| C8367 | 50 | . 707 | \$3.16 | C7210 | 80 | . 790 |  |
| C8390 | 75 | . 575 |  | C7211 | 125 | . 630 |  |
| C8368 | 100 | . 500 |  | C7212 | 150 | . 575 |  |
| C8369 | 125 | . 44.5 |  | c7213 | 225 | . 470 |  |
| C8370 | 175 | . 375 |  | C7214 | 300 | . 408 |  |
| C8371 | 250 | . 316 |  | C7215 | 500 | . 316 |  |
| C8391 | 350 | 267 |  | C7216 | 800 | . 250 |  |
| C8372 | 500 | 222 |  | C7217 | 1.000 | . 22.4 | \$364 |
| C8392 | 750 | . 182 |  | C7218 | 1.600 | . 176 | +3.04 |
| C8373 | 1,000 | . 155 |  | C7219 | 2,500 | . 141 |  |
| C8374 | 1,500 | . 129 | \$3.44 | C7220 | 3,500 | . 119 |  |
| C8375 | 2,500 | . 100 |  | C7221 | 5,000 | . 100 | 2 |
| C8376 | 3,500 | . 084 | \$3.64 | C7222 | 8,000 | . 079 | 3.04 |
| C8377 | 5,000 | . 070 | \$3.64 | C7223 | 10,000 | . 070 |  |

MODEL "K"—100 WATT (31/8" DIA.)

| No. | Ohms | Amps. | Each | No. | Ohms | Amps. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C8378 | 10 | 3.160 |  | C8383 | 500 | . 447 | \$5.35 |
| C8379 | 25 | 2.000 |  | C8384 | 1,000 | . 316 | \$5.73 |
| C8380 | 50 | 1.410 |  | C8385 | 2.500 | . 200 | 1.73 |
| C8381 | 100 | 1.000 | - | C8386 | 5,000 | . 141 | \$6.12 |
| C8382 | 300 | . 575 ) |  | C8387 | 10.000 | . 100 | \$6.88 |

# MALLORY valum 

## Standard Universal Tapped Controls

Standard $11 / 2^{*}$ diameter controls with tap for
various applications. Furnished with two nuts, washer, ground terminal and knoh adapter No provision for use with switch; if switch is desired use TRP624, +1 las slotted shaft for auto sets. $\ddagger$ Special taper for fader service. Others are taper 1. Less switches. Shpg. wt. 5
 oz.

| Stock | Mirs. | Res. | Tapred | Stock | Mfrs. | Res. | Tapped |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Ohms | At Ohms | No. | No. | Ohing | At Ohms |
| C6543 | TRP601 | 40000 | 8000 | C6588 | TRI'615 | 3 Mer . | 900000 |
| C6544 | TRP602 | 60000 | 4000 | C6589 | TRI'616 | 500000 | 60000 |
| C6545 | TRP603 | 250000 | 110000 | C6590 | TRI'617 | 60000 | 12000 |
| C6546 |  | 350000 | 20000 | C6591 | TRP018 | 2 Meg . | 250000 |
| C6547 | TRP605 | 350000 | 70000 | C6592 | TkI 610 | 500000 | ¢100000 |
| C6577 | TRP606 | 500000 | 100000 |  |  |  | \{ 250000 |
| C6578 | TRP607 | 500000 | 225000 | C6593 | TRP620 | 2 Meg. | 900000 |
| C6579 | TRP608 | 1 Meg . | 300000 | C6594* | TRI'621 | 21/ Meg. | (250000 |
| C6580 | TRP609\# | 1 Meg. | 500000 |  |  | 2, | - 500000 |
| C6581 | TRP610 | 1 Meg. | 30000 | C6595 | TRP622 | 44000 | ) 7000 |
| C6583 | TRP612 | 2 Meg . | 15000 |  |  |  | 14000 |
| C6586 | TRP613 | 2 Meg . | 400000 | C6596 | TRP623 | 250000 | 50000 |
| C6587 | TRP614† | 350000 | 70000 | C6576 | TR P624 | 21/4 Mes. | 250000 |
| Y | - Eac | Any | the |  |  | 10 | 500000 |

## Standard Universal Dual Controls

Consists of two volume controls strapped together and driven by a Single shaft. Units listed service practically all receivers

| Stock | Mfrs. |  | IRes. in Ohnis |  | Taper |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Type | lront | Rear | Front | Re |
| C6684 | CE | WW | 2000 | 5000 | , |  |
| C6658 | GE | WW | 10000 | 5000 | VII | IV |
| C6685 | GG | WW | 10000 | 10000 | VII | IV |
| C6696 | GK | Car. | 10000 | 50000 | 1 | IV |
| C6659 | LL | Car. | 100000 | 100000 | 1 | 1 |
| C6687 | LM | Car. | 100000 | 250000 | 1 | 1 |
| C6745 | MM | Car. | 250000 | 250000 | 1 | 1 |
| C6750 | MN | Car. | 250000 | 500000 | 1 |  |
| C6659 | NN | Car. | 500000 | 500000 | 1 |  |
| WW-W | ound | nent. C | -Carbo | element. |  |  |

## Explanation Of Mallory Volume Control Tapers

No. (1) For audio or antenna shunt circuits.
No. (2) For series circuits such as cathode viltage controls.
No. (3) For antenna shunt and "C" bias circuits
No. (4) Linear taper; for voltage divider circuit
No.. (7) Wire wound element. For antenna and

## COMPACT RHEOSTATS \& POTENTIOMETERS

 Wire Wound. Controls ideal for use where space is limited Contact arm is grounded to the shaft, Diam, $11 / 2^{\prime \prime}, 1 / 4 "$ shaf
is $3 / 3^{\prime \prime}$ long.


UNIVERSAL VOLUME CONTROLS


The Mallory-Yaxley Volume Controls listed on these pages can be used to service over $90 \%$ of all the radio recenvers now in use. With comparatively few units, the serviceman is enabled to meet practically all service requirements. Mallory-Yaxley Controls feature: minimum bias adjustment on all bias controls: $3^{\text {' }}$ shafts that can be shortened by notching and breaking off; complete shielding; all furnished with knob adapter, and mounting hardware. Approved switch (listed below) can adapter, and mounting had to any control.

## UNIVERSAL REPLACEMENT CONTROLS

All with two mounting nuts, washer, ground terminal and knob adapter.
Wire wound units have adjustable bias feature (exclusive MalloryYaxley): carbon element units with adjustable bias resistor where required.

| No. Part | Type | Ohms | Taper | No. Papt | Type Ohms |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C6660 ( | WW | $?$ |  | C6675 H* | ITW 15000 | 2 |
| C6661 R | WT | 6 | 4 | C6713 Hi** | WW 15000 | 7 |
| C6662 S | WW | 10 | 4 | C6714 II12* | Car. 15000 | 1 |
| C6663 T | WW | 20 | 4 | C6741 A20Mp ${ }^{\text {a }}$ | WTT 20000 |  |
| C6664 U | WW | 30 | 4 | C6715 ${ }^{\text {Y }}$ | Car. 20000 |  |
| C6665 Y | WW | 60 | 4 | 66742 125MP | Car. 25000 | 4 |
| C6666 W | WW | 100 | 4 | C6676 J* | Car. 25000 |  |
| C6667 X | WW | 200 | 4 | C6743 150MP | Car., 50000 |  |
| C6732 A400P | WW | 400 | 4 | C6677 K* | Car. 50000 | 2 |
| C6668 A | WW | 500 |  | C6716 K12 | Car. 55600 | 1 |
| C6733 A550P | WW | 550 | 4 | C6717 ${ }^{\text {* }}$ | Car. 75000 | 3 |
| C6734 A1MP | IWW | 1000 | 4 | C6718 $\% 12$ | Car. 75000 | 1 |
| C6669 B | WW | 1000 | 1 | C6744 1100MP | Car. 100000 |  |
| C6719 ['C500 | T5W | 1000 | , | C672s ['C510* | Car. 100000 | 2 |
| C6735 A2MP* | WW | 2000 | 4 | C6721 YC502 | Car. 150000 | 1 |
| C6670 C* | WW | 2000 | 2 | C6745 200 MP | Car. 200000 | 4 |
| C6704 C12* | WH | 2000 | 1 | C6746 Y250MP | Car. 250000 | 4 |
| C6736 ${ }^{\text {A }}$ M ${ }^{\text {\% }}$ | WH | 3000 | 4 | C6679 M | Car 250050 |  |
| C6671 D* | WW | 3000 | 2 | C6730 ${ }^{\text {L'C5511 } \dagger}$ | Car. 25:000 |  |
| C6705 1) ${ }^{\text {\% }}$ | ITW | 3000 | 7 | C6728 ['C500* | Car. 250000 |  |
| C6706 D12* | WH | 3000 | 1 | C6747 Y500MP | Car. 500000 | 4 |
| C6737 A5M1 ${ }^{\text {* }}$ | WW | 5000 | 4 | C6680 N | Car, 500000 | 1 |
| C6738 Y5MP | Car. | 5000 | 4 | C6731 $1^{-C 512 \dagger}$ | Car, 500090 |  |
| C6672 E* | WW | 5000 | 2 | C6793 l'C513 | Car. 500000 | 2 |
| C6707 E7* | WW | 5000 | 7 | C6722 ITC503 | Car. 750600 | 1 |
| C6708 L12* | Car: | 5000 |  | C6748 [1000 MP | Car. 1 Meg. | ! |
| C6673 $\mathrm{I}^{\text {²* }}$ | 11\% | 7500 | 2 | C6681 O | Car. IMeg. |  |
| C6709 F7* | WW | 7500 | , | C6794 ${ }^{1} \mathrm{C} 514 \dagger$ | Car. 1 Meg. | 1 |
| C6710 F12* | Car. | 7500 |  | C6682 P | Car. 2 Maz | 1 |
| C6739 A $10 \mathrm{MP}^{\text {\% }}$ | IIW | 10000 | 1 | C6723 YC504 | Cap. 3 Meg. | 1 |
| C6740 T10.1P | Car. | 10000 | 4 | C6724 C C505 | Car. 4 Mrg . | 1 |
| C6674 ${ }^{\text {a }}$ | WW | 10000 | 2 | C6725 UC506 | Car. 5 Meg. | 1 |
| C6711 G7 ${ }^{\text {a }}$ | WW | 10000 | 7 | C6726 ITC507 | Car. 5 M Meg, | 2 |
| 66712 G12* | Car. | 10000 | 1 | C6727 UC508 | Car. 9 Meg. | 1 |
| C6720 L'501 | Car. | 10000 | 2 |  |  |  |

Car-Carbon element. WW-Wire wound, *-Has adjustable bias feature. Wire wound units have adjustable plate; carbon element controls have external adjustable resistor. $\dagger$-Has slotted shaft for auto sets. Supplied Less Switch.
Your Cost Each, Any of the above Controls

## Control Switches

Mounting Brackets


Attachable switches to fit all universal, tapped, and dual controls listed on this page. Stock Part
No. No
No. No. Type Each C6288 6-9 S. ${ }^{2}$.S.T........ 35c $\left.\begin{array}{lll}\text { C12853 } & 8 & \text { S.P.D.T. } \\ \text { C6289 } \\ \text { C6290 } & 13 & 3 \text {-P.S.T. } \\ \text { C6291 } & 14 & 4-P \cdot S\end{array}\right\}$

## Extension Shafts



Type A-Length $4^{\circ}$
C6561-1/" dianı., $1 /$ ang $^{\prime \prime}$ flat.
C6562-1/i, diam., i/g flat. C6563-3/2" diam., $1 / 16^{\circ}$ Any Size,
Your Cost Each
244
Type $\mathrm{B}-2^{\prime \prime}$ long, $14^{\circ}$ diameter With 3 sublot. Enclosed in tight
fitting tube.


For use where control mounts off chassis. Plated metal. Adjustable mounting centers.
C6297-Type RA-948-Mount ing centers $11 \frac{1}{2}{ }^{\circ}$ to $28 \%^{\circ}$. C6298-Type RB-2.19-Mounting centers $23^{\circ}$ to $2 \% 8^{\circ}$ Your Cost Each, Either Type
$15^{4}$

## Control Hex Nuts

For $88^{\circ}$ bushings.


| $\begin{aligned} & \text { For } \\ & \text { No. } \end{aligned}$ | For Panels | Each |
| :---: | :---: | :---: |
| C6384 |  | 12 c |
| C6386 | 16. | 15 c |
| C6385 | \% | 18 m |

## Volume Control Wrench


For standard volume control nuts. C6387-No. 178 Your Cost Each


MALLORY "TM" Type Tapped Controls


Type TM Controls, complete with 551 shaft.
Any Type Above, Your Cost Each



C6973-SSl. Replaces any 1/4" round shaft or 1 so or 3 ss flattened shaft up to $4^{\prime \prime}$ long. Each.... 18 c C6974-SS2. Each C6975-SS3. Replaces any 3/4 slotted shaft up to $2^{\prime}$ long.... 26c C6976 -SS1. Each . . . . . . . . 18c C6977-SS5. Each.............18c C6978-SS6. RCA. II un son
II 6....................................... C6982-SS10. Each....... 18c C6983--SS11. Replaces any 3/5" C6984-SS12. Each ......... 18c C6986-SS14. Replaces any 1 " slotted shaft to 2 long....... 269 slotted shaft to $6^{\circ}$ long any $2 . .26 \mathrm{c}$ C6988-SS16 .....18c


For controlling level of low inns. audio circuits, mikes or phons,
etc. With knob, dial and plate. etc. With knob, dial and plat
CLAROSTAT 10-Watt Output Attenuators Type CIB: Compact constant impedance attenuators that will dissipate 10 watts in controls. Linear attenuation in 3 db steps to 30 db final step to infinity. Units are
 plate and knob. Shag. wt. 1 lb.
No. Ohms No. Ohms No. Ohms Any Type, Each $\begin{array}{lcccccc}\mathbf{C 7 8 3 7} & 8 & \mathrm{C7839} & 50 & \mathrm{c7841} & 250 & \$ 6.37\end{array}$

MALLORY
NoUMECOHROLS
MALLORY Type "MR "Junior Controls


Ultra compact controls are similar to the types UM and TM junior controls listed at left except that they feature standard shafts. $3^{\circ}$ long milled the entire length and furnished with knob adapters (for spring type knobs). All are rated conservatively at $l_{2}$ watt.


Type MR Controls, Any Size, Each

## Junior Controls With Fixed Knurled Shafts

 Similar to type "MIR" controls above, but have 3 " universal knurled shaft for replacing original units of this type. Stock Type Ohms \& Stock Taper C6637 -MK. 100 250M(1) C6639 Type MK Controls,Your Cost Each. Any Type


Type MRT Midget Controls with Single Tap
Midget controls with single tap and fixed shaft
for use in hone radio receiver applications. Easy-o-cut channel shaft and insert hts all types knobs. Nuts, washer and ground terminal fur. nished. $11 / \mathrm{g}^{\prime \prime}$ dias. Switches listed below are easily attached.


## MALLORY Attachable Switches

Fit all "UM," "TM," "MR" \& "MRT" Junior controls listed on this page.
C6968-Single Pole, Single Throw. Each
35
C6969-Double Prole, Single Throw
C6970-Single Pole, I ouphe Throw
C6972-Four Pole, Single Throw (Shorting Type)
J Each
$44^{\circ}$

## MALLORY-YAXLEY Encyclopedia, 5th Edition

latest, biggest, most valuable issue. Contains all the essential service information on all prewar receivers, including all the makes and models isted in former ARE Es plus an additional town sets. A $25 \%$ increase in the number of new listings, makes it the largest publication ever major radio components. Incorporates all references up to and including Riders Volurne XIV.
C19786 Your Cost ................................... \$1. $2 \boldsymbol{1 8}$


## CENTRALAB FADERS



Straight Fader
入 hal pickups, mikes, etc. I'rovide smooth
 quiet fading from one so

## Stock No C9004 C9004 $C 9005$

Resistance Each Side c.t. 50 NMM 1 Meg

## Your Cost $\$ 1=18$

Gain Control
Like above hut wit hoot center tap.
C9000
C9001
$C 9002$
$C 9003$

| Resistance | Each |
| :--- | :--- |
| 250 M |  |
| 500 M | $\$ 1,03$ |
| 1 Meg. |  |
| 2 Meg. |  |

"Delta-T" Pad
Dual control maintaining con Forsoundedance to both sides No. Imjeclance Each
N9006 50 ohms
C 9007
200 ohms C9008 500 ohms

# Voume ROwneus 

Clutch Type DC Control


Practical for auto radio use and other applications. llave friction clutch drive-arm equipped witha special fixed shaft for use where either slotted or tongoed type
shaft required. 1nstructions tell shat required. Instructions telcations. Switches cannot be used with friction clutch controls. Dimensions: $11 / 8^{\prime \prime} x^{17} /{ }^{17}$
Stock Type
No. Nu.
C7757 DC13-130 250,000) Each
 $\mathrm{C}_{763}$ DC13-1392.0Meg.

TAPPED CONTROLS Stock No. Type No. Tap Ohme
 $\mathrm{C} 7762 \mathrm{DC13}-137 \mathrm{X} \quad 250 \mathrm{M} 1.0 \mathrm{Meg}$ C7764 DC13-139X Any type above, \$1_09

## IRC Volume

 Control Guide136-page replacement manual. Includes mig. part numbers, Riders schematic reference and special shaft requirements. Free with c19792 Y our cost...254
TAP-IN SHAFTS FOR TYPE D CONTROLS


No. Type Use Price C7799 바Far Auto Radio Controle C7737C Knurled-For Push-on C773 Knobs C7738 D Unknurled - For Push-nan C7800 EOne Piece iplit Knurled. C7801 F340 Dia. Full Round 3* C7802 C $7 /{ }^{\circ} \mathrm{L}$ Long

## IRC Handy Control and Parts Cabinet



3 sturdy, all-metal constructed, attractive 3 color finish. IRC. Volume Control Cabinet is included FREE with a special assortment and 6 Switches that will enable you to handle up to $80 \%$ of your Volune Control ReplaceAccommodates 20 casures $14 \frac{1}{2}{ }^{\circ} \times 7^{3} 3^{\prime \prime} x^{4} 1 / 4 "$ Accommodates 20 controls, has 3 handy drawers for switches, tap-in shafts and other
small parts. Control assortment includes one type DC and 17 type D Volume Controls. (Sizes indicated in stock lists upper right by $\dagger$.)
C7739-Your Cost Complete
\$18.17

## THE "CENTURY" IINE-

## Universal Type D Controls



Compact all-purpose controls for miscellaneous service needs. Each D control accommodates any of the 13 Tapin Shafts shown in adioining column which greatly increases their utility. Shaft flats may be located in any position. A Double Flatted A shaft is included with each D Control, which accommodates popular push on knobs requiring either $11^{\prime \prime}$ "or ${ }^{3} / \mathbf{m}^{\prime \prime}$ flats and all set screw knobs without filing or use of inserts. Controls measure $11^{\circ}$ dia. $\times 1{ }^{1 / 3 x^{2}}$ thick.

| No. | Type | Use | Ohms | No. | Type | Use | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| c7706 | D11-103 | A | 500 | C7728 | D14-123* | D | 50000 |
| C7707 | 1)11-108 | A | 1000 | C7729 | D13-125 | C | 75000 |
| C7708 | D11-110 | A | 2000 | C7730 | D14-125* | D | 75000 |
| C7724 | D11-112 | A | 3000 | C7716 | D11-128 $\dagger$ | A | 100000 |
| C7709 | D11-113 | A | 4000 | C7785 | D13-128 $\dagger$ | C | 100000 |
| C7779 | D)11-114 | A | 5000 | C7717 | D11-129 | A | 200000 |
| C7710 | D13-114 | C | 5000 | C7718 | D14-129* | D | 200000 |
| C7850 | D14-114* | D | 5000 | C7731 | D11-130 | A | 250000 |
| C7725 | D11-115 | A | 7500 | C7786 | D13-130 $\dagger$ | C | 250000 |
| C7780 | 1)11-116* $\dagger$ | A | 10000 | C7719 | D14-130* | D | 250000 |
| C7711 | D13-116 | C | 10000 | C7787 | D13-132 | C | 350000 |
| C7781 | D14-116* $\dagger$ | D | 10000 | C7732 | D11-133 $\dagger$ | A | 500000 |
| C7782 | Diti-116* | F | 10000 | C7788 | D13-133 $\dagger$ | C | 500 mOO |
| C7726 | D1 !-118* | D | 15000 | C7720 | 1)14-133 | D | 5010000 |
| C7783 | 1)16.118* | F | 15000 | C7852 | D11-137 | A | 1.0 Meg . |
| $C 7712$ | D16-119* $\dagger$ | F | 20000 | C7789 | D13-137 $\dagger$ | C | 1.0 Meg . |
| C7713 | D11-120 | A | 25000 | C7705 | D1-4-137 | D | 1.0 Meg. |
| 67727 | D14-120* | D | 25000 | C7790 | 1)13-139 $\dagger$ | C | 2.0 Meg - |
| C7714 | D16-120 | F | 25000 | C7733 | D13-140 | C | 3.0 Meg . |
| C7715 | 111-12:3 $\dagger$ | A | 5000 (1) | C7721 | D11-141 | A | 5.0 Meg. |
| 67784 | 1)13-123 $\dagger$ | C | 50010 | C7723 | D11-143 | A | 10.0 Meg . |



## Type J Controls for <br> Special Applications

For a wide yariety of sets with specilic requiremtinls, these con-
truls are extremely useful. May stfe, stock at least one of each.
Stock Type
Reaistance
C7859 DJ $42.0 \mathrm{Meg} . / 1.0 \mathrm{Meg} . \$ 2.20$ C7860 DJ 5 2.0 Meg./1.0 Meg. 2.20 C9169 J-15 32,000 Ohms 1.09 C9190 J-107 10,000/50,000) Ohme 1.82 C9195 J-127 3800/3800 Ohms 1.82 C7861 J-296 $225,000 / 5,000$ Ohm 1.82 C9460 J-777 350,000 Ohms 1.09 C9149 J-823 150,000/250,000
$\begin{array}{lll}\text { C7862 J-843 } & \text { 350,000 Ohms } & 1.82 \\ & 1.09\end{array}$

IRC "Junior" Control Cabinet

## CENTRALAB Volume Controls



Standard Radiohms Noted for their long noiseless life these famous controls employ a patented nonwearing contact arrangement. A highly polished metal band is pressed into contact with the resistance strip by the rotating arm. Contact between the arm and the band is by means of an oil-treated wood button that is absolutely noiseless and perfectly smooth in operation. Control dimensions: Diameter-18/8"; Depth-9/6"; Shaft length-21/2"; Diameter-1/4"; Bushing diameter- $/ 8^{\circ}$. Flat milled shaft. Tapers follow:



Twin Replacement RADIOHMS
$\left.\begin{array}{lccc}\text { Most } & \text { popular twin controls for general replacement. } \\ \text { Stock } & \text { No. CRL No. } & \text { Front Ohms } & \text { Rear Ohms } \\ \text { C8912 } & \text { C-100 } & 10,000 & 25,000 \\ \text { C8913 } & \text { C- } 101 & 10,000 & 50,000 \\ \text { C8758 } & \text { C } 102 & 100,000 & 100,000 \\ \text { C8768 } & \text { C-103 } & 250,000 & 250,000 \\ \text { C8787 } & \text { C-104 } & 500,000 & 500,000\end{array}\right)$

|  | SWI | F |
| :---: | :---: | :---: |
| C8665 |  | C8669 4 Point |
| C8660 | İP.S.T. | C8661 +S.P.S.T. |
|  | at clockwis | With |

## CENTRALAB Midget Radiohms

Small diameter controls for use in auto radio sets or in midget radios. Molded bakelite cases. Al. potentiometer type, with insulated terminals. Denth, less switch, $33 \mathrm{a}^{\circ} .212^{\circ}$ shaft milled entire taper symbols as shown with standard Radiohnis
 above. CRL type numbers given below are less switch
No. CRL Ohms No. CRL Ohms No. CRL ihms
 C8190 N107 10,000A C8277 N113 25,001U C8273 N118500,000U C8188 N 10010 ,000A1 C8191 N101 25,000A C8193 N103501,000CT C8189 N108 10, (以)A2 C8218 N11. $50,000 \mathrm{U}$ C8194 N1041 Mieg. GT C8278 N109 10, (OOS C8219 N115 50,000'T C8169 N1552 Meg. Gil C8279 N1 10 15,000A1 C8220 N116 160,000U C8166 N1775 Meg. U C8280 N111 15,000A2 C8272 N117 100,000GT C8170 N178 10 Mleg. U
Any Type Listed Above (Less Switch) Each.

Tapped Midget Radiohms Tapped for tone compensation circuits. Less switch.
c8274 N1119 Ohms Each
C8275 N1119250.000 C8275 NT120 500.000 C8276 NT121 1 Meg. $\$ 1.09$ C8277 NT122 2 Meg.

Midget Switch Plates


## CRL Split Knurl Midget Radiohms

For 1938-39-40-41 radios using splitknurl shafts where the knobs will not fit any other type of shaft. Shafts $2 \%_{10}$ " long.

No. CRL Ohms
C8285 NK-139 250 M
C8286 NK-1.40 500 M
C8287 NK. 1411 Meg .

Each No. CRL Ohms

* $\} \$ 1.09$

734

| 8289 NK-143 |
| :--- |
| $500 \mathrm{M}^{*}$ |
|  |
| 291 NK-144 1 Meg.* |

*-Tapped controls.

# EMationally:known Volume Controls 

## IRC Type "W"

 Wire Wound ControlsJiamefer $11 / 4^{\prime \prime}$. Rated 2 watts. $3^{\prime \prime}$ shaft Less $\$$ witch, but switch covers listed below can be easily added. Uniform taper. Ideal for use where space is lim ited. Shield dust cover supplied.

| Stock No. | IRC No. | Ohms | Stock No. | IRC No. | Ohms | Stock No. | $\begin{aligned} & \text { IRC } \\ & \text { No. } \end{aligned}$ | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C7810 | W-6 | 6 | C7818 | W-50 | 50 | C7826 | W-750 | 750 |
| C7811 | W-8 | 8 | C7819 | W-60 | 60 | C7827 | W-1000 | 1000 |
| C7812 | W-10 | 10 | C7820 | W. 75 | 75 | C7828 | W.2000 | 2000 |
| C7813 | W-15 | 15 | C7821 | W-100 | 100 | C7829 | W-3000 | 3000 |
| C7814 | W-20 | 20 | C7822 | W-200 | 200 | C7830 | W-4000 | 4000 |
| C7815 | W-25 | 25 | C7823 | W-300 | 300 | C7831 | W-5000 | 5000 |
| c7816 | W-30 | 30 | C7824 | W-400 | . 400 | $C 7832$ | W-7500 | 7500 |
| C7817 | W-40 | 40 | C7825 | W-500 | 500 | C7833 | W-10000 | 10000 |
| Your Cost Each, Any Above Type |  |  |  |  |  |  |  |  |

Any Above Type
$73^{\text {c }}$

## Switches for "WW" Controls <br> C7834-SPST <br> 35c $\mid$ C7835-EA. <br> SPDT <br> CLAROSTAT Wirewound Controls

Wirewound controls with alloy wire precisely wound on thin bakelite strip. P'ertect sliding contact. $1 / 4$ shaft, $1 / 22^{2}$ long. * - Rheostat I- Untuned Antenna S -Standard Pot. (Uniform) V - " C " Bias Control
W-Screen Crid : Phono Control


| No. | Ohms | C705 | Ohms | No. | Ohms | No. | 7500 V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C7048* |  | C7058* | 40 | C7092 | 1000S | C7080 | 7500 U |
| C7049* | 2 | C7099 | 505 | C7090 | 20005 | C7079 | 7500 V |
| C7050* | 3 | C7060* | 60 | C7089 | 2000 L | C7078 | 10000S |
| C7051* | 4 | C7061* | 75 | C7088 | 2000 V | c7075 | 10000 V |
| C7052* | 6 | C7098 | 100S | C7087 | 30005 | C7074 | 10000 W |
| C7053* | 10 | C7097 | 2005 | c7086 | 3000 U | C7073 | 15000 S |
| C7054* | 15 | C7096 | 3005 | $C 7047$ | 40005 | C7072 | 15000 U |
| C7055* | 20 | C7095 | 4005 | C7084 | 50005 | C7070 | 200005 |
| C7056* | 25 | C7094 | 500 S | C7083 | 50000 U |  |  |
| C7057* | 30 | C7093 | 7505 | C7082 | 5000 V |  |  |
| Any Above Type-You |  |  |  |  |  |  |  |
| C7068 | 2:000S | C7066 | 400005 | C7065 | 50000 S |  |  |
| Any Above Type-Your Cost E |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| C7064 | 75000S | c7063 | 100000S | Eac |  |  |  |

## RELIANCE Volume Controls

## Guaranteed Quality at Low Prices

Fiull length shaft. Standard $3 / 8^{*}$ bushing. Switches are affixed, SPST. C8112 ${ }^{\text {Less }}$ Witch With Witch Ohms

Taper


## Potentiometer

 with Switch

160 ohm 4 watt potentiometer with insulated rot or and taper threaded bushing with $1 /^{\circ}{ }^{\circ}$ shaft extending $8 /{ }^{8}$ (rom bushing. case. Snap-on switch plate $0 \$ 142$
Your cost
294


SIPST Rotary tone swith ch, groun rotor grounded
to shaft. Standard 3/8" bushing. less mtg. nut. $1 / 4$ flatted shaft to accommodat C12599
Your Cost

# Thhordarson Replacement Transformers 



RAVdrin

## Dual Tone Control

An effective tone compensating network for sound systems. Treble and bass frequencies attenuated or accentuated independently. For smooth control over wide range of audio frequencies.
T20C74 Tone Control Choke with Hum-bucking Coil and Core. DC ohms 220. Test volts 500 . Mitg. Type RAV.
c2027
Your Cost
 C2149
Your Cost

## Feedback Control Transformer

T20A26 is the control element in a variable audio inverse feedback system, basis of compressor-expander circuit. Variable gain is produced by automatically controlling inverse feedback voltage. Superior to DC grid bias control, response faster, harmonic distortion does not rise. Transformer comes with complete details of 10 Watt hi fidelity amplifier incorporating above circuit. Mtg. 1 spe RTV

## C2026

Your Cost
$\$ 4.41$

## Microphone Cable Transformers

Permits rapid change from low impedance to high impedance microphone or any ampliticr. Frequency response flat from 30 to 15000 cycles. Mitg Type Z. Type No. Primary Sec. Turns Ratio Your Cost $\begin{array}{lccccc}\text { Stock No. } & \text { Type No. } & \text { Primary } & \text { Sec. } & \text { Turns Ratio } & \text { Your Cos } \\ \text { C2006 } & \text { T20A40 } & 30-60 & 50.000 & 1: 31.6 & \$ 11.76 \\ \mathbf{C 2 0 0 7} & \text { T20A.41 } & 200-250 & 50,000 & 1: 14.2 & \mathbf{1 1 . 7 6}\end{array}$

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \\ & \text { c2000 } \end{aligned}$ | Audio Input Transformers |  |  |  | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Type | Mig. |  | Turns |  |
|  | NO. | Type | Application | Ratio |  |
|  | T20A00 | BAII | Line or mic. to single or $I^{P} P^{3}$ grids | 1:10 | \$1.41 |
| C2001 | T20A01 | FGV | Line or mic. to single or |  |  |
| $\begin{aligned} & \text { C2002 } \\ & \mathbf{C 2 0 0 5} \end{aligned}$ | $\begin{aligned} & \text { T20A02 } \\ & \text { T20A05 } \end{aligned}$ | $\begin{aligned} & \text { FCV } \\ & \text { RTV } \end{aligned}$ | Line or mic. to PP grids | 1:20 | 2.00 2.06 |
|  |  |  | Line to l'l' grid mic. to single or $P^{P}$ p grids | 1:10 | 5.88 |
| C2004 | T20.404 | BAI | V.C. or low imp. mic. to grid | 1:80 | 1.23 |
|  |  | Tran | eiver Transformer |  |  |
| Stock | Type | Mtg. |  | Turns | Your |
| No. | No. | Type | , Application | Ratio | Cost |
|  | T20A03 | BA1I | Single m. to grid Line or mic. to grid | $\begin{gathered} 1: 3.25 \\ 1: 35 \end{gathered}$ | \$1.76 |

## Driver Transformers

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \\ & \text { c2022 } \end{aligned}$ | Type No. T20D75 | Input Tubes | Output Tubes Ratio |  | Pri. Mtg. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | MA Type | Cost |
|  |  | $1-30,1-49,1-6 \mathrm{C} 5$ | 1J6. 19, 2-30, 2-49 | 2.4:1 | 3 BAH | \$1.32 |
| C2029 | T20D76 | 1-6N7, 6A6, 53 | 1-6N7, 6A6, | 5.2:1 | 7 BAH | 1.47 |
|  | T20D77 | 1.76 (ggl. pl.) | (clars B) |  |  | 2.20 |
| c2030 |  | 1-89, 6F6, triode 1-6C5 (8gl. pl.) | $\begin{aligned} & 79,246,59 \\ & (\text { (lass B) } 261,6 \\ & 2-656\left(\text { class } \mathrm{AB}_{2}\right) \end{aligned}$ | 2.5:1 | 30 FGV |  |
| c | T20D78 | 2-6F6, Triode |  |  |  | 2.94 |
|  |  | 2-6A6, S 3 | 2-6N7 (clase $\mathrm{B}^{\text {2 }}$ ) |  |  |  |
| C2032 | T20D79 | 2-6N7 (8) | 2-6N7 (PP class | 5.2:1 | 30 FGV | 2.50 |
|  |  | PP pri.) | ${ }^{B}$ crids) |  |  |  |
| C2033 | T20D80 | $2-2 A 3,45,61,6$ | 203A, T'20, 805, $100 \mathrm{TH}, \mathrm{T} 55$ (c. B) | $\text { , } 3.2: 1$ | 40 GGV | 3.47 |
| C203 | T20D81 | PP 845 , | PP ${ }^{\text {805, }}$ 833, etc. | 5:1 | 50 GGV | . 41 |
|  |  | (PP pri.) | (1PP Cl. B arids) |  |  |  |
| C2035 | T20D82 | $\begin{aligned} & 2-2 A 3,45,61.6 \\ & \left(\mathrm{PP} \mathrm{P}^{2}\right. \text { pri.) } \end{aligned}$ | PP 805, 833, etc. <br> (PI' Cl. B grids) | $\begin{aligned} & 5: 1,4: 1 \\ & 3,2: 1 \end{aligned}$ | 60 GGV | 4.41 |
|  |  | Pri. 500 ohm | Class B Grids | Ratio | PUV | 14.11 |

## Universal Replacement Power Transformers

| $\begin{aligned} & \text { Replac } \\ & \text { RMA } \end{aligned}$ | -coded | $117 \mathrm{~V} 50-$ |  | inpui | ustable nou Itg. type A( | ge branket <br> *Mtg.typ | leads |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Tуре | Plate |  | Rect. | Fila. | Fila. | Your |
| No. | No. | - | MA | Fila. | No. 2 | No. 3 | Cost |
| c2081 | T22R00 | 250-0-250 | 40 | 51-2A | 6.31СT-2A |  | \$3.09 |
| C2083 | T22R01 | 275-0-275 | 50 | 5 -2 A | 6.3YСТ-2.5A |  | 3.12 |
| C2084 | T22R02 | 300-0-300 | 70 | $5 \mathrm{CH}-2 \mathrm{~A}$ | 6.31'CT-3A |  | 3.97 |
| c2085 | T22R04 | 300-0-300 | 90 | 51-2A | 6.3)CT-3.5. A |  | 4.41 |
| C2086 | T22R05 | 300-0-300 | 120 | 5V-3A | $6.31 \mathrm{CTT}^{-5 \mathrm{~A}}$ |  | 4.70 |
| C2087 | T22R06 | 325-0-325 | 150 | 51-3A | 6.31 CT-5A |  | 5.59 |
| c2088 | T22R07 | 350-0-350 | 200 | 5V-3A | $6.3 \mathrm{VCT}-6 \mathrm{~A}$ |  | 6.35 |
| C2089 | T22R08 | 250-0-250 | 40 | 5 ${ }^{\text {H2A }}$ | $2.51 \mathrm{CT}-4 \mathrm{~A}$ |  | 3.09 |
| C2090 | T22R09 | 275-0-275 | 50 | 5V-2A | 2.51-T-7.5A |  | 3.67 |
| C2092 | T22R10 | 325-0-325 | 85 | $5 \mathrm{~V}-2 \mathrm{~A}$ | $2.51 \mathrm{CT}-9 \mathrm{~A}$ | 2.51 CT-3.5A | 4.70 |
| C2092 | T22R11 | 325-0-325 | 120 | 5V-3A | 2.51 CT-12.5A | $2.5 \backslash$ CT-5A | 5.59 |
| C2096 | T22R30** | 275-0-275 | 50 | 5V-2A | 6.3-CT-2.5A |  | 4.26 |
| C2097 | T22R31* | 360-0-360 | 80 | $5 \mathrm{~V}-2 \mathrm{~A}$ | 6.3VCT-2.5A |  | 4.56 |
| C2098 | T22R32* | 350-0-350 | 110 | 5V-2A | 6.3VCT-3A | 6.31C'T-3. | 5.14 |
| C2099 | T22R33* | 375-0-375 | 160 | 5V-3A | $6.3 \mathrm{VCT}-5 \mathrm{~A}$ |  | 6.17 |
| C2100 | T22R34* | 385-0-385 | 225 | 5V-3A | 6.3)СT-5. |  | 7.94 |
| C2101 | T22R35* | 400-0-400 | 340 | 5V-6A | 6.3VCT-\%A |  | 8.82 |

Output Transformers
Low Level Output Transformers (BAH)

| Stock | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ |  | Pri. Imp | Se | Dower Output | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\text {c20. }}$ | $T 22845$ |  | 1500 to 3000 | 3.2 to 4 | ${ }^{\text {cos }}$ | \$0.97 |
| c2104 | T22S46 |  | 3000 to 6000 | 3.2 to 4 | 3 | 1.00 |
| C2105 | T22S47 |  | 6000 to 12000CT | 3.2 to 4 | 3 | 1.32 |
| C2106 | T22848 |  | 12000 to 25000CT | 32 to 4 | 3 | 1.41 |
| C2107 | T22S55 | Sgl \& PP | 8000 or 10000CT |  | 8 | 1.76 |
| C2108 | T22s58 | P1 to VC | 5000 or 7000 CT | 3.2 to 4 | 8 | 1.76 |
| C2109 | T22stio |  | 2500 or 4004CT | 6 to 8 | 8 | 2.00 |


|  | Special Duty Hi-Lev |  | 100 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C2111 | T22S64 |  |  |  | 25 | \$3.67 |
| C2112 | '22S66 |  | 8000 CT | 3.2 to 4 | 25 | 3.67 |
| C2113 | T22868 | Sn! \& PP P1 | 6500 CT | if to 8 - | 25 | 3.82 |
| C2114 | T22S50 | to Line \& VC | 5000 CT | 15-250-500 | 25 | 4.12 |
| C2115 | T22S:2 |  | 3000 |  | 25 | 4.12 |
| C2118 | T22S78 |  | 3300 CT |  | 60 | 5.59 |
|  | Universal | Replacemen | o Multiple Voice Coil (BAH) |  |  |  |
| c2116 | T22S\% 4 | $\begin{aligned} & \text { Sgl or PP } \\ & P l \text { to } \mathrm{VC} \end{aligned}$ | $14000-10000-8000$ 6600-5000-3000 | 1 to 30 | 25 | \$3.09 |
| C2110 | T22S62 | Sgl P1 to VC | $\begin{aligned} & 2500 \mathrm{CT} \\ & 4(001-3000-2500 \\ & 2000-1500 \end{aligned}$ | 1 to 30 | 8 | 2.18 |
| C2124 | T22S86 | Sgl Pl or | 14000 CT-8000CT | 3.2 to 4 | 3 | 1.62 |
| C2125 | T22587 | Ijpll to VC | $3500-2000$ | 6 to 8 | 6 | 1.76 |
| C2126 | T22S88 |  |  |  | 8 | 1.91 |


| Universal and Special Duty |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Stock } \\ & \text { No. } \\ & \text { C21il } \end{aligned}$ | Type |  | Pri. Imp. 14000-12000-10000-8000-$5000-3000 \mathrm{CT}$ | Sec. Imp. 500 to 600 | Power 25 | $\begin{aligned} & \text { Your } \\ & \text { Cost } \\ & \$ 3.23 \end{aligned}$ |
|  |  | Vnit. or PP |  |  |  |  |
|  | (BAH) | (niw or PP Tubes to Line |  |  |  |  |
| C212 |  | Sg |  |  | 3 |  |
|  | (FGV) | Sgor |  | 500 to 600CT |  |  |
| C2128 | T22S02 | Sgl or PP P1 | 20000 CT | 125-200- |  | 5.88 |
|  | (RT | Hum-bucking |  | 500 |  |  |
| Matching Line or Lines to Voice Coil (BAH) |  |  |  |  |  |  |
| C2119 | T22S80 | Skl Line to V゙C | 500 to 600 |  |  | \$2.35 |
| c2120 | T22S82 | Multiple |  |  | 25 | 4.70 |
| C2121 | T22883 | I, ines to | 2000-1500- | 3.2 to 4 | 15 | 3.23 |
| C2122 | T22884 | ${ }^{1} \mathrm{C}$ | 1000-500 | 6 to 8-15 | 5 | 2.29 |
| C2123 | T22835 |  |  |  | 3 | 2.00 |

UNIVERSAL OUTPUT TRANSFORMERS

| No． | Type | Primary Ohma | Mig． | Ctrs． | Lbes． | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1675 | A－3856 | All for Single | 0 |  | 1 | \＄1．32 |
| C1637 | A－3823 | or P．P．plates． | 0 | 25.10 | 1 | 1.41 |
| C1671 | A－3850 | 4000，7000．8000， | J | $2^{3}$ | 1 | 1.50 |
| C1673 | A－3852 | 10M，14M CT | J | $23 /{ }^{\circ}$ | 2 | 1.82 |
| C1678 | A－3890 |  | TD | 23 \％ | 2 | 2.79 |
| C1670 | A－3849＊ | 1500，2000．4000 |  |  |  |  |
| C1666 | A 38 | 30005000 －6600 | $Q$ | 2116 | 1 | 2 |
|  | A－3830 | $7000,8010,10,1410 \mathrm{I}^{2} \cdot \mathrm{~T}$ | J | $2{ }^{16}{ }^{\circ}$ | 3 | 2.50 | ＊For battery radios．In lesigned for tules with large output． LINE TO VOICE COIL

 Ser．（）ohms

Type A mig．Shpg．wt． $5 \mathrm{~W} .-1 \mathrm{ll} . ; 10 \mathrm{~W} .-1 \mathrm{l} / \mathrm{l} \mathrm{lbs}$.

| Stock <br> No． | Output <br> ＇Thuses | Impedance |  | Msx． <br> W：att | Dimensions | Mtg． （＂trs． | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1＇ri． | Siec． |  | H $\times 14 \times 1)$ |  |  |
| C1591 | Sirglo | 7 M | 70M or 4－6 | 5 | $1{ }^{7}{ }_{8} \times 3^{5}{ }_{16} \times 1{ }^{-1} 8^{*}$ | ${ }^{2} 1{ }^{13} 166^{\prime \prime}$ | \＄2．15 |
| C1592 | Single | 7 M | 70M \＆4－6 | 10 | $2^{1} \times 3^{3} \times 3^{1}{ }^{1}$ | $31{ }^{\prime \prime}$ | 2.35 |
| C1593 | P＇P． | 10M | OOM or $4-k$ | 5 | $1^{7}{ }_{8} \times 3^{5}{ }_{15} \times 1{ }^{1 / 4}$ | $2^{213} 15^{\prime \prime}$ | 2.20 |
| C1594 | l＇．${ }^{\prime}$＇ | 10M | FOM \＆ $4-6$ | 10 | $21^{1} \times 3^{5 \prime} x^{1}{ }^{1}$ | $3^{1}{ }_{5}{ }^{\prime}$ | 2.59 |


| Stu | Type |  | nedance | liatio | Mtg． | Mlg． | Wt． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N | No． | Pri． | See． | 1 －sec． | Tyを | C＇trs． | l．be． |  |
| C1684 | A－1：12＊ | 20 M | 2．2M | 3：1 |  |  | 1 | \＄1．4 |
| C1685 | A－173 | 10M | 2．5M | 2：1 | A |  | 1 | 1.3 |
| 1688 | A 4723 | 10M | 1．1．${ }^{\text {d }}$ | 3：1 | A |  | 1 | 1.3 |
| C1687 | A－7ive | 10．1 | 10 M | 1：1 | TD | 27 | 2 |  |
| C1682 | A－1401 | 10．4 | 1．4M | 2．7：1 | J |  | 2 |  |
| C1689 | A－7\％34 | 10．3 | 1.6 M | 2．5：1 | S | 23 | 2 |  |

UNIVERSAL INTERSTAGE TRANSFORMERS
 plate to grid，p．p．input or p．p．interstage．D＇rimary will pass 10 milhamperes IC．Shpg．wi．each， 21 th

| No． | Type | Core | Mig． | II．W．D． | Ce－nters | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1630 | A－473 | ${ }^{3} \times 11^{\circ}$ | ＇ID | $2^{11} 16 \times 23 \times 23 / 10^{\prime \prime}$ | 238 | \＄3．12 |
| C1631 | A－47\％ | ${ }^{3} \times 1{ }^{\text {a }}$ | S |  | 23／3＊ | 2.06 |
| C1634 | A－37．5 | ${ }^{7} \mathrm{sx}^{\text {¢ }}$ ，${ }^{\text {a }}$ | S |  | 23／4 | 2.68 |

Push－Pull Inputs（1 PI．to 2 G．）

| Stock | Tyse | Turns | 1）imensions | Mig． | Mtg． | Wit． | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | No． | Ratio | HxWx1） | T＇vie | Cirs． | J．hs． | Cost |
| C1651 | A－53C | 3：1 | $13, x^{3}{ }^{3} \times 1!$ | A | 2 | 1 | \＄1．26 |
| C1690 | A－63C | $3: 1$ | $2 \times 2 \times 8{ }^{1}$ | A | 2 | ， | 1.35 |
| C1654 | A－73C | 3：1 | $2 \times 3{ }^{3}{ }_{16} \times 1{ }^{3}$ 每 ${ }^{\text {a }}$ | A | $2^{18}$ ， 160 | ， | 1.76 |
| C1691 | A－1：50 | $3: 1$ |  | S | $2^{3} 8$ | 1 | 1.76 |
| C1686 | A－1719 | 3：1 | $2^{3} \mathrm{y}^{105}{ }^{5} \times 2^{1} \mathrm{y}^{\prime \prime}$ | TD | 23＂ | 2 | 3.00 |
| C1587 | A－62C | $2: 1$ | $15^{5} \times 22^{13}{ }_{16} \times 1^{2} 2^{\prime \prime}$ | A |  | 1 | 1.35 |
| C1588 $\dagger$ | A－475 | 2：1 | $23 x^{3}{ }^{48} 8^{(21}{ }^{2}$ | TD |  | 2 | 3.23 |
| C1589＊ | A－1206 | 3：1 | $3{ }^{1}{ }_{4} \times 2^{5} \mathrm{sx}^{2} 2^{5}{ }^{\text {a }}$ | C |  | ， | 3.73 |
| ＊Split Secondary．tllas static shield． Push－Pull Interstage（2 PI．to 2 G．） |  |  |  |  |  |  |  |
| C1683 | $x-4 i 1$ | $1: 1$ | $1_{3}^{2} x^{2013} x^{21} x 1^{1} u^{\prime \prime}$ | A | $25_{10}{ }^{\circ}$ | 1 | 1.59 |

OUTPUT TRANSFORMERS

| Stork No． | $\begin{aligned} & \text { Type } \\ & \text { Sio. } \end{aligned}$ | Class Oper． | Tubes | Inpedance in Ohms Mx．Mrg． |  |  |  | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Pritn． | Secondary | Wts． | No． |  |
| C1663 | A－3822 | A | S | $7 \mathrm{M}, \overline{10 \mathrm{M}}$ | ． 7 to 4 | 5 | 0 | \＄1．12 |
| C1669 | A－3848 | A | S | 16，000 | 1，2，4 | 5 | 0 | 1.32 |
| C1676 | 1－38．57 | A | S | 25,000 | 4 | 5 | A | 1.15 |
| C1677 | A 3865 | A | S | 1，500 | 2，4， 6 | 5 | A | 1.21 |
| C1640 | ． $1-38.0$ | A | S | 2.000 | 4 | 5 | A | ． 88 |
| C1645 | 1－35：－ | ． 1 | 6 | 5.000 | 4 | 5 | A | 91 |
| C1646 | A－39－8 | A | S | 7.000 | 4 | 5 | A | ． 91 |
| C1648 | ． $1-38.9$ | A | S | 10.000 | 4 | 5 | A | ． 94 |
| C1619 | ．1－3881 | A | S | 1．7．000 | 4 | 5 | A | ． 94 |
| C1647 | 1－2001 | A | S or PT | 8.000 | 10 | 10 | A | 1.59 |
| C1664 | 1－3）－4 | B | E | 8，040 | 1，2，4 | 8 | Q | 2.09 |
| C1665 | $1-38 \geq 5$ | A | 8 | 2.500 | 1，2， 4 | 8 | Q | 1.47 |
| C1667 | ． $1-3 \times 31$ | B | A or Pl | 10 M | ，2．4，8 | 5 | A | 1.38 |
| C1656 | ． $1-3303$ | $A \& B$ | ¢or I＇l＇ | 11M | 4，8，15， 500 | 20 | C | 3.50 |
| C1657 | 1－3301 | A \＆ 13 | $\therefore$ ur Pl＇ | 10M，－4t | \＆，8，15，500 | 25 | C | 3.67 |
| C1644 | $\|-330\|$ | 1 ${ }^{\text {d }} 13$ | P＇ | 3.1 （6） 1 | 4．S．15， 500 | 30 | C | 3.94 |
| C1672 | A－35il | AB1 | PP | $4.100$ | $1,8,15,250$ | 30 | $C$ | 4.56 |
| C1590 | ．-38.85 | A | for or PP | 7.000 | 10，2000 | 5 | TD | 2.88 |
| C1651 | ｜ $1-3 \times 10$ | $A \pm A B$ | P＂ | 5.000 | $\int 4,8,15$ | 30 | C | 4.03 |
| C1662 | $1-3 \vee 11$ | ABL | 10 | 6．6040 | 35\％， 5 （10） | 35 | C | 4.70 |


$s$

| Sturk | Tive | 14， 1 － | （1ur－ | 1）．${ }^{\text {c．}}$ | 1）immensions | Wit． | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Su． | 13 | M． 1. | Chars | H $\times \mathrm{W} \times 1$ | Lbs． | Cost |
| C1698 | C－1706 | 45 | 50 | 300 | $1^{5} 16 \times 22^{3} \times 1 / 166^{6}$ | 1 | \＄0．82 |
| C1699 | （ $-1.100^{\circ}$ | 7 | 50 | 550 |  | 1 | ． 82 |
| C1700 | （－1708 | 13 | 6.3 | 5100 | $18.33^{3}$ ，$x^{312}$ | 2 | 1.06 |
| C1701 | C－170） | 8 | 8.5 | 2．00 |  | 2 | 1.41 |
| C1702 | （＇－1710 | 7 | 1.00 | 200 | $21.89+x^{21} 16{ }^{15}$ | 3 | 1.79 |
| C1623 $\dagger$ | C－1003 | 16 | 50 | 540 | $1^{-1} \sin ^{3} 3^{4} \times 11^{3} y^{*}$ | 2 | 1.09 |
| C1624 | C－1002 | 15 | 7.5 | 490 | $21+33^{11}{ }_{16} \times 11^{7 / 8}$ | 2 | 1.50 |
| C1625 | （－1001 | 10.5 | 110 | $\because 25$ | $21.2 x+8{ }^{108}$ | 3 | 1.88 |
| C1626＊＊ | （＇－1034 | 8 | 30 | 1365 | $1^{-}{ }_{4 \times 21}{ }_{1} \times 1^{5} 8^{\prime \prime}$ | 2 | 1.35 |
| C1583 | （－2303 | 2.5 | 13.3 | 100 |  | 2 | 1.32 |
| C1584 | （ -2304 | 2.3 | 1：0） | \％ 0 | $2 \mathrm{x} 3^{3}$ ， $1^{5} \mathrm{y}^{\prime \prime}$ | 2 | 1.32 |
| C1585 | $\ddagger(-2305$ | ， | 100 | 300 |  | 2 | 1.79 |
| C1586 | （－2309 | 3 | 1.5 | 90 |  | 2 |  |
| －Center | tapped． |  | put | hokes | $\ddagger$ D Mtg |  |  |
| A．C＿－D．C．CHOKES TYPE A |  |  |  |  |  |  |  |
| C1703 | （－172．3 | 4, | 50 | 32. |  | 1 | ． 82 |
| C1694 | （－1080 | 3.5 | 50 | 200 | $1^{5} 4 \times 213{ }^{515 \times 13}$ | 1 | ． 85 |
| C1697 | （－1325 | 5 | 50 | 2.0 |  | 1 | 85 |
| C1695 | C－122： | 7 | 50 | 350 |  | 1 | ． 85 |
| C1696 | C－12\％9 | 8.5 | 50 | 400 |  | 1 | ． 85 |

Send for Free Stancor Catalog
＊las split secondary
UNIVERSAL MOUNTING POWER TRANSFORMERS $\star$ Electrostatically Shielded $\quad \star 5$ Possible Mounting Positions $\star$ Primaries for 115 V．50／60 Cycles $\star$ Heavy 8－Inch Flexible Leads

| Stock No． | Type No． | No．of Tubes | Your Cost | llate |  | Kec．Fil． |  | Fil．No． 1 |  | l－il．No． 2 |  | Mitg． Area | $\begin{aligned} & \text { Wt } \\ & \text { ITis. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Vlts． | M．A． | V． | A． | V． | A． | V． | A． |  |  |
| C1706 | 15－6001 | 4－5 | \＄3．06 | 650 | 40 | 5 | 2 | 2.5 | 4 |  |  | $2^{1}{ }^{-1} \times 3^{\prime \prime}$ | 4 |
| C1712 | P－（x）02 | 5－6 | 3.53 | 700 | 50 | 5 | 3 | 2.5 | 71／4 |  |  | $2^{1} 2^{2} \times 3^{\prime \prime}$ | 4 |
| C1713 | $\mathrm{I}^{3}-6003$ | 6－7 | 4.26 | 700 | 70 | 5 | 3 | 2.5 | 9 |  |  | $2^{14}{ }_{16} \times 13^{8} \%^{\prime}$ | 4 |
| C1714 | 1＇6004 | 8－9 | 4.32 | 700 | 90 | 5 | 3 | 2.5 | 12.5 |  |  | $31 / 8 \times 38 / 4$. | ${ }_{5}^{6}$ |
| C1719 | 1＇4009 | 6－7 | 4.41 | 550 | 70 | 5 | 3 | 5.0 | ． 5 | 2.5 | 10.5 | $2^{13}{ }_{16} \times 3{ }^{3}$ | 5 |
| C1715 | 1＇6005 | 6 －7 | 4.35 | 700 | 70 | 5 | 3 | 2.5 | 9 | 2.5 | 3.5 | $2^{13} 16 x^{3} 3^{3} 8^{*}$ | 6 |
| C1716 | 1－6006 | 11－13 | 5.44 | 700 | 130 | 5 | 3 | 2.5 | 12．5 | 2.5 | 3.5 |  | 6 |
| C 1717 | 1＇6007 | 10－12 | 5.32 | 800 | 110 | 5 | 3 | 2.5 | 15 | 2.5 | 3.5 | $318 \times 3^{3}$ | 7 |
| C1735 | 13 6297 | 4－5 | 2.85 | 480 | 40 | 5 | 2 | 6.3 | 2 |  |  | $21 / 2 \times 3$ | 4 |
| C1720 | 1． 6010 | 4－5 | 2.85 | 680 | 40 | 5 | 3 | 6.3 | 2 |  |  | $21.2 \times{ }^{\circ}$ | 4 |
| C1721 | $1^{3} 6011$ | 6－7 | 3.73 | 700 | 70 | 5 | 3 | 6.3 | 2.5 |  |  | $21 / 2 \times 3{ }^{\prime}$ | 4 |
| C1722 | $1^{3}-6012$ | $8-9$ | 3.94 | 700 | 90 | 5 | 3 | 6.3 | 3.5 |  |  | $213 \mathrm{k} \times 38.8$ | ${ }_{6}$ |
| C1723 | $1^{2}$＇6013 | 11－13 | 4.38 | 700 | 120 | 5 | 3 | 6.3 | 4.7 |  |  | $31.8{ }^{1}$ | 6 |
| C1724 | $1{ }^{3}-6014$ | 13－15 | 5.53 | 750 | 150 | 5 | 3 | 6.3 | 5 |  |  | 31／xx 3 \％ | $\stackrel{6}{6}$ |
| C1726 | P－6165 | 14－16 | 6.41 | 800 | 200 | 5 | 4 | 6.3 | 5.5 |  |  | $3^{3} / 8 x+1 /{ }^{\prime}$ | ， |
| C1731 | 1－603 ${ }^{15}$ | 6－7 | 4.12 | 000 | 60 | 5 | 3 | 6.3 | 2.5 | 2.5 | 7.5 | $2130 \times 3{ }^{6}$ | 4 |
| C1733 | 1＇－6295 | 8－9 | 5.23 | 700 | 90 | 5 | 3 | 6．3－2．5 | 3.5 | 2.5 | 9 | $318 \times 3{ }^{3}{ }^{\circ}$ | 6 |
| C1734＊ | 1－6234＊ | 11－13 | 6.32 | 660 | 90 | 5 | 3 | 2.5 | 12 | 2．5－5．0 6 | 4 | 31／8x33／6 | 6 |
| C1718 | P－60n8 | 14－16 | 5.97 | 750 | 180 | 5 | 3 | 6.3 | 3.3 | 2.5 | 6 | $3^{7}$ 后 $\times 41 / 8^{\circ}$ | 7 |

SPECIAL 6．3 V．TRANSFORMERS FOR SETS USING P．M．SPEAKERS C1785
C1786
C1787
C174
C17
C17
C17

| 787 |
| :---: |
| 743 |
| 744 |
| 745 |


| I＇6289 | 5－6 | \＄2．85 |
| :---: | :---: | :---: |
| 1 1－6119 | 6－7 | 3.53 |
| I＇6120） | 7.9 | 3.76 |
| $1^{3}-6312$ | $7-8$ | 4.29 |
| $1^{3}-6313$ | 11－13 | 4.85 |
| 1－6314 | 14－16 | 6.29 |
| $\square^{\prime}-6315$ | 16－18 | 8.59 |


| 420 | 40 |
| ---: | ---: |
| 600 | 55 |
| 630 | 70 |
| 580 | 90 |
| 580 | 125 |
| 700 | 200 |
| 7.10 | 275 |

Horizontal Mount


# it Replacement Transformers <br>  

VARITAP Universal Mount Transformers and Choles
VARITAP audios represent the acme in replacement transformer development. 'The double shells and universal mounting brackets are finished in high lustre black. All mounting positions incorporatte long slots for maximum flexibility. All coils are well shielded, and have tropical wetproof impregnation. Shipping weight each. 3 Iths.

| No. | Type | 1escription | Size Ea. |
| :---: | :---: | :---: | :---: |
| C5540 | R-23 | Ratio 3 | (1) \$2.41 |
| C5541 | 12-2.4 | Plate to 2 Crids. Ratio 2:1 | G 2.53 |
| C5542 |  | 2 Plates to' ${ }^{2}$ Crids. $1.5: 1$ step-up forClass. 1 triodes. <br>  | C 2.65 |
| C5543 | R- | Driver, 1 Plate to 2 Grids, Single $42,2 A 5$, 6 F 6. 45 to Al3 6Lefi's, 42 's. 2A5's, etc. | (: 2.65 |
|  | R- | 15-Watt Output. Altules to .1-30 ohm voice coil | 2.41 |
| C5545 |  | 35-Watt Output. Altubes to .1-30) ohm voice cos | 113.41 |
| C5546 | R-29 | Single or double but on mike or line to 1 grid. | G 2.53 |
| C5547 | R-3 | er Choke. 10 Ilenrys, 80 ma., 250 ohms. | 2.06 |
|  |  | er Choke. 10 1ly., 15\%) mal., 100 ohms. . | 2.9 |

## Tropic Sealed Channel Frame Audios

An excellently designed series of channel frame TROI'ICAL WETPROOF audios. In addition to kood frequency recpone, coils are vacuum-pressure treated followed by the Moisture ahnorption. All have black enamel finish, and have long insulated leads. Average shipping weight, each 2 lbs.

## Audio Transformers

| No. | Type | 1 hescription of t | Size | Ea |
| :---: | :---: | :---: | :---: | :---: |
| C5514 | R-33 | Cirid. Kat | 1 | \$1,71 |
| C5515 | R-34 | 1 Plate to 2 Grids. Rat | B | 1.76 |
| 516 | R-35 | Mike to 1 Crid. R | B | 2.17 |
| C5517 | R-56 | 1 Plate to 2 Cirids. Ratio 2:1 | D | 2.17 |
| C5518 | R-57 | 1 Plate to 2 Grids. High l-idelity. Ratio 2121 | F | 3.41 |
| C5519 | R-36 | Driver ( 30,49, etc.) to Class 13 19, 79,88 (irids | $B$ | 2.17 |
| 20 | R-37 | R.F. Output. Class $1319,49,79,89$ plates to 3540 , and 5000 ohms. | B | 29 |
| C | R-58 | 5-Watt Universal Output. Any single tube to any voice coil from 1 to 30 ohme | A | . 76 |
| C5522 | R2-38 1 | 6-Watt Univ. Out. Any tubes to. 12 to 30 ohms | 1 | 1.76 |
| c | 12-59 | 10-Watt Univ. Out. Any tubes to. 1 to 30 ohms | B | 2.06 |
| 525 |  | 15-Watt Univ. ( )ut. Any tubes to. 1 to 30 | U | 2.17 |
| C5525 | R-39 | 10-Watt Line Matching: $250,501,1500 \mathrm{ohms}$ to $2,8,15 \mathrm{ohm}$ voice coil. . | 13 | 2.23 |
| C552 | R-40 | 25-Watt Line Matching: $250,500,1500$ ohms to $2,8,15$ ohm voice coil | C | 3.2 |

## Filter and Audio Chokes

| No. | Type | Itenrys | Ma. | (0)ims 1), | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5527 | $\mathrm{R}-55$ | 10 | 35 | 3 m | A | \$1.03 |
| C5528 | R-14 | 12 | 40 | 250 | 13 | 1.23 |
| C5529 | R-15 | 15 | 30 | 450 | B | 1.23 |
| C5530 | R-16 | 20 | 30 | (0)0 | 13 | 1.23 |
| C5531 | R-17 | 25 | 30 | 1000 | J) | 1.65 |
| C5533 | R-18 | 10 | 75 | 250 | 1) | 1.65 |
| C5534 | R-19 | 15 | 100 | 150 | E | 2.29 |
| C5535 | R-20 | 8 | 160 | 100 | F | 2.53 |
| C5537 | R-21 | $5 / 25$ | 160 | 100 | F | 2.53 |
| C5538 | R-22 | 500 | 5 | fiono | 1) | 2.29 |

## Mounting Dimensions of Above Units

|  | Size E: 3 |
| :---: | :---: |
|  | Size F: 41.8 |
| Size C: $411^{\circ}$ W., 214. d.. $2^{5} x^{*} \mathrm{~h}$. | Size G: $2^{\text {a }}$, ${ }^{\text {c }}$ |
|  | Size H: $3^{\prime \prime}$ w |

## Photo-Flash Transformers

For use with standard Amglo type or Sylvania trigger type multiple flash bulhs. Circuit detail included with transformers
PF-1 Primary for 115 v., $50 / 60$ cyc. Secundaries for power supply delivering 2200 VDC in condenser up to 100 MFD . Compound sealed. C5414-Your Cost.
\$5.88 delivering 2200 VDC to condenser up 1060 mid Same case and weight as above.
C5415-Your Cost.
. 55.88
PF-3 Trigger Transformer 15 KV peak.

VARITAP All-Purpose Power X'formers


Type A units feature universal mounting. Leads brought out through single insulated opening, universal flanges supplied. Type is standard vertical shielded transformers with long insulated leads. Type $C$ are for flush mounting and have lug terminals with windings marked. All for flush mounting and have lug terminals with windings marked. All
Fings. No. 1 and Fil. No. 2 provides either ONE of the voltages shown
Universal Mounting Transformers (type A)

| $\begin{aligned} & \text { Sturk } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Tyne } \\ & \text { No. } \end{aligned}$ | Plate |  | Rect.Fil. |  | Fil. No. 1 |  | Fil. No. 2 |  | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V. | Ma. | V. | A. | V. | A. | V. | A. |  |
| C5500 | K-1 | 650 | 40 | 5 | 2 | 6.3 | 2 |  |  | \$3.59 |
| C5501 | R-2 | 700 | 70 | 5 | 3 | 2. 6.3 | 4 |  |  | 4.35 |
| C5502 | 1-3 | 700 | 95 | 5 | 3 | $\sqrt{6.5}$ | ${ }^{8} 8$ | 2.5 | 9 | 5.29 |
| C5503 | 1-4 | 750 | 120 | ¢ | 4 | 12.5 | ${ }_{5}^{4.5}$ | 2.5 | 15 | 6.29 |
| Cs503 | K-4 | , 0 | 120 | J | 4 | 2.5 | 5 | 2.5 | 1. | 6.29 |
| C5504 | R-5 | 770 | 180 | 5 | 4 | ك. 6.3 | 4 | 6.3 | 5 | 7.64 |
|  |  |  |  |  |  | 2.5 |  |  |  |  |
| Vertical Shielded Transformers (type B) |  |  |  |  |  |  |  |  |  |  |
| C5505 | [R-亏] | (0) | 50 | 5 | 2 | j 61.3 | , |  |  | 3.88 |
| C5506 | R-11 | 70 | 7.5 | 5 | 3 | 20.5 | 5 | 2.5) | 8 | 5.59 |
| C5507 | 12-12 | -50 | 100 |  |  | 22.5 | 3 |  |  | 6.35 |
| C5507 | R-12 | 750 | 100 | 5 | 3 | $\left\{\begin{array}{l}6.3 \\ 2.5\end{array}\right.$ | 4 | 16.3 2.5 | $\stackrel{2}{8}$ | 6.35 |
| C5508 | R-13 | 850 | 200 | 5 | 3 | $\left\{\begin{array}{l}6.3 \\ 12.5\end{array}\right.$ | 5 5 | $\int \begin{aligned} & 6.3 \\ & 425\end{aligned}$ | 12 | 9.11 |



|  | Dimensions | and | Shipping | Weights |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type | W.x ${ }^{\text {a }}$ ( $\mathrm{x}+1$. | Lbs. | Type | W.x1.xll. | Lhs. |
| R1 | $3 \times 1 / 2 \times 2 / 40$ | $21 / 2$ | 12-8 | $3{ }^{3} \times 3 \times 3 \times 3{ }^{3}$ | 51 |
| R.2 | $3 \times 2 \times 3$ | 311 | R-9 | $41 / 2 \times 3{ }^{3} \times 4^{\circ}$ | 6 |
| R-3 | $33^{3} \times \times 3 \times 3 \times$ | $61 / 2$ | 12-10 | $41 / 2 \times 3{ }^{3} \times \times 4810$ | 81 |
| R-4 | $41.2 \times 3{ }^{3} \times 3315$ | 61 | R-11 | $3 \times 31 / 3 \times 31{ }^{1}$ | 4 |
| R-5 | $4^{1} 2 \times 3{ }^{3} \times 41^{5}$ | $81 / 8$ | 12-12 |  | $811 / 2$ |
| $\underset{R-1}{R-1}$ | $3 \times 21 / 2 \times 210{ }^{3}$ | - $3^{21 / 2}$ | (12-13 | $3 \times 11{ }^{1} \times 4{ }^{\prime}$ | $81 / 5$ |



## UTC "Iinear Standard" Audios

Shielded high fidelity audio transformers. Lowest hum pick-uj) available. Uniform frequency re sponse, low wave form distortion, high efficiency and thoroughily shickled. Multiple tap windingswite combination of impedance terminations. Guaranteed uniform response within $1 . .3$ dh from $201025,0 \times 6)$ cycles. Threaded four-hole mount ing for top or bottom mounting. All but LS-55 and L.S-6i, 3 measure $316^{\circ}$ long, $2^{4} 8^{\prime \prime}$ wide, $3^{1 / 4^{\prime \prime}}$ high with $6-32$ screw mounting. Shipping weight 4 lbs.

No. Type Pri. lırp. Sec. Imp. Application Each


sections iogrid $\$ 14.70$
C5402 1S-10X As above 50,000 As above 18.82

$\mathrm{C} 404 \mathrm{LS}-12 \mathrm{X}$ As ablbuve $\begin{aligned} & 80,(0) \text { in two As above } \\ & \text { sections }\end{aligned} \quad 20.58$
C5413 LS. 21 15, (x) $\quad 135,(000 \quad$ Single plate to
p.p. grids.
14.14

C5405 L心-: $\% ~ 5(0,125,200,250,50,125,200,250$, Mixing, mike,
pick-up, or mul-
tiple line to mul
C5406 LS-50 15,(x)0
50, 125,200,250,
Single plate to
14.70
(00,600 multiple line

## Output to Line and Voice Coil

C5412 LS-55* 5,000) plate $500,3 \times 3,25\left(0, \Gamma^{2}-p .2 \wedge 3\right.$ 's to plate $\quad 200,125,50,30,6$ A5C's, 300 A 's $20,15,10,7.5,275 \Lambda$ 's, $6 \Lambda 3$ 's, 16.46

C5398 LS-GLA $\dagger$
9,000 plate $\quad 30,20,15,10$, P-p. 61.6's self to plate $7.5,5,2.5,1.2$ bias 16.46



Reliance MERIT TRANSFORMERS

## Reliance Transformers－Quality Performance at Economy Prices

Reliance transformers are practical transformers．designed for quality， performance and durahility．Amazingly low prices are achieved hy nodern efficiency in factory production methods and equipment plus large volume pupchases of raw materials at the most favorable market opportunities．Cool operation and perpetual freedom from mechanical hum are the resul！of Reliance＇s unique systetn of high－vacuum wax varnish impregnation．All laminations are cushion bonded and inter－ lamination eddy currents are practically eliminated．

Filament Transformers（A）

| Stock | Primary | Secondary | Sccondary | Dimen． | Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Volts | Volts | Amperes | H×W×D | Cost |
| C1950 | 115， 60 cy ． | 6.3 ct ． | 1 | $15 / 8 \times 21510 \times 11 / 2^{\prime}$ | \＄0．87 |
| C1951 | $115,60 \mathrm{cy}$ ． | 6.3 ct ． | 3 | 2×31／4×17／8＂ | 1.35 |
| C1952 | 115， 60 cy ． | 6.3 ct ． | 6 | 29 行 $\times 1 \times 21 /{ }^{\text {c }}$ | 2.10 |
| C1953 | 115，bin cy． | 5 ct ． | 3 | $2^{5}$ 价21／4x2＊ | 1.33 |

Universal Output Transformers（ $\mathbf{A}$ ）

| Stock | Class | I＇rimary | Sec． | Max． | Mtg． | Dimen． | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Oper． | Impedance | Imp． | Watts | Cirs． | 11．W．D． | Cost |
| C1954 | Sin． | $40(0) 17000$ <br> 80000 <br> 10000 | .17 10 | 4 | $2^{\prime \prime}$ |  | \＄0．87 |
|  | P．I＇． | 14000 Ct ． | 32 |  |  |  |  |
| C1955 |  |  |  | 8 | 23／8＇ | $15 / 4 \times 218 / 6 \times 11 / 9^{4}$ | ． 97 |
| C1956 | ＊ | ＊ | ＊ | 18 | 23／8＇ | 21／4x27／8x17／8 | 1.30 |
| C1957 | Sin． | $\begin{aligned} & 1500 \quad 2000 \\ & 4(40) / 5000 \end{aligned}$ | ． 10 | 10 | 23／8＇ | $15 / 8 \times 213$ 伯 $\times 11 / 3^{\circ}$ | 1.15 |

## Power Transformers－Receiver Replacement

（B）Primary 115 v．，60 cy．Full－wave rectification．RMA color－coded leads．One $5-\mathrm{v}$ ．one $6.3-\mathrm{v}$ ．center－tapped filament winding． Slock IIV＇．Secondary C1958 180 Li DC Ma．V．Amps C 1959 650 ct． 40 $\begin{array}{lll}\mathrm{C} 1959 & 650 \mathrm{ct} & 40 \\ \mathrm{c} 1960 & 70 \mathrm{ct} & 70\end{array}$ $\begin{array}{ll}\text { c1960 } & 70 \mathrm{ct} \\ \mathrm{c} 1961 & 700 \mathrm{ct} \\ \mathrm{co} & 90\end{array}$

| V． | Amps． |
| :---: | :---: |
| 5 | 2 |
| 5 | 2 |
| 5 | 3 |
| 5 | 3 |
| 5 | 3 |
| 5 | 3 |


| il． |  | Mtg Centers | Your Cost |
| :---: | :---: | :---: | :---: |
| V． | Amps． |  |  |
| 6.3 | 2 | $2 \times 21 /{ }^{\prime \prime}$ | \＄2．05 |
| 6.3 | 2 | $2 \times 212^{\circ}$ | 2.10 |
| 6.3 | 2.5 | $2 \times 2{ }^{\prime \prime}$ | 2.65 |
| 6.3 | 3.5 | $21 / 4 \times 2{ }^{18} 16^{\circ}$ | 2.90 |
| 6.3 | 4.7 | 21／2x31／8＇ | 3.45 |
| 6.3 | 5 | 2193 ${ }^{1 / 8}$ | 4.30 |


（D）


## MERIT TRANSFORMERS－CHOKES－OUTPUT TRANSFORMERS

Embodyink new developments，Nerit Transformers have demon－ strated dependable service under the nost difficult conditions．Recorg nized and welconed hy thousands of sitislied users．Conform to the latest and most rigid specifications．Merit Transformers are now stand ard equipment with many leading radio and amplifier manufacturers．

## Kits of Output Transformers（B） <br> Save 10 容 by buying in Kits．

Handy kits of high－quality repdacemont transformers for practically atl receivers encountered in service work，eliminate need for expensive universal output $x$ fornkrs．All have vecondary impedances to match $3.5-$ ohn voice coils．Specifications of the 1 ransformers are in tabulation
Kelow．No． 1.8 transformers： 2 No．2928， 1 eath 2930，2931，2932，2934， 2936,2933
 2931，21－36．Shige wt． 3 lis．Your Cost $\$ 6.46$ Kit No．3，
C1922－Shjp wt．Hs．Your Cost．．．．．．．．．．．．．．．．．．．．．．．．．． 56.24
Ki1 No．4， 8 Iransformers： 2 each 2928． $2931,2936,2937$ 6.83 C1923－Shps．wt． 3 lbs．Your Cost．

| Mir＇s | 1 ＇ri． | Iri． | Max， | Mtg． | Dimen． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Imp． | M．A． | Watts | Ctrs． | II $\times$ H6 $\times$ D |
| 2928 | 20010 | 60 | 5 | $2{ }^{\prime \prime}$ | ， $13 / 8 \times 2{ }^{3} \times 11 / 8$ |
| 2930 | 510） | f） | 5 | 2 | $18 / 8 \times 2^{2} 8 \times 1,4$ |
| 2931 | $7(00)$ | 30 | 5 | 2 |  |
| 2932 | limex | 30 | 5 | $2{ }^{\prime \prime}$ | $1{ }^{3} \times \times 2^{3}{ }_{5} \times 1{ }^{1 / 4}{ }^{\prime \prime}$ |
| 2936＊＊ | 10x）0 ct． | 40 | 10 | $2^{3 / 8}$ | $1^{5} 0^{6} 2^{13}{ }_{16} \times 1{ }^{1 / 2}$ |
| 2938 | 10x） $\mathrm{ct}^{\text {ct }}$ | 40 | 5 | 2＂ |  |
| 2933 | 12（40） | 10 | 5 | $2^{\prime \prime}$ | $1^{3} 8 \times 2^{3} 8 \times 11 / 4$ |
| 293.4 | 15 mK | 10 | 5 | $2^{\prime \prime}$ |  |
| 2937 | 25000 ct ． | 10 | 5 | 2＇ | $13{ }_{6} \times 2 / 8 \times 11 / 4^{\circ}$ |

＊2936 is designed for PP6AC5 in Class $B$ or PP 6V6 or 7C5 in class AB1．
All others designed for class $A$ operation

The Merit line of transformers is especially designed to supply a sim－ plified compact group of transformers which will meet $90 \%$ of all requirements in receiver servicing，construction of receivers，electronic control equipment and amplitiers．Stock un now with a liberal selec－ tion of the itcrits liated below
Power Transformers－Receiver Replacement Type
（A）Ifigh quality line of replacement－type power transformers，for ． beater winding at 6.3 volts．


## Power Transformers－Fully Shielded， Upright Mounting Type（E）

| Stock | H1＇Sec． | D．${ }^{\text {c }}$ |  | F． |  | Fil． | Dimen． | Mtg． | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | Winuling | M．A． | $V$. | Amps， | 1. | Amps． | HxWxD | Ctrs． | Cost |
| C1928 | （251－350 | 70 | 5 | 3 | 6.3 | 3 |  | $21 / 2 \times 1{ }^{15}$ | \＄4．12 |
| C1929 | ：3，（0－3．50 | $1{ }^{10}$ | $j$ | 3 | ti．3 | 3.5 | $4^{1} \times 3^{1}{ }_{2} \times 3^{3}{ }^{\prime}$ | 23，$\times 21 / 4$ | 4.56 |
| C1930 | $3201-3.80$ | 110 | 5 | 3 | 6.3 | 4.5 | $45 \% 8 \times 3516 \times 3$ 化 | $3 \times 21 / 4$ | 5.14 |

## Universal Line Transformers

Ts counle various line impedances to a voice coil．Four primary taps to match $50(0,1000,1: 100$ or 2000 －ohm lines to remote speakers．

| Stack | Sec． | Max． | Dimen． |  | Mtg． | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ne． | 1 mp ． | W：ats | II $\times$ W $\times$ D | Fig． | Cirs． | Cost |
| C1931 | 3.2 | 10 | $1^{8} \times 2^{13}{ }_{16} \times 11 / 2^{\prime \prime}$ | （B） | 23／80 | \＄1．12 |
| C1932 | 6．8 | 18 | 219 ${ }^{1} \times 7 / 8 \times 17{ }^{\circ}$ | （1）） | 2 $8^{\circ}$ | 1.91 |
| C1933 | 6－8 | 34 | 21／4 $\times 3^{11} 16 \times 218^{\prime \prime}$ | （C） | $31{ }^{\prime \prime}$ | 2.06 |

# STANCOR-Thordarson TRANSMITTING T TRANSFORMERS 

PLATE TRANSFORMERS

| PLATE TRANSEORMERS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Stancor | D.C.* |  | Mtg. Dimen. |  |  |  |
| No. | Type | Voltage | M. | H. W. D. | Mtg. | Lbs. | Each |
| C1860 | P8042 | 600 | 300 | 48/8×3/6×61/2 | 3 | 16 | \$12.88 |
| C1861 | P8043 | 750 | 300 | $71 / 8 \times 61 / 8 \times 8$ | 5 | 27 | 19.32 |
| C1862 | P8026 | 1250 | 300 | 75/8x71/8x88/4 | 5 | 36 | 27.69 |
| C1863 | I'8028 | 1500 | 300 | 75\%89889 | 5 | 38 | 28.64 |
| C1864 | P8032 | 2000 | 300 | 7\%/8x718x98/ | 5 | 45 | 36.13 |
| FILAMENT TRANSEORMERS |  |  |  |  |  |  |  |
| No. | Tyje | Sec. V. | Amps. | HxWxD | Mtg. | Lbs. | Each |
| C1774 | P3060 | 2.5 | 10 | $31 / 8 \times 28 / 4 \times 21 /{ }^{\circ}$ | 6 | 3 | \$2.91 |
| C1790 | P4088 | 5.0 | 3 | $31 / 8 \times 21 / 6 \times 21 / 8$ | 6 | 2 | 2.00 |
| C1779 | P5014 | 6.3 | 3 | $31 / 8 \times 21 / 1 \times 21 /{ }^{\circ}$ | 6 | 2 | 2.20 |
| $C 1775$ | P3064 | 6.3 | 6 | $31 / 8 \times 21 / 2 \times 21 /{ }^{\prime \prime}$ | 6 | 3 | 2.70 |
| C1780 | P5015 | 7.5 | 4 | $31 / 8 \times 21 / 2 \times 21 / 2$ | 6 | 3 | 2.41 |
| C1782 | P6138 | 7.5 | 8 | $37 / 8 \times 31 / 4 \times 31 / 2$ | 6 | 4 | 3.38 |
| C1781 | P5016 | 10.0 | 4 | $31.103 \times 27 /$ | 6 | 3 | 2.70 |
| C1791 | P. 4096 | 10.0 | 5 | 37/8×31/4x ${ }^{1 / 4}$ | 3 | 5 | 4.03 |

DRIVER TRANSFORMERS

| river | bes lis | order of |  | listed | st. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | From | To | Class | Mitg. | Each |
| C1692 | A4752 | $\begin{aligned} & 1-6 \mathrm{G} 6 \mathrm{G}, 6 \mathrm{~F} 6, \\ & 42,2 \mathrm{~A}, \text { as } \\ & \text { TRIODES } \end{aligned}$ | $\begin{aligned} & 1^{\prime} \mathrm{P} \text { G RIDS } \\ & 6 \mathrm{~V} 6,6 \mathrm{Y} 6, \\ & 6 \mathrm{~F} 6,6 \mathrm{~L} 6,627 \end{aligned}$ | AB | 6 | 52.03 |
| C 1897 | A4702 | 1-2A3, 45, 46. | PP 6L6, 6 V 6. | AB2 |  |  |
|  |  | $\frac{89.2 A 5,6 F 6}{42}$ | 6F6, 45, 1PP <br> Par. 6L6 | $\mathrm{ABI}$ | 3 | 2.97 |

POLY-PEDANCE MODULATION TRANSFORMERS
Tapped to give wide range impedances for correctly matching every type load. Impedance chart and instructions with each unit





## STANCOR TRANSFORMERS plate modulation transformers



Tapped to give usable ratios in Class B Drivers. Cap. of Cllil6 and 1617. 15 watts; primary per side,-60 ma. Cap, C1618. 30 watts: primary 120 nat. per side. All type 1 mtg . Wit. A Ihs.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Ratio Prinary to $1 / 2$ Secondary | $\begin{aligned} & \text { I himen:, } \\ & \text { I } \times \mathrm{W} \times \mathrm{I} \text { ) } \end{aligned}$ | Each |
| :---: | :---: | :---: | :---: | :---: |
| C1616 | A-4761 | $\begin{aligned} & 1.25: 1,1.4: 1,1.6: 1,1.8: 1, \\ & 2: 1,2.2: 1,2.4: 1 \end{aligned}$ | $\cdots$ | 56.56 |
| C1617 | A-4762 | 2.6:1, 3:1, 3.2:1, 3.4:1, |  |  |
| C1618 |  | 4:1, 4.5:1. 5:1 | $31 / 8 \times 25 / 8 \times 31 / 4{ }^{\prime \prime}$ | 6.17 |
| C1618 | A-4/63 | 2.2:1. 1.5:1. 3:1.75:1. 2:1, | 31/2x.3 $\times 1$ " | 7.14 |

## THORDARSON TRANSMITTING TRANSFORMERS



FILAMENT TRANSFORMERS

Ratings for continuous operation at peak load. Primary 117 volt 50/60 cycles. RMS insulation voltage 1600 on all except *RMS insulation voltage $7500 \dagger$ RMS Insulation voltage 10,000 ** tapped sec. $\ddagger$ tapped primary.

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Type No. | Volts | Amps. | Mtg. | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C2037 | T21F00 | 2.5 CT | 5 | I3AV | \$1.91 |
| C2038 | T21F01 | 2.5 CT | 10 | BAV | 2.47 |
| C2039 | T21F02* | 2.5 CT | 10 | CAV | 2.94 |
| C2040 | T21F03 | 5 CT | 3 | BAV | 1.94 |
| C2041 | T21F04 | 5 CT | 7 | CAV | 3.29 |
| C2139 | T21F20 + | 5 CT | 15 | CAV | 5.00 |
| C2042 | T21F05 $\dagger$ | 5 CT | 3 | CAV | 2.94 |
| C2043 | T21F06 | 5 C'T | 13 | CAV | 3.23 |
| C2044 | T211F07 | 5 CT | 21 | CAV | 4.41 |
| C2045 | T21F08 | 6.3 CT | 1 | I3AV | 1.59 |
| C2046 | T21F10 | 6.3CT | 3 | BAH | 1.91 |
| C2047 | T21F11 | $6.3 \mathrm{C}^{\prime}$ T | 6 | CAV | 3.29 |
| C2048 | T21 F12 | 6.3 CT | 10 | CAV | 3.23 |
| C2049 | T21F14** | 6.3-5-2.5 | 2.5 | BAII | 2.12 |
| C2050 | T21F15 | 7.5 CT | 4 | BAV | 2.35 |
| C2051 | T21F16 | 7.5 CT | 8 | CAV | 3.23 |
| C2052 | T21F17 | 7.5 CT | 12 | CAV | 3.67 |
| C2053 | T21F18 | 10 CT | 5 | CAV | 2.94 |
| C2054 | T21F19t | 10 CT | 12 | CAV | 4.41 |

## MODULATION TRANSEORNERS

For specific tube types with low and medium power.

| Stock No. | Type No. | Primary Application | Impedance |  | Audio 1'wr. | Mtg. Type | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Primary | Sec. |  |  |  |
| C2055 | T21M50 | 1-19, etc. | 10000C' | 4500 | 3 | BAH | \$1.65 |
| C2056 | T21M52 | 6N7, etc. | $10000 C T$ | 4500-3750 | 10 | FGV | 2.35 |
|  |  |  |  | 3000 |  |  |  |
| C2057 | T21M54 | PP 6LG, etc. | 6600CT | 4000 | 25 | GCV | 3.38 |
| C2058 | T21M56 | TZ2-809, etc. | 10000 CT | 6600-3750 | 75 | GCV | 5.29 |
| C2059 | T21M58 | 111-812, etc | 15000 CT | 6250 | 100 | K TV | 3.23 |

PLATE TRANSFORMERS
Electrostatic shields. Current ratings are for CCS (continuous com mercial service, ICAS (Interrupted Commercial Amateur Service) ratings approximately $25 \%$ higher

| Stock No. | $\begin{gathered} \text { Type } \\ \text { No. } \end{gathered}$ | Mtg. Type | DC | Volts | MA. | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C2066 | T21P75 | I ${ }^{3} \mathrm{UV}$ | 2500-2 | 00-1250 | 500 | 579.38 |
| C2067 | T21197 | 7 I'UV | 250 | 0-2000 | 300 | 55.86 |
| C2068 | T21179 | 9 PUV | 158 | --1250 | 400 | 39.69 |
| C2069 | T211'81 | 1 PUV | 125 | ()-1000 | 300 | 33.81 |
| C2070 | T211'82 | 2 PUV | 200 | 0-1500 | 220 | 35.28 |
| C2071 | T21P33 | 3 PUV | 125 | 0-1000 | 200 | 21.76 |
| C2072 | T21185 | PUV |  | O-500 | 300) | 14.99 |
| C2073 | T21197 | 7 CCV |  | 0- 500 | 220 | 8.82 |
| C2077 | T21P89 | 9 GCV |  | 400 | 175 | 5.29 |
| C2078 | T21P91 | 1 I'UV |  | ()-750 | 150-110 | 15.88 |
| C2080 | T211 ${ }^{(1)}$ | 3 CiCV | 100 | 0-400 | 95-125 | 8.82 |
| SPLATEER SUPPRESSOR CEIOKES |  |  |  |  |  |  |
| Attenuates audio modulating frequencies over 3000 CPS , eliminate splatter harmonics generated in speech amplifier. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| No | Type No. | Application |  | DC Res. | Mtg. | Your |
| No. |  |  |  | Type | Cost |
| C2024 | T20C60 | $\begin{aligned} & \text { Induct } 2 \text { to } 1.5 \mathrm{H} \\ & \text { at } 30 \mathrm{MtA} \mathrm{lO} \end{aligned}$ |  |  | 30 | KTV | 58.23 |
| C2025 | T20C61 | Induct. 2 to 1.5 II |  | 27 | KTV | 10.00 |

MULTI-MATCH MODULATION TRANSFORMERS
Enables accurate matching of various tube-loads without changing load. sec. 1 mp . 5 M . $6 \mathrm{M}, 7 \mathrm{M1}, 8 \mathrm{M}, 9 \mathrm{M}, 10 \mathrm{M}$

| Stock No. | Type No. | Pri. MA each side | Series | Par. | Audio Pwr. | Mtg- <br> Type | Cour |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C2060 | T2IM60 | 50 | 50 | 100 | 15 | KTV | \$7.06 |
| C2061 | T21 M61 | 125 | 125 | 250 | (i) | I'UV | 10.58 |
| C2062 | T21M162 | 210 | 160 | 320 | 125 | PUV | 16.17 |
| C2063 | T21M64 | 250 | 250 | 500 | 300 | PUV | 27.93 |
| C2064 | T21M65 | 320 | 320 | 610 | 500 | IUV | 47.04 |
| C2065 | T21M66* | 500 ohm line | 200 |  | 50 | KTV | 11.76 |



G1 TOG4
Class A Input Transformers

| No. | Type | Application | Ratio | Case | Wt. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5802 | S-2 | 1 plate* to 2 grids. . | $2: 1$ | C;-2 | $31 / 2 \mathrm{lbs}$. | \$3.72 |
| C5804 | S-4 | 1 plate* to 2 grids, wide range response | 1:1 | G-3 | 4 | 5.10 |
| C5805 | S-5 | Single or double bution mike or line to 1 xrid: hum bucking type. | 16:1 | G-2 | 31/2 | 4.16 |
| C5806 | S-6 | Single or double bution mike or line to 1 grid, compact type. | 16:1 | C-1 | $3$ | 3.04 | with high mu triodes with loss in low frequencies.

Universal Output To Line and Voice Coil All secondaries designed to match 2.8 and 15 ohm voice coils and 500 ohm line. Shpg, wis.; $\left(;-2,3^{\prime} 2^{\prime}\right.$ lbs. ( $\left.;-1,\right\}$ lbs.

| No. | Type | Primary Ohms | Watts | Case | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C5814 | S-14 | $2500,4000), 7(0) 0$ | 10 | (i-2 | \$4.41 |
| C5815 | S-15 | 4(\%)0, 5000, 10.0 KX$)$ | 12 | G-2 | 4.61 |
| C5816 | S-16 | $3000,60063-6+600.10,000$ | 30 | C-4 | 6.08 |

## Universal Modulation Transformers

Designed to match any modnlator tubes to any $\mathfrak{F V}$ load. Secondary will carry IXC current of a Class $C$ stage.

| No. | Type | Watts | Case | I.bs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C5818 | S-18 | 13 | (;-3 | 4 | \$4.90 |
| C5819 | S-19 | 30 | (i-4 | 5 | 7.35 |
| C5820 | S-20 | 5.5 | (;-5 | 612 | 10.78 |
| C5821 | S-21 | 110 | ( $3-7$ | 11 | 15.19 |
| C5822 | S-22 | $25 \times 1$ | (i,-9 | 23 | 23.52 |

Matching Transformer

| Stock | $\xrightarrow{\text { Tyle }}$ No. | Application | $\begin{array}{\|l\|l} \text { Pri } \\ \text { Ohmis } \end{array}$ | $\begin{gathered} \text { Sce. } \\ \text { S. } \end{gathered}$ | Case | ${ }_{\substack{\text { Your } \\ \text { Cost }}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | S. 11 |  |  | ${ }_{5}^{200}$ |  |  |

## Universal Driver Transformer

| No. | Type | Application | Case | L.hs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| c5809 | S-9 | rP. Iriver plates to grids of (lass R tubers up tu 106 watis ont | (i.3 | 1 |  |

Multiple Secondary Filament Windings
 center tapped. Shipg. wt.. each, 61,1 lbs.


## Filter, Swinging and Audio Chokes



## Case Dimensions

| Type | Height | Width | Denth | Type | Height | Width | Depth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{Cl}_{6}$ | 17/10, | ${ }_{33}^{213 / 88^{\prime \prime}}$ | 1313, | G88 | ${ }^{45}{ }^{5}{ }^{\text {\% }}$ | 53/ ${ }^{53}$ | $5{ }^{3} 3^{\circ} 0^{\prime \prime}$ |
| G3 | $22_{1,}^{16}$ | 3\% ${ }^{\circ}$ | $2^{5 / 18}$ | G10 | $5 \%^{\circ}$ | $61 /{ }^{1}$ | 63 \% |
| G4 | ${ }^{21511_{6}{ }^{\circ}}$ | 4\%\% | $2^{3 / 16}{ }^{\circ}$ | G11 | 57\% | ${ }_{61 \%}^{61 \%}$ | $7{ }^{7}{ }^{\prime \prime}$ |
| ${ }^{\text {G5 }} 6$ | $33 /{ }^{\prime \prime}$ <br> $438^{\circ}$ |  | 41/30 ${ }^{\circ}$ | G12 | 101/4. | $7^{3} 8^{\circ}$ | 91/4' |

## U|GTransmitting ransformers

## Plate Transformers

I'rimaries for 115 (... $\overline{5} 0 / 60$ cycles a.c. For duplex rectifiers, the high and low voltage rouput of any of the units listed below can be used simultaneously. The rated d.c. current can be divided as required between both voltage outputs.

| No. | Type | High Voltage | Ma. | Case | L.bs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5544 | S-4 | 575-525-0-525-575 | 500 |  | 23 | \$15.19 |
| C584 | S. 45 | 900-750 | 200 | G-8 | 15 | 11.76 |
| C5846 | S-46 | 100)-5:0-0 | 300 | G-9 | 23 | 14.70 |
| C5847 | S-47 | $\begin{aligned} & 1500-12510-1000-0-100 \\ & 1250-1500 \ldots \end{aligned}$ | 300 | G-10 | 27 | 18.6 |
| C5848 | S. 48 | 1500-1250-1000-0-1000- |  |  |  |  |
|  |  | 1250-150) | 500 | C-11 | 34 | 27.44 |
| C5850 | S-50 | $3(40)-2500-0-2500-3000$ | 300 | G-12 | 55 | 36.26 |

## Plate and Filament Transformers

All primaries for 115 volts. $50 / 60$ cycles a.c.

c.t.at dis ; 6.3 V. c.t.at 4
\$10.29
 C5840-S-40. Your Cost
\$10.29
High volt. 600-0-600) at 200 ma.; 5 v . at 3 a. (rect.) ; 7.5 v . tapped at C5841-S-41. Your Cost
$\$ 9.31$
Ifigh volt. ( $000-525-0-525-600$ at 300 ma.: 5 v . at 3 a. (rect.) ; 7.5 v


## Single Secondary Filament Transformers

Primaries tapped 105,115 volts. 5060 cycles a.c.


## Ultra-Compact Line Matching

Compact high fidelity units having a frequency range from 30 to 20.0 () c.p.s. (bnly $1 \times 1 \times 1^{\circ}$ : 1 hreaded inserts for mounting. Match 50 . 125, 20 (0), 250, $5(0)$ ohm lines. Net wt. 6 oz.; ing. . watch each $\frac{1}{2}$
C5394-A-10 Line io 1 srid. 50.000 ohms.
C5397-A-24. I Triode plate 8000/15000 ohms to line.
Your Cost Each,
Either Above Type
\$8.82
Multiple Alloy Shield Type: Frequency range from 50 to 10,000 Matches $50,20($ or 500 ohms to 1 or 2 grids. C5726-Type A-11. Your Cost Each
s8.82


Universal modulation transformers with tapped primary and secondary windings for matching all popular types of modulator tubes to plate moxlulated (lass C ampliter stage. hecondaries are designed to carry the plate current of the class $C$ stage.

| Stock | Ty | Max. Watts | Wats <br> Class C <br> stace | 1. | was | II. | case | Shpg. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5359 | VM1-() | 12 | 10-25 | 21. | $3^{\prime}$ | $3^{\prime}$ | A |  | 55.0 |
| C5360 | VM-1 | 30 | $20-60$ | 310 | 4120 | 41 | A |  | . 2 |
| C5361 | VM-2 | 60 | 40-120 | 35 | 47\% |  | B | 12 | 12.0 |
| C5362 | VM-3 | 125 | 100.250 |  | $4^{9} 16^{\prime \prime}$ | $6^{\circ}$ | C | 20 | 17 |
| C5363 | VM-4 | 300 | 20)(0)600 | $7{ }^{8 / 8}$ |  | 512 | 1) | 31 | 9.4 |
| c5364 | VM-5- | (0) | 450-10)0 | $11^{\circ}$ | $11^{\circ}$ | $9{ }^{\prime \prime}$ | E | 89 | \% |

## 



## AMPHENOL

## Above-Chassis Sockets

(A) For mounting ahove the level of the chassis surface. Bakelite socket with various prong shell. Ileight ${ }_{13} 3^{\circ} 6^{\circ}$ above subpanel or chassis surface. Has mockouts for leads, plus mounting llange.
 ${ }_{C 13102}$
Any Type Above, 154
 Elther Type Above, ...174

## AMPHENOL "MIP"

(B) Molded from high-dielectric black bakelite, with molded-in plate for $11 / 2^{\prime \prime}$ mounting centers. Cannot come loose or rattle. Strong, dependable.
$\begin{array}{lc}\begin{array}{l}\text { Stock No. } \\ \text { C13164 }\end{array} & \begin{array}{c}\text { Prongs } \\ \text { C13165 }\end{array} \\ \text { C13166 } & 5 \\ \text { C13167 } & 7 \text { small } \\ \text { C13168 } & 7 \text { large } \\ \text { C13169 } & 8 \text { octal } \\ \text { C13223 } & 9 . . . . . . . . . . . . .11 c\end{array}$ Midget inipir Oci.................. Smaller more compact than above. Has 1.16 mtg. centers. C13225 Prongs, only. 8 . ${ }^{8}$ © C13243-"MIP" Loktal Type. Your Cost, Each.


## AMPHENOL

## Steatite Socket

©
Withstand higher temperatures, do not absorb moisture. silver-plated for low resistance connections with the tube prongs. Prongs Stock No. Each

| $4{ }^{4}$ | C13194. | 28 c |
| :---: | :---: | :---: |
| 5 | C13195 | 28c |
| ${ }_{6}$. | C13196 | ${ }^{28 \mathrm{c}}$ |
|  | C13197 | 28 c |
| 7 | C13198 | ${ }^{36 \mathrm{c}}$ |
| 8 uctal | C13199 | 28 c |

## AMPHENOL

Standard Tube Sockets Type "D" is designed for general replacement work and has a steel adapter plate to fit mounting centers from $11 / 2$ " to $176^{\circ}$. Type " $E$ " is for new work and requires only a single 13 作 hole, being held in place with a retainer ring, unusually easy to mount. Both 11 prong sockets are for Antphenol connectors. 7 C sockets fit small and large base tubes.
I'rongs
(E)
(D)

1'rongs Stock No. Stock No. Ea,

| 4 | C13207 | C13057 | 8 c |
| :---: | :---: | :---: | :---: |
| 5 | C13208 | C13058 | 8 c |
| 6 | C13209 | C13059 | 8 c |
| 7 S | C13210 | C13061 | 8 c |
| 7 L | C13211 | C13060 | 8 c |
| 7 C | C13237 | C13056 | 10c |
| 8 octal | C13212 | C13050 | 10c |
| 8 loktal | C13045 | C13040 | 13 c |
| 9 | C13213 | C13041 | 12c |
| 11 | C13214 | C13042 | 17c |



National Isolantite "CIR" Locking Ring Sockets
(F) Low loss isolantite sockets Ideal for h.f. receivers and k mit${ }^{\text {Nors }}$ No. Prongs No. Prongs

 | C14535 | 5 | C14538 | 7 large |
| :--- | :--- | :--- | :--- |
| $\mathbf{C 1 4 5 3 6}$ | 6 | $\mathbf{C 1 4 5 3 9} 8$ octal |  |
|  |  |  |  | Any Type, Your Cost...... 27 c

## MILLEN Sockets

(G)

Much higher Steatite body used to provide increased insulation. Barriers separate all contacts, permitting use of higher than ordinarily used voltages. Stk. No, Mirs. No. Prongs. Each
$\left.\begin{array}{ll}\text { c80045 } & 33004 \\ \text { c8006 } & 33005 \\ \text { C8047 } & 33006 \\ \hline\end{array}\right\} \mathbf{5}$
C8049 33008

100 CONCORD RADIO CORP., CHICA.GO, ILL. • ATLANTA, GA.

## AMPHENOL 83 Sexies UHF Connectors


83.1H 83-15P
$38{ }^{8}$

83.14P



83-1R
his line of UHF low-loss single contact connectors and adapters for use with RG type cables serves all practical applications and they are made in both small and large sizes for crax and twinax cable. Very ruggedly constructed of die cast zinc and machined brass shells, silver plated. Easy assembly and positive connection.

C11550-8:3-1SJ' 2 piece straight plug with molded low loss mica Your Cost C11551-833-1 i Receptable chasfilled insert Yout Cost $\qquad$ $\$ 1.22$ C11552 - 8'3-1A1" and scicket.
C11553--83-1 \$1.46 For $83-11 \mathrm{f}$, factory wired
Your
Cost C11554--83-1j Junction for use


C11555-83-IF Feed thru connector, similar in appearance to 83-1 1, but threaded entire lengt h and equipped with Your Cost
\$1.73 C11556 83-1II Iorod for IRG Your cost .............] \&
c11557-83-168 Adapter for small cane, R(.5., C. use with 83-1S
Your cost

C11558-83-185 Adapter for amal cable, $\mathrm{K}(;-58 / \mathrm{U}$, use with Connertor.
AMPHENOL Receptacles and Plugs

$21^{\circ}$
folded black bakelite insulation 2 -pole recoptacles have one elongated hole and cat be used with buth the tandard type of plug and the polarized type having one $14^{\circ}$ and one ${ }^{3}$ ubade. 3 pole receptacles are for Dimensions: (A) hole - $1.172^{\prime \prime}$, (B) Mty, ctrs- $11 / 2$ to $1 / 6^{\circ \prime}$ d C hole
$1188^{\circ}$, Ntg. cirs.-
PLAIN (A)
No. Polc's "l'ype Each No. I'oles Type Each C11503 Peceptacle C11503-2 2 itand:ard jlug C11624-2 l'olarized I'lug 10 $\left.\begin{array}{c}\text { C11625- } \\ \text { C11626- } \\ \text { Receptacle } \\ \text { Polarizedl'lug }\end{array}\right\} \quad 25 \mathrm{C}$ WITH PLATE (B
C11500 2 Receptacle C11627-2 l'olarized!'lug $\dagger<0$

C11504-2 Receptacle
C11505-2 Standard Plug
C11635-2 280 C11635-2 JolarizedPligy

SURFACE TYPE (D) C11637-2 Recentacle $C$ 万C C11639--2 l'olarized l'lugg $\}^{2}$

SHIELDED PLUGS AND RECEPTACLES (E)


JONES Terminal Strips (A) No. 140-7/8" wide by ${ }^{13 / 22^{\circ}}$ on 3 hig. Terminals are mounted No. $141-118^{\circ}$ wide by $10^{\circ}$ high Terminals mounted on $7_{10}^{2}$ cen ters. ${ }^{3}{ }^{\prime \prime}$ inetait to metal spacing

$$
\begin{aligned}
& \text { over bakelite } \\
& \text { No. } 140
\end{aligned}
$$



C12527-13c 2 C12539-17c
$\begin{array}{llllll}C 12528 & 18 c & \text { 18 } & \text { C12540 } & \text { 23c } \\ \text { C12529 } & \text { 23c } & 4 & C 12541 & 28 c\end{array}$
$\mathbf{C 1 2 5 3 0}-27 \mathrm{c} \quad 5 \quad \mathbf{C} 12542-34 \mathrm{c}$
C12531-31c is C12543-40c
$\mathrm{C} 12532-36 \mathrm{c} \quad 7 \mathrm{C} 12544-47 \mathrm{c}$ C12533-41c 8 C12545-53c $\begin{array}{llll}\mathrm{C} 12534-46 \mathrm{c} & \mathrm{O} \\ \mathrm{C} 12535-51 \mathrm{c} & 12546-59 \mathrm{c} \\ \mathrm{C} 12547-66 \mathrm{c}\end{array}$ $\begin{array}{llll}\mathrm{C} 12535 & 51 \mathrm{c} & 10 & \mathrm{C} 12547-66 \mathrm{c} \\ \mathrm{C} 12536 & 55 \mathrm{c} & 11 & \mathrm{C} 12548\end{array}$ $\begin{array}{llll}\text { C12537-60c } & 12 & \text { C12548-72c } \\ \text {-77c }\end{array}$

## Texminal Strips

(B) Ili-quality bakel No. Terninals Ea. 10 For C13145 C13123
$C 13112$ C13112
C13113

## Heavy Bakelite Strips



Screw and collar terminals No. Terninals Ea. 10 For $\begin{array}{llll}\text { C13140 } & 2 & 11 \mathrm{c} & 50.99\end{array}$

## C13141 C13142

 C.3144
## C13230



Bakelite Mounting Strip
 (D) chassis.


Standaxd Speakex Plugs
(E) $\begin{gathered}\text { 1-piece molded hakelite. } \\ \text { speaker cables easily wired }\end{gathered}$ No. lype No. Type ${ }^{C 11512} 4$ prong C11514 6 prons C11513 prorg chisis a prong

| PLUE Sand |
| :--- |
| coundecoros |

JONES PLUGS AND SOCKETS
Multiple contact plugs and suckets in both " 4 (10" series heavy duty 25 am standard duty ( 5 ampere) standard duty (o anmere) sizes. Cathe type pluss and sockets have cable brackets-heavy duty ype at ends-standard duty type at sides.

## TYPEA PLUGS

|  | TYPE A | LUGS | Duty |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Your | d | You | Stock | ur |
| No | Cost tact | No. | Cost | No | Cost tac | No | Cost |
| C12460 | 28c | C12400 | 48c | C12466 | 28c | C12412 | sic |
| C12461 | 33c | C12403 | 58c | C12467 | 33c | C12413 | 65c |
| C12462 | 36c | C12402 | 68c | C12468 | 38c | C12414 | 78 |
| C12463 | 40 c | C12403 | 77c | C12469 | 44c | C12415 | 92 c |
| C12464 | 45c 10 | C12404 | 87c | C12470 | 50c 10 | C12416 | \$1.0 |
| C12465 | 49c 12 | C12405 | c | 12471 | 12 | C12417 | 1.1 |
| Chassis Type |  |  |  | Chassis Type Socket (D) |  |  |  |
| C12472 | 13c 2 | C12426 | 30c | C12478 | 14c | C12406 | 34c |
| C12473 | 17 c | C12427 | 37c | C12479 | 19 c | C12407 | 4c |
| C12474 | 22.c | C12428 | 44c | C12480 | 23c | C12408 | 54 c |
| C12475 | 24c | C12429 | 51c | C12481 | 27 c | C12409 | 64. |
| C12476 | 27e 10 | C12430 | 58c | C12482 | $33 \mathrm{c} \quad 10$ | C12410 | $74 c$ |
| C12477 | 31c 12 | C12431 | 64 c | C12483 | 38c 12 | C12411 |  |

## CONNECTORS-SOCKETS-PLUGS



## Cable Connectors

(A) Tube-hase connectors with cable operining at end for protec tion against abrasion.
Femide Male Cortacts Each
C11475 C11471 ${ }_{4}$ C11476 C11472
$\begin{array}{ll}\text { C11477 } & \text { C11473 } \\ \text { C11478 } \\ \text { C11474 }\end{array}$


St TYPE $B$ SOCKETS
Standard Duty Heavy Duty Sturk Your Con- Stock Your
No
Cost tacts

 $\begin{array}{llllll}\text { C12469 } & 44 \mathrm{c} & 8 & \mathrm{C}_{12415} & \\ 92 \mathrm{c}\end{array}$ $\begin{array}{llllll}C 12471 & 56 \mathrm{c} & 12 & \text { C12417 } & 1.19\end{array}$
Chassis Type Socket (D) $\begin{array}{lllll}\text { C12478 } & 14 \mathrm{c} & 2 & \mathbf{C 1 2 4 0 6} & \text { 34c } \\ \text { C12479 } & 19 \mathrm{c} & 4 & \mathbf{C 1 2 4 0 7} & 44 \mathrm{c}\end{array}$ $\begin{array}{lllll}C 12481 & 27 \mathrm{c} & 8 & \mathrm{C} 12409 & 64 \mathrm{c}\end{array}$ $\begin{array}{llllll}C 12483 & 38 \mathrm{c} & 12 & \mathrm{C} 12411 & 84 \mathrm{c}\end{array}$
${ }^{C} 11491$
C11508
C11506

## Side Opening

(B)opme as ahove hut with side Female Male Contacts Each C11586 Mrate C11587 C115880 | C11589 | C11581 | 6 | 18 c |
| :--- | :--- | :--- | :--- |

 $\begin{array}{llll}\mathbf{C 1 1 5 9 1} & \mathbf{C 1 1 5 8 4} & 9 & 23 c \\ \mathbf{C 1 1 5 9 2} & \mathrm{C} 11585 & 11 & 28 \mathrm{c}\end{array}$

## Clamp Type

 five gri,phing cathle clamp For cables up to ${ }^{\circ} 16^{\circ}$ in diameter Takes up cable puil and relieves soldered connections of strain. Female Male Contacts Each C11684 C11692 $\begin{array}{llll}C 11684 & \text { C11692 } & 4 & \text { 22c } \\ \text { C11685 } & \text { C11693 } & 5 & \text { 22c }\end{array}$ C11686 C11694 $6 \quad$ 22c $\begin{array}{llll}C 11687 & \text { C11695 } & 7 S & 22 c \\ C 11688 & C 11696 & \text { iL } & 22 c\end{array}$ $\begin{array}{llll}C 11688 & \text { C11696 } \\ C 11689 & \text { Oct. } 24 c \\ \text { 24 }\end{array}$ $\begin{array}{llll}C 11690 & \text { C11698 } & 9 & 26 c \\ C 11691 & C 11699 & 11 & 31 c\end{array}$

## Locking Covers

(D) For above connectors. $11 \frac{1}{2} \mathrm{x}$

## Miniature Comnectors

(E) Miolded bakelite connectors in cadnium plated brass meter bakelitc element held in mace ty then. Whend phace sheldel screw. Wien used "ili hie to chelle, shiela can be soldered cables up to $1 / 6^{\circ}$.

| Nale | Female | Cont. | Each |
| :---: | :---: | :---: | :---: |
| C13335 | C13337 | 3 | $21 e$ |
| C13336 | $\mathbf{C 1 3 3 3 9}$ | 4 | $24 c$ |
| C13333 | $\mathbf{C 1 3 3 3 4}$ | 5 | $26 c$ |
| $\mathbf{C 1 3 3 3 8}$ | $\mathbf{C 1 3 3 4 0}$ | 6 | 26 c |

## Miniature Sockets

 and Plugs

## Shielded Sockets

Similar to sockets listed as above hut with shield. When used with shielded male connector linnatove, a completely shielded mounted.

# Manciv. Canatab switches 



MALLORY Gang Switches Contact members are heavily silver plated, and given a smooth hard finish. Contact shoe, of the self-cleaning type, is of silver alloy. All switches are proadjustable stop. Bushings and extend $/ / 8$. Pointer type, Bakelite knob supplied.
SINGLE GANG SWITCHES


Low loss ceramic insulation, wide contact spacing, improved heavy mitters contacts. Fod trans 4 contacts per circ. With knob.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Tipe | Circuits | Points Y | Your Cost |
| 1316L | 1 Circuit | 1 to 6 points | 50.76 |
| 1311L | 1 Circuit | 1 to 11 proints | . 91 |
| 1315L | 2 Circuit | 1 to 5 points each | . 97 |
| 1313L | 3 Circuit | 1 to 3 prints earh | h 1.06 |
| 1312L | 4 Circuit | 1 to 2 points each | 1.12 |
| O GANG SWITCHES |  |  |  |
| 1326L | 2 Circuit | 1 to 6 prints each | h 1.26 |
| 1321L | 2 Circuit | 1 to 11 points earh | 1.35 |
| 1325L | 4 Circuit | 1 to 5 points each | 1.53 |
| 1323L | 6 Circuit | 1 to 3 points each | 1.65 |
| 1322L | 8 Circuit | 1 to 2 points each | - 1.73 |
| EE GANG SWITCHES |  |  |  |
| 1336L. | 3 Circuit | 1 to 6 points each | 1.71 |
| 13311. | 3 Circuit | 1 to 11 points carh | 1.82 |
| 1335 L | 6 Circuit | 1 to 5 points each | 1.94 |
| R GANG SWITCHES |  |  |  |
| 1346I, | 4 (ircuit | 1 to 6 points earh | h 2.12 |
| 1341\% | 4 Cireuit | 1 to 11 prints earh | 12.32 |
| 1345L | 8 Circuit | 1 to 5 puints cach | H 2.70 |
| GANG SWITCHES |  |  |  |
| 1361L | 6 Circuit | 1 to 11 prints each | h 3.41 |
| 13661. | 12 Circuit | 1 to 6 points earts | H 4.35 |

## MALLORY

Ceramic Switches
No. Type Cangs Circuits Each $\begin{array}{llll}\text { C } 6642161 \mathrm{C} & 1 & 1 & \mathbf{5 1 . 1 8} \\ \mathrm{C} 6643 & 162 \mathrm{C} & 2 & 2 \\ \text { C } 6644 & 16.1 \mathrm{C} & 3 & 3 \\ \text { C } 6645 & 164 \mathrm{C} & 1 & 4\end{array}$ C6645 164 C $\begin{array}{llll}C 664165 C & 5 & \mathbf{3} .67\end{array}$ C6647-Special dial plate for Your Cost
MALLORZ Push
Button
Switches
Non-lock-
insTypes
Fumished

## Midget Jack Switches


lanels up to 1
Two Position Switches
No Two Position Switches

| C6i70 | 720 | spyer |  |
| :---: | :---: | :---: | :---: |
| C6471 | 730 |  |  |
| 6472 |  | 1. |  |
| 473 | 715 |  |  |
| C6474 | 760) | 1 |  |
| C6475 | is 3 | 3-1p.s. | 1.15 |
| 69 |  | H-1.ST | 1.5 |
|  | $\begin{aligned} & \text { efos } \\ & \text { ntter } \end{aligned}$ |  |  |
|  |  |  |  |
| C6441 | 76 | 1)P.1) |  |
| 442 | $7{ }^{\text {a }}$ |  |  |
| C6443 | 76.4 |  |  |

CENTRALAB
Momentary Push Switches


For many light duty applications such as meter insertion, test equipment, etc. Rated 1 amp . at 110 v a.c. Silvered contacts. Insulated $\frac{8}{8}$ " bushing, $8 / /^{"}$ long. Button extends $1 / 2^{\prime \prime}$ from end of hushing. Available with contacts normaily closed or open.
C12867-Normally open
C12862-Normally closed
Either Type,
Your Cost, Each
29


MALLORY
Etched Plates
 tion for use with switches. $30^{\circ}$ spacing for all switch types $1200 \mathrm{~L}, 1300 \mathrm{~L}$ and $11 / 4^{\circ}$ base 3100 J and $3200 \mathrm{~J} 20^{\circ}$ spacing for all type 3100 J .3200 J switches with $111 / 6^{\circ}$ base

| Marking | Spacing <br> Stk. Nu. | Stk. No. |
| :---: | :---: | :---: |
| 1 to 2 | C6224 |  |
| 1 to 3 | C6225 | C630 |
| 1 to 4 | C6226 | C630 |
| 1 to 5 | C6227 | 630 |
| 1 to 6 | C6228 | C630 |
| 1 to 7 | C6229 | C630 |
| 1 to 8 | C6230 | C630 |
| 1 to 9 | C6231 | C630 |
| 1 to 10 | C6232 | C631 |
| 1 to 11 | C6233 | C631 |
| 1 to 12 | C6234 | C631 |
| 1 to 15 |  | 624 |
| Volume | C6244 |  |
| Off-1 to 3 | C6235 | C631 |
| Off-1 to 4 | C6236 | C631 |
| Off-1 to 5 | C6237 | C631 |
| Off -1 to 6 | C6238 | C6316 |
| Off-1 to 7 | C6239 | C6317 |
| Off -1 to 8 | C6240 | C631 |
| Off-1 to 9 | C6241 | C6319 |
| Off-1 to 10 | C6242 | c63 |
| Any Type |  | 1 |
| - |  |  |

MALLORY Hamswitch


Provicles means of using a single meter to measure currents or oltages in live transmitter cirow luss construction conservo tive rating of 10001 volts RMS AC or $15(0)$ volts $1 \times$ C. Two gang wilh 21/4", spacing between c6372-Y

nour cost $\$ 1,62$ C6372-Your Cost | 1.5 | 6 |
| ---: | ---: |
| 1.50 |  |
|  | $12 c$ |

## CENTRALAB



## Black crackle finished stee

No. Gangs Dimen. Each C12794
C12795
C12796
C12797
Universal Fiat Switches
 pensive Mayls
fromays ranging
pole double single throw. Bakn fite insulation, non-shorting teeth With $21 / 4$ shalt and bat knol)
C12764-
Your Cost
C12773-Wit
Your Cost

No. $1400 \mathrm{~L}-12$ positions; opens one line at a tine while maintaining circuit through others. $13 / 4 x$ notched shaft. With knob and ${ }^{\text {dial }} \mathbf{6 3 7 0 - Y \text { pate }}$ cost $\$ \mathbf{3 . 4 7}$


Special single-circuit, 2-t-point $2^{*}$ grooved shaft. Complete with dial pla
rour Cost
$\$ 2.06$
CONCOKD can furnish Mallory specification or applications.


## CUTLER-HAMMER SWITCHES

pproved type with nickel plated metal parts. New design. Fast action Excellent hor appiances, radio

| Stock No. | Fig. | Poles | Stem L.ength | lower |  | Each | $\frac{2-9}{\text { Each }}$ | 10-20 21-40 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Amp. | Volt |  |  | Each | Each |
| C12836 | A | SPST | $13 / 2{ }^{\prime \prime}$ | 3 | 250 | \$0.39 | \$0.27 | \$0.24 | \$0.22 |
| C13834 | A | SI'luT | 15/22 | 3 | 125 | . 49 | . 34 | 29 | . 27 |
| $C 12833$ | A | 1)PDT | $15 / 2$ | 3 | 250 | .93 | . 66 | . 56 | . 51 |
| C12817 | A | IIPST | $15 / 12$ | 3 | 250 | . 88 | . 62 | .53 | 4 |
| C12813 | 8 | SIST | 15 | 6 | 250 | . 98 | . 69 | . 59 | . 51 |
| C12814 | 8 | L)PST | $18 \%$ | 5 | 250 | 1.03 | .72 | . 62 | . 57 |
| C12815 | 8 | SIXT | 15 | 10 | 250 | 1.57 | 1.10 | . 94 | . 86 |
| C12816 | B | IPPST | $15 / 12$ | 10 | 250 | 1.71 | 1.20 | 1.03 | - 7 |
| C12337 | C | SPST | $11 /{ }^{\prime \prime}$ | 3 | 125* | .49 | .34 | . 79 | . 27 |
| C12832 | D | Sllit $\dagger$ | $11 / 0$ |  |  | -. -74 | + $\cdot 31$ | $\begin{array}{r}.26 \\ \hline 103\end{array}$ | 24 |
| C12331 | D | SP3T $\dagger$ | 18/12 |  |  | 1.71 | 1.20 | 1.03 | .94 |
| C12841 | E | SPST |  | 6 | 125 | . 78 | . 55 | . 47 | . 43 |

Rated AC. †With dead center position

- Marked "on'" and "off.
C12.18- out cost.
$61 / 2^{9}$
10 For


H and H SWITCHES

## (A) All have nickel metal parts, black finish.

| Stock No. | Stem <br> length | Poles | Power |  | Each | $\begin{gathered} \text { Lots } \\ 10 \text { Ea. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Amp. | Volts |  |  |
| C12754 | ${ }^{18} 8 z^{\prime \prime}$ | SIPST | 6 | 125 | 25 c | \$2.25 |
| C12755 | 13,3" | SPDT | 3 | 125 | 30 c | 2.70 |
| C12756 | 13/2. | DPST | 5 | 125 | 48 c | 4.32 |
| C12757 | 18/82" | DPUT | 3 | 125 | 50c | 4.50 |

## H. \& H. Rotary Panel Switches

(B) Rated 3 amps., 125 volts. Approved type. With locknuts. Shaft No. Type Each 10 For No. Type Each 10 For




## H \& H Two Circuit Push Switches

In normal position, with plunger out, one circuit is "on," and the other off. When plunger is depressen, circuits are reversed. Slow make, quick break momentary contacts. Rated 1 amp. at 125 v . a.c. Bushing ${ }^{15} \mathrm{~s}^{\circ}$ dia., " $\mathrm{s}^{\prime}$ ' long.

METAL PLUNGER (C)
'sed on Supreme instruments and other jopular makes. C12774-Your Cost


BAKELITE TIP (C)
C12778-HLack. $\}$ Each. BAKELiTE BUTTON(i)


$554 \quad$| 10 For |
| :---: |
| $\$ 4.95$ |
| 10 For | $504 \underset{\substack{10 \text { For } \\ 54.50}}{\substack{10}}$

FEDERAL Anti-Capacity Switches
(A) Springs are phosphor bronze silverplated, actuated by a cam roller
 ${ }_{C 12851}$ D.P.D.T. $\$ \$ 1.90$

## Canopy Switch <br> cation top Very

(B) Rotary type, comp C13342-Each

## Slide Switches

Compact slide silver plated switches in cadmium plated steel housings. All rates at 125 V . AC-1)C. $13 / \mathrm{s}^{\circ} \mathrm{mtg}$.ctrs. . Term. Ea. C12483 SPDT


## CROFLEXTunersandCalibrations

Choose for size alone because flexibility of these new tuners adapts them to any normal chassis. Con denser may be clockwise or counter-clockwise and may he located in various positions relative to the tuner. Each tuner permits choice of 5 different knob locations. Stock calibrations listed below permit horizontal or vertical mounting of the tuner. All models have atrractive ${ }^{*} 3$ dimension" edgelighted glass dial scales and genuine antiqued bronze escutcheons. The smallest size has one lamp socket; the other three models furnish two sockets lubs are all $3,8 \%$. with $\%$ adapters. All supplied with horizontal double-channel calibrations, broadcast-hand 55 to 170 and short-wave 6 to 18 , with low numbers at 55 to 170 and short-wave 610 , 18 , with how numbers at
left, but the largest model, No. 2 3.4 , has a third scalle reading reverse, arbitrary 0 to 100 . Dial scales are brown background to harmonize with any cabinet.

|  | Escutcheon | Panel | Pointer | Stuck | Yo |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Model | Overall | Cutout | Travel | No. | Cos |
| (A) 231 | 214x43" | 17/8× $1^{3} 8$ | $3{ }^{15} 15^{\prime \prime}$ | C9818 | \$2.50 |
| (B) 232 | $29.6{ }^{1}{ }^{1}{ }^{16}$ | $1^{13}{ }_{6 \times 5} 5^{3} 8$ | ${ }^{11}$ | C9819 | 2.65 |
| (C) 233 | $3^{8}$ £ $x^{6} 6^{5}{ }^{\text {c }}$ | $21 / 4 \times 5^{\circ}$ | 51 | C9820 | 2.7 |
| (D) 234 | $31 / 16 \times 88^{76}$ | $2{ }^{8}{ }_{10} \times{ }^{7}{ }^{9}$ | $13 / 5$ | C9821 | 2.94 |

stock Calibrations: The glass dial scales may be re-

| AM Broadcast 8. Short- | AM Broadcast only, |
| :--- | :---: | :---: | :---: |
| For wave, double channell | single channel |

## Permeability Tuners and Dials

Conmetete assembly, includec dial, coils, knob shaft, cable slug carriate, two high () slugs, and clear plastic dial cover Tunes RF and Oscilator coils by moving the slugs in and out of the cores as the knob shaft is turned. Ilighly efficient superheterodyne circuit component, carefulty pre-tracked at the factory, ready to install and operate, Fool prox, re tains alignment. Complete with wiring diagram and instructions. L'se as the hasis for ultra-compact receivers. no tuning gang capacitor needed. Smooth dial drive; handsome gold buif and brown finished dial scale. Covers
(E) Your Cost
(F) C10450 Wour Cost
$\$ 4.05$
$\$ 2.85$

## CRO-BAND Dial

(G) Escutcheon opening measures $17 / 8 x^{1 / 4}$ with Crogla erstal and antuque bronze linsh. For use with $\frac{8}{8}$ or vise condense
$\$ 3.53$

## Slide Rule Dials

In both $1 / 4$ and $8 / 8$ " shafts. For close right or close left condensers. Panel opening required: $1^{9} 66 \times 51 / 8^{\circ}$. Universal scale for broadcast and short-wave. C9812-Counter-clockwise.C9811—Clockwise.
Either Type. ........................... 8.
$\$ 2.06$ S9817-Counter clockwise
C9816 Clockwise
Either Type
\$1.71


Midget Condensers

(J)
(J) For communications receivers and transmitters. Compact, rugged and highly efficient. Ceramic insulation, sturdy lug terninals single hole mounting feature, etc. $1 / 4^{*}$ shaft plated to resist corrosion With mounting nut. Shpg. wt. I lb.
C9728-( apacity 3.5 to 2.5 mmfl . 1 plates. Each
C9731-Capacity 6 to 80 mmf d. 11 plates. Each
C9727-Capacity 6 to 100 mmid. 1.1 plates. Each

## Midget Single Gang Condensers

(B)

With all the features and characteristics of larger units. Ideal for limited space apparatus. Rotor and stator plate's. lirmly staked into position. Low-loss bakelite insulation. Improved ball bearing
 Less trimmers. Wi. 1 lh
No. Mrifi. Each No. Mimfd. Each No. Mimfd. Each
 C10192* 0


## DEFIANCE Gang Condensers

(N) All feature aluminum plates, hall bearing rotors and low-loss insulation. Two and three gang units supplied with trimmers on the fothom. Shafts ${ }^{4}$ " dia., $1^{1}{ }^{4}$ "long. Three mounting holes tapped
 per section except cut sections on 456 Kc Super types.


## 420-160 mmfd Defiance Gang Condensers

Two gang, 420 , and 160 mmfd. condensers for use with 456 KC IF superhets. Counter-clockwise rotation, with trimmers built onto frame. Total length $2^{3}{ }^{3} \mathrm{ri}^{\circ}$. sthper wi. 1 lb .
C9775-- wo (iang. 420 and 160 mmid
$\$ 1.19$

## NEW! Gang Condensers for FM and FM-AM

Fonur new Defiance models for modern sets. Each section has a trimmer. Aluminum plates, ball-bearings, low-loss insulation, $1 / 4$ " shafts.
(L) FM-AM 5-Section: Ranges shown are in mmf. FM front section, (L) 19.1-1.4. FM center section, 18.5-1.2. FM rear section, 18.5-1.3 AM RF section, 421-31.6 AMi oscillator section, 161.6-21 C9792 Cost
$\$ 1.95$
FM-AM 4-Section: Ranges shown are in mmf. Two FFM sections, each 18.5-1.2. AM IRF section, 420 maximum. AM oscillator section, 162 maximum.
C9793-
\$1.65
(iV) FM 3-Section: Each section $14.8-1.3 \mathrm{mmf}$. Your Cost
FM 2-Section: Each section $14.8-1.3 \mathrm{mmf}$.
C9795
Your Cost
954



Drive Rubbers
Kit contains eight different types of friction drive rubbers for replacement in popular receivers including: Atwater Kent, RCA, and Stewart Warner
C9400 Kit of 24889
pieces. Your Cost

## Linen Dial Cable

All four types of dial cable of black woven linen. To be used as exact replacement in most receivers. Alt have high tensile strength for long trouble-free service. Special thin $.025^{\circ}$ dia. Standard $.031^{\circ}$ dia. Medium $.042^{\circ}$ dia. Ileavy $062^{\circ}$ dia.

(A) $J$

## DIAL BELTS

l3est quality belts that will not stretch or slip. and Give Bett No.
Cut Bolt Cut Belt Cut Belt Cut Bett Lgth. No. Lgth. No. Lgth. No. Lgth. No.
 C9909-SIECTFY BELT No. Your Cost Each

## Detrola Drive Springs

(B) Exact replacements for $1946-47 \mathrm{De}-$ inserted core Expansion spring with inserted core. Cost. 244

Dial Cable Adjuster
(C) Ilandy aid for replacing sli C15061 Your Cost

## Phosphor Bronze

## Dial Cable

(D) 16 strand closely braidseven. 42 strand consists of seven 6 strand cables over linen core.

Iogth. Strand Each Strand Each Env.* C9925 $\$ 0.24$ C9926 $\$ 0.24$ 25 ft . C9934 $\quad .76$ C9937 $\quad .55$ 100 ft C9872 $\quad 2.73 \mathrm{C9881} \quad 2.03$ *42 strand $81,3^{\prime}, 16$ strand $11,2^{\prime}$.

## (E) Rub-R-Shim

Strips of shockproof live sponge rubber. One side adhesive coated. $10 \cdot \mathrm{ft}$. rolls.
No. W.xT. Ea. 10 For



## ( Eriction Tape

 landy wh wide rolls 1"acked in individual hoxes. C14829-2 Oz. Each . 11c C14842-4 Oz. Each.. 20c C14843-8 Oz. Each...36cBlack Scotch Tape (G) for insulating or bindadhesive quality. Very flexible, easy to remove. $3 /$ a $^{\text {a }}$ wide. koll is 360 inches long. Black color. C15039

## WALSCO Thrifty Cord Rack

(H)

Contains 100 ft . each of minum base C9887-Your Cost
$\$ 5.22$

## Dial Drive Spring Assortment

## WALSCO Unibelt

(K)Replacement for any dial belt. Cut to size--join ends with simple zipper-like connector. Breaking strength over 60 lbs . 5 ft . Spoll with 10 connectors. $\$ 1$
C $9888 \rightarrow 7$ our Cost........

## Dial Cable Thrift Spool

(L) Economical and practical assortment L of dial cables. 3 section spool contains 15 ft . each of phosphor bronze cable, mediwt., 1 lb . C9879-Your Cost

91-1:

## Dial Drive Springs

(M) High grade steel wire rust-proof (M) springs. l'ive sizes take care of all re-C9890-Kit of 10 Asst.
Your Cost
C9891-Kit of 10 small sizes. 24.

## Transparent Scotch Tape

C15046-1/ Ea. 6 for
C15046-1/2"x792*, ............. . 50c $\$ 2.70$ C15047-3/4"x792"..............60c $\quad \mathbf{D i s p e n s e r s ~} \quad \mathbf{3 4}$ C15033-Plastic hand dispenser. $3 / 2^{\circ}$ tape Your Cost ...................29c C15034 Plastic hand dispenser. $/ \mathrm{m}^{\circ}$ tape Your Cost
C15035 besk dispenser. Takes both sizes Your Cost . . . . . . . .................... 11.39

## FUSES AND FUSE MOUNTINGS

Radio and Auto Fuses
(B) Type 3-AG: Rated $250 \mathrm{~V}, 114 \mathrm{x}$ or quantity price.
C13189- Specify Amperase.

"Jumbo'" Fuse Retainer
(S) Replacement for Philco and (S) Motorola radios. Complete with bushingi, springs. $2^{1 / 2}{ }^{\prime \prime}$ long by C8349
Your cost
$17{ }^{\circ}$
12 for
. \$1.84

## Extractor Fuse Posts

(1) For use with 1 instrument type for panels up 1036 " CI2328- Cost. . . . . . . . . . . 24 Your Cost............. C12326

244

LITLELFUSE Auto Fuses
(U) Type 3-AG., Ratings are at


## Bakelite Fuse Mounts

(W) Sub-Pane! Type. Molded (Uakelite. 1" 6 -35 stud. Strument fuses only C12382-Each 124 As above, but for llix $1 / 4{ }^{\circ}$ fuses
(type 3AG). C12327-Each....12c

Panel Type
Molded hakelite. $118 x^{5} 5^{\prime} \times 1 / \mathbf{l}^{\circ}$. For $1^{\prime \prime}$ instrument type fuses only. I'lated fuse clips
C12383 Your Cost...... 59 same as above, hut tor
Cuses (typre 3.1(i).
C12324.Each.

LITTELFUSES For Radio Sets and Amplifiers
(X) Type 3-AG.


Plug Fuses
(Y) For use in 110 volt house cir

C13200: G amp. C13203-20 amp C13201-10 amp. C13204-30 amp Your Cost Each

## NITE-T-LITE

(2) Soft neon glow ideal for all homs in the house, stairways, hallways. Not intended in ill mination. Provide ample fight.for rientation in the dark. Fis al standard plug-in outlets. Operates on AC or DC, up to 120 volts. Uses less than $1 / 10$ watt. Neon bulb, sealed in clear molded plastic. C12330 Your Cost.....28
$1 \rightarrow(B)$



Radio Beginners Crystal Detector Kit (A) A ready to assemble kit especially designed tor beginners in radio or involved wiring techniques are required. Fahnstock clips are provided or fastening wires to terminal points. Merely mount parts and clip wires to the points indicated by the larse full size instructions that ac company each kit. Size when assembled is $7^{7} \times 77^{-1} \times 2,2 "$ high. Shing
 C13871-Your Cost
$\$ 2.45$

## SUPERTONE Crystal Set


#### Abstract

(B) This Supertone Crystal Set is a big seller and there is plenty of yood cason for its popularity. Renomkable result have been oblaine and its scientific construction gives iold, clear, distortion free reception proof enclosure. Shpg, wt. 1 lb . C13888 $\$ 1.12$ 76

\section*{SUPERTONE Radio Kit} B) An interesting, educitional, ready-to-assemble radio $k$ it that is deal tor beginners. Includes molded bakehte base with contac sider, single headphone, and super-eensitive crystal as shown above Cumplete directions for assembly and opxration, as well as instructions for puttin $\$ 1.95$ Your Cost


## TEE-NEE RADIO

$\star$ No Batteries $\quad \star$ No Tubes No Current

(C)None of the fuss of batteries, tubes, or plugging into power lines, needs only an aerial and ground. Housed in a heaulifuly finished mahogany crackle finished steel case. Supplied complete with singte headphone with head band, but less aerial and ground wires. Size $53 / x^{x 43} \times 3^{3}$. Shpy. wt. $1^{12}$ 1bs
C13880 - Model Crystal Set 25x).
Your Cost
$\$ 3.92$

## TEE-NEE PLASTIC CASE RADIO

Beautiful mahogany colored plastic case. Just like the big sets. Ear phone sets into case when not in use. Remove the earphone from the case and bold close to the car for goxd reception. Complete with single earphone, but less aerial and ground wire. Size $4^{*} \times 2$ $\mathrm{wt} \mathrm{I}_{2} \mathrm{lb}$.C13881-Model 100 Crystal Set. Your Cost
$\$ 2.36$


Class-Enclosed Crystal DetectorDust-proof. An easily adjusted crystal unit equipped with a super-sensitive minera and a cats whisker.

## Crystal Detector

 and mtg. hardware. Completely mounted as illustrated but less crystal. Crystal, base and clip C13903plied.$12^{\text { }}$
Mounted crystal for above C13900-Each.


## Marvel Phones

( K ) lere is a new utility telephone system which provides an inexpensive method of establishing motconmmunication in homes, ofices, fattories, farms, etc, Consists of two pressed metal crade-type telephones connected by it single conductor cable ateet long. Requires wo dry cells at each phone. The set will onerate over much greater distances depending upon the number of hatteries used (not furnished). Operated by merely pushing the "push-to-buzz" button and then lifting the hand phone to listen. Complete instructions and guarantee are included with each set. Wit. 3 lbs.
C14004
Your Cost
Lots of 3, Your Cost each

## Wireless Microphone

(L) Talk through your radio with no connecting wires! Tunes in like
 intercomntunication sets between various parts of the house.
75 ft . effective range. Tunes $1(X)$ ) to $1 \sigma(x) \mathrm{KC}$ by means of knob at side, assures a clear channel. Entirely self contained with pxwer supplied by one thash light cell and a "Mininax" " 13 " battery. Extremely small drain, due to use of single $11 A$ tube. Measures $6 \frac{2}{4}$ high, $51^{4}$ "deep, $5^{\circ}$ base. Nicrophone silver-gray, base brown with protective rubber rim. With batteries and tube.
C22548-
Your Cost
\$6.63

## Model 500 Microphone

(M) Pernanent magnet ype mike equipped with 18 feet of cable. Bumet shape design .,nished in black and nickel. Has exceptional capabilitics for amplifying sound with minumum distortion and maximum idelity. Size $4 \times 3 \times 3$ inche's. Shpg. wt. 90 oz.
C13380
Your Cost
$\$ 2.21$


Phonograph Model 1000
(N) A newly engineered Carron phonograph with a mechanical repro(N) ducer. Eliminates the necessity for using radio tubes, and is of an improved type with a greater range and volume. Has a constant speed motor that operites on 110 volis, 6 ) cycles, and pays records up to $12{ }^{\circ}$ in size. The balanced tone arm kerps excessive weight off the records and permits smoother playing --bonger record lite. Incorporates a tone chamber that amplibes and rounds out the sound. Motor is enclosed in a metal case finisherl in baked enanel with a decorative decal. An ideal gift for children. Size $13 x^{9} 9 \times 3^{\prime \prime}$. Shpg. wt. 9 lbs. C 22655
Your Cost
\$7.85

## ICA 3-in-1 Radio Tuner

(O) Antenna tuner, wave trap, aerial eliminator all in this one instru(he manner of its connections to the radio set radio set. Can be installed by anyone in a few minutes. C12678


## Headphone Kit

(P) When installed, the user can enjoy choice of headphone reception only, speaker reception only, or both together. Complete out hit consists of: $18^{\circ}$ connecting cable, adapter with three-way switch and ferminal jacks on an insulated panel, special Reliance phones with 6-it cord and complete installation instructions. Shpg. wh. 3 ibs
C13944-
\$2.61

"Western Union" Telegraph Set *It Buzzes! Flashes, Clicks (A) Consists of two "WESTERN (A) UNION" telegraph signal units. Easy to connect and operate. You can learn how to send and receive telegraph code messages. Space is proteries in each case (batterics not suppitied)


## Hand Microphone

(B) A real hand microphone. Works toos not interfere with reception. l'uhh hutton switch permits reception or use of mike at will. Handsmely
linished
c13831 Your cost...... 888

3-Way Telegraph Set
(C) Ideal educational toy. Two-station set with 100 ft . connecting wire. International Morse Code engraved in
top of each set. Key with professional top of each set. Key with professional blinker, buzzer, or railroad-type clacker. Buzzer is built in. Headsets may be attached if desired. Blinker-light for line-of-sight transmission is self contained.
C14003. $\begin{array}{cc}\text { Your Cost } & \$ \mathbf{\$ 8 0} \\ \text { "MIKE' Jr. }\end{array}$

## (D)

A real radio microphone easily attached to any radio. Great for home entertainment but also has practical uses ior voice students, etc. In
brown finished metal case with attachbrown finished metal case with attach-
ment cord. 1 tas a push swith to cut out radio whenever desired. Shigg, wt.
lill
C13379 Your Cost, only
$\mathbf{5} \mathbf{9}$
 hardware for wall C14002--Per Set Your Cost Batteries for above.
$\ldots . . . . . . . . . . . . . . . .$.

## CONNECTICUT

## Duplex Telephone Set

 $\star$ For Home, Business, PlayHandsome green finished all metal phone cases with built-in bell ringers and black bakelite mouthpieces. Spharate earphone with black bakelite earpiece. Perfectly safe! Uses two ordinary No. © perfectly safe! Uses two ordinary No. 1000 feet long. Longer lines upe to 2000 ft . in length inay be run by adding nkre batteries. Ideal for house to garage, basement to upstairs, farm-house to out buildings. Complete with 160 feet of $19-$ gauge white plastic insulated copper line wire, two phone stations and necessary $35^{\text {f }}$

(D)

## MEISSNER RADIO KITS

$\star$ Ideal for Elementary Radio Training!
$\star$ Easy to Construct-Simple to Operate!
$\star$ Enjoy Building, Learning, Using!
(A) Fasy-to-build Regenerative sets designed for Radio Students. (
Two Tube AC-DC Receiver. Uses one 76 tube as a detector and one

Three Tube AC-DC Receiver. Uses one 76 tube as a detector. one
76 tube as audio, and one fif tule as rectilser. ( )jperates from any 110 76 tube as audio, and one Fi; tube as rectilser. (1perates fr
vole AC or IXC supply. Supplied less tubes and headphones C10442-
Your Cost.
Accessories

C10421-:55 to 70 Meter lpluy in Coil
C10420- 7010200 Meter l'lug-in Coil

$\$ 6.03$
..................) Each

## 6-Tube Two-Band Superhet Kit

(B) Dial calibrated to cover broadeast band of from 550 to 1600 consrol. 1band switeh, and volume fontrol with touit-ingeles Tuning conveniently krouped bencalh square illuminated dial. Unt uned stage of R1: smplification on toth hands, Peaking circuit for added sensiLivity on short wave. Fhar ciboke for hmm free operation at naximum output Has 1 "Sk 7 RF ampliter, $12 s A 7$ converter, $128 k 7$ IF am-
 pletion of the receiver. Betailed step-by-step) instructions are included to facibiate construction. to-Tube 2 -13and hit, completw with tubes C24499-Your Cost
\$24.70

## 5-Tube AC-DC Superhet

(C)

Frequency range 540 to 1600 KC . All parts necessary to complete tuninet condensers 2 doubes and speaker. Factory wound loop, 2 gang curately calibrated dial. 12SA7 mixer-oscillator, $12 \mathrm{Sk}^{2} \mathrm{IF} .12 \mathrm{~S}$ ( 7 GT
 C24498-Your Cost

## 6- and 8-Tube AC-DC Superhet Kits Long Wave-Broadcast Band-Short Wave

Highly sensitive sets with RFF stage for all bands in all models. and whe to assemble. Instructions are complete with both pictorial plated mematic dagrams. Chassis is punched, formed, and cadmium and soldering iron needed. Coils pret mairk. Only screwdriver, phers and components are standard brand name parts. All models are for AC or D.. $10,3-125$ volts.
6 -Tulse Kit, Two I3ands, $550-1600 \mathrm{kc}$ and $5.5-18.0 \mathrm{mc}$ C24451
Your Cost
\$24.75
(i-Tube Kit, Two Bands, $140-125 \mathrm{kc}$ and $550-1600 \mathrm{kc}$
C244:2
Your Cost
\$24.75
13oth 8-Tube kits below include Tone Control and push-pull output: 8-Tube Kit, Two 13ands, 550-160 ke and 5.5-18.0 me

## C24453

Your Cost
8-Tube Kit, Two Bands, $110-425 \mathrm{kc}$ and $5.5-18.0 \mathrm{mc}$. C24454 Your Cost

## 5-Tube AC-DC Kit

(E) With Plastic Cabinet. Circuit is the extremely popular fiveluhe AC-1K superhet erodyne using 12SA7, 12SK7, 12SQ7, 50L6 and $3.2 / 5$. Includes automatic volume control, true tone reproduction, Streamlined arplane dial, wide tuning that covers 550 to 1600 KC moxlern dosign in brown plastic. The lexp intenma is tuned by
The lapp intenna is tuned by one section of the tuning condenser and feeds direcily into the mixer oscallator tube, the other section tumme the owcillator coil. No padding is required because of the spechaty haped condemer blates. $1 F$ channel is 45 KC and uses two douC24456 - With cabinet and tubes Your Cost

## Electric Motor Kit and Book for Youngsters

(F) Combination motor kit and large book that every youngster will $G$ beatutifully lithouraphed brilliant colors. 32 pages of the drama, history, and principles of electricity in easy-to-understand language l'ermanent metal binding and hard covers. 33 precision-made parts and wire to assemble an electric motor that really runs. C24455 Your Cost.
$\$ 2.95$
C20622-Batteries (2 required). Each

# pOPULAR MECHANILS EEKITS 


(C)

## Beginners Crystal Set

(A) Simple design but outstand(A) ing performance. Employs a crystal detector of highest sensitivity in conjunction with a coilcondenser circuit. Shpg. wt. 7 lbs . Popular Mechanics R311. Less Baseboard.
C24503
Your Cost
$\$ 3.30$

## Radio Beginners

## Cxystal Detector Kit

(B)

Something new in crystal defor radio sets is this kit designed quired Fahnestock. No solder reed to clip wires from one point to the other. Includes all parts as well as an extra-sensitive silicon crystal detector unit. Shpg. wt. 6 lbs.
C24519-
Your Cost
$\$ 2.45$

## Beginners "Spec" <br> 1 and 2 Tube Kits

(C)These kits are extremely simple in construction and operation. 1301h employ a 105 ; ; derector tube. The two tuluer has another $1055 ; T$ audio amplifier which boosts the output on stand ard or short-wave' stations. Complete broadcast and short-wave reception. Either set may be operated from batteries or a combination of batteries and [3-battery eliminator. less tubes, carphone, luaseboard and bitteries Shpg. wt. 1-tule kit approx. 3 lbs. 2 -tube kit 4 lbs.
C24500-1-Tube Kit.
Popular Mechanics R-305.
Your
Cost................3.30
C24501-2-Tube Kit. Popular Micc. 1 -307 $\$ 7$ - 9
Your Cost.

## ELECTRONIC

## Photo-Print Timer

Accurately controlled timing enables the busy photographer to make uniform prints. This is especially important when making large numbers of duplicate prints, such as personalized holiday cards, etc. The time range is from 1 to 10 seconds and the unit will control any electric appliance or lamp that does not draw more than 250 watts. The
relay coil is in series with the plate circuit of relay coil is in series with the plate circuit of tube. After a warm-up period, the tube conducts through the relay coil and closes the relay. l'rincinle of operation is grid control of the tube by the mathematically certain time it takes for a capacitor to discharge through a resistor. The dark-room "Safelite" is on all the time except during the exposure time period. An enlarged blueprint of all layout and wiring diagratns complete in every detail is furnshed with the kit. Popular Mechanics No. R-339. Less C24518
C24518-
$\$ 7.67$

## 25 Popular Mechanics Blue Prints

## Blue

Print Popular
Stock Mech.
No. No.
C20300* R305 Beginners "Spec" l tube battery kit
C20306 1 330 K Inter-room Communicator System
C20301* R307 Beginners "Spec" 2-tube kit
C20302* R310 Four Watt AC-DC Amplilier
C20303* R311 Two Modern Crystal Receivers for
Beginners
C20304 R313 Safety Code-l'ractice Oscillator and
C20305 R317 Enor " "oceiver or Student
C20307* R323 Portable Phono and Mystery Play
R327 1)ual Phono Unit and Amplifier
C20309 R328 Desk Lamp "N "ER" for lhoys Room
C20310* R331 1igh Quality Ten watt Anlplitier
C20311 R342 1946 "Little Giant" AC-1)C Super
C20312 R335 Two Low Cost Receivers for
Experimenters
C20313* R337 Two Tulse Pockette Portable
C20314* R338 Three Tube 8 Watt Cake Jan Amplifier
C20315* R339 Electronic Photo-l'rint Timer
C20316 R341 Three Tube Short-Wave Superhet
C20321* R353 1947 Little ( Giant $\Lambda$ C-DC. Super
C20317 12354 Beginners Low Cost Progressive Receiver Set No. 1
C20318 R355 Beginners Four-Tube Progressive Receiver Set No. 2
C20319 R357 Dual l'urpose Signal Generator for set testing C20320 R358 Hi-Q 50 5-band Plone and CW Transmitter
Your Cost Each

All POPULAR MECHANICS KITS on this page are available for immediate delivery. These are especially well suited for home, classroom and demonstration purposes. Only the highest quality parts are used, thus adapting them to repeated tearing down and rebuilding as is done in training and experimental work

## Portable Phono and "Mystery" Player Kit



May be coupled directly to any radio or may be used as a wireless oscillator type phonograph. thus eliminating the necessity of wiring it to your radio. It is merely rocessary to plug into any nearby electric outlet. Oscillator consists of at biA and one type 6C6 rectilier. Shpg wt. 19 lbs. Popular Mechanics R323.
C24509-Less Tubes and Carrying Case.
Your Cost
$\$ 1 \leq 19$
 player make it an ideal amplifier for rumpus-room dancing and similar entertainment in the house or recreation center. Output is over four watts, which is more than enough for small groups. AC-1 C circuit eliminates the need for a power transformer, keeping the unit light in weight and allowing its use on alternating or direct current. Springdriven phonograph turntables carn le converted for electrical amplithcation hy the use of a crystal or magnelic pickup arm and this ampli-
 tubes, speaker, and wooden parts. Shng. wt. 8 lbs. Popular Mechanics No. R-310.
C24502
Your Cost
$\$ 8.10$

## High Quality Ten-Watt Amplifier



Wherever a good ten watt audio amplifier with negligible distortion is desired this conservatively rated unit "fills the bill." An exceptional bass reproduction method is employed which eliminates the booming unnatural tones so ofton heard in audio amplifiers. The output stage is resistance coupled with a pair of $6 \Lambda .3$ ype tubes in push-pull being used. (ircuit includes a phase inverter and a simple form of leed-back that prevents distortion and reduces hum level to an absolute minimum value. Tubes employed: (iC5, 6NT, twotiA3, 5U4G. Kit complete less 10 inch PM speaker and tubes. Shpg. wt. 24 lbs. I'opular Mechanics R331. C24512 Your Cost
\$19.95


## Two-Tube "POCKET" Portable

Operates on flashlight cells. Slips inno your coat pocke t with just enough extending out the top to
tune. Built in antenna, self-contained batteries. Very tune. Juilt in antenna, self-contained batteries. Very good volume on local stations. Covers the broadcast band with additional ranke on each side of the dial. Uses two 1St miniture tubes in a standard regen-erative-detector circuit transformer coupled to AF ponular Mechanics No. R-33\%, less tubes, batteries, headset. Shpg. wt. 5 lbs .

## C24516

Your Cost
\$5.61

## TRANSVISION Television Kits

SAVINGS - When assembled, either of the kits shown below becomes a modern television receiver worth more than twice its cost. The quality of performance has been acclaimed as superior by over 10,000 satished customers.
COMPLETE-With sight and sound high fidelity reproduction. Nothing more to buy. No technical knowledge required for assembly. No test equipment needed, instruction sheet gives all the information to complete and put either receiver on the air BEAUTIFUL CABINETS-Exclusively designed for the kits shown below. Made of selected grain wook with attractive hand rubiked walnut finish. An accessory kit is included for use in mounting the assembled tit

## Standard 12" Television Kit

 Sensational new $12^{\prime}$ television kit. Engincered for easy, rapid assembly. An outstanding television receiver for use in the home, in taverns, and schools, at a saving of hundreds of dollars, complete with all tubes, parts, wire, and solder. including magnetic deflection type $12^{\circ}$ picture tube, and specially designed folded dipole antenna with (ioft. of lead-in cable. Finest quality parts are used throughout. Complete with easy-to-follow instructions and schematics. J'icture size 75 squatre inches. (11.2 times larger than with a $10^{\prime \prime}$ tule.) K. F. Unit, 3 stages of picture IF, and 2 stages of IF coils are all factory wired, pretuned and aligned before shipment for 7 channels. All tele vision channels have band width of 4 mc . for full picture delinition. $906 \%$ volt second anode potential for brightness and contrast. High signal sensitivity only 50 microvolts required for picture circuit. 22 tubes and 17 inch jicture
## C24492

$\$ 289.00$
Deluxe Model with built-in FM Radio. Same as atxive plus continuous tuming from so to 216 vis. Covering entire $M$ gand and aminate un-

Your Cost (Less Cabinet).
Cabinet for $12^{\circ} \mathrm{kit}$. In beautiful hand-rubbed wood finish. Fully drilled, ready for installation C24494 Your Cost
$\$ 44.95$

## 7" Television Kit

It's easy, quick, anyone can do it. No knowledge of Television or Wadio required. Everything is supplied, all tubes (including picture tube), all parts, wire and solder. Complete easy to follow directions, and schematics. All intricate parts are pre-assembled. A boon to those who derive pleasure from creative activity, yet want to keep costs down-for those who want to acquire basic training in television. For experimenters, amateurs, and schools. Opens a new and intriguing field of television to servicemen and repairmen who wish to luild and sell this ecciver as a complete unit
Brilliant clear seven-inch picture tube, large sixinch speaker with heavy weight Alnico magnet. provide excellent voice and sound performance. R.F. unit aligned, wired and pretuned to 3 channels before shipment, eliminating need for costly test instruments.
Eighteen-tule set with 3.5 mc . band width picture circuit. Newly designed sweep and synchronizing circuits. 3040 volts second anode voltage. lligh signal sensitivity, only 100 microvolts required for picture circuit. Measures $17^{\circ}$ deep, 171.2 wide, $1784^{\prime \prime}$
antenna and tubes 59 lbs C2497
Your Cost
\$169.00
 net with all holes and littings drilled. In smooth rand-rubred woud lim
C24496 Your Cost

# TELEWIOION Radio Kits 

CONCORD Tested Kits for Radio TRAINING


## 5-TUBE AC-DC DEMONSTRATOR

(A) An excellent demonstration unit designed principally to sinuplify in analysis in the theory of radio circuit design and operation. circuit analir work Multiple snay connectors are used on each tube clement for signal and voltage tneatsurement: also at circuit junctions so that or signal and lonser or resistor may be opened, or where it will not each con, conde shorted out to simulate act ual conditions in defective damage the uni, weceivers. Cutcessity of wiring in parts which are actually defective.

All trimmers are casily accessible from the front of the panel for demonstration of alignment procedure.
Consists of a 5 -tube $\mathrm{AC}-\mathrm{DC}$ superheterodyne, covering a frequency range of 540 to 1600 KC , with the following tube ine-up. 12 SA , ist 2nd detector and 1st audio: 5016 beam power output; 3525 rectitier

For operation from any $110-120$ volt, AC or DC, 50-60 cycle power source. Available in kit form, with every necessary part supplied, and with four-color panel completely finished and drilled. Shpg. wt. 39 lbs.
C24530-CONCORD Demonstrator, in kit form,
less tubes.
$\$ 36.30$


One and Two Tube Kits

## Audio Amplifier Kit

(C) A high gain two-stage resistcoupled amplifer, utilizing a 6S. 17 input stage, and 6F6 output stage. Ilas sufficient gain to operate with high impedance microphones or phonograph pickups. Because of its excellent response characteristics and simplicity it is ideal for use in schools for plotting response curves and in teaching basic audio theory. F-ully shielded output transformer with $4-8-16-500$ ohm output impedances. Can be used to amplify the CIRC-IOR one tube or CRClolsk two tube kits. One CRC20 R supply will insure very good quality. Complete with input and output connections and all other necessary parts. May be used with any good PM speaker. (Not supplied.) Chassis: $5 \times 91 / 2 \times 11 / 2^{\prime \prime}$ Stupg. wt. 8 lbs. C24528-Less tubes. $\$ 7=0$
Your Cost........

## Power Supply Kits

Companion units to operate (ONCORI) kits requiring external power source. Tapped variathe voltage divider provides intermediate voltages which, with both filament and high voltages, are terminated at a standard 7 -prong socket. Three-section filter uses two heavy duty kis descriludition to their use as power source for the CONEly kits descriad. other receivers, amplifers, and small ransmitters. Complete with all C24526 :351) V. at 70 Ã and 6.3 V . at 3A. Shpg. wt. $\$ 1089$
 15 lbs. Your Cost.


## TRINDL Arc Torch

(A) Works with any 60 to 125 Anyone. AC or DC arc welder. on aluminum, brass, bronze, iron steel, etc. Complete with $71 / 2 \mathrm{ft}$. cables four $1 / \times 6^{\prime}$ carbons ${ }^{2}$ wo taper jack plugs, and simplified taper jack plugs. and simplinied
operating instructions. Shpg. wt. operating
3 lbs. C25635
Your Cost
\$6.66
Meavy duty model similar to above. For use with any I60 to 360 amp. capacity welder. With 10 ft . cables and $3 / 8 \times 6^{\circ}$ carbons. Shpg. wt. 6 lbs.
C25647-
Your Cost
\$24.25
Replacement Carbon Electrodes: 12 to the package, per package:
C25648-1/4×6
$\$ 1.47$
C25649-2/8×6" 1.76

## TRINDL Electrode Holder

Unique design allows rod to be held in conductivity bron Strong, high this holder extremely durable. Shpg. wt. 2 lbs.
C25640-150 Amps. 34 B Each
C25641-300 Amps. Each. . $\$ 4.90$


## AUDEL'S Welders' Guide

 422 pares of fundamental welding opera tions, as well as specialized technigues of hand and machine welding. I Iandy reference index gives you immediate solution to all welding problems. Size: $5 \times 65 / 8{ }^{\circ}$. C20296 Postpaid. Your Cest$\star$ Simple operation
$\star$ No Wearing Parts $\star$ Compact and

Portable
Welders for industrial maintenance work, garages, farm machinery repairs, machine shops and all other places where reljable and simple operation is necessary. Can be operated by anyone following directions supplied. Further technical data and information supplied on request.

$\star$ Positive Starting Arc<br>$\star$ Magnetic Blow<br>Eliminated<br>$\star$ Flexible Arc Control

## Model 15A

(B) Portable. Operate from any properly wired 110 volt line. (B) Welds iron, steel, brass and other metals, from 20 gauge to $1 / 0^{* t h i c k}$ on a single pass, much thicker work by repeating passes. llandies ${ }_{1}^{1 / 6}$ to ${ }^{3 / 1 / 40}$ welding rods. 9 heat stages from 20 to 60 holder, 2 welding cables, clamp, welding rods and detailed instructions. $10 \times 13 \times 10^{\circ}$. Shpg. wt. 40 lbs. C25625-For 110 Volts, 60 cycles. Your Cost. C25626-For 220 Volts, 60 cycles.
$\$ 41.65$ C25627-For 110/220 Volts, 60 cycles.
47.53

## Model 125A

(B) Similar to Model 75-A above but larger and for heavier duty. Welds metals up to ${ }^{3 / 18}$ " thick on single pass, handles $1 / 6$ to ${ }^{3 / 50}$ welding rod. Vernier-type arc control. 16 heat stages from 10 to 125 amps maximum, 110 amps continuous. Input line frequency 50 to $(0)$ cycles. $101 / 2 \times 15^{5 / 4} \times 1\left(01 / 8^{\circ}\right.$. Shpg. wt. 100 lbs. Comes complete with all accessories. C25630-For 110 Volts.
C25631-FOr 220 Volis
Elther Model Above. Your Cost
\$68.11
C25632-F'or $110 / 220$ Volts.
$\$ 77.91$

## Model 160A

(C) Ileavy duty floor model. Ideal for high-grade, high-speed production and maintenance jobs in sheet metal shops, mills and factories, and farm-equipment repair. Welds metals up to $3 / 8$ thick on single pass, handles ${ }^{3} / 1010^{3} / 6^{\circ}$ welding rod. Vernier-type panel control, 36 heat stages from 20 to 160 amps continuous. ISeautiful red crackle-finish welded steel cabinet, modern sloping control panel, and easy-rolling casters. Cumes complete with all accescorier, $24 \times 14 \times 141$ " Shpg wi 1701 bs cock
coszz
Vour
Vost C25628-Your Cost
C25629-For 110/220 Volts, 50/60 cycles.
. $\$ 156.31$

## Welding Gauntlet

Preferred by welders because of their low cost, light weight, softness and flexibility. Highest quality specially tanned horsehide suede with four-inch gauntlet. Thumb and forefingers are reinforced to give durability and added life.
C25642
Your Cost, Per Pair
$\$ 2.20$

## TRINDL SPEEDWELD Mild Steel Welding Rods

A high grade, deep penetrating, mild steel general purpose shielded arc welding electrode. For use with AC transiormer-type machines


| $\begin{aligned} & \text { Stock No. } \\ & \text { C25650 } \end{aligned}$ |  | Min. Amps. $20$ | Max. Amps. 40 | our Cost |
| :---: | :---: | :---: | :---: | :---: |
| C25651 | 569 $9^{\circ}$ | 20 | 60 | 2.19 |
| C25636 | 3/2x12* | 30 | 80 | 1.22 |

## KATO Gas-Electric Plants

Filtered, shielded, compact and lightweight as the best engineering can provide consistent with rugged durability and power output. Both models illustrated provide 115 volts bo cycles AC at the rated wattages for continuous duty, and the first model shown also provides
150 watts at 6 volts $D C$ for charging hatteries. 1 loth use air-cooled gasoline engines for simple operation with minimum maintenance.

(D) Portable units. 500 watt unit has 1 unit has $I .4$ h.p. single-cylinder engine. Will run 6 to 616 hours on 1 gallon of gatsoline. loth units have start and stop push buttons, with cutout. IDC anmeter, charging control resistor, and battery cables. One 6 -volt storage battery C19819 or starting (not supplied). Watts, weighs 1701 bs $\$ 135$
Your Cost.......

C19820-Model No. 14HAB4, 600 watts, weighs 220 Its................ $\$ 8$
(C) Heavy duty unit. 1000 watts continuous duty output. Single-cylinder, 4 -cycle, 2.4 h.p. engine. Runs $4 \frac{1}{2}$ hours on 1 gallon of gasoline. Manual starting. Weighs 265 lbs. Shpg. wt. 2931 les.
C19821-Model 261HAB4.
Your cost.......9257,25
or on straight polarity with $D C$ welders. Light tan flux coating. Furnished in 5 -ib. packages, at package costs as below.

| Stock No. | Size | Min. Amps. | Max. Amps. | Your Cost |
| :---: | :---: | :---: | :---: | :---: |
| C25637 | 1/8×14' | 70 | 120 | \$0.86 |
| C25638 | $50 \times 1{ }^{*}$ | 120 | 200 | . 76 |
| C25639 | 3 3/614* | 150 | 280 | 73 |

## CARTER Genemotors and Super-Converters


(F) Genemotor, standmplitiers, small craft iransmitters. smal vessels. Low ripple, effi cient, dependable. AIt ratings for continuous duty except numbers marked (*) are Int. All less filter and relay Ai

inputs are 6 volts DC except C17208 which is 5.5 volts DC
Stock Input Output Your Stock Input Output Your No. Amps. VoltsmA Cost No. Ainps. VoltsmA Cost $11 / 2^{\prime \prime}$ Ir rame. Size $59.66^{2} 41 / 8 \times 31 / 2^{\circ}$. Weight 7 lbs .
$\begin{array}{llllllllll}C 17200 & 7.9 & 250 & 100 & \$ 32.24 & C 17201 & 10.9 & 350 & 100 & \$ 33.61\end{array}$ $2^{\prime}$ Frame. Size $61 / 8 \times 41 / 8 \times 31 / 2^{\circ}$. Weight 8 lbs. $\begin{array}{llllllllll}C 17202 & 14 & 350 & 150 & 35.67 & C 17203 & 18.2 & 400 & 150 & 37.04\end{array}$ $3^{\circ}$ Frame. Size $71 / 8 \times 41 / 8 \times 31 / 2$. Weight 10 lbs. $\begin{array}{lllllllll}\text { C17208 } & 25 & 400 & 200 & \$ 41.16 & \text { C17206* } & 27.4 & 500 & 200 \\ 40.47\end{array}$ $\begin{array}{llllllllll}\text { C17204 } & 23.4 & 400 & 200 & 39.44 & \text { C17209* } & 32 & 600 & 200 & 44.25\end{array}$ $\begin{array}{llllllllll}\text { C17205* } 27.4 & 400 & 250 & 37.73 & \text { C17213* } & 39 & 600 & 250 & 46.51\end{array}$
(G) Super Converter, change 115 Volt DC to 115 Volt, 60 cy . AC. for non-inductive loads. Minimum load P.F. $85 \%$. All models here are for continuous duty. 13 lb . frame is $81 / 4 \times 41 / 2 \times 48 /{ }^{6} .19 \mathrm{lb}$. frame is $101 / 4 \mathrm{x}$ $4 \frac{1}{2} \times 48 /{ }^{\prime \prime}$.
C17214-13 lb., 100 watts. $\$ 41.16$ C17216-19 Ib., 200 watts. $\$ 50.76$ C17215-13 lb., 150 watts. $44.59 \quad$ C17218- $19 \mathrm{lb} ., 250$ watts. 54.19


DETECT-O-RAY Electric Eye
Use for Remote Controls, Automatic Counters, Sorters, Electric Door Openers, Burglar, Fire, Smoke Alarms, Machine Safety Devices
(A) Projects a light beam which is reflected by a small external mirror A fo the photo cell in the unit. Any object breaking either beany instantly activates an alarm, bell. camera, safety device. or sets imto action any other unit you wish to pertormwork hutomaticisy. Hencevides perfect hurglar and lite protection for homes, stores, olfices, or factories. Many industrial applicittions such as satety devices on
machines, as sorters, conveyor controls. electric door openers or automatic counters.
Effective range is about 60 ft . on the White beam; about 35 feet on the "Unseen" bearn. Selection of beams by switch on front panel. Sensilivity dial regulates units reaction to purpose and conditions. Signal selector for choice bel ween Continuous Action from one break in beam until shut off-or Single Action with each break.
Simpte to install. Plugs into 110 V AC light socket. Housed in attractive black wrinkle finished steel case. $5^{\prime \prime}$ high, $6_{4}{ }^{\prime \prime}$ wide, $7^{*}$ deep. Shpg. wit. 7 lbs.
C15725-Complete with oulside nirror
Your Cost
$\$ 27.78$

# Photo EElectric EQUIPMENT 

## DETECT-O-RAY Power Relay

(B)
Model I-205 Power Relay carries 1000 watts, at 110 V AC. Require no extra wiring to be used for controlling most motors, machinery. tiloodlights and other devices. Input plugs into 110 V AC socket. rutput connects to device you wish to control.

## Cetron Phototubes

C. The finest phot Type CE-23-C-Gas 160 microamps average sensitivity per lumen.
C10580 Your Coste.

Type CE-1-D-Gas

100 microamps average sensitivity per lumen.

## Selenium Photo-Cell

## These cells are of the barrier layer, self-generating type. Light

 striking upon cell generates current sufficient to operate relays directly without the use of auxiliary power. The lifetime of the cell is urlimited for practical purposis. leeliuers 6 fio microamperes output at 100 foot candles, $2^{\prime \prime}$ diameter, mounted in plastic housing. C10576 Cost

## WORNER Fotoelectric Announcer



## Model 301 Mirror

Can be used in connection with any model alarm. Function is to reflect the beam around olsitructions, and to criss cross the area to be


## WORNER Burglar Alarm System

(B) Ticht wurce projects beam of invisible infra-red lisht to condensing lens of receiver. Inserruption of beam or disconnection of power to the unit operates a relay which may be connected to any audible or visible alarm device. Alarm is continuous and can only be silenced by the possessor of key to pick-proof switch lock on the receiver. Mirrors may be used to project the light beam around a room to protect several entrances simultancously. Can be operated with light beam lengths of Cissso-M Mdel 5 tion syscem. Your cost
$\$ 55.12$


## WORNER Industrial Photo-electric Set

(C)
A two-unit system for use in counting, grading, sorting and speed contron in conveyor belt set-ups, to operate automatic doors, and as salety device on heavy machinery. Relay in receiver unit operates up to swo times per minute. Receiver includes light cell. a mphtiter senst affected by daylight or artificial light. Light source contains low-watt-
 beam up to 50 feet. Less counter C15655 Your Cost
$\$ 51.45$

(E)

(C)

## Photo Electric Eye Amplifier Kit

(D) Burlar alarm, door announcing. counting and sorting are just a few of the many applications of the photo electric eye amplilier. Operates with any light source, $K$ it contains all necessary parts and complete
instruct ions. including $512 \times 4 \sum^{2} \times 2^{1} 2^{*}$ case. Operates on 115 volts, AC ${ }^{\circ} \mathrm{C} 15 \mathrm{C}$ Your Cost
$\$ 9.75$

## Photo Electric Light Source Kit

Derendahle light source for alove amplifier kit. Projects a beam of (C) light 25 feet. Rit includes light bulb, socket and all necessary parts including case. Operates on 115 volts, $A C$ or DC. C15673Your Cost.
$\$ 5.83$

## TORK Freezalarm

(-)Gives warning of electrical or mechanical fallure of deep freeze refor 18 to 20 lis. rovides a single-stroke alarm hell every tew seconds fully wound buts. Alarm uses spring-driven mechanism, that is al ways failure alarm gocs off. For 110 -volt AC
C15605-Your Cost
$\$ 24,50$

## TORK Electric Time Switches

(C) Self-starting, for automatic control of solenoid valves, signs, shipping weight 8 lhs. Model 19113 fas $21 \%$-minute ratchet dial. Capacity 20 amıs., 2000 watts. For general use. Single-pole on-off switch. C15600
Your Cost
$\$ 9.10$
Model 962B


## Model 5191BP Poultry House Lighting Timer

Dimmer circuit 800) watts

$\$ 12.95$

Personal Model similar to Model 1918 but in portable case, fitted cord and plug and a clock controlled receptacle. Automatic control at $15-\mathrm{min}$. Interva!s of fans, heaters. bedside radios. Minimum setting of 45 minutes between on and off positions. Capacity 660 watts. C15603
$\$ 8.40$
Your Cost
$\$ 9.45$

Bakelite Knobs Molded and polished walnut bakelite knobs for $1 / 4^{\circ}$ shafts. All are set screw type except those marked with * which are brown push-button knobs; $\dagger$ is knurled
 No.

| ${ }^{\text {No }}$ Cis55 |  |  |  | 72 c |
| :---: | :---: | :---: | :---: | :---: |
| C9693 | ${ }_{\text {B }}^{\text {B }}$ + | \% | 8 c 4 c | $72 c$ 33 c |
| C.9736 | D | \% | 5 |  |
| 737 | D |  | ${ }_{5 c}^{6 c}$ | 44. |
| C969 | $\stackrel{\text { E }}{\text { c }}$ |  | 5 | 4c |
| C9695 | G** |  | 3 c | 27 c |
| C9661 | $\xrightarrow{H *}$ | 310, | 4 c | 33 |
| ${ }_{\text {C9696 }}$ | 11* |  |  |  |
| C9660 | I |  | 7 |  |

Pointer and Lever Knobs Polished Black hakelite. All have filled pointers except "M1" (has ridged ton). For $1 / 4$ shafts.
 C13027 2.

 C9651 $2^{1 / 10^{\circ}}{ }^{\circ}{ }^{\circ}$ (M) 10 c 90 C


## WALSCO Flock

## Spray Outfit

Complete. With instructions. Beginners turn out professional vel-vet-like flock jobs. Contains spray gun, ivory and brown felt llock undercoats to match, thinner brush. Shpg. wt. 3 lis

## C15489. <br> Your Cost Spray gun only fío \$6.76 C15490-Walsco $\$ 2.32$

 Extra containers of felt fluck, $31 / 4$ oz. each (1 oz. covers ft .), in bright colors C15491-470, Brown C15492-4471, I vory C15494-4475, Creen Extra hali-pint cans of undercoat acts as color base and adhesive $1 / 2$ pint covers about 10 square ft on non-porous surfaces C15495--4480, 1hrown C15496-481, Ivory. C15498-4485, Green.) Extra half-pint can of thinner Use to clean brish and undercoat if necessary 64 $C 1549$(E)

(4) WALSCOPlastic Cement (A) Cements plastics, metal, woxd, glass, etc. Dries fast. resisting. Especially made to pair broken plast ic cabinet knobs, grid caps, etc. Brush attached to cup. Walsco No. 42, 2 -oz. bottle. C15321 Your Cost
$32^{\text {¢ }}$

## KROMALL

(B) KROMALL gives that aral provides a finish that can hardly be dist inguished from metal. Shows no brush marks or lape, flows to a beautiful cliromelike linisl, $20-\mathrm{min}$. set, 4 -hr. drying.
C15305-~ 4-oz. bottle. ...... 23c C15306 16-oz, brotle.....60c
(C) (D)

## "WALSCOLUB B"

## Lubricant



New chemical that eliminates noise on bandswithes, con rols, and other air-exposed contacts. Superior C15378-Your Cost
$29^{c}$

## DUCO Cement

(D) Excellent for repaiting speak-


## WALSCO Contact Cleaning Fluid

(E)
lensered springs, volume conrols, band switches, etc. l'revents uture cor rosion of conta brush.
C15377

Each
$24^{9}$


## GENERAL CEMENT SERVICING NEEDS

## Radio Chemical Kit

(A) A complete kit of 8 chemical
ftte maket case. A handy kit for servicemen. Consists of the for lowing recessities: Service Ce ment, Rubber Drive Cement, Carhon N. Grafoline, Scratch ${ }^{1}$ olish. Non-Sip Compound. Dial Gill, ind Contact Cleaner. An of each container to make it easy C15529
Your Cost
\$1.62

## Coil Dope Kit

(B) 1
its power factor loss is neg. ligible even if used for high frequency work. Will render articles tmoisture proxf. May also be used for cemeuting parts made of polystyrene. Kit contains 2 -oz, boltle of coil dope, loz. bottle of spocial thinner and two brushes. Shy
wt. 1 品. c15313-Your Cost...

## ©ir Drying Finishes

Dow you can get professional cryctal, wrinkle or smuoth with these new ait dry ing finishes. Sim ply apmy and let it dry for dubake on melal or wood. In 2 -oz. Wrinkle Lacquer (Crystal)
$\mathrm{N}_{\mathrm{o}}^{2 \mathrm{Oz}}$ Each Color $\mathrm{No}^{8 \mathrm{Oz}}$ Ea. C15259 26c Black C15309 88c C15319 2Gc Gray C1538788c C15320 26 c 13rown C15388 88 c C15380 26c Ked C15389 88C Wrinkle (Varnish) Finish C15381 26c 13lack C15390 73 C C15382 26c Recl C15391 73c C15383 26c Gray C15392 73c
Telephone (Smooth) Finish C15334 21c 13lack C15393 62 C C15385 21c Gray C1539462c Thinner for Above Finishes

## Felt-Koat

## "Flock Finish Kit"

(E) Complete Flock Finish Kit Cor applying soft felt-like flick to phono turntables, cabinets. testers, panels, displays, tool chesis. compartments, lamp hascs, wire mesh on speakers, and microphone grills, etc. Produces heary soft velvet-like coat that prevents scratching. Easy to apply. DeLuxe Kit containing Brown flock, special applicator,


## Color Coding Enamel

(F) For color coding coils, teryellow and a bottle of the, red Two brushes are included. Hlave your own system of color coding.


## Your cost

## CARBON-X-For Noisy Carbon Controls

## ©

C. up actical methoct to touch carbon controls. Just apply Car-bon- X over the had spots. Ideal for servicemen. Also an electrical conductor

## C15531-1-oz. hottle

C15532-2-oz. hottle

## LUBE-REX

(G) A contact cleaner that is bulton switches act clers, push button switches, cltc. Cleans conMoisture repellent rut peven. Moisture repellent, rust preventing and clings to nuetal. Excellent for Phitco Mystery controls.
C15533-2-oz.
1.32

## GRAFOLINE

Made for noisy controls Switches and wire wound controls. Eliminates noises.C15536-Pint

## MUELLER Clips and Plastic Insulators



Spring actuated cljps for lah., test and battery uses. Type 27 and 270 are laboratory types with mesh teeth on three sides. others have teeth in front only. New Plastic insulators cover entire clip as shown. Listing below shows insulators opposite proper size clip. All packed 10 to a box; clips are marked + and - (5 each), insulators 5 red and 5 black

| CLIPS |  |  |  |  | ORS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Size | Each | 10 For | No. | Type | Each | 0 For |
| C16029* | 45 | 136 | 5 c | \$0.36 | C16031 | 47 | 9 c | \$0.59 |
| C16030 $\dagger$ | 4.5 C | 11/2 | 6 c | . 54 | C16031 | 47 | 9 c | . 59 |
| C16032* | 4813 | 2 | 5 c | . 39 | C16033 | 49 | 9 c | . 59 |
| C16034* | 24 A | 3 | 10c | . 78 | C16035 | 26 | 19 c | 1.27 |
| C16026* | 27 | 216 | 8 c | . 68 | C16028 | 29 | 12c | . 82 |
| C16027 $\dagger$ | 27C | 21/9' | 13 c | 1.17 | C16028 | 29 | 12c | . 82 |
| C16018 $\dagger$ | 21A | 4 | 13c | 1.17 | C16019 | 23 | 32c | 2.25 |

No. 85T Mueller Crocodile Tip Clip


## MUELLER Wee-Pee-Wee Clip

Non-Ferrous R.F. Clip. Will not heat in
high frewuency circuits. 1deal for tapping
coils. Ierugth $11{ }^{15}$. Completely insulated with Red or Black jachet (specify color desired. No. 88-93)
c16022

| Your $\mathbf{C}$ |
| :--- |
| 10 For |

```
ost Each.

\section*{FAHNESTOCK Clips}


Fahnestock clips used where connections must be made and broken a great deal. No tools required to make connection. (irijs wire kith right pressure for good electrical contact without injury to wire. All are nickel-plated brass except \(\dagger\) which are nickel-plated bronze. All are \(\%\) wide except* which are
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stock & Fig. & Leth. & Max. Wire & Mtg. Ifole & 10 For & 1000 For \\
\hline C14824 & 13 & & No. 10 & No. 8 & 8 c & \$ 6.40 \\
\hline C14828 & C &  & No. 10 & No. 8 & 14c & 9.40 \\
\hline C14826 & A & 18\% & No. 10 & No. 8 & 36 c & 29.00 \\
\hline C14823* & 13 & \% & No. 14 & No. 6 & 7 c & 5.60 \\
\hline C14825* & A & 11/2* & No. 14 & No. 6 & 30 c & 24.80 \\
\hline C14820 \(\dagger\) & D & \(15 / 8\) & No. 10 & Copper lug & 44 c & 34.20 \\
\hline C14821 & E & \(8 / 4\) & No. 12 & No. 6-32 & 13 c & 8.50 \\
\hline
\end{tabular}


Angle Brackets With Tapped Holes Heavy gause steel. One 8/囱 tapped hole, one stí2 plain


Contains 100 most popular solder terminals. For all servicing and set building requirements. in tancarent container C14790
Your Cost

\section*{Battery Clips}


\section*{C16060- is is long}

C16061-2 long.
\begin{tabular}{|c|c|}
\hline Either type- & \\
\hline Each & \\
\hline 10 for & 25c \\
\hline C16062 - \(21 / 2{ }^{\text {c }}\) long. & \\
\hline Each. & \\
\hline 10 For & 2 c \\
\hline c16063-37/8 \({ }^{\prime \prime}\) long. & \\
\hline Each & \\
\hline 10 For. & \\
\hline
\end{tabular}

\section*{Threaded Rods}

Brass threaded rud for making your own long screws. Easily cut to any length. In 12 leneths. C14913-6-32 size. Ver 1.gih 18c C14914-8-32 size. Jer Ligh 18c C14918-10-32 size. Jer Leth. 24 c

Rivet-Eyelet Punch Set

llardened steel tonls. Cast iron holder. Ilex sides to grip in vise. With rivets and eye ets.

Your \$2.35
Rivet-Eyelet Assortment C15066-100 assorted rivets and عyelets.

474

\section*{CLIPS TUBE SHIELDS}


\section*{Jacket} Type Tube
Shields
Will form-fit all
slass tubes
isodies consisi
of two halves
snugly held to the tulse by a spring ring Sup-
plied complete with ground clip to be held by socket mounting bolt against shield
C13258-F or ST' 1.4 tubes with or without cap such as \(24 \mathrm{~A}, 01 \mathrm{~A}\),

C13262-F \({ }^{\text {or }}\) ST-12 tubes without caps such as \(27.56,11,1114 \mathrm{G}\). ST-12 tume with Any Type Above, Each. \(\boldsymbol{T}\) \begin{tabular}{l} 
Any \\
10 For \(\ldots 59 \mathrm{c}\) \\
\hline
\end{tabular}


\section*{Bantam} Tube Shields pesigned enpecially on the new 1.5 volt tubes or ot her "T' 9 " bulbs. Available grid cap, as described beluw.
C13259-Mlain shield, without Catp. here-piece grounds atoto Your Cost Each ...24c

C13260 Same as abrve, but uith short cap and ground clip. Fithes without Type A. 10 For ...38c \(\boldsymbol{Y}\), \(1 / 2 \boldsymbol{4}\) C13261-Type E. With grid-lead cap find ground clip.
Your Cost Each
\(51 / 2^{4}\)
Split Lock Washers C14791-For No. 1 screws C14793 Your Cost For 257


\section*{}

Hole Plugs
Oasst. sizes snap cellophane enrecope. Handy for mugging up holes in panels, chassis, \(\mathbf{~ Y o u r ~ C o s t ~}\)
Per 10 Asst.
\(\mathbf{2 4}\)

\section*{Snap Fastener Battery} Terminals
\(\qquad\) Same as used for Ever-
ready types 430 . 435. 455,167 ; Hurgess type teries.


C11732-Set of 2 (1 male, 1 female). 10 sets for 25 c Your Cost

\section*{Metal \& Glass Tube Cap} Fits either type. With
11 lead and pin-tip. In red or black. Specify color wit
Your Cost Ea. S 5


\section*{Mounting Lugs}

Of heavy plated steel. 1 tole in flat end for C14955\(C 14955\)
Per 10. Your Cost Per 100.

\section*{"Form-Fit" Shields}


Smooth, seam less drawn walls
assure a snug, assure a snug,
positive fit on the tube. Vertical grooves provide flexible fit
 automatically grounds to the tube base on metal based tulyes. For GT tubes: \(1.218^{\circ}\) base. C13256-()pen top.
C13257-Closed top
For GT/ G tubes: \(1.165^{\circ}\) base C13246- ( open top. C13247-Closed top
For Loktal Tubes:
C13247-Closed top.
Each, Any Type Above. 34
\(24 c\)

\section*{Metal Tube Cap Shields}

For use with screen rid metal tubes. Bakeshorting.
C13216.
Your Cost Ea.. 10 for
....... \(\$ 1.35\) Regular type without insert C132176

\section*{Bumper Feet}

Of felt, with No. 6 P-Kscrew for
mounting. Felt is permanentey
clamped in place by metal ring \(3^{\prime \prime}\) in diam. C14757


Steel Screws \& Washer:

C?\(10 / 32\) oval head screws. The cup
washer, also
\(10 / 32\) is de-
head to match the screw head in appearance.
\begin{tabular}{|c|c|c|}
\hline Stock No. & Length & 12 \\
\hline 14775 & & \\
\hline C14776 & & 8 c \\
\hline 14777-- & washer & \\
\hline our Cos & 12 & \\
\hline
\end{tabular}

JOFNSON Tube Clamp
Holds tule securely to with-


Cable Clamps
leavy gauge steel, No. 6 mtg, hole. I'lated. 4 For C14952-1/2 cable. 3 For


Wing Nuts
Sturdy, well made. Have
numerous uses.
\begin{tabular}{|c|c|c|}
\hline Stock No. & Thread & Per 10 \\
\hline C12926 & 6-32 & \\
\hline C12927 & 8-32 & \\
\hline C12928 & 10-32 & \\
\hline C12929 & 1/4-20 & \\
\hline Per 100) & rted) & \\
\hline
\end{tabular}


Plain Banana Jacks and Plugs
(A) Plug is \(11 / 6^{\circ}\) long. Jack is \(5 / 8^{\circ}\) els up. \(10 ~ 2 / 8{ }^{\circ}\) "thick. 7 C C12919-PIug. Each ..... 7 \& 10 For. . . . 60c 100 For. c12923-Jack. 10 For

\section*{Insulated Bamana \\ Jacks and Plugs}
(B) Plug has set screw for solderless wire connection. Jack fits \(1 /\) inck \(^{\text {b }}\) Rele and panels up to \(3 / 8^{\prime \prime}\) thick. Red or black insulation on both. Specify color desired. \(\begin{array}{lll}\text { B12915-Plug } & 10 \text { For } & 100 \text { For } \\ \text { 120ch }\end{array}\) \begin{tabular}{lll} 
Each..... 12c & \(\$ 1.08\) & \(\$ 9.70\) \\
C12916-Jack & 10 For & \\
\hline
\end{tabular}


Beryllium Banana Plugs (C) Signal Corps approved. Used ment. Made of Beryllium copper. Rivet shank of plug can be turned over without splitting. Shank \(1 / 4\) " long. 1/8 diam. Overall size
C13183-Your Cost Each. 9 \& C13184-Overall size \(11 / 8^{\prime}\) same but with \(6-32\) threaded stud \({ }^{3 / 6}\) f
long.
Your Cost Each.......


Right Angle Tip Plugs Streamlined plugs with set screw for solderless connections C12937-(A) Specify red or black. Your Cost Each. C12984-(13) Red. C12985-(B) Black

\section*{Solderless Insulated Phone Tip Plugs}

(C)Solderless type: fit ill standleads. In red or black; specify color.
C12973-2' long. c12974-11/2 long.

10 Per Ten, Either Type.
Standard Phone Tips

(D)long C14881
Per 100

12
Plain Solderless

\section*{Phone Tip Plugs}
(C) All metal tip plug for tip jack \(1^{5 / 1}\) use. Solderless connection. C12943-10 for 54c
Your Cost Each
As above but \(11 /{ }^{\circ}\) long.
Your Cost Eath
114


Split Type Banana Plug
(D) Insulated. Fit standard barel for solderless connection Positive spring action Plug 1 " long overall \(1^{7}{ }^{\prime \prime}\). Red or black; specify. c12902.........................
Each 10 For . \(\$ 1.07\)

\section*{Alligator Clips}
(E) Powerful grip. \(2^{\circ}\) clip is \({ }^{\circ} 1^{\prime \prime}\) steel non-rusting linish. 10 For No. Length Each 10 For
 *End takes banana plug
Copper-with bronze spring. For K1/ work. Has set screw \(2^{\circ}\) long. C12947-
Your Cost
74
For
Insulated Alligator Clips (F) Plited metal grips with insunana plugs. Handles in red or black; specify. Steel non-rusting linish. 10 For No. Length Each 7 c N 63 c C12909 \(\quad 3^{11,0} \quad 15 \mathrm{c} \quad \$ 1.35\) C12949* 214 100


Heavy Duty Phone Tip (F) Iligh quality heavy brass eads-prods, etc. 11, " long over lear.
C14822 10 for

84

\section*{Phono Needle Plug}
(G) Constructed so that the innana plug. and the prod it self will make positive contact with the banana plug. Tip holds phono needle (needles easily replaceable). Overall length C12917Each 124

Phone Tip and Lug Adapters for Prods
(H) Handy for use with any baA) nana plug, or test prod fitted with a banana plug end. Fits cither tip jacks or binding posts. Red or Black-Specify color. C12913-1 \({ }^{\prime}\) hone tipend. C12914--Spade lug end. Each, Either Typend. 1 个 10 For

(A)

\section*{EBY Binding Posts} Non-Removable Tops
(A) Specially designed for use on for wire or phone tip C13082-Junior l'ost. Has 6-32 Your Cost Each ..... TC C13083-Ensign 1\%ost. Has 6-32 stud, 3/4 long.
Your cost Each......36
ci3084 Conimander Post. Has Post. Has 8-32 stud, \(7 / 8{ }^{\circ}\) long. \(29 \boldsymbol{4}\)

\section*{EBY Twin Post Units} Two posts molded into a Bakelite C13062_Your cost 424 As above. but with three posts.

\section*{Insulated Posts}
(B)

Red or black composition color. 10 for 99c.

\section*{C13163.}


Tip Jacks
(A) Mounted on 3/8. Hakelite. (A) Contact springs grip cord tips securcly.
C13037-Double jack. Ea.. 9 个 10 For C13036 Triple ack. 144 Your Cost Each 51.26

\section*{Plain Tip Jacks}
(B) For test equipment. Powerful C12918 sping. \(1 /{ }^{\prime \prime}\) mounting hole C12918 Your Cost Each \(6^{4}\)

\section*{All Insulated Tip Jack}

head. Bronze spring. Fils is Each c12934-Red 94 C12 For 80 c

\section*{Insulated Tip Jacis}
(D) Have new type springs which (D) provide sure grip contact Mounts in \({ }^{3}\), hole. in red or
black. Specify color. C12879-Each

96 10 For 80c

\section*{Molded Bakelite \\ Insulated Tip Jacks}
(E) Large diameter molded Bake Phosphor hronze springs tips. Phosphor bronze springs. With insulating washer
C12877-Red \(\begin{array}{r}\text { Each } \\ \text { EFor }\end{array}\) C12878-Hilack 112 Fr \(^{101.08}\)

\section*{Combination Jack}
(F) New type. takes both phono insulated, with insulated washer. In red or black. Specify color desired.
desired.
Your Cost Each. . . . . . 1 1
10 For.

(D)

\section*{Spring Clamp Binding Posts}

C Insulated top. Spring clamp C13046
Your Cost Each
74 10 For

Binding Post With

\section*{Banana Jack Top}
(D) Hole in top takes hanana plug. Hole in stem for wire In red or black. Specify color when ordering.
C12945
Your Cost Each . . . . . . . 15 Y 10 for \(\$ 1.35\)

\section*{Spring Clamp Binding \\ Post Assembly}
(C) Mounted on Bakelite strip 2" long, "11/" wide. Centers 0 for 51.44
C13049
Your Cost Each . 10


UHE Tip Jack
G Takes standard phone tips. but coniact may be removed and the body used as an Ulil thru-panel bushing as well Mounts in š" dia. hole Retainer ring included.
C12767
Your Cost Each
\(18^{\text {¢ }}\)

\section*{AMPHENOL Phone}

\section*{Tip Jacks}

\(\oplus\)Bakelite body. Takes standard plain or solderless phone tips. Mounts securely by means of snap ring. kecuires color desired.
Amphenol type 78-1P.
C12765-
Elach.
\(5^{c}\)

\section*{High Voltage Jack}

13000 V. Tip Jack. As above but 16 diam. For \(x\) mitters, etc. Red or Black. Specify color. Type 78-1191.
C12766.
Your Cost Each
\(7{ }^{\text { }}\)
Alligator Phone Tip Jack
(J) Alligator clip fitted with test prods equipped with phone tip ends. Red or black-specify color.
C12880.
Your
10 For
25

\section*{Phono Tip Plug and Jack}
(K) Single prong shielded plug used extensively for mike or phono pickup and other connections. The phono jack mounts in rear of panel through \({ }^{3} \mathrm{~B}^{\circ}\) hole and is \({ }^{11} 110^{\circ}\) between centers. D4
C11774-Jack, Each..


\section*{Single Contact Mike Connectors}

Pressure type compact connectors for use with single conductor microphone cable-utilize hell for second contact. Contact is made when center soldered connections are pressed together by tightening coupling ring. Plated metal shells. Insulation is special tissuc base laminated bakelite. Cable shield easily grounded through shell by soldering to cable protector. Accommodate cables up to \(1 /{ }^{\prime \prime}\) in diameter Type MC1F-Female cord con-
nector. (A).
C13359 Each. . . . . . Type PC1M-Male chassis connector. Same as MC1M, but for chassis mtg. (C).
C13361-Esch.
\(19^{\text {¢ }}\)
Type MC1F-A-Right angle female cord connector with spring cord protector. Use with PClM. SP-PCIM or CL-PC1M.
C13277-(E)-Each.... 394

\section*{Shielded Locking Type Microphone Connectors \\ }

\section*{(PMy}

MC serles. With polarized shells. Can be used on 5/8"-27 stands. Locking ring on male, and cable clamps on both, with spring cord protector. Interchangeable bake-
3-Contact Connectors
 C13396-Female chassis type (C). For \({ }^{18}\) hole. 4-Contact Connectors
 C13499-Fenale (B) C13397-Female chassis type (C)
For \({ }^{18}\) " hole.
Your Cost Each...... 5 ?

Pin Connectors Metal shells are heavily plated Bakelite elements. Screw type coupling rings. Shells may be utilized for second conductor. For cable up to \(11^{\prime}\) dia.

\section*{Single-Conductor}
 C13288-Female chassis connec tor. Mounts in a single \(8 / 8^{\circ}\) hole (C).

Your Cost Each
\(26^{4}\)
C12574-Female chassis connector with riveting plate. Single \(8 / 8\) hole mtg. (D).

\section*{Two-Conductor}

As above, but for 2 -conductor
 C13290-Male tor. Mounts in a single s. hole. \begin{tabular}{l} 
tor. Mounts in a single \\
Your Cost \\
Each................\(~\) \\
\hline
\end{tabular} 5-Female chassis connec C12575-Female chassis connechole mtp.
Your Cost Each
\(35^{\text {c }}\)

\section*{ICA Shielded 3 Way Microphone Plug}
nector. (B). Mate cord con-
C13360-Each..........
Type SP-PC1M-Same as PC1M but with center contact floatins on a heavy coil spring. (D). 2 ©
Type CL-PC1M-Closed circuit chassis connector. Closes circuit automatically when mike is disconnected. (D)

254

\section*{Popular Phone Plugs}
 For 1 or 2 phone or cords. Molded bakelite shell. \(23_{4}^{\text {er }}\) cords. C14974. Screw connections. C14971-Red. Each. . 27 ( 10 For

\section*{Metal Shell Type}

Same with nickeled brass shell 3348,010 For \(\$ 4.41\)
C14970-Each.

\section*{"Stubby" Metal Shell}

As above but with short metal shell. \(21 / 4\) overall. 10 For \(\$ 3.75\). C14959-............... 4

Midget Bakelite Plug Bakelite she \(11.21 / 4\) " overall \(x^{2} / 10^{*}\) diameter. Solder lug connections. C14960-Hlack C14963 -Red Your Cost 10 For \(\$ 2.43274\)

Midget Metal Shell Same with metal shell. \(21^{\prime \prime}\) overall \(x^{9}{ }^{\circ}\) diam. 10 for \(\$ 3.40\).
C14958 Your Cost 38c

\section*{U. S. Army and Navy Specification Plugs}


Manufactured to meet the very exacting requirements of the U.S. Army Sixnal Corps and U.S. Navy Specifications. Will fit all standard jacks.
C14965-l'l.54. Short 2-way Plug.
C14966-I'L55 Long 2-way Plug. Your Cost Either Type... 50 C14967-1Lik 3-way Wike Plug Your Cost Each Flat Piug
 Ultra-compact type, for use where space is limited Molded bakelite body.
C14964-Each

\section*{39 \\ . \\ }

\section*{Phone Plug Adapter}


Makes a standard phone plug out of the MCIF cable connector. No soldering or wiring required. C13388-MC11 \({ }^{2}\) Your Cost.
Microphone Switch

Attaches between male and female of any of the above connectors. l'ush to tall or slide switch for permanent connection C13357-MC1S

654

\section*{(A) Extend \(31 /{ }^{\prime \prime}\) behind panel} lite separators.
No. 1 Open Circuit.
c6400 Your Cost C6400 Your Cost C6402-No. 2 Circuit Closin


\section*{ICA Shielded 3 Way Jack}
(B) Phosphor bronze spring jack C13520 -Your Cost \(8: 9\) C13522-Jack, less shell \(4 \subset\)

\section*{MAETORY Junior Jacks}
(C) Compact, extend only \({ }^{1^{3}}\) rehind the panel. licavily plated springs.
C6450-Your Cost.... 324
C6451-No. 702. Circuit closing. C6449-No. 702 A . Two circuit. C6435-No. 70213. Three circuit Yicrophone, Any Type \(4 \boldsymbol{4}\) C6452-No. 703. Single circuit filament control. C6459-No. 703 A . Circuit reversing.
C6466-No. 703B. 3-circuit Mike, Your Cost, Any Type 50 世 C6453-No. 704. Interstage C6478-No. 704A. 2-circuit filaYour control. \(\operatorname{Cos}\), Iny riype \(5 \boldsymbol{8}\) C6479-No. 705. 2 -circuit filament lighting, ..............68c ment control. Your Cost.....73c

\section*{\(\mathrm{S}^{3}-\mathrm{C}\)}

High Volt. Plugs \& Jacks (A) Ileavy duty type, in medium volts at 10 sizes. Handle 1000 high KF F amps. For use with work, x'mitters, etc. lnsulated threaded heads and handles, Ilardware furnished with jacks. Medium jacks for panels up to \({ }^{5}{ }^{6}\) thick; giant jacks for panels up to \(\%\), hick.

Medium Plugs \(-2 \times 1 / 2 \times 35 / 8^{\prime \prime}\) C12870 blk. \& red \(\} \mathbf{3 2}\) Cea

Medium Jacks \(2 \times 3 / 8^{\prime \prime}\) C12872-blk. \& red
C12873

Giant Pluss \(2 \times 1 / 2 \times 33 / 4\) C12785-blk. \& red \(\} \leq 4\) C \(_{\text {ea }}\)

Glant Jacks-21/4 \(x^{3 / 8}\) c12787-blk. \& red
c12788-black \&84


Signal Corps Type Jacles (D) Phone Jack: Like Sig. Corps Takes Mitlory -5. pen circuit. 4,B; Sig. Corps No. PL-47, PL48, 1PL-55, PL-148, PL-155. C6300-
Nithe S2, 5
Sig. Corps Three circuit. Like W. E. 109 : Sig. Corps No. PL-46. C6301 PL-168

\section*{MALIORY Midget Jacke}
(E) Extremely compact. Mount fant" in \({ }^{8}\) " hole. Type A-1 "Infant" jack is not illustrated. No. jart
C6182 A-1
Open Circuit Each
18c C6183 A-2 Circuit Closing 29e C6184 A-2A Two Circuit 32 c C6185 A-3A Cir. Reversing 47c

\section*{Grounding Jack}

No. Gj-1-For grounding air planes while re-fueling. Similar in construction to midget jack No. A-1. except for insulation
Your C
254

\section*{Midget Jacks}
(F) Midget jacks of compact price. Fine grade bakelite insula ion and tempered nickel silver prings Mounts in " dia sole prings. Mounts in dia. hole n pariels up to \({ }^{16}\) thick. With mounting nut and washer C6548-closed circuit jack. .19c New lopen circuit jack...16c New \(\operatorname{lmp}\). Short Jack. Fits stand ard 3-circuit mike plug. 24.
C6550-Each

\section*{MALLORYPlugs \&Jacle}

(B) No. 75. Two way, Bakelite C6295
Each
No. 75 N. As above 384 shell. Tic cord anchor, 5 ne C6293-Each
No. 75A. As above, with built-in cable clamp

974
C6346- Each
on jack. Fibre shell

\section*{C6348-Each \\ \(76 c\)}

No. 100N. As above, but with nickel shell.

97c
No. 100A. As ahove, with nickel sheil, cable clamp.
C6349 Each
\(\$ 1.35\)
Microphone Plugs \(\&\) Jacks No. 76. 3-way mike plug. Bakelite shell.
C6296-Each
No. 76A. Same, but with nickel Ched1.
\$1.15
WALSCO Miniature Plug and Jack
Two-Conductor precision army type. Needs no screws, molded plastic case cements together. Ideal for hearing aids, speaker extensions, etc. C14961-1 pluk (type 1'L-291)
\(24 c\)
\(.24 c\)


MALLORY Vibrapacks
Flexible, heavy-duty vibrator power supplies for supplying high voltage direct current from a storage battery or similar d.c. source. For use with receivers, amplifiers, transmitters, etc., in marine, vehicular P.A., aircraft, police car, tire truck and similar applications. Four voltage outputs in 25 volt steps. Compact and light in weight (average shipping weight is approx. 10 lls .). Iligh efficiency reduces drain on batteries. N()TE: Two types are listed, self-rectifier and tube rectilier. " \(1{ }^{\prime}\) " minus is at ground potentials in the self-rectifier types. Use the tube rectifier type for applications where " \(B\) " minus should not be grounded.
No. Type Vlig. Output Voltage Output Type Each c6090 VP-551 \(\quad 6.3 \quad 125-150-175-200 \quad 100 \mathrm{ma}\). Self-Rect. \(\quad \$ 10.88\) C6094 VP-552 6.3 225-250-275-300 100 ma. Self-Rect. \(\quad 13.23\) C6091 VP-553 \(6.3 \quad 125-150-175-200 \quad 100 \mathrm{ma}\). Tube Rect. 11.47 C6095 VP-554 \(6.3 \quad 225-250-275-300 \quad 100 \mathrm{ma}\). Tube Rect. \(\quad 13.82\) C6066 VP-555* 6.3300 C6067 VP-55. 6.3 400 150 ma . Tube Rect. 27.05 C6062 VP-G556 12.6 225-250-275-300 100 ma . Self-Rect. 13.82 *Special Dual Packs for high output. Output voltage not adjustable. Type VF-223 Filter-For all single unit packs where utmost hum suppression and voltage regulation is required. C6060........s \(\$ 4.70\)

\section*{Replacement Vibrators for Vibrapacks}
 \(\begin{array}{llllllll}\text { C6062 VP-551, } \\ \text { C6063 VP-553, } 554, & 825 & 3.67 & \text { C6065 VP-F558 } & \text { F-826 } & 4.06\end{array}\) MALLORY VP-540 Filtered Vibrapack
A complete "B" power unit that operates from any 6 volt storage battery and delivers 250 volts at 60 ma., closely matching the power requirements of most auto, marine and aircraft receivers. The self rectifying dust cover and special mounting bracket. C6059 Your Cost
\$15.29
 UTC Standard VARITRAN Voltage Controls
The VARITRAN is an ideal voltage control unit of the type employing a sliding contact riding over the transformer turns. They provide continuously variable output volages
FROM 0 TO 130 vol
ves without interruption of the circuit. Used extensively to control lights, line voltage, rectifiers, motors, transmitters, etc. Type V-1 (illustrated) is completely shielded and includes cord, plug, and witch. Other units are completely shielded and units shown below for \(\mathbf{1 1 5}\) volt input.

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline No. & Type & Watts & Amps. & Size & Wt. & Price \\
\hline C5733 & V.0 & 230 & & \(4 \times 6 \times 43 / 4\) & 10 lhs , & \$11.27 \\
\hline C5771 & V-1 & 570 & 5 & \(5 \times 816 \times 31 /{ }^{\prime \prime}\) & 14 lbs. & 17.15 \\
\hline C5716 & *V1-M & 570 & 5 & \(5 \times 101 / 2 \times 31 /{ }^{\prime \prime}\) & 14 lbs. & 28.42 \\
\hline C5772 & V-2 & 570 & 5 & \(5 \times 7 \times 43\), & 13 lbs . & 14.70 \\
\hline C5773 & V-3 & 850 & 7.5 & \(5 \times 7 \times 51 /{ }^{\prime \prime}\) & 19 lbs. & 21.56 \\
\hline C5774 & V. 4 & 1250 & 11 & 62白 \(\times 93 / 3 \times 6\) & 37 lbs. & 31.36 \\
\hline
\end{tabular}
*Same as V-1, but includes 0 -150 volt A.C. meter.

\section*{Sonic Vacuum-Tube Inverter}
\(\star\) No Vibrating Parts *No Radiation \(\star\) Quiet Operation \(\star\) Speed Control *Steady Voltage Output *Powerful The first really new and different idea in inverters. Changes 115 v DC to 115 y AC. Especially useful with radio-phono combinations where receiver is of AC-IDC type and the phono motor of AC type. No viplished by vacuum parts, inversion accomthe undesirable inherent noise of vibrator
 inverters. Constant voltage output and variable speed control insures faithful reproduction of recordings. Delivers ample power to maintain constant speed even through record changing cycle of automatic changers of the Garrard and Webster types C17241 Your Cost
\$24.50
(B)

THORDARSON Automatic Voltage Regulators
(A)

Continuous duty transformers which hold output constant to within \(\pm 1 \%\) regardless of line vari ations from 95 to 130 volts or load variations from no-load to full load. For 60 cycles. Line cord and plug for primary, receptacle on front for output.
Stock Mifr's Wt. Your No. No. VA lbs. Cost C2133 T23VOK* \(20 \quad 12 \quad \$ 29.40\) \(\begin{array}{llrrr}\text { C2129 } & \text { T23Vo0t } & 40 & 18 & 33.81 \\ \text { C2130 } & \text { T2'3VOl } & 100 & 48 & 38.22\end{array}\) \(\begin{array}{lllll}\mathrm{C} 2131 & \text { T'2: } 3 \text { VO2 } \dagger & 250 & 48 & \mathbf{3 8 . 2 2}\end{array}\) C2132 [2: V V 5 5 \(\dagger\) 50M) \(76 \quad 79.38\) C2134 T23V10t \(1000 \quad 150 \quad 135.24\) *Secondary 6.3 volts
\(\dagger\) Secondary 110 volts. 115 , or 120 volts. as selected by switch on hack

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Change 220-250 volts. 50-60 cycle to \(110-125\) volts. Cont. duty. Line cord and plug for primary, standard line receptacle for secondary Stock Mfr's VA W't. You
 \begin{tabular}{llll}
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\hline 17.15
\end{tabular} \(\begin{array}{lllll}\text { C1991 } & 230 & 0-280 & 25 & 24.99 \\ \text { C1992 } & 230 & 0-140 & 37 & 22.05\end{array}\)

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Constructed similarly to the above, but have isolated primaries. Ilusky cores and windings, smooth continuous control plus fuse protection guarantee continuous operating service. Used in any application requiring from 70 to 140 volts. Useful to servicemen to detect faulty oscillators by dropping line voltage to 105 volts or to check breakdown intermittent part by increasing voltage to 130 or 140 volts. Both rated at 500 V.A.
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pages of circuit diagrams and pages of circuit ciagrams and Service data with "Classified band receivers. "Ilow it works" book and separate index included. With \(8 \frac{1}{2 \prime}\) by \(11^{\prime}\) loose-leaf post binder
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\begin{tabular}{c|c|c|c|c} 
No. & Vol. & Year & Pages & Price \\
C20244 & 7 & 1947 & 192 & \(\mathbf{S 2 . 0 0}\) \\
C20230 & 6 & 1946 & 192 & 2.00 \\
C20227 & 5 & 1942 & 192 & 2.00 \\
C19674 & 4 & 1941 & 192 & 2.00 \\
C19673 & 3 & 1940 & 208 & 2.00 \\
C19672 & 2 & 1939 & 192 & 2.00 \\
C19710 & 1 & \(1926-\) & & \\
& & 1938 & 240 & 2.50
\end{tabular}

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lents.
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(E)
nut Wi Y our cost 124
Vernier Sliding Caliper (F) l'recision made of fine too liths and 32 nds. 5 depth gauge. Vernier caliper has lock nut Sharp pointed projections for ac curate dividing, scribing. Wt. 1 ll . Elach.
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\(\$ 4.95\)


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Kit includes one Vibro-tool which operates by vibration-delivering 120 sirokes per second. Used to tile, chisel, hammer or groove soft metals, for cutting wood. cardboard and textile patterns, and for marking lines on or drilling glass. Kit also includes 1 standard engraving needle, 1 tantalum carbide needle, 1 curved and 1 straight edged knite, and foot gauge, \({ }^{6}\) wood chisels, I abrasive point, six leather working tools, and tive hall points. All housed in sturdy hinged wood case with natural polished linish. C15625-Your Cost
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Foot (iauge for knife al tachments toresulate depth of cut
C15636-Your Cost

57e
Diamond point for continuous glass work, line engraving on jewelry

Your Cost. ...... \(\mathbf{s 3 . 5 8}\)
Set of 6 leather tools, slotter, \(3 /{ }^{\prime \prime}\) punch. liner, deertoot, spoon, and combination double liner, cupper C15635-Your Cost ......90c

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C15628-Your Cost. . . . . . . . s7c
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C15629-Your Cost
Tunysten Point for hardened tool steel, and continuous work
C15630-Your Cost ...... \(\$ 1.20\)

\section*{HAND TOOLS}


\section*{KRAEUTER Pliezs}

These tools are from Kraeuter＇s ＂Standard＂series．Do not con－ fuse with the lower priced＂ K ＂ series．Drop forged from extra high grade steel．Have the famous ＂blue temper＂finish．Stand up under severe service
A－Diagonal Cutting Pliers No．Length Your Cost C14942
1.87

Wire Stripping Diagonal Cutter Similar to A except has notch in blades to strip 062 wire and has spring in handle to close jaws For fast work
No．Lenth Your Cost C14947 \({ }^{61}{ }^{\circ}\) B－Long Nose Pliers Short－jaw and lony－jaw needle rose pliers with side－cutting blades．
Length Your Cost
No．
c14946 \(\mathbf{C 1 4 9 4 5} \quad 6\) ．long jaw 1.79

C Electriclan＇s Cutter Modified electrician＇s pliers with fitted lap joint and cutters．
No．Length Your Cost \(\mathbf{C 1 4 9 3 5}\) 61／＂\(\quad \$ 1.62\)
C14936


\section*{Neon－Light}

\section*{Screw Drivers}
（A）Quality screw drivers with neon lamp built into amber Pyroxylin handle．For R．F． C15348 \(11 / 4^{\circ}\) long．Each．．．29c C15349－7\％long．Each．．．．．59c

\section*{VACO＂Amberyl＂ \\ （B）Transparent amber colored plastic handles．Tool steel blades：shockproof construction C15323－－Each 15323－－Each \\ \(15^{\circ}\) \\ VACO＂Amberyl＂ \\ Radio Screwdrivers \\ （C）Transparent amber coloren ool steel blades．Rust－pronpere un breakable，shock－proof．Blade di ameter small enough for radio set screws． \\ \begin{tabular}{llr} 
Stock No． & Blade & Each \\
C15324 & \(1 / 8 \times 4^{\circ}\) & 35 c \\
C15325 & \(10 \times 6^{\circ}\) & \(35 c\) \\
C15326 & \(1 / 88^{\circ}\) & 39 c \\
\hline
\end{tabular}}

ICAFlexibleScrewdriver （D）Strong，unhreakable，flexible screw locater finds slots of screws， screw locater finds slots of screws，
\(83 / 41062\) Your cost \(\$ 1, ?\)


Genuine KLEIN Pliers
Finest alloy tool steel，Individually tempered to assure long－life cutting edges．
C15223－（D）Oblique Cutting Pliers with Wire Stripping Notch． Lap joint；narrow head． \(5^{*}\) long

C15221－（E）Iong Nose Side Cut－ ting Pliers．Pointed slender nose－ sharp cutters． 6 long．
C15224－（F）I．ong Curved Nose lliers．Very useful in close quar－ ters． \(6^{\circ}\) long．
Either Above type．\＄2－75
Your Cost．Each．．．
＂RHINO＂Screwdrivers with Amberlite Handles

Finest screwdrivers，for electrical use．Special analysis steel blade over half－way into Shock－proof An－ berlite handle．
C15345－－ \(3 x^{3}\) is＂blade．Each．．41c C15346－6x \({ }^{1}\) ，blade．Each．．．54c C15347－8x \({ }^{3}\) ， \(\mathfrak{k}^{\circ}\) blade．Each．．．62c

（E）Siripper holds screw and Elides up out of the way when not in use．Instant release after screw is driven．Fine for tight places．Tempered steel blades． Amber plastic insulated handles． No．Blades Each \(\begin{array}{lll}\text { C14710 } & 2 x^{3}, & \text { 26c } \\ \text { C14721 } & 4 \times 5, & 46 c\end{array}\) C14722 \(10 x^{5}\) 这，

\section*{Phillips}

\section*{Offset Screwdriver}
（F）A very handy alloy steel off－ phitlips screwdriver．One end for 1hillips No． 1 size；other end for C15255－Each． 354

Phillips Recessed Head Screwdrivers

（G）Many sets now use the type model screw requiring this new moded driver．s sturdy sure－grip Stock Size Length Your No．No．Ins．Cost C15251 up to 4 6\％／月 25c C15253 10 to 16 111／2．

STEVENS WALDEN＂SPINTITES＂


The original Spintite．A handy wrench that works like a screw－ driver．Indispensable for radio and electrical servicemen and smal！parts manufacturers．Made of selected steel．cadmium plated with hardwood handle．
Stock Part Size Lgt．


Chuck Type Spintite Kit （a）
Deluxe kit consisting of chuck type handle adaptatble for use with the wrench shanks，screw drivers and reamer．Includes＂，＂16＂
 by \(4^{\circ}\) screw drivers； \(1 / 10^{\circ}\) to \(11^{\circ}\) Reamawl；one \(7^{\circ}\) long nose and one \(5^{\circ}\) diagonal cutting pliers and one neutralizing and alignment wrench．All in leatherette roll． C15572－Type T52 Complete KI
\＄8．23
Similar to above but less pliers and neutralizing tool Your Cost pe Your Cost
\＄5．00

\section*{Spintite Wrench Set} Set of 7 popular size SPINTITES in a convenient holder for bench or tool rack．Includes \(318{ }^{\circ}\) ， \(1 / 4\)＂， C15570 Your \(\left.\begin{array}{c}\text { Yost } \\ \text { Complete }\end{array}\right\}, 38\)


\section*{Stevens－Walden Midget Wrench Sets}

\section*{（A）}

Designed for accurate work on meters，radios and snaall appliances．
 sliding tce hande－All in metal 1 x ax．
C15573－Deluxe Set Type 3100
s10．29
Similar to above but less ratchet，sliding tee handles and extension C15574
Standard Set．Type 3100A
5．73

\section*{Tomahawk Wrench Set}
（B） Good quality secket wrench set consisting of \(31{ }^{\prime \prime}\) L handle and 6 C1558．wt．\({ }^{1}\) th．

\section*{GREENLEE Push Drill}
（C）Spring controlled automatic drill．Supplied with 8 sizes of drill points from \({ }^{1 / 10^{\prime}}\) to＂11＂Wandle holds drills and has plastic window making cutting parts of points visible．l＇recision made and heavily C17183－Your Cost

42．53

\section*{XCELITE Nut Drivers－Shockproof－Unbreakable！}
（D）Transparent amber handles insulate against 5000 volts． Extra－deep sockets for long studs or two nuts at once．Overall length \(6^{\circ}\) ．
C15330－For＂化＂hex nut（No．6）． C15328－F＇or＂sy＇hex nut（No．7）． C15331－For \({ }^{1} 4\)＂hex nut（No．8）． C15327－l＂or \(\% / 6\) hex rut（No．9）． C15332－For \({ }^{3} 16{ }^{6}\) hex nut（No．10）． C15333－F＇or＂E＂héx nut（No．11） C15334－For 3／8＂hex nut（No．12）．
Any Above Type－
454 Your Cost，Each
（No．1．1）
 Either Above，
Your Cost，Each．．．．． 57

The compact stands are made for either 7 or 5 wrenches．Ideal as a counter display or as a work－ bench holder．Furnished separ－ ately or with wrench sets as listed belous
C15337－With 7 wrenches Nos． 6－12．Your Cost．．．．．．．．．．\＄3．36 C15338－With 5 wrenches，Nos． 6．8，10，11， 12
Your Cost．．．．．．．．．．．．．\(\$ 2.43\)
C15339－7－wrench rack only 21 c C15340－5－wrench rack only 18 c Hollow Shaft Type Invaluable for installing and re－ moving volume controls and ot her pane！equipment．l＇ermits re－ panel equipment．ermits re－ moval of nuts from volume con－ trols with up to \(5^{\circ}\) shafts C15344－For \(162_{6}^{6}\) hexnut．．．．75c


\section*{THOR \(1 / 4{ }^{n}\) Capacity Electric Drills}
(A) Standard Duty. 3 conductor plug for use on 115 volt line either Ac or 10. Free speed approxiOverall lengh \(73 /^{\circ}\). Rall bearings throughout. Uses 2-pole trigger switch. For continuous or intermitent duty. C15799 Your Cost
\$35.50

\section*{DrillsandGrinders}

\section*{CENTURY High Speed DRILL SETS}

CENTURY high speed drills are highest quality, high precision tomols. Made from finest cungsten-molybrenum tool steel. These drills hatae the stamina to withstand the punishment that dulls or burns carbon steel drills. They will withstand operating temperatures up to \(1200^{\circ}\) The mechanic's length is slightly shorter than the toolmaker's dill. thus lessening whip and breakage. The all-steel Huot Index opens ulp like the payes of a book, stands on the bench with every drill accessible
and identified as to size. When closed the drills are safe from harm. and identified as to size. When closed the drills are so. M-3
Set No. M-7 Set No. M-3


Set No. M-2


Twenty one Century high speed drills \(1{ }^{\circ}{ }^{\circ}\) to \(3 / 8^{\circ}\) by bithls with Huot index. Aledium size Huol index, with the extendecd drill size rarge. adding those often needed drill sizes. C15762 Each.
\(\$ 11.17\) Each
Fifteen Century high speed drills tu" to ". by ainds with Ihtut index. Iarge size lluot. with pro. visions for adding 11 drills of tar: Gith sizes. Has the larger sime drills of ten needed. C15763 \(\$ 12.75\)

\section*{INDIVIDUAL DRILLS}
\begin{tabular}{|c|c|c|c|c|c|}
\hline itock No. & Size & Each & Stuck No. & Size & Each \\
\hline C15770 & 10 & 18c & C15780 & \(7{ }^{7}\) & 36 c \\
\hline C15771 & 6. & 19c & C15781 & 15\% & 39 c \\
\hline C15772 & \(3{ }^{3}\) & 20c & C15782 & , & 42c \\
\hline C15773 & 76 & 21c & C15783 & 1764 & 47c \\
\hline C15774 & 1/8. & 22c & C15784 & 90 & 51c \\
\hline C15775 & * & 24 c & C15785 & 19\% & 56c \\
\hline C15776 & \(3{ }^{5}\) & 26c & C15786 & \(5{ }^{\circ \prime}\) & 61 c \\
\hline C15777 & \({ }^{11}\) & 28 c & C15787 & \(81 / 4\) & 67 c \\
\hline C15778 & 316 & 30 c & C15788 & \(11 \times\) & 73 c \\
\hline C15779 & 1368 & 32c & C15789 & \%* & 85 c \\
\hline
\end{tabular}

\section*{Wood Chisels}

\section*{WALSCO Steel Staples}
(A) Made of carbon tool steel. In Wallocustapla loriver maste for the
 Featherweight Tacker and Stapling Machine
(B) A quick, handy tacker that is tackine on crille cloth, attaching light wire or spaghetti, hatels. etc c.an alket he used as at repular ofice or thome staplink machine for clippink papers, receipts, checks. etc. 1recision built. of steel with fine hlack lunish. With 100 staples. C15280 Your Cost
\$1.60
 Genuine Amberite handled. grade steel bladee chiscts. ligh grade stee haldes, heat treated and tioned bevels-tested to cut rockmaple.
\begin{tabular}{|c|c|c|}
\hline N0. & Blade & Each \\
\hline \({ }^{\text {C15 }}\) (1513 & + \({ }^{\text {a }}\) & 45 c \\
\hline & 3)" & 52 c \\
\hline \({ }_{C 15516}\) & 4 & 56 c
56 \\
\hline
\end{tabular}

Handy Chisel Kit Consints of one cach of the above chine s.in a strong cunvas roll. Buy
 CAN'T ROILL Center Punch
(D)

Temperedsteet wit h large head will and knurled grip. Square head wil not roll. length
C14999-
C14999-
Your Cost

\section*{ACRO Chassis and Changer Cradle}
\(\qquad\) Steel framework and corkpadded clamps to hold chassis or phomechanger at any angle. Work in the lottom of chassis without endangering tubes, Stands on table or worklench. Tilt classis vertically to work while sitting, or horizontally if you prefer to stind. Adjustable for any size of classis or clanger. (ironeve in each clamp ac commontates llanged-in bottom edges of chassis. Complete with standard clamps for grasping verical surfaces of chassis or changer
C15085
Your Cost
\(\$ 4.85\)
Straight clamps for holding flat work. Will also enable you to use your cradle as a reel
\(124 \underset{\text { cost Per Pair }}{\text { c15086 Your }} \$ 2.45\)


\section*{}

\section*{DRAKE Industrial Irons Underwriter's Listed} 100 Watt

(A)No. 600-10. Suggested for switchboards deal for close quarters Complete withs 6 , uses and stand. \(1 / \mathrm{f}^{\circ}\) quip. Shpg. wt. \(2 \mathrm{lbs} . \$ 412\) c15164-Your Cost

\section*{100 Watt}
(B) No. 600. Suggested for switchboards, radio and other light manulacturing uses. Comglete with 6-ft. cord and "Magic C15551-Your Cost
C15152-Replacemen

\section*{200 Watt}
(C) No. 800. Recommended for general factory soldering, art glass and medium tin work. 6 -ft. cord. Ideal for auto work, lamp wiring, and home repairs. Shpp. wi. 3 lhs.
C15550-5/8 tip. Complete with stand.
Your
Cost
C15153-Replacement iip for above.

\section*{DRAKE Compact Iron}
No. 400. Smallest industrial iron, for tight corner and delicate instrument mirint. MeasWith 6 - ft. cord and Magic cup stand. Underwriter's Approved. Wi. 1 lb.
\(\$ 2.91\)
C15157-Replacement tip for above

\section*{Soldering Iron Tips}Replacement plunger type tips of quality

\begin{tabular}{|c|c|c|c|}
\hline T & Iron & Size & Each \\
\hline C15167 & 25-40 w. & 14x276: & 25c \\
\hline C15166 & 60-75 w. & \({ }^{3} \times 2 \times 1{ }^{\text {a }}\) & 21e \\
\hline \({ }_{C 15168}\) & - \({ }_{1}^{85-150}\) \% &  & 32 \\
\hline
\end{tabular}

\section*{(E)}

\section*{DRAKE DeLuxe Irons} 100 Watt Nichrome wire wound on amber mica Wh ft cord, plug and Magic Cup stand


\section*{125 Watt}
(G) No. 326. Extra hot. 1 ligh quality Nichrome 6.ft. cord, rubber plug, and stand. \(\$ \mathbf{3 . 2 3}\)
c15163 Your cost C15152-Replacement tip for above

\section*{200 Watt}
(A) No. 425 . For all medium heavy work. Highest quality Nichrome wire wound on amber mica, deal for auto work, lamp wiring, home repairs, etc. \(6 . \mathrm{ft}\). cord and stand. Nickel plated. C15552 Your Cost
5.29

\section*{DRAKE "Special" Irons}
(3) Sturdily constrincted. Resistance wire clecord and plug. O. Watt Jron c15158- Meplacemen. \(\quad . . . . .910\) 14893 100 W' 1 lrun tor above. C15159-Replacement tip for above

\section*{DRAKE Model 350 Midget}
(K) A high-quality continuous-duty 35w iron insulated steel core same as industrial irons. Comlete with straight \(1 \%^{\circ}\) tip bent \(\%^{\circ} i^{\circ}\) and plete with straight
stand. U. L. approved.
C15177-Your Cost. . ......... C15178-Replacement Straight Tip C15178-Replacement Straight

UNGAR Electric Soldering Pencil
(1) An unusually small lightweight iron that can be handled with the case of a pencil. The total weight is only 3.6 ounces, yet it is a well construcied and elficient soldering iron. Can be used in those hard-to-reach places for everything from the most delicate johs to some of the larger soldering tasks. Draws zu watts. lis overall lengih is only 7 inches. llandle is of sturdy heat resistant plastic. Ileats in ( 0 seconds. Underwriters Listed. For 110 volt AC-DC. With line cord and plug. Uses any of the five special tips isted below.
C15575-Soldering Pencil, less 1 ip
C15576-(A) Standard Copper, tip only
C15577-(13) Elkaloy A, Exira 11ot, tip only C15578-(C) Elkaloy A, (hisel, tip only C15579-(1) Elkaloy 1), l'encil, tip only c15580-( E ) Brass Marking, tip only Your Cost- \(\quad\) A!

\section*{SPEED IRON}

(0)


\section*{KWIKHEAT Soldering Irons} 225 Watt
(N) Hot in 90 seconds. Built -in thermostat. Long For Cool handie. 152 oz. Wih No. 9 tup. For use with tips 0, 1, 2, 3, 4, 5, 9, and Kordless receptacle ul approved. (iuaranteed 1 year. C15121-
C15121-
t. . 58.25 I.ots of 3 ca.
\(\$ 7.34\)

\section*{450 Watt}

©
Same features as the 225 W iron described abrove. \({ }^{22}\) oz with No. 6 tip For use with tips \(0,1,2,3,1,5,4,9\) and Kordless receptacle. Complete with No. 6 tip and resting stand. W00125 volls AC only.


\section*{KOPPERKORE 100 Watt}

Companion to K wikheat. No thermostat. \(131 / \frac{1}{\mathrm{oz}}\). with No. 9 tip. For use with tips \(0,1,2,3,4,5,9\). UL approved. Guaranteed. With No. 9 tip and


\section*{KORDLESS KOPPER Set}
(P) \({ }_{4} 3\)-pince accessury for Kwikheat 225 W or 4sw Irons. Replace tip of iron with Kord-
 lots of 3-Each.
Interchangeable KWIKHEAT Tips (0) No. 5 is aluminum. Others are forged (O) Nollurium.

Stk. No. Type Stk. No. Type Stk. No. Type C15122 No. \(\mathbf{C 1 5 1 2 5}\) No. 3 C15127 No. 5 C15123 No. 1 C15126 No. 4 C15165 No. 9 Cour Cost-Any of above-Each..... © 2 Your cost-Any of above-Each Lots of 3 Tips-Each... C15128-Your Cost for set.



\section*{"AMERICAN BEAUTY" Irons}

100-Watt, Model 3138
(A) America's most famous iron. Made for those (A) who want the very best. Metal parts are heavily plated and highly polished. Length \(12 \% \%^{\circ}\) With \(/ 5^{\circ}\) tip and 6 -ft. cord. Stand supplied. Shipping C15171-Your Cost. 50-Watt, Model 576
A smaller "American Beauty" for soldering in corners and tight places. 76 tip. With stand Shipping weight 2 lbs. C15172-Your Cost C15173-Extra tip for above. Each.

\section*{"AMERICAN BEAUTY" Stand}

(B)
For regulation of temperature of soldering irons. Thermostat is adjustable. Ibody of stand of molded plastic, with cord, plug and receptacle to C15169-Stand only.

\section*{Snap-On Iron Holder}
(C)

Fits all makes and size Irons. Snaps on barleft on constantly. Prevents fire danage. 28
200- and 325-watt ESICO Solder Pots
(D) Equipped with pilot light that indicates when pot is heating. Sturdy construction but not top heavy. May be screwed to benches to insure against being knocked over. \(2 \mathrm{k})\) watt model. ("apacity \(8 / 4 \mathrm{lb}\). Size \(11 / 2 \times 11 / 3^{\circ}\)
 325 watt model. Capacity \(38 / 1 \mathrm{lbs}\). Size \(31 / 2 \times 11 /{ }^{\circ}\). Overall height \(48 / \mathrm{C}^{\prime \prime}\). Weight \(51 / 4 \mathrm{lbs} . \$ 8.37\)
C15555-Your Cost. ........... 37

\section*{KELNOR \(125 W\) Soldering Iron}
(E) Weighs only 9 oz. Complete with 6 -ft. cord, plug. and hard virgin copper pencil tip. Slide tip through barrel toadjust the heat. \(\$ 3.89\)
C15111 Your Cost
Extra virgin-copper tip for replacement:

\section*{ESICO Figh Quality Soldering Irons}
(F) High grade elements are wound on finest mica insulation. Underwriter's approved. Furnished with 6 -ft. cord set. For a.c. or d.c All models are supplicd WITH STAND. Shipping weight 3 !bs. each.

With Plug-in Tips
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Solderins Irons} & \multirow[t]{2}{*}{\begin{tabular}{l}
Extra \\
Stock No.
\end{tabular}} & \multirow[t]{2}{*}{\[
\begin{aligned}
& \text { Tips } \\
& \text { Your } \\
& \text { Cost }
\end{aligned}
\]} \\
\hline Stock No. & Watts & Tip Dia. & \[
\begin{aligned}
& \text { Your } \\
& \text { Cost }
\end{aligned}
\] & & \\
\hline C14900 & 60 & \(3 / 8{ }^{\circ}\) & \$1.73 & C14901 & 21. \\
\hline C14902 & 100 & 2/8. & 2.32 & C14903 & 21 c \\
\hline C14905 & 130 & 1/2" & 2.91 & C15168 & 32c \\
\hline
\end{tabular}

Constant Durty Models
Plug-tip irons especially designed for use in constant duty at factories, labs., etc. For 110 volts a.c. or d.c. Shipping weight 4 lbs.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Solderins Irans} & \multicolumn{2}{|l|}{Extra Tips} \\
\hline Stock & Watts & Tip & Your Cost & Stock No. & Your \\
\hline \(\overline{C 15190}\) & 160) & \({ }^{2}\) & \$2.91 & C14903 & 21 c \\
\hline C15191 & 1:30) & 1/2 & 3.50 & C15168 & 32c \\
\hline
\end{tabular}

\section*{ESICO Thermostatic Control Stand}
(G) Use of this unit makes it impossible to overheat iron. Iron can be maintained at any desired temperature while in stand. When removed from control, full current is applied to iron. For Irons with up to \(1^{\prime \prime}\) diam. tips. Shijping weight 3 lbs.
C14885--Sta

\section*{Touch-Up Sprayer}Designed to operate perfectly with very low pressure from spare tire or any other air container. Air-tight brass valve, adjustable brass spray tip, rubber hose and two 4 -oz. jars. Very handy for touching up marred panels, cabinets and chassis. Shpg. wt. 3 lbs.
\(\$ 1.7\)

\section*{Power Sprayer}
(J) Operates from the spark plug of any automohile. Will spray paint, lacquer-any freefowing liquid. Complete with sprayer, pint jar, sparkplug air check valve, compression tank, set


\section*{LENK Alcohol and Gasoline Torches}
(®) Type A-Gasoline torch. Ilas flame control,
 C14856-Same, but for alcohol. Each .... 52.12 Type B-Double burner torch-provides either broad or needle point flame. Cleansing pin in handle. \(7 \times 43 / 4 \times 23^{\prime \prime}\). Wt. 3 lbs C14867-Alcohol torch. Each
\$2.93
Type C-Compact, leak-proof torch for serviceman and home mechanic. Size: (ix2xl 1 .
C14868-Wt. 11 . Alcohol torch.
Your Cost, Each. ..................

\section*{New MPC Wire Stripper}

(C) 1
Ilardened steel blades adjustable for wire size, wire. Insert the wire, twist the tool to cut the insulation sharp and clean, and then pull lightly. The cleanly cut insulation slips off easily. Reaches into ha-d-to-get-at places, inside cabinets, behind c15043Your Cost
\(59^{9}\)

\section*{Motor Chuck Arbors}
(M) Fits shaft of any small motor in place of pulley. With flange and locking nut to hold
grinding wheels, saws, etc. 1 three jaw chuck. rinding wheels, saws, etc. 1 " three jaw chuck.
Stock
Unit
Motor
\begin{tabular}{|c|c|c|c|}
\hline in & s, & Motor & huc \\
\hline Sock & Unit & Motor & \\
\hline C15095 & 495 & Sha & \$0.75 \\
\hline C15096 & 490 & 3** & 1.05 \\
\hline C15097 & 490-A & 12 & . 97 \\
\hline C15098 & 490-13 & & 1.13 \\
\hline
\end{tabular}

\section*{Geared Chuck for Drills}
(N) 5 to 1 geared chuck to use drills up to \(1 / 2^{\prime \prime}\) in
(L)
 C14698-
\$7.88

\section*{KESTER Solder}
(O) Will not spatter. Preferred by servicemen and other large users. Flux in core. The regular rosin and acid core solder is "fo" diameter. Rosin lilled thin-core is approx. \(\frac{1}{16}\) diameter. Rasin Core Acid Core Rosin
 \(\begin{array}{llllllll}1 \mathrm{lb} . \text { Spoot } & \mathrm{Cl} 14858 & .83 & \mathrm{Cl} 14877 & .83 & \mathrm{C} 14851 & \$ 0.86\end{array}\) 5 lb . Spool \(\mathrm{Cl} 4859 \quad 3.95 \mathrm{Cl} 4879 \quad 3.95 \mathrm{Cl} 4852 \quad 4.10\)

\section*{NOKORODE Core Solder}
(P) Made of \(30 \%\) tin and \(70 \%\) lead. Superior (Paste used for flux. No. 10 gauge. Approxi-

\section*{Soldering Paste and Flux}
(R) NOKORODE Paste (top): Non-corrosive paste. Fluxes all metals except aluminum woldered joint. Vary economical to use. 10 \& c15277-Per Can, Your Cost

Non-cor(S) KESTER Pastef Flux (center): Non-cor Sosive. For clean, solid connections. 126 C15278-Your Cost Each.
(T) RUBYFLUID LIQUIO FLUX. Produces (i) strong joints witht hin film of solder on brass,
tin, copper, ett. Non-cortosive.
C15279-3 oz. Can Rubyfluid. . . . . . . .



"All Purpose"Hack Saw
(A) Fits where ordinary hack cludes \(71 / 2\) cannot be used. Inhandy for tight places.
C17218-
Your Cost
\(26^{4}\)
Extrablad
Your Cost, Each
124

\section*{MISENER}

\section*{Rotary Hack Saw}
(B) The ideal hole cutter for With wood, metal bakelite, etc. other sizes available.
Stock No. Hole Size Cost Ea.
C17250 \(\quad 34^{\circ} \quad \$ 2.42\)
C17251
C17252
C17253
C17255
17256
2.47

Combination Tool cuts holes from \(8 / 4^{\prime \prime}\) to \(21 / 4^{\prime \prime}\) in eleven \(1 / 4^{\prime \prime}\) steps. \(3 / 3^{\circ}\) ound shank
Stock No. Ilole Size Cost Ea. \(\mathbf{C 1 7 2 6 5}\) Extra \(1021 /\) Shanks \(^{2} \$ 10.14\) C17267 Extra Shanks
617268 8/4. Round 1.01
Shank for Hand Brace
C17269

\section*{FLEX-O-CLAW}

Flexible remote grasping tool cessible places. Available in 4 engths as below. \(1 / 4\) dia C14728 (12*), Your Cost. \$0.66 \(C 14729\) (15"), Your Cost. . 83 C14730 (182, Your Cost.

\section*{WHALE Hack Saw}

\section*{(D) Tenite Handle. Adjustabl} D for 8 to 12 blades; blade may be faced in four directions Nickel-plated suck \(165^{\circ} \times 3\) depth \(316^{\prime \prime}\). Complete with \(10^{\circ}\) blade. Excellent addition to radio mechanics and electricians too C17282 Your cost \(\$ 1.3\)

\section*{Flex. Hack Saw Blades} (E) Extra hard. Extra flexible. Eonger life. Scientifically heat ureated for harciness and fexibility. or all standard per doz. All are \(2_{2}\) wide and 025 " thick
Stock
\begin{tabular}{|c|c|c|c|c|}
\hline No. & 1.gth. & Teeth* & Ea. & \\
\hline C17273 & \(10^{\circ}\) & 18 & 7 c & 67 c \\
\hline 7274 & 10* & 24 & 7 c & 67 c \\
\hline 7275 & 12* & 18 & 8 c & 80 c \\
\hline 17276 & \(12^{*}\) & 21 & 8 c & \\
\hline
\end{tabular}

*Number of teeth per inch


Standard Hand Drill (A) wood handle 51 " with hard (A) wood handle \(51 / 2^{\circ}\) long \(31 / 2^{\circ}\) gear wheel meshed with small gear at \(4: 1\) ratio \(1 / 4^{*}\) capacity chuck with 3 spring-controlled case-hardened jaws accurately centered to hold drill bits true and steady chatide st Your Cost

\section*{Breast Drill}
(B) \(121 / 2^{\prime \prime}\) long, full-size breast plate and \(31 / 2\) gear meshed with small gears at \(4: 1\) ratio. \(8 / 8\) capacity chuck. A good husky ool nicely finished.
C14726-
\$2.25

\section*{Drill Case}
C) Compact metal drill case with handy tap drill index numbered from 1 to 60 . Lifting cover automatically brings up


\section*{Set of 9 Steel Drills}

(D)

(D)Sizes round uip steel.correcty izes for radio work \(\ln\) hardwood c14708 - Your cost \(\$ 1.29\) Tap, Drill and Die Set (E) Crontains three Diameter die stock: thrte taps \((-4-36,6-32\) 8-32) and 3 matching tap driils or these taps. Tap holder also inclucied. All housed in nattural mahogany case. Shpg Your Cost
\$2.25

\section*{Swivel Head Hand Drill}
(F) A hand drill that works adjusts and locks to seven differ ent positions, handle adjusts and locks any where along \(180^{\circ}\) are Drills true, because that hub base Pills true, because lial hub base always remains paralled to the drill bit. Chuck size, \(1 / 4\). Overal



Provides an ensy, accurate method for cutting clean circular holes in brass, aluminun, steel, wood, bakelite, etc. Of fine heat-treated steel. lised with ordinary band brace or slow speed drill press. All American-made.
\begin{tabular}{|c|c|c|c|c|c|}
\hline Stock No. & \[
\begin{aligned}
& \text { Type } \\
& \text { No. }
\end{aligned}
\] & Cuts Ilole & Shank Style & Type Work & Your Cost \\
\hline C14720 & JR & 5/8 to 21/2" & Round & Light & \$0.78 \\
\hline C14711 & 4 & \(7 / 8\) to \(4^{\prime \prime}\) & Round & Medium & 1.30 \\
\hline C14713 & 5 & 1 to \(51 / 2\) & Round & Heavy & 1.88 \\
\hline C14715 & 5 & 1 to 5 \%" & Square & Heavy & 1.88 \\
\hline C14717 & \(1 \dagger\) & \(7 / 8104^{\prime \prime}\) & Round & Medium & 1.88 \\
\hline C15069 & 5 & \(11 / 4\) to \(8^{\circ}\) & Square & Ex. lleavy & 3.88 \\
\hline
\end{tabular}

\section*{Replacement Drills and Blades}

C15068-Drill for use with C15069. Your Cost
C14716-Blade for use with all above except C15069 and C14720.
C15070-8Bade for use with cil5069. Your Cost

(A)

"RAPID"' Electroplaters
(A) Small portable electroplating outfits for home or workshop. Easy to use. For replating jewelry, utensils, radio parts, etc. Each kit contains: 1 -oz. of plating compound; 1-oz. of metal polish; 1 anode brush; battery wires with clips attached; full instructions. Requires two No. 6 cells (not supplied). Wit. \(1^{11}\). 1 hs . C15359-Nicke! 1'lating Outfit. C15360--Copper Plating Outfit. C15370-Cadmium I'lating Out fit.
Your Cost, Each
C15371-Silver l’lating Outfit. Your Cost, Each
Additional 1 -oz bottles of compound (plate \(125-175 \mathrm{sq}\). in.)
C15372-Nickel Compound C15373-Copper Compound 37 \& C15375-Silver Compound. Your Cost, Each

\section*{Industrial Kit}

Comprised of 8 -oz. Electrolyte, Sterling Silver Applicator A-oz. metal cleaner. hypg Wt. \(\mathbf{C l}\).
\$7.50

\section*{Deluxe Coil Winder}
(B) Will wind honcy comb, spider-web, or solenoid coils of various widtis and diameters equal in appearance to factory made coils. Includes all atccessories for winding the various types. llas recorder and indicator that counts turns. Instructions included. Shpy wt. 6 lhs. Your Cost


\section*{SPEEDEX Wire Stripper}
(A) Strips all iynes of wire instantly, Pocket size, fast (up to 1000 wire will *Has "Stay not darnage solid or stranded wire. Shpg. wt. 2 lbs. Standard
\begin{tabular}{|c|c|c|c|c|}
\hline Size & Stock No. & Your Cost & Stock & Your \\
\hline 14 to 24-wire & C15538 & \$3.53 & C15565 & \[
54.70
\] \\
\hline 12 to 20-wire & C15537 & 3.53 & C15566* & 4.70 \\
\hline 10 to 18 -wire & C15539 & 3.53 & C15567* & 4.70 \\
\hline \multicolumn{5}{|l|}{(B) Replacement Blades for either of above models.} \\
\hline Stock No. & & Wire Sizes & & Your Cos \\
\hline C15596 & & 12 to 20 & & 88 c \\
\hline C15597 & & 11 to 24 & & 88 c \\
\hline C15598 & & 10 to 18 & & 88 c \\
\hline C15599 & For parallel & o. 18 POSJ or & milar wi & 88 c \\
\hline
\end{tabular}

\section*{SPEEDEX Wire Stripper Kit}

Kit complete with wire stripper and 7 different size blades in permanent steel box. For radio servicemen, electricians and manufacturers. Handle No. 8 to No. 30 wire.
C15568--1)eluxe kit complete with automatic stripper
and all blades. Your Cost
s10.00
C15569-Standard kit complete with all blades
Your Cost

\title{
Push Back Wire
}

\section*{Solid Tinned
Copper Core Type} No stripping is necessary. Just push back the rouble cotton-covered moisturewire. Four colors for circuit identification. Weight 2 lbs. per 100 feet.

25-F oot Coils
C16350-Red C16352-Black C16351- ircen C16353- Xellow Your Cost (10 For \$2.25), Per Coil \(24^{\circ}\) 50-Foot Coils
C16358-Red C16360-I3lack C16359- Creen C16361-Yellow Your Cost (10 For © \(\$ 7 \mathbf{c}\) 100-Foot Coils
C16366-Red C16368-[Black C16367-(ireen C16369 58.19), Per Coll

1000-Foot Spools
C16374-Red C16376-Black C16375-Cireen C16377-Yellow Your Cost, Per Spool.... \(\$ 6.95\)


\section*{Stranded Tinned} Copper Core Type Very flexille wire of multistrand tunned copper: equivalent 10 No. 20. casily: Arailable in 4 colors. Weight, 2 lbs, per or feet.
25-Foot Coils C16354-Red C16356-Black C16355 - (irecn C16357-Yellow Your Cost \((10\) For \(\$ 2.43) 27 \mathbf{c}\)

50-Foot Coils
C16362-Red C16364-Black C16363-Cireen C16365--Yellow \$4.68), Per Coil........ S2c 100-Foot Coils C16370-Red C16372—Black C16371- Cireern C16373-Yellow Your Cost (10 For 9 © 1000-Foot Spools
C16378-Red C16380-Black C16379-Cireen C16381-Yellow
Your Cost, Per Spool... \(\$ 7.95\)

Finest Grade Magnet Wire


\begin{abstract}
Highest quality Excellent for re. winding jower ransformers and chokes.
winding coils or any other radoo and electrical purpose. Ieleal or use in shops. schools. la
tories, etc.
\end{abstract}

\section*{Plain Enameled \\ Stock Size Ft. Your Cost \\ \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline Stork & Size & Ft. & Your & Cost & experime & & Highest & dit & \\
\hline No. & BdSS & Per & [ Lb. & 2 l . b . & Stock & Size & Ft. & & \\
\hline C20950 & 1f; & 125 & \$0.20 & \$0.33 & No. & BeS & \(\operatorname{Per}\) Lib. &  & , \\
\hline C20951 & 18 & \(20 \%\) & . 20 & . 35 & C20973 & 16 & 122 & 50.24 & \$0.39 \\
\hline C20952 & 213 & 319 & . 22 & . 37 & C20974 & 18 & 192 & . 24 & . 43 \\
\hline C20953 & 22 & 501 & . 27 & . 37 & C20975 & 20 & 298 & . 26 & . 49 \\
\hline C20954 & 21 & 801 & . 24 & . 39 & C20976 & 22 & 464 & . 32 & . 54 \\
\hline C20955 & 2 & 1280) & . 26 & . 43 & C20977 & 21 & 711 & . 37 & . 63 \\
\hline C20956 & 28 & 2030 & . 29 & . 47 & C20978 & 26 & 1080 & . 39 & . 69 \\
\hline C20957 & 30 & 3520 & . 32 & . 51 & C20979 & 28 & 1630 & . 47 & 84 \\
\hline C20958 & 32 & \(51(1)\) & . 36 & . 55 & C20980 & 30 & 2420 & . 52 & 98 \\
\hline C20959 & 31 & 8080 & . 39 & . 67 & C20981 & 32 & 3500 & . 69 & 1.19 \\
\hline C20960 & 36 & 12800 & . 50 & . 78 & C20982 & 34 & . 1920 & 84 & 1.51 \\
\hline C20961 & 38 & 20300 & . 67 & . 98 & C20983 & 36 & 66tio) & 1.08 & 1.91 \\
\hline
\end{tabular} \\ High Grade Magnet Wire on Handy Size Spools}
\begin{tabular}{|c|c|c|c|c|}
\hline Stock & Size & Ft. & Your & \\
\hline No. & B\&S & Per 1 & & \({ }_{2} 1\). \\
\hline C20962 & 18 & 199 & 50.37 & 50.71 \\
\hline C20963 & 24) & 311 & . 41 & . 73 \\
\hline C20964 & 22 & 49.4 & . 43 & . 76 \\
\hline C20965 & 21 & 5.8 & . 45 & . 84 \\
\hline C20966 & 21 & 1209 & . 53 & . 98 \\
\hline C20967 & 28 & 1910 & . 62 & 1.13 \\
\hline C20968 & :3) & 290 & . 74 & 1.32 \\
\hline C20969 & (3) & 4570 & . 94 & 1.64 \\
\hline C20970 & 31 & figo & 1.25 & 2.27 \\
\hline C20971 & 36 & 1いj) 0 & 1.72 & 3.32 \\
\hline
\end{tabular}

\section*{Double Cotton}

Extremely popular with amatours and
liconomical cized spooks of high grade magnet wire for those desiring less than it th. All spools are plainly rnarked with the length of wire contained on the spool as well as the size Rvailatle in double cotton, double
silk and enameled insulation.

Double Cotton

Double Silk
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline Cauge & Sinck Nio. & Ft. In. Sprow & Stock
No. & Ft. In. Spool & Stock No. & Ft. In. Spool & \\
\hline 14 & C16500 & 21 & C16514 & 19 & C16528 & 25 & \\
\hline 15 & C16501 & 33 & C16515 & 25 & C16529 & 40 & Your \\
\hline 18 & C16502 & 42 & C16516 & 31 & C16530 & 48 & Cost \\
\hline 20 & C16503 & 60 & C16517 & 42 & C16531 & 85 & Cost \\
\hline 22 & C16504 & 81 & C16518 & 60 & C16532 & 133 & Each, \\
\hline 21 & C16505 & 110 & C16519 & 83 & C16533 & 200 & Any \\
\hline 26 & C16506 & 148 & C16520 & 101 & C16534 & 292 & \\
\hline 28 & C16507 & 168 & C16521 & 119 & C16535 & 420 & Spool \\
\hline 30 & C16508 & 192 & C16522 & 141 & C16536 & 590 & C \\
\hline 32 & C16509 & 216 & C16523 & 163 & C16537 & 805 & \\
\hline 34 & C16510 & 212 & C16624 & 190 & C16538 & 1150 & \\
\hline 36 & .C16511 & 2 Ck & C16525 & 219 & C16539 & 1560 & \\
\hline 38 & C16512 & 291 & C16526 & 243 & C16540 & 1980 & \\
\hline 40 & C16513 & 325 & C16527 & 275 & C16541 & 2430 & \\
\hline
\end{tabular}

\section*{Spaghetti on Spools}

High grade varnished cambric tubing, 5000 V . dielectric strength. On fibre spools, 8 and \(\mathbf{1 2}\)-yard lengths. For No. 12 wire, in 8 -yard lengths
C15951-Red C15952-Green C15954-Yellow C15955-Black For No. 14 wire, in 8 -vard lengths C15750-Red C15752-Green C15751-Yellow C15753-Black For No. 18 wire, in 12-yard lengths: C15754-Black Any of Above Sizes, Your Cost, Per Spool
\[
0
\]


674


\section*{HOOKV.V. MABGEI W I R E}

\section*{Colored Rubber Wire}

Stranded and tinned 18 gauge copper wire
YOOK-UP
WIRE
CDLRED
RUBER
\(25 F\) eet cubber compound Very flexible: casy to strip. Solders instanlly. Availablein three colors

\section*{25-Foot Coils}

C16272-Red YourCostEach C16273-B1ack
C16274-Gireen 5 For 29 4 1000-Foot Spools C16108-Red YourCostEach C16109-Filack
C16110- ircen
S7 \(\$ 85\)

\section*{No. 16 RUBBER COVERED} C16280-Black C16281-Red \(50 \mathrm{Ft}, 100 \mathrm{Ft} .500 \mathrm{Ft}\). Your Cost 62c \(\quad \$ 1.18 \quad \$ 5.49\)

Stranded No. 14 Gauge
C16121-Black C16120-Red 2.5 Ft .50 Ft .100 Ft . Your Cost 55c \(\quad \$ 1.05 \quad \$ 1.99\) Stranded No. 12 Gauge C16122-Black C16123-Red Your Cost 72 c \$1.39 \(\$ 2.65\) Multi-Conductor Cable


A high grade, heavily insulated cable. Firch lead hats a different colored rubber jacket for casy identilication. 18 gauge. stranded tinned copper wire. Cotton braid tinned
overall.
\begin{tabular}{cccr} 
No. & Wires & Per Ft. & 100 Ft. \\
C16089 & 3 & 4 c & \(\$ 3.60\) \\
C16090 & 4 & 5 c & 4.50 \\
C16091 & 5 & 6 c & 5.40 \\
C16092 & 6 & 7 c & 6.30 \\
C16093 & 7 & 8 c & 7.20 \\
C16094 & 8 & 9 c & 8.10 \\
C16095 & 9 & 10 c & 9.00 \\
C16096 & 10 & 11 c & 9.90
\end{tabular}

Giant Sleeving

No. 2 Spagheti I.1) \(1 / 2^{*} ; 36^{*}\)
long. High Voltage oil varnish impregnation. 13lack only.
C15956-10 For \$1.44
Per Length
\(16^{4}\)

\section*{Copper Bus Bar}

Round tinned copper bus bar No. 14-24* lengths.

\section*{C15965}
Your Cost 19e \(\$ 1.80\)

No. 14 Tinned Solid Copper Push-Back Wire

Designed for heavy-duty work in power amplifiers, transmitters, power amplificrs, transmitters, ctc. Cotton wrapper with heavy
lacquer insulating material and final layer of impregnated cotton braid. High breakdown voltage

C16341-Rlack C16339-Red
Your Cost,
Per Coil 100-Foot Coils
\(\begin{aligned} & \text { C16348-I3ack C16346-Red } \\ & \text { Your Cost, } \\ & \text { Per Coil }\end{aligned} \quad \$ 1, \$ 3\)


\section*{Extruded Plastic Tubing}
\(10,000 \mathrm{~V}\). di-electric strength. Wil! not supyort combustion. Resistant to petroleum solvents, acid, tures. All are \(\mathbf{3}\)-foot lemgths.

\section*{Size No. 16 \\ 10 For} \(\left.\begin{array}{|c|c|}\text { C16186-Black } \\ \text { C16187-Yellow }\end{array}\right\}\) sc Ea. -54

Size No. 12
C16188-Black 6c Ea. 10 For \(\left.\begin{array}{c}\text { C16190-Yellow } \\ \text { C16191-Green }\end{array}\right\} \quad 534\)

Size No. \(8 \quad 10\) For

Spaghetti Tubing
\begin{tabular}{l} 
Highest \\
grade \\
cambric \\
tubing \\
Red, yellow, green and black. W12. \\
C15960--Specify Color \\
Per \(30-\) Inch Length..... \\
Your Cost 10 Lengths......63c
\end{tabular}

\section*{Resistance Wire on Handy Size Spools}


High grade resistance wire in small quantities for use in highty sensitive instruments where accurately determined resistance values, secured through the employment of a high grade alloy wire, are necessary.
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & & \multicolumn{2}{|l|}{Enameled} & \multicolumn{2}{|l|}{Bare} & \\
\hline Wire & Ohms & Stock & Ft. In. & Stock & Ft. In. & \\
\hline Gauge & Per Ft. & No. & Spoot & No. & Spool & \\
\hline 14 & . 04603 & C16600 & 20 & C16614 & 24 & \\
\hline 16 & . 07318 & C16601 & 31 & C16615 & 38 & Your \\
\hline 18 & . 1164 & C16602 & 40 & C16616 & 46 & Cost \\
\hline 20 & . 1850 & C16603 & 57 & C16617 & 81 & Cost \\
\hline 22 & . 2941 & C16604 & 77 & C16618 & 126 & Each, \\
\hline 24 & . 4678 & C16605 & 104 & C16619 & 190 & Any \\
\hline 26 & . 7438 & C16606 & 141 & C16620 & 277 & Sproot \\
\hline 28 & 1.183 & C16607 & 160 & C16621 & 399 & Spror \\
\hline 30 & 1.879 & C16608 & 182 & C16622 & 560 & 30 \\
\hline 32 & 2.990 & C16609 & 205 & C16623 & 765 & \(5 \pm\) \\
\hline 34 & 4.756 & C16610 & 230 & C16624 & 1092 & \\
\hline 36 & 7.560 & C16611 & 253 & C16625 & 1.482 & \\
\hline 38 & 12.02 & C16612 & 279 & C16626 & 1881 & \\
\hline 40 & 19.11 & C16613 & 309 & C16627 & 2308 & \\
\hline
\end{tabular}

\title{
Belden WIREand CABLE
}

\section*{Transmission Line Cables}
 8216: 72 ohm coax. Puncturing voltage 30,000. No. 14, 19 No. 27 tinned; low-loss rubber ins., tinned copper braid, rubber overall; 460 OD. 37 mmf it. VP \(56 \%\). alien. \(/ \mathrm{C} .51 \mathrm{db}\) at \(1 \mathrm{mc}, 2.9 \mathrm{db}\) at 10 mc .
C20859-Bulk. Your Cost per ft...... 14 c C20859-Bulk. Your Cost per ft....... . 14 c c20936-250 ft spool.
\(\$ 28.38\)
8204: 72 ohm twisted pair, No. 18,7 No. 20 tinned; colton wrap, rubber ins. ("abled with weather-resistant cotton braid overall; \(190^{\circ}\) OD. \(21 \mathrm{nmm} / \mathrm{ft}\). V1 \(61 \%\). Aiten./C'. 53 db at \(1 \mathrm{mc}, 12.3 \mathrm{db}\) at 100 mc . C20860 Bulk. Your Cost per ft...... \(\$ 13.42\) 8209: 72 ohm shielded twisted pair, conduc tors and outer cotton like 8204 , but cabling includes paper wrap and tinned copper braid; 235' (Ol). \(32 \mathrm{mmf} / \mathrm{ft}\). between cosiluctors, VP \(57 \%\), atten. \(/ C^{\prime} 1.1 \mathrm{db}\) at \(1 \mathrm{mc}, 1.4 .9 \mathrm{db}\) at 100 mc .
C20861-Bulk. Your Cost per ft......... 6 c 8205: Twisted pair. No. 22, 7 No. 30 tinned. rubber ins. Cabled with weather-resistant cotton braid; \(175^{\circ} \mathrm{OD}\).

 Rubber Jacketed Portable Cord No. 18. 41 No. 34 hare copper; cotton wrap, 1, "4 rubber ins. Cahber
wrap, tso rubber overall.


\section*{Shielded Auto \& Aircraft}

\section*{Radio Wire}

8664: No. 28 solid tinned steel, yarn braid, polyethylene ins., tinned copper braid, vinyl c20863 C20863-13ulk. Your Cost per ft

7c C20884-10(1 ft. spowi. . . . . . . . . . . . . . . \(\$ 5.91\) Flex. stranded tinned copper, collophane \begin{tabular}{l} 
wrap, rubber ins., lacquered cot ton braid, \\
tinned copper braid. \(10^{\circ}, 155^{\circ}\) \\
\hline \(25^{\circ} \mathrm{OD}\).
\end{tabular} tinned copper braid Bulk \(10^{\circ}, .195^{\circ} .225^{\circ} \mathrm{OD}\).
\begin{tabular}{|c|c|c|c|c|}
\hline & & & 1 & spool \\
\hline Mfr's & Stock & Your & Stock & Your \\
\hline No. Gauge & No. & Cost & No. & Cost \\
\hline 8656 No. 16 & C16219 & 5: c & C20864 & \$4.49 \\
\hline 8655 No. 14 & C16218 & 7 c & C20865 & 5.47 \\
\hline 8654 No. 12 & C16223 & 8c & C20866 & 6.87 \\
\hline
\end{tabular}

\section*{Intercom and P.A. Cable}

8799: Twisted pair, No. 18 solid bare copper; plastic ins. Tinned copper braid overall; \(.155^{\circ}\) OL.
C20867-Bulk. Your Cost per ft......... 3c
C20914-100 ft. spool
c20911-500 ft spool
\$12.57

\section*{8943}

\section*{General Use Hook-Up Wire} Tinned conductor, cellulose acetate yarn wrap, cel. acet. braid, lacquer coating. 1000 volts breakdown. OD's from . \(072^{\circ}\) to \(.087^{*}\). Comes in black, blue, green, red, yellow. Specify color.



8401


8014


8206


8869

8431

\section*{Shielded Phono-Pickup Cable}

8431: Flexible and linp. No. 24, 16 No. 36 inned; rubber ins., tinned copper braid, cotton braid overall; .085" UD.
C20872-Bulk. Your Cost per ft. .... 21/2c C20848-1(0) ft. spool.

Microphone Cable, Vinyl Covered
841: No. 25 stranded tinned copper and steel mixed, polyethylene ins., tinned copper braid; 40 mmf ft., \(150^{\circ}\) OD.
C20857-25 ft. coil. Your Cost
\(98 c\) C20858-100 ft. spool \(\$ 3.36\) 8401: Same construction as 8411 but heavier ins., \(25 \mathrm{mmf} / \mathrm{ft}\)., \(200^{\circ} \mathrm{OD}\)
C20846-25 ft. coil. Your Cost. ..... \(\$ 1.30\)
C20847-50 5 -
\(\$ 1.30\)
2.60
C20844-100 ft. spool . . . . . . . . . . . . . . . . . . . . . 4.76 8422: 2-cond. No. 22, 16 No. 34 tinned copper polyethylene ins. Cabled with cotton \(16 \mathrm{mmf} / \mathrm{ft}\). between conductors, \(28 \mathrm{mmf} / \mathrm{ft}\). \(16 \mathrm{mmf} / \mathrm{ft}\). between conductors, \(28 \mathrm{mmf} / \mathrm{ft}\). c20868 - Bulk Yoer Cos
C20868 - Bulk. Your Cost per ft . . . . .
C20874- 25 ft . coil . . . . . . . . . . . . .

Shielded Cable, Rubber Overall
No. 20, 26 No. 34 tinned copper; cotton wrap, rubber ins. Cabled with cotton braid, tinned copper braid, cotton wrap, rubber overall.
l'ackage Stock No. Each Stock No. Each ler ft. \(\quad{ }^{8423}, 3\)-cond.* 8424, 4-cond. \(\dagger\)
\(\begin{array}{rrrrrr}\text { lerft. } & \mathrm{C} 20869 & 8 \mathrm{C} & \mathrm{C} 20870 & 10 c \\ 50 \mathrm{ft} & \mathrm{C} 20843 & \$ 3.56 & \mathrm{C} 20878 & \$ 4.29\end{array}\) \(\begin{array}{llrlr}250 \mathrm{ft} . & \mathrm{C20845} & 16.76 & \mathrm{C} 20877 & 20.45\end{array}\)
Indoor Aerial and Lead-In Wire 8014: Indoor aerial, flexible No. 25, 13 No. 36 tinned, vinyl ins. 36 tinned, vinyl ins.
c16130-25 ft. card C16130-25 ft. card, Your Cost..... 17 c . 1.73
C16131-500 ft. spool ............ 8200: Lead-in, No. 18, 7 No. 27 tinned. rubber ins. \(126^{\circ} \mathrm{OD}\).
ins..126
C16228- 100 ft spool. Your Cost . . 8.81 c
C16229-50 C16227-1(0) ft. spool
\(\$ 3.35\)
6.15
8206: Sanc, but tinned copper braid shield verall, \(155^{\circ}\) OI).
C20871-Yoesr Cost DCr ft
Cost
21.1 c

Test Prod Wire, Flexible and Limsp No. 18, 65 No. 36 tinned; cotton wrap, rubber overall; red or hlack. Specify color.
8899: \(50(0)\) volts ins., .1.10 \(0^{\circ}\) OL.
C16336-7 ft. red, 7 ft. black.
Your Cost
C16335 100 ft spool ........................ 28 c
C16337-1(x) ft. spool.
.\(\$ 1.50\)
\(\$ 13.03\)
8898: 10.1000 volts ins. . \(230^{\circ}\) OD
C16332-I3ulk. Your Cost per ft
52.48


\section*{Litz Wire, for RF Coils}
\(8817: 7\) No. 11,2 nylon wraps. 234
C16065-100 fit slyol. Your Cost
Tinned Bus Bar, 100-ft. Coils C16111 8012,
No. 14,
C1612-8011, No. i2


\section*{8839}

Low-Loss R-F Push-Back Wire
Tinned conductor two cellulose acetate yarn braids, waxed. 1000 volts breakdown. OI)'s from . \(067^{\circ}\) to . \(095^{\circ}\). Comes in hlack, blue. green, red, and yellow. Specity color.
Package Stock No. Each Stock No. Each 8841, No. 20 solid 8839, No. 20 stranded
\begin{tabular}{rrrrr}
25 ft. & C16246 & \(\$ 0.35\) & C16249 & \(\$ 0.39\) \\
1110 ft. & C16247 & 1.10 & C16248 & 1.23
\end{tabular} \begin{tabular}{lllll}
1 (M) ft. & C16245 & \(\mathbf{1 . 1 0}\) & C16248 & 1.23 \\
\hline
\end{tabular}
8861 , No. 20 solld 8844 , No. 18 stranded
25 ft . \(\quad \mathbf{C 1 6 1 9 9} \quad \$ 0.39 \quad\) C16208 \(\quad \$ 0.42\) \begin{tabular}{lllll}
\(1(x)\) & ft. & C 16204 & 1.22 & C 16205 \\
\hline
\end{tabular} 8863 , No. 16 solld 8862 , No. 16 stranded \(\begin{array}{rlrrr}25 \mathrm{ft} . & \mathrm{C} 16220 & \text { s0.45 } & \mathrm{C} 16230 & \$ 0.49 \\ 100 \mathrm{ft} . & \mathrm{C} 16221 & 1.49 & \mathrm{C} 16231 & 1.61 \\ 1000 \mathrm{ft} . & \mathrm{C} 16222 & 13.34 & \mathrm{C} 16232 & 14.74\end{array}\)

(4)

©

\section*{3 and 5 Conductor Shielded Cable}
(A) Three color-coded stranded conductors in tiphily woven tinned copper shicld. \(1 /{ }^{\circ}\) " outer covering of high percentage rubber.
C16145-
P'er Foot.
\(71 / 2^{\text {c }}\)
C16206-50-Foot Roll \(\$ 3.65\) C16207-100-Foot Roll . 7.02 Similar to above, but 5 -conductor. \(\left.\begin{array}{l}\text { C16100 } 100 \text {-Fert } \$ 9.78 \\ \text { Your Cost per Foot }\end{array}\right]\)

\section*{Ultra Low Loss Coaxial Cable}
(B) For use in high frequency transmission lines, photocable is required. The deelectric is solid flexible low los polyethylene thermoplastic. \(185^{\circ}\) in diameter with a woven copper shield braid and heavy vinyl outer covering. Inner conductor is 7 strands of No. 2 th copper wire. Impedance 58 ohms. Capacitance ner foot 27 mnid. \(275^{\circ}\) O.I), Available in 75 -fuot lengths only. C17127 Per 75 Ft. Length
\(\$ 3.75\)

\section*{Heavy Rubber Cord}The thick belt of flexible rubber that covers the conductor is made of smont oilresming. Jacket
No. Size Ft. 100 Ft. C20945 18-2-wire 4c \(\$ 3.60\) C20946 11 -wire \(41 / 2 \mathrm{c} 4.05\) \(\begin{array}{rrrr}\text { C20947 } & 1.1-2 \text {-wire } & 12 \mathrm{c} & \mathbf{1 0 . 8 0} \\ \text { C20948 } & 18 \text { - } 3 \text {-wire } & 5 \mathrm{c} & \mathbf{4 . 5 0}\end{array}\)

(D)

\section*{Single Conductor Crystal Mike Cable}

(D)Flexible stranded tinned copper single conductor; tinned copper braid shield; cotton wrap and lacquered braid, ruther overall. (utside diam. \(280^{\prime \prime} . \mathbf{S B}^{\mathbf{1} / \mathbf{2}^{\boldsymbol{4}}}\) C16333-F0) Foot Roll \(\$ 2.40\) C16334-ION-Font Roll. 4.70

Low Impedance Crystal And Velocity MikeCable (C) Consicis of two conductors, ollor coxled in a closely wo ven tinned copper shielding with outer covering of rubber. Abra
C16079-1'er Foot. . . . \(51 / 2^{\text {4 }}\) C16201-50 Foot Roll. ... \(\$ 3.07\)

\section*{Parallel All Rubber}

\section*{Lamp Cord}Both conductors sheathed in coating of tough live rubber Groove between conductors allows easy separation without fear of ruining insulation. In Black and Brown. Specify color desired. Shpg. wt. 1 er 100 it., 3 llus. C20920 18 Gauge
Your Cost. Fer Foot 24 er 5in Fen - 9.25

\section*{Parallel Rayon Cord}
(G)

I'opular type for connecting Overall covering of rayon braid.

18 Gauge- \({ }^{1}\) "Wall C20836 Maroon C20838-13rown C20837-Old riold \(21 / 2\) 个 Your Cost, Per Foot /1/2

\section*{WIREANB CABLE}

\section*{Transmission Cable}

Consists of twisted rubber covered conductors covered by a black weatherproof cotton uler braid. Shpg. wt. ( 100 ft .) 4 lbs. Per 100 Foot Coil. . . . . . . \(\$ 2.00\)

\section*{Telephone Wire}
(J) For general use and inter
 Cond R.C.

895-100 Fi. 500 Ft .1000 Ft
Your Cost \(52.64 \$ 13.10 \quad \$ 25.95\) C20896-3-Condwetor No. 19 Your Cost \(\$ 3.90 \quad \$ 19.25 \quad \$ 37.95\)

\section*{Cotton Twisted Pair} (1) 18 ciance

\(\oplus\)

\section*{and green mixture. \\ c20962-Your Cost \\ \(3^{4}\)}

Per 250 Fi.Your Cost . \(\$ 6.75\)


Shielded Lead-In and Hook-Up Wire
A 10 -strand wire covered on braid and a woven. inned C16240-Jer Ft. EOFI. 100 Ft Your Cost 3c \(\$ 1.35 \quad 2.25\)

\section*{Copper Shielding}
(M) Flexible tinned conper shield-


\section*{Thermoplastic Hook-up Wire}
(A) Underwriters listed. 10,000 (A) volt breakdown lest. New thermoplastic insulation strips clean and is oil and acid resistant. Will withstand \(180^{\circ} \mathrm{F}\). For use where high conductivity and low loss is essential. Shps. Wt., per Red, islue, Green and Yellow. Specify color.
C16382- 25 ft . \(\# 20\) Solid... 24c C16383-100 ft. \(y^{2} 20\) Solid. 86c C16384- \(25 \mathrm{ft}, 720\) Stranded 28 c C16385-100 ft. -20 Stranded 99c

\section*{No. 18 Lead-In Wire}
(B) Solid tinned copper. "ct" rubBer easy-strip insulation. For lead-ins, ground leads or aerials. fy length when ordering. C16200 25 ft.
Your Cost single coil Lots of 10

224
C16215-50 ft
Your Cost single coil Lots of 10 C16216 luk ft Cour Lots of 10 C16217-1000 it

(D)

\section*{Copper Aerial Wire}
(C) Made of the tinest copper anteed to be fult lenge guarstandiard yauge as specilied. For any type aerial. Bare Stranded-75 Ft. Coils


\section*{Indoor Antenna Wire}
(D) Multi-strand flexible copper
cerized covered hy a brown mer-
cerized a.c.-d.c. antenna use, \(25-\mathrm{ft}\).
hank.
C16155-Your Cost.....

\section*{Low-Loss High Frequency Coaxial Cable}

Dielectric is a solid flexible low-loss mechanically stable thermoplastic of Polychanically stable thermoplastic of Polyethylene proven most efficient in high fre-
quency tranismission circuits. All cables listed below are impervious to acids. alkalis, oils and gasoline. All have a woven copper shicld braid over the Polyethylene dielectric with a heavy Vinyl outer covering overall. Many other single and twin conductor types available. Write for technical bulletin-C19900 sent FREE on requeat.
Stock Amphenol Ohms Cap,ft. Wire Dielectric Cable Vour Cost 1720 No. lmped. mnif. Size O.D. O.D. Per Ft. \(C 17120\) KC 8 K C17121 RC: 111 C17124 R2: \(\mathrm{C17122}\) RG: \(\begin{array}{cccc}29 & 7 \times 21 & .285^{\prime \prime} & .405^{\circ} \\ 20 & 7 \times 26 & .285^{\circ} & .405^{\prime \prime} \\ 115 & -20 & .116^{\circ} & .184^{\prime \prime} \\ 28 & -20 & .111^{\circ} & .195^{\circ} \\ 22 & -22 & .146^{\circ} & .242^{\circ}\end{array}\) 19 c
20 c
24 c
11 c
11 c \\ \section*{\section*{ETMETIGNOD \\ \section*{\section*{ETMETIGNOD \\ \\ -1 TWIN 300\()_{L E A D}\)} \\ \\ -1 TWIN 300\()_{L E A D}\)}

\section*{Twin Lead Transmission Line}

300 ohm Amphenol 14-056 represents the latest design in RF transmission line. lrovides proper match of antenna to all standard 300 ohm input FM and television receivers. 300 ohm recommended by RMA for use with television receivers in broad band operation. For use indoors or outdorss. Low-lows Polyethylene insulation is efficient, tough and weather resistant. Will withstand severe weather conditions.
C17130.
34
Per 100 feet
\(\$ 2.85\)
750 hm Amphenol 14-080. Especially for dipoles of 72 ohm impedance.
C17131
24
Per 100 feet
\(\$ 1.90\)
750 hm Amphenol 14-023. For anlateur transmitting antenna systems. Conservatively rated at 1000 watts. at 30 MC or lower frequency. C17132

C16167-100-ft. Coil. . . . . . . 53c

\section*{AMETENOD}



17123 R(; 5M.

Per foot
\({ }^{4} 4\)

\section*{A U T O Antemas - Accessories}

Reliance Auto Radio Suppressors YYTDF

ITigh quality suppressors housed in black molded cases.
No. Type Description C5283 A Standard Spark Plug C5246 A Special for Ford V8
C5278 B Compact Spark IJug C5278 B Compact Spark I'lug C5247 13 Compact Spark Plug Type for Ford V8 C5253 C Cable Type for Buick C5285 D Elbow Cable Type C5279 E Standard Listributor C5293 F Distributor Type for C5277 F Distributor Type for C5256 * Elbow Type for 1938 Your Cost Each ...... \(\mathbb{5}\) er 10 Assorted. *like "A" with "I." connector

\section*{MALLORY Replacement Vibrators}

Mallory replacement vibrators for auto radios and hattery operated household receivers. Precision made, Mallory vibrators are noted for their long life and trouble free service
All vibrators are ratel at 6 vol is except types \(\$ 245 \mathrm{~A}\) and W2 46 which are rated at 4 volts. Mallory Replacement Guide listed below is complete index to correct vibrator replacement. Guide is ree on request
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline No. Type & Each & No. & Type & Each & No. Type & Each \\
\hline C6114 222 & \$4.50 & C6135 & 292 & \$2.82 & C7292 839 & \$2.82 \\
\hline C6096 245 & 4.06 & C6136 & 291 & 2.41 & C6084 8.2 & 2.41 \\
\hline C7278 245 A & 4.06 & C6137 & 298 & 3.23 & C6085 853 & 2.41 \\
\hline C6088 245C & 4.06 & C6093 & '5051 & 2.03 & C6086 8.54 & 2.41 \\
\hline C7280 W245. & 4.06 & C7285 & \(50 ¢ \mathrm{P}\) & 3.23 & C7276 8.59 & 2.41 \\
\hline C6097 246 & 4.06 & C6071 & 507 P & 2.03 & C6076 810 & 2.41 \\
\hline C7281 246A & 4.06 & C6073 & & 4.06 & C7293 870 & 2.41 \\
\hline c7283 W246 & 4.06 & C6074 & 716 & 4.06 & C7296 901 M & 2.03 \\
\hline C6169 247 & 4.06 & C6062 & 725 C & 4.50 & C6079 952W & 4.06 \\
\hline C6098 248 & 4.06 & C6107 & & 4.06 & C6080 953W & 4.06 \\
\hline C6171 249 & 4.06 & c7289 & 713 & 4.06 & C6081 95.4 & 4.06 \\
\hline C6127 271 & 4.88 & C7277 & 748 & 4.06 & C7275 1100 & 2.41 \\
\hline C6130 273C & 4.50 & C6063 & 825 C & 3.67 & & \\
\hline C6167 273D & 4.50 & C6108 & 826C & 3.23 & & \\
\hline
\end{tabular}

\section*{MALLORY Replacement Guide}

Includes alphabetical listing of radio and vibrator power supplies by nfg . and model number. (iives Mallory replacenent in each case. Also how to install \(19.16-47\) auto radios. (Jther valuable information for the serviceman. Available on request at no charge C19993.

\section*{NEW! MALLORY Vibrator Data Book}

A complete Technical manual on the operation and application of vibratore C19992 Your Cost


\section*{Reliance "Universal Type" AUTO RADIO ANTENNAS}

\section*{Auto Top Cowl or Fender Mount}

Wire Wound Unite (G) Most efficient type. Do not impair motor efficiency. Low d.c. resistance, high inductance. Act as r.f. choke. Extra rugged C5297-I Distributor Tyje 3 \&
Either Type, Each... 10 (Assorted) for

\section*{Master Distributor Unit} liermetically scaled; imperand heat. Eliminates need for other suppressors. D.C. re
sistance is 10.000 ohms. C5284-Each
\(98^{4}\)

Antenna Connector
 C16714-Two piece metal container, fibre in Your Cost
10 For


Tailor made for Ford V8 C14219- Type A. For 18 models: up to 1936 C14199-Type B. For 37 to 41 Your Cost Each,
Either Type.......29

\section*{Adjustable}

3 section, 56 -inch. Single hole mount on any contour. Ball swivel with Locking point permits adjustment to any angle and positive lock. Rugged rustproof construction, brilliant chromium plate. Ilas excellent pickup with minimum noise. Permanently attached shielded moistureproof 36inch lead-in and bayonet adapter. Easy to install

Your Cost

\section*{\(\$ 2.67\)}

12' Lead extension for fender installation
C22008-Each
4.4

\section*{Top Cowl Mounting}


Mounts securely on all car cowls, re gardless of contour
Triple Chrome lin ish, sturdy rattleiyuipped with 36 -
inch moistureproof lead in and bayo-
net adapter. This antenna is easy to vide perfect noisefree tuention recardless of cars position in relation to trans mitter.
C22003-
\$2.67
3-Section, 66-inch Side Cowl Mount 2 stanchion universal mounting. Has rustproof triple chrome plated finish. sturdy rattleproof construction. and streamlined insulators. Equipped wih \(36^{\circ}\) moisturepronf ead-in. Also includes conversion kit for stream lined bodies and bayonet adapter for lead. A real buy.

\section*{c22000}

Your Cost Each.
\$2.13
100-Inch Side Cowl Mount
Same as above but 100 -inch, 4 section.
C22001
Your Cost Each
\$2.98

\section*{Generator Condensers}


Dual
Similar to above, but \(2-5 \mathrm{mid}\)
2 leads.
C14198-Your Cost 494 Ammeter Condenser



\section*{Disappearing}

3 sections, 56 inch telescopes to 4 inch es exposed. Single hole mount. Rust, weather, and rattleproot. Iriple chrome plate brass construction, with bakelite insulation and static discharge tip. las highty elficient sickup with minimum noise. Has 48 inch coaxial lead-in
with Geon plastic nsulation, outer shielded loom, bayonet connector at one end, and coaxial swivel connector at other end

\section*{c22009-}

Your Cost

\section*{\(\$ 3.25\)}

\section*{Cowl or Fender Mount} Adjustenna
 3 section, 65 inch A truly
universal type anterna. easy to install. Heavy Chrome finish, turdy rust. proof construcion. Has wonderful pickup with minimum noise. Fquipped With 3 bininch
moist ureproof ead-in and bayonet adapter for lead. leleal item to sell for use on any type car and to conform to any hooly design.
C22002
Your Cost
\$2.29

\section*{2-Section}

52-inch Underhood Type


Easy to
mount telescopic underfor use on all for use on all automobiles with any type ricio. Made of Admiralty brass, triple ch r o me
plated. Rattleproof construction. Complete with universal
 3 Section 66 Inch Complete as ahove. \(\$ 2,3\)
C22005-Each

MOTOROLA 65 and 70 Conderser


\section*{Dome Light Filter}

Eliminates the noise in dome Has condenser choke. C14208Your Cost Each.
 10 For.


\section*{Reliance window Mast}
(A) Fast, easy aerial installation in apartments, homes and office buildings. Enjoy fine radio reception with an nerial installed in only 3 minutes. Attach lead-in strap. screw bracket down on sill, and the job is done. 3 section rod extends to 80 inches, telescopes to 40 in . Cadmium plated steel construction. C22006-Your Cost.
s1.73

\section*{Vertical Home Antenna}
(B) Wirminates unsightly and dangerous horizonta Surdily constructed ard much easier to instalee reception types of antennas. Complete outlit includes a than ot her foot 4 section antennal mast of rustproof. flexible steet .40 ft . of lead-in wire. 10 ft of ground wire, lightning ar rester, insulators, screws, two pife straps, one strap Shounting alssembly, instructions for installation and use C21824 Wi. 4 lbs. C21824 Your Cost
\(\$ 3.70\)

\section*{AMPHENOL All-Wave Antenna}
(C) Noise free, 30 nkc through 108 mc without switch akes .in-derived ifler with :30)-me cutoff automatically section which is botyd and short wave from the 6.5-fi sion stat ic. FM and other frequencies a reduce precipitafrom the 2 " dia. horizontal dipole supported on the \(\overline{3}-\mathrm{ft}\). steel mast. Thoth sourcer feed through the 50) \(f 1\). 52 -ohn couxial cad-in. Coax climinates interference due wion rans mission-line pickup. Standing-wave ratio in F゙M band varies betwern 1.05 and 1.57 to 1 . Simple mounting in-
cluder hase plate and trimod-cuying clamp. Complete cluder latse plate and tripod-kuying clamp. Complete. ready to install. Shpy. wi. 9 lbs.
C22039-Amphenol 12 -(oul. Your Cost
\(\$ 17.49\)

\section*{ICA Flexible FM Dipole}

Consists of two folderl dimele elements spliced to 300 ohm iwin lead transmission bine. Flattened end insulators permuts use inducors under carpel. on room
molding, etc., as well is outdors. Lasses in line measure only .8: db per Hop ft . at l(0) mc.
C22038 Your Cost
\$1. 5


Plated Ground Rods
(B) Used wherever a pipe ground head, \(3 /\) not heavy plated steel yoke for head, 3/a" heavy plated steel. Per 10
No.
Each \begin{tabular}{lllr} 
C17187 & 4 & Each & Per 10 \\
C17188 & 6 & \(66 c\) & \(\$ 4.56\) \\
\hline
\end{tabular}

Single Lead-in Strip () Clip terminal each end. Your Cost Each


BRACH NEON Arrester
(P) Usec a NEON TUIBE instead of an air-gap or resistance. Fully Underwricers
Your Cost
.824
DUPLEX TYPE: Same as above, but for use with sets having doublet an-c16701-Your Cost...... \$1 5

\section*{Porcelain Arrester}
(0) Itoused in brown glazed norcelain; c16753 Your Cost Each...184
10 IFor

\section*{Kwik-Klip Fastener}
(V) Fastens wire quickly and casily to post insulators. Made of heavy gal varnized wire. no tools neccssary, can be used over and over again. Clip only. C15671 Box of 100 324

\section*{Special Insulator Kit}

Kit contains 50-type \(W\), 4-type \(X\) as shown at right. With leather washers. shown at right. With leather washers.
C15683-
Your Cost . . . . . . . . .........

\section*{"Grip" Ground Clamp}
(4) Makes a vise-like grip on pipe. contact. Pleavily plated. makes 8¢ 100 For

\section*{Pipe Ground Strips}
(N) Broad ground clamp adjustable to ameter. Has clip for atlaching cround lead \(\mathbf{C 1 1 0 2 - Y o u r ~ C o s t ~ E a c h . . . . . ~ 5 4 ~}\) Arrester for Doublets
(O) An approved arrester for the douinsulated trom antenna. Air-gap type, C16950 Cost Each.............. Sit

\section*{TACO FM Folded-Dipole Antenna}
(E) Directional front and rear. Includes \(60-\mathrm{ft}\). coil of m-ohn mansmission line antenna with terminal structions. Shpy. wt. kit lbs. Reflector ascembly for above. Makes anten tional. Complete Shys. Wi. 3 lbs.
\(\$ 2.94\)
(F) Matching transformer to use FM ant. on either FM either band toantenna. Shpg wi. \(11 \frac{1}{2} 1 \mathrm{bs}\).

\section*{Antenna Loops}
(G) Ideal for hattery and midget sets or portables. Reexcellent selectivity. Inductance slighty pickup and necesary, permitting removal of slightly higher than C16450
C16450 - Your Cost
434

\section*{ICA Tenna-Scope}
(1) A new style buit -in tuned radio antenna which may changes. It eliminates radio without making any circuit changes. it eliminates the use of an outside aerial and ground. 1here is the opmortunity for dealers and servicemen to cash in on the newest derial invention. Some of the fatures of this unit are: Better selectivity, no aerial necessary. no sround necessary and higher signal to C16452-Your Cost
\({ }^{\text {s. }} 1.76\)

\section*{CONCORD Low Cost Aerial Kit}
(J) Nonner low cost aerial has ever been offered. Comcomprere in every detail and containing only the finest kit include 0 provide the ultimate in reception. This lea ; in, \(2 \overline{\mathrm{j}} \mathrm{ft}\). ground wire, approved arrester ansulated clamp. lead-in strip, two porcelain inculators, two nail-it waverecejvers.
c16476 -Your with all! types of broadcast and a!!ECONOMY AERIAL KIT
Content:s © 0 feet a 37 stranded aerial wire. 25 ft rubber covered lead-in. lead-in strip. ground clamp, 2 nail-it knobs and prorcelain insulator-. Shpg. wt. 21 bs 69 \&
C16748-Your Cost


\section*{Aerial Insulators}

Dependable porcelain insulators " \(R\) " is screw in type for hollding lead.ins or grounds off walls: " \(S\) " is standard nail-



\section*{Glass Insulators}
(1) Special tempered glass, unaffected (u) heat or cold. High tensile


ELECTRIC FENCE
Porcelain Insulators
(W) Good quality heavy glazed porcelain. For insulating wire from posts.
C156804 For
100 For
(X) For insulating on comer C15681Each.

\(\$ 1.50\)

\section*{posts.}
\(\$ 2.60\)


\section*{FM and AM antennas}


\section*{RELIANCE FM Antennas}

\section*{WARD FM and} Television Antennas (D) Provides an antenna for varying sion installation, insuring finest recepion. Each antenna kit includes sixty feet of 300 ohm polyethylene insulated transmission line. 3 low lose rubber standoffs to guide transmission line down mast, and six low loss plastic stand-ofis to guide line to receiverthus minimizing capacity to ground. Ring for attachment of guy wire assures secure installation. Universal base for mounting on any roof or wal angle. Vertical clement revolves or tilts in base for maximum signal pick up. Dipole of aluminum. all other parts weatherproofed. FMI antenna: for 88 to 106 mc . range. Television antennas from 41 to 88 mc . range FM Straight Dipole.

\section*{C22027-
Your Cost}
\(\$ 5.29\)


C22028-Television straight Dipole

\section*{Folded Dipole Antenna}
(E) Folded dipole is especially de signed for broader antenna tun ing and matched impedance to 30 . ohm transmission line for maximum response and energy. Less reflector Your Cost
C22030-Television Antenna
Your Cost

\section*{Mast Extension}

Sixty-inch weatherproofed extension to increase height of vertical mast on both FM and Television antennas c22031-
\(\$ 1.53\)

(C)

\section*{Reflector Kits}

Wards reflector kit combined with straight or folded dipoles provide maximum directional gain of desired signal and eliminates undesirable and interfering reflections. Kit consists of sturdy weatherproof cross member with reflector dipole and specially designed "polarizer" connection for mounting. Dipole elements can be rotated to any direction and tilted at any angle to easily orient for highest gain.
C22032 -FM reflector kit.
Your Cost
\$3.09
c22033-Television reflector kit
kit.
Your Cost
\(\$ 3.79\)

\section*{BELDEN FM Antennas}

(A)
Belden FM Dipole antenna system is scientifically engineered and may be used on all FM radios, can also be used for standard broadcast reception. Careful electrical design given excellent re ponce, maximum signal and trouble free reception over entire M band.
94.83

\section*{BELDEN FM Reflector}

Belden FM reflector when used with the above dipole antenna forms an antenna reflector array which improves FM reception on any installation. It is a necessary part of antenna when distance from station is great or locution among buildings causes weak reception. Kit consists of aluminum reflector element and cross member porcelain junction block and complete instructions member, porcelain junction block and complete in Your Cos
\$1.89

\section*{300 Ohm Twin Lead-In}
(c)

Special low-loss 300 ohm transmission line. Ideal for use with proof. \(\qquad\)

\section*{Antennas are of all metal weather-proof construction and provide maximum} electrical efficiency. Each antenna complete with 60 ft . of 300 ohm line, rubber standoff pads, six low loss plastic standoff insulators to minimize capacity to ground and eliminate reflections on line. Adjustable universal mounting base on 5 -ft mast enables installation on any roof or wall angle, and facilitates orienting. Complete instructions for installation included with each antenna.

\section*{Circular Folded Dipole Antenna}


Newly designed circular folded dipole antenna, is non-directional. simplifying its installation, reorientation unnecessary for new station reception. For use fairly close to transmitter. Adaptable or frame mounting. c22010 Your Cost
\(\$ 5.25\)

\section*{Flat Folded Dipole Antenna}Nit completely non-directional. may easily be oriented for maximums gain. Provides broad tuning and goral pick up. Does not include \({ }^{\text {reflector }}\) C22011 -Your Cost
\(\$ 4.60\)

\section*{Folded Dipole with Reflector}
(B) I'rovides additional signal strength where installations are remote or where signal output from transmitter is weak. Also eliminates interfercompletely adjustable to facilitate numuting and orienting. \(\$ 9.50\) Additional 5.ft. mast extension for use with above antenna. 1.30

\section*{TRICRAFT Television \& FM Antenna}Model : 300 ) was designed to satisfy the users of both television and
IFM receivers for an all-purpose. all-wave antenna. I'rovides for complete coverage of both television bands, as well as the permanent FM band. Complete with 65 feet of \(3(x)\)-ohm transmission line and all accessories are necessary for installation. Universal mounting bracket at base of 8 - ft . C22036 -Your Cost
s11.61

QMPRENO


FM Dipole Antenna Kits
FM receivers perform to their maximum efficiency when equipped with mum efficiency when equipped with the Amphenol Dipole Antenna and \(3(X)\) ohm Twin-Lead transmission line. \(3(x)\) ohm Twin-Lead transmission line. This complete beam type of antenna provides high gain. Made of light but superior strength tubular steel. Streamlined, rugged and weatherproof, this assembly will give years of truable-free service. For 88 to 106 Mic. c22040-Dipote Antenna and Reflector Kit, less 300 ohm twin lead-in.
Your Cost
\$6.91
C22041-Dipole Antenna Kit, less reflector and 300 ohm
\(\$ 4.12\)
Your Cost
vary parts to C22042-Rellector array conversion kit. Consists of necessary parts to convert Dipole Antenna Kit to Dipole and Kellector as illustrated. Less 300 ohm twin lead-in
Your Cost
C22043- Side mounting bracket.
Your Cost
\$3.23

\section*{AMPHENOL Standoff Insulators}

(H)For twin -lead transmission line. Polyethylene insert fits all types of receiving \(t\) win leads. Insulators do not have to be strung on line. No. 14 wood screw 3 inches long. C16957 Your Cost
(J) Low loss polystyrene insulator for use with 300 ohm, twin lead. Holds line securely but will not inch and change impedance.
C16958.
Your Cost
9

\section*{WARD Stand-off Insulators}
(K) Unique plastic design, holds transmission line firm but cannot pinch line to change in pedance Your cost.
-


\section*{WORKSHOP ASSOCIATES}

\section*{Broad-Band Ham Antennas and Accessories}

\section*{10-Meter 3-Element Beam}

(A)
Horizontal elements made of adjustable telescoping aluminum ned for strength and durablity to withsiand high winds and DeExceptional rigidity provides amexth easy rotation. 1 hirector, dipole, reflector, very unidiructional. Impedance fo ohms at the feed point inside the weatiserpronf piast ic lead. With i2 ohn coaxial cable, standing wave ratio never exceeds 1.3 from 28.0 to 29.3 mc . Comes conplete with all beam parts, plugs. gaskels, but less mast and mast c22014 Workshop No. 29. Your Cost
\$39.50

\section*{6-Meter 3-Element Beam}
(Not illustrated.) Iligh gain. 3 horizontal clements, high front-toback ratio. standjng wave ratio less than \(1 . I\) over emire band using 52 ohm cable. Aluminum itloy elements lit securely into :1 heavy-duty tings, less mast
c22016- Workshep No. 52:A13. Your Cost
\(\$ 9.00\)

\section*{2-Meter 6-Element Beam}
(Not illustrated.) Power gain of 6,78 dh). Six vertical elements of 1 ! \({ }^{\prime \prime}\) aluminum tubing sealed at the cells. dipele, iwodirectors, and iwo reflectors, all phased to give at very high fromt-to-hack ratio and very Complete, less mast and mast parts c2015-Workshop No. 146AB. Your Cost
\$21.50

\section*{Manual Mast Rotator}
(B) By adding the exirat cections and hrackets in the manual rotator kit, the ablowe listed mast can be turned from below. A rotating arm is supplied to attach to the lower end for locking the antenna in
preition. Complete kit.
C22019. Workshop Nu. ANIS. Your Cost...........

\section*{Mast and Mount}
(C)

Rugged tubular stecl mast in 1 wo t-ft. soction: to make overall guy wires. Adjust to the side of any structure by shortening er lengthening the mounting arms. Complete kit, contans all tolts and hrack-
e22017 - Workshop No. AN. Your Cost........... 88.85 Workshop No. AM11, Extra \(4-\) ft. mast sections to heighten above
mast.
C.22018 Your Cost Each.............................. \(\$ 1.30\)

\section*{WORKSHOP Remote Rotator}

(D)Sturdy cmooth-operating mechanism. Y̌ears of trouble-free servy one arracemmicdate at 10-and 20-Niter combination beam or North stop, Full rotation at 1 rpm. reverses instantly from any point Single switch on indicator controls rotation. Compass-dial pointer shows bean direction at all times. Sturdy base plate mounted on ball thrust bearing handles 5(k)-lh. lead with ease. lleavy duty 110v AC motor with high gear ratio. Precjsion-cut gears minimize backlash and wear, maintain high accuracy. Compass dial indicator housed in attractive black enameled aluminum case, rolat or tight aluminum casti
C \(22020-\) Your Cost \(\qquad\) \(\$ 157.50\)

\title{
AMATEUR ANTENNAS
}

(G)


\section*{PREMAX Rotary Beam Rit}
(E) A high-gain diective : \(\boldsymbol{b}\) (E) Justible seankes duraluminum tubing to cover the 6 , 10 , or 11 meter sonds. Ingle tron supporting framb is provided with mounting holes and harduare fot esing che-nain awombly. All metal, no warping or crackng. Invulation at voltaige noxie's to reduce leatkage : s. ". "-match" feed
 of her foed systems as well as facilitate luning. Kit includes frame and -mateh accessories thuecentry insulators and hardware, including

\(\$ 29.40\) Extratements only. in pairs. Shps wt per pair 2 lbs.
C22022 l'renax No. 369 -A. Your Cost per Pair....
5.29

\section*{PREMAX ROTOMOUNT}
(F) Iland operated turniable will support hargece beam assembly. Tourned manually with flexible sted cable and pulleys on the same principle used to ster-r boats. Inexpensive inut practical and easy operating. Full :3tif rotation in either direction. " diameter ball thrust bearing. Shaft supported by 2 side bearings to eliminate - ded play. Supplied with 6 ft . of Eatwanized thexible stect cable. Platform 10x12". Shug. w Your Cost
\$21-4 5

\section*{MILLEN Antenna Matching Preamplifier}

Impedance matcher and broad-hand preamplitier. 20, 10 and 6 meter bands. Tunes antenna to receiver and amplifies signal with 6AK5 for bands. Tunes antenna to recever and amplaiks signal with 6AK5 for 10 ma and 6.3 y AC at \(1 / 5 \mathrm{~m}\) ma fron receiver. Complete with plug-in for \(2-32\) mic, power cable, input and output connectors, less tube. \(61 / 4 \times 53 / 1 \times\)
 C21016- llug in assembly for 18 - 55 mc . \(\$ 3.15\)
3.15 GORDON Heavy Duty RF Relay
IMDT, for antenna chatngeover or tank switching. Jlandles 1 LW easily
 coin silver self wiping contacts go toxether with no chatter or bounce. 110 V bil cy. coil holds contacts together with 4 lb . pulf. \(\frac{1}{2}\) contact spac-

C14235 - iordon No. l(OK).
Your Cost
\$10.58

\section*{Coaxial Antenna Transfer Relay}
(G) SPDT, capacity \(\mathrm{S}_{5} 0\) watts RF if impodances are matched. Has three ant inmale recrpater to accommorate plugs on kG-8/U cables C14133-1'rice No. 63510
Your Cost
\(\$ 9.80\)
Type 6351. sinme as above with the addition of two sets of auxiliary conacts. one SWSl normally open and one SPST normallv closed. both rated



\section*{(H)}

\section*{GORDON ROTO-BEAM}

Dual selsyn and drive motor system to rotate antenna remotely. Station control J illus(rated) contains selsyn-driven azimuth dial which control antenna, on-of master switch, and rotation
 ion is weather sealed and designed for easy mounttion is weather sealed and designed for easy mounting both of itself and of antennat arrays. Irive motor develops \(43,20 \%\) inch ounces at the spider through the 1800:l gears. Ant "nna speed is \(3 / \frac{1}{4}\) rpm. Direct RF coupling through slip rings and inductive coupling through rings 1 " apart permit dual band operation at up to 5 KV
Poth stations.
Roth stations.
c22026- Your Cost.
\(\$ 225.00\)

\section*{Direction Indicator Potentiometer}

Simplest azimuth indicating system. Pot designed for continuous rotation is put in series with a 200 ohnt, I, W resistor and an On Off SP'ST switch across 6 v DC. Beam is mounted directly switch across arm of put. An 01 ma DC meter is connected to the pot armithruugh a 6000 ohm rheostat. Antenna is oriented so beam points South when pot arm picks is oriented so beam points South when pot arm picks off maximum voltage, and rheostat is adjusted so meter reads full scale ( 1 ma ). As beam is turned throukh \(3599^{\circ}\), meter drops to zero. The next \(1 / 2^{\circ}\) swings the meter back to 1 ma. Both 0 and 1 ma are therefore \(S, 3 / 4\) ma is \(\mathrm{E}, 1, \mathrm{ma}\) is N , and \(1 / 4 \mathrm{ma}\) is W. Meter scale may be marked as above. Potentiometer only. Ohmite RB-2.
C8393-Your Cost.
\$4:78

\title{
ALL-PURPOSE (inalitaYs \\  \\ (A) \\ (D) \\ (E)
}

\section*{POTTER-BRUMFIELD Relays}

\section*{Type "PR"}
(A) A series of heavy-duty power relays designed for starting motors un to 1 HP; high heater loads, or any power conto dut
 with no overhearing because cois (AC) modelis).

Larger copper shaded pole piece prevents AC chatter. Heary contact pressure. Sturdy return spring. Metal parts heavily plated. Cond thoroughly impreenated with varnish and baked. Rugged screw ternuinals. Contacts are \({ }^{3}\), \({ }^{\circ}{ }^{\circ}\) oval-shaped coin silver. Ratings given below are conservative. Double-hreak type carry 20 amperes non-inductive foad at 110 V AC or 10 amps. 110 V . \(1 \mathrm{DC}_{6}\) or \(1 \mathrm{HP}^{110} 10\) or 220 V . single-phase motor. Single break type carry non-inductive loads of 15 amps 11 in
 \({ }_{2}^{2}\) ibs. each.
\begin{tabular}{|c|c|c|c|c|}
\hline No. & T & & Coil 17ts. & \\
\hline \(\mathrm{ClH}_{1254}\) & PR3A &  & & \\
\hline \(\mathrm{Cl}^{11256}\) & PR &  & & \\
\hline 125 & PREA & SPD & & \\
\hline 122 & PR54 & & & \\
\hline \({ }^{\text {c14263 }}\) & \({ }_{\text {PRTA }}\) & DPs & & \\
\hline & & & & \\
\hline C14245 & PR11A & & & \\
\hline C1 & \({ }_{\text {PR3D }}\) & & & \\
\hline c14267 & PR*D & & & \\
\hline C14268 & & Sps-d-DB-1 & & \\
\hline & \({ }_{\text {PR5S }}\) & SPDT &  & \\
\hline
\end{tabular}
"MR' Series
(B) A more compact relay for lighter loads than the " RR " series. Will hancle 8 amps AC or 4 amps. ID non-inductive loads. Adiustable spping. No current carried through
 require approx. 2 watcs, ich Curro Not Typo contacts oil Vle Each




 \({ }_{c} 1414278\) MR11i) MrDT \(24 \mathrm{~V} / \mathrm{DC}\)

\section*{Plate Circuit Relays}

(C) (D)Armature spring adjustahle for appli specified cations requiring clasising or or opening on specified currents or voltages, Table brin shows standard factory atjuustments ior current to energize, also minimum afler reaty justment of spring. Residual screve is adjuutable for faster release when de-energiz'd. LMM5, LM11 (C) contacts rated conser rentively at \(\mathrm{C}^{5}\) fanps. LS5 (1)) at 1 amps. \(1 l l u s t r a t i o n(C)\) (for the LS series. Illustration (IV) for the L.M serims,

\begin{tabular}{|c|c|c|c|c|c|}
\hline tock & Mir's & Coll & \multicolumn{2}{|l|}{( urrent.} & Yobit \\
\hline No. & No. & Ohms & Min. & Sid & Cost \\
\hline C14279 & LS5* & 2,50) & 6.) & 9.3 & \$1.68 \\
\hline C14281 & LS5* & 5,()0) & 4.3 & 13.3 & 1.99 \\
\hline C14209 & LM5* & 2,50) & 2.4 & 6.3 & 2.05 \\
\hline C14210 & LM5* & 5,000 & 1.7 & 4.5 & 2.30 \\
\hline C14211 & LM15* & 10, (x) & 1.2 & 3.2 & 2.65 \\
\hline C14212 & LM11 \(\dagger\) & 2,5(x) & 5.3 & 9.0 & 3.05 \\
\hline C14213 & L, M11 \(\dagger\) & 5,(xx) & 3.7 & 6.3 & 3.30 \\
\hline C14214 & LM11 \(\dagger\) & 10, (\%) \(\times\) & 2.7 & 1.5 & 3.65 \\
\hline SP1) & ntacts. & & \(\dagger\) & 「 & \\
\hline
\end{tabular}

\section*{Photoflash Relays}
(B) Energizing coils, availatle for both alloy contacts discharge capacitor through arc lamp, handle hundreds of amps during flash. 250 )-volt insulation. Varnish impregnation prevents moisture absorp\({ }_{\text {tion }}^{\text {tiock }}\)
\begin{tabular}{|c|c|c|c|c|}
\hline & \({ }^{\text {Mir's }}\) & & & \\
\hline C14150 & FR1. & & & \\
\hline & & & & \({ }_{4.01}^{2.96}\) \\
\hline & & & & \\
\hline & & & & \\
\hline & & & & \\
\hline
\end{tabular}

Automatic Lock Relay Electrical Release
(E) Employs two coils-one to operate relay and another to release the lock. When the circuit to the operating coil is closed momentardy the nornainy closed contacts on wh are closed with the relay remaining in this position even with the current removed rom the conl. In order to return the contact positions to normal, current is applied to the release coil which removes the automatic lock and allows the relay to return to its original position. \({ }^{16}\). fine silver dome-shaled contacts rated conservatively at \(4 \Lambda\); less conservative rating is \(20 \mathrm{~A} .315 /{ }^{\circ} \mathrm{L} ., 21 / 4{ }^{\circ} \mathrm{H}\)., \(13 /{ }^{\prime \prime}\) W. Shpg. wt. 2 lbs.
C14142-FL. 11 A. DPDT contacts, 1.10 V
G0 cycle AC coils.
Your Cost.............. \(\mathbf{\$ 8} \mathbf{8}\)
C14143-EL5A. Same as above but SPI)T contacts. Your Cost.

©

(ㅂ)
(1)


WARD-LEONARD Relays

\section*{Standard-Antenna Change-over}

\section*{(F)} Mycalex base and cros.arm. Wiping make and ase 28 , Double-pole doubleC14148 Type 507-531. Each
5.60 With Break-in (No. 507-534)
Same as ahove but with two additional single poles. Ore normally closed. the other normaliy \({ }^{0} 14131\) ize
\$7.69 Your cost
Remote Control Heavy Duty Midget (C) Single-Pole double-throw, singlv break. cleaning contacts, Rating: 20 ampss Ac normally open, is ampe, Ac normal C1124-Your Cost \(\$ 3.50\)

\section*{Thermal Time-Delay Relay}or fectiver tube priceng single-pole double-throw, single break. Timuing adust proif cia Your cost
\$10.50

\section*{AMPERITE Thermal Delay}
(1) SPST, normally open, closed by heater after delay in seconas per tate is in in sfandard octal tube envelope. 1 leaters 6.3 V . approx. 0.4 A .
 D) \({ }^{\text {D P }}\) lay 6.3 V Heater 115 V Heater Your cost
\(\left.\begin{array}{ccc|c}\text { Delay } & \text { C14400 } & \text { C14405 } \\ 5 & \text { C14401 } & \text { C140 } \\ 30 & \text { C14402 } & \text { C14406 } \\ 75 & \text { C14403 } & \text { C14407 } \\ 120 & \text { C14404 } & \text { C14408 }\end{array}\right\}\)

\section*{GUARDIAN Relays \\ Keying Relay \\ SPST Normally Open Double Break}

(®)Special oversize silver contact points control transmitters using (a) filament center-tap keying of any stage up to 2 KV on plate: or using AC primary keying control of power supplies delivering up to and including i KW: or using grid-controlled rectifier keying of 3 KV power supplies. Insulation is high-test bakelite, will withstand 3 KV to ground. May be mounted in any type of pancl. . It terminals are insulated from ground. Coil takes 920 ma at 6.3 VAC . Relay will follow key or bug at highest WIM rate obtainable. Iligh response speed, plus strong magnet and return sperer, give clean make and break, producing the best CW note. (iustrdian Series K-320, 3 ; \(2 \times 11 / 2 \times 1^{13}, 10^{\prime \prime}\). Shpg. wt C14119 Yo:ar Cost
\$2.47

\section*{Adj. Overload with Elect. Reset}
(L) I'ositive precise protection against current surges or continuous buerions. kemote panel installation of the control potentiometer (shunted across the coil is a current divider) simplines adjust ment of relay to opreate on any current vatue rrom 2sad" "or "clear." Reset contacts for pilot-light indication of overioad or clear kese relay uses 6.3 V AC coil. draws 920 ma, can be operated from any convenient point. Voltage drop across coil and pot. is less than 10 volts.


\section*{Antenna and High Frequency Relays}

InW raparity oversize silver contacts handle 1 KW in AF or RF circuits at frequencies \(\mathrm{L}_{\mathrm{p}}\) ) to 28 MC . Alsimag insulation; 110 volt AC coils. C14118-Mode! R-100 SsאT, Niormally Open. Your Cost...... \(\$ 2.08\) c14115 Mond.1 R-10 M-13 S1s

\section*{Break-In Relay}

Specifically designed for break-in operation of transmitters. \(1 / 10\) fine silver contact puints handle 1500 watts non-inductive or 1000 watts inductive tio cycle AC. Two sets of SPST contacts, 110 volt
coil.
C14125-Model B-100. Your Cost. ..................


\section*{Micromatch SWR and RF Wattmeter}
(M) Model \%(1)8 MicroMatch connected in vour ave ration ine will instanty reveal standing Wave Fathe. inercentage of power wate wid. and
throukhadjustment of your antenna tuner. loi you put 'p) ' \(\%\) or more of your transmitter power into the put mor or more of your transmitter power into the nections and after a simple calibration, it will read
 thru 30 Mic.
Easily read. large, open-scale 4 5/8 meter. Attractive appearance and smatll size add almost as much (o) athon ajpearance as the vital measurements adel of Your P. Factory wired ind fested in cutting down teel cabinet with etched white on-runmetal entume


C21539 Your Cost
\$29.90

\section*{BUD VFO}
(N) Model VFO-21 Variable Frequency Oscillator uses ofo oscillator, ovo amplifier. VR 105 whttage regulator, NE51 tuningindicatoreind 55:3rT/A; rectifier. Lise's plug-in coils for highest efficiency Power output 4.5 watts. Buile in power supply in corposates voltage regulator cube that makes out put stability conpparalle to crystal oscillator. Has provisions for switching to crystal operation. Keyed plete with tubes and three cyc. operation. Com wrinkle finish cabinet. Size: \(12!=88^{1 / 4} \times 8^{\circ}\). Shopg C21009-Your Cost
C9959- Cet 10
C9959-Set of 10 Meter coils C9960-Set of 20 Meter coils.
\$51.45
.53 .92
3.92
3.92

\section*{BUD Frequency Calibrator}
quency
las tooke, crystal inathe harmunic up 30 mc . Has on-of candry witch, the-reby perniting FCC-90. Adphwer supply C21014-
\$14.65

\section*{SILVER 903 Absorption Wavemeter}
(P) Frequency range \(16(x)\) Kcs, to \(4(x) / 500 \mathrm{mc}\) rwing own erim en of ecthed alummum pane carinance indicating lampand socket. Wraquency range made possible by two tyres of tumed circuits. ()n -ix ranges plug in in ductor is paralleled with tuning capacitor, seventh ductor is parishered with tuning capacitor, seventh transmissiun rane plug inductor is quarter wave su. 33 so deep. Unit less plug in induc

\section*{Your cos}

Plug in inductors with buile-in indi. 5 .30 C21292.
C21292-Range 1 (0)0/:3700 kc
C21293--Ratnge \(350(8) / 8(0) \mathrm{kc}\)
C21294 Ranke \(\mathrm{HO}(\mathrm{OO} / 15(0) \mathrm{kc}\)
C21295 -Range 1./40 mc.
C22296 - Range \(.10 / 100 \mathrm{mc}\)
C21297-Range \(1(x) / 300 \mathrm{mc}\)
C21298 Jug in quarter wave transmission line Range \(400 / 500 \mathrm{mc}\). No indicator lamp coupling

Your cost, any type
65
NOTE: We carry a comprehensive line of amasee what you want on these pages, write us your requirements. Your inquiries will receive our prompt attention.


\section*{MEISSNER "Plastic" I.F. Coils}

Stable-Compact-Wide Range
A new transformer in which the trimner base and the coil form (dowel) are moulded in one piece. The use of a special plastic material permits holding dimensions to within .0005 ". Trimmers "floated" a way from the base with an air-gap bet ween the bottom plate and plastic base. Wide range. Compact in size; 11 , square by \(2 y^{\circ}\) high. Specially-served Litz wire. Louble tuned. Metal shield can. Unaffected by temperature or humidity. Suitable for Input and Output.
Stk. No. Meissner No. S Stk. No. Meissner No. Set at Kc.
\begin{tabular}{lcc} 
C10373 & Messer & \(16-6649\) \\
C10376 & \(16-6652\) & 175 \\
C10379 & \(16-6655\) & 370 \\
C10382 & \(16-6658\) & 456 \\
\hline
\end{tabular}

1F Transformer
For the new ultra high F.M. frequencies. Permeability tuned to 10.7 rnegacycles. Mounted in rectangular shield can measuring \({ }^{17} 10^{\circ}\) screw type mount ing lugs.
C10329-M
Your Cost s2.20

Discriminator X'former Permeability tuned to 10.7 med acycles. This discriminator is designed for use on the new FM C10333-Meissner Your Cost Each

\section*{MEISSNER Standard}

\section*{Antenna and R.E.Coils}

Designed to cover the Broadcast 1580 KC ( \(190-550\) meters)
365 mmfd tuning condenser. High impedance primaries, wound with
 th coils are in black crackle ished non-magnetic can. \(17 / 8^{\circ}\) diam. \(\times 21 / 2^{\prime \prime}\) high
C10044-Ant. Coil
C10045-RF Coil
Unshielded
C10046-Ant. Coil
c10047-RF Coil

\section*{Phono Osc. Coil}


For wireless record players. Knob adjustment permits selection of frequency in by \(311^{\circ}{ }^{\circ}\) high. C10010-Meissner 17-9373.
Your Cost \(\$ 1,64\).

\section*{B. F. O. COIL}

For use with superhet receivers to supply beat note necessary for CW. reception. Range, 290 -650 Kd, peaked \(1^{31} 0^{\circ}\) so \(\times 3^{1 / 0}\) high actur1 Mis sq. 31 Your Cost Each

\section*{Special Oscillator Coil For Type 6SA7}

For electron coupled oscillator circuits. Unshielded, 456 KC IF Requires 350 mmid. padder cond. 365 mmid. tuning condenser. C10332-Meissmer 14-1033. Your cost
Each.


STANWYCK Midget \(\mathbf{I F}\)


Standard iron core 455 kc . midgets. Compression tuned, exceptionally high gain due to specially designed powdered iron cores. For general replacement and new set construction of smat! receivers and portables. Dimensions of can \(3 / 6^{2}\) square by \(17 / 8^{\prime \prime}\) long.

\section*{C10350-}
\(97^{\text {c }}\)

\section*{Unshielded Universal Adjustable Coils}


\section*{Exact inductance of} replaced coil covering 550)-1715 KC matlator coil adjustable from 520 kc . Have universal mounting facilities and can be mounted in original shield or used as is. Inductance adjusted by slipping core in or out of coil and then set with radio cement.
C10307-Antenna C10309-R.F.
C10310-Oscillator
Any Type Above, \(73^{\text {c }}\)

\section*{CARRON Cartwheel I.F. Transformers}


Forunshicldedoperation in midget radios. Not to be used where original was in shield can; not to be placed ina shield
Iunes to \(456 \mathbf{K c}\).
C10145-Input
C10146-Cutput
Either Above, Each

\section*{PEE WEE TYPE}

Antenna and R. F. Coils


\section*{Designed for service re-} placement in miniature sets. Secondaries gressive" wound with pregnated forms. High
pregne impedance primaries ad coupling turns provided to give maximum response thruout. with 365 mmfd. condenser. Ear ug mounting also perforated bracket for all mounting methods Unshielded.
C10315-Antenna.
C10316-R.F...Each 5 C

\section*{Ultra Midget Coils}

Similar to above, but slightly arger in size. Litz wound on im pregnated forms \(5 / 8^{\circ} \times 1 \frac{3}{6}\), unshieided.
C10313-Antenna
C10314-R.F. Each 404

\section*{STANWYCK FM IE COILS}

Newly designed SLUG TUNED FM coils, maximum " \(Q\) ' and gain at 10.7 mc . Low loss ceramic and quality iron cores. Response curve symmetrical, extreme stability. Aluminum case \(\$\)

\section*{FM Discriminator}

Same as above electrically and mechanically Electrically oentered secondary gives perfect symmetry between peaks. For \(10.7 \mathrm{mc} . \$ 2\). \(\$ \mathbf{S}\)

CARRON Standard

\section*{I. F. Transformers}


Built to highly exacting standards, these double uned I. F. transformers will assure excellent re sults. Low loss trimmers In 13/9x 1/3x31 \({ }^{\circ}\) shield can. Spaced leads elimnate "futter under Vi bration. Frequency 456

C10147-Input
10148-()utput
\(97^{\text { }}\)

\section*{CARRON Midget}

\section*{Iron Core 8 Standard}

\section*{I. F. X'formers}

Designed for use with nodern tubes. Wound with Litz wire. Ceramic base trimmer: polytinding forms double tuned. Leads from trimmer spaced away from windings. For use in one o 1 Only \(2 \frac{1}{2}\) inches high, \(11 / 4\) " square.

\section*{Iron Core 456 Kc .}

\section*{10204-}

C10205-Gutput
\(\$ 1.23\)
Standard 456 Kc .
C10206-Input
Either-Above, Each .... 914

\section*{LITZ WOUND}

Antenna and R. F. Coils
Employ new type bank constan or practically livity over BC. baind. IIgh impedance primat ies. 'lune \(540-1500 \mathrm{kc}\)
\(\qquad\) denser. Impregnated \(7 / 0 \times 21 / 4\) "tube Round cans with spade bolt mtg on \(13 / \mathbf{i n}^{\prime \prime}\) centers. \(17 / 8 \times 21 / 4\)

\section*{Shielded Type}
 Unshielded Type
Univ bracket; standoff mounting C10320-Antennai Each 50 亿


\section*{Oscillator Coil}

\section*{Use with converte} tubes such as the fiSA7
Furnished in dowel wound type for opera tion with \(455 / 6 \mathrm{~K}\). 1. F. frequencies only Padding C10237
Your Cost \(\qquad\) \(50^{\circ}\)

\section*{CARRON Unshielded}

456 KC Oscillator Coil
Dowel type, wound with cotton covered enamel wire, thoroughly dehydrated, treated, and fash dipped in a high melting point wax. Color coded for connection values. Padder condenser value
C10238-Your Cost
304
CARRON R. F. Chokes
All purpose r. f.
chokes wound on steatite dowels.
Both winding and
 dowelimpregnated
sealed permanently
against humidity. Accuratelyrated Moumed on "L" bracket, placing lugs in easy connecting position. Excellent replacements.
Stock Inductance Your
\(\left.\begin{array}{rr}\text { C10208 } & 2.5 \\ \text { c10209 } & 5.5 \\ 010210 & 7.5\end{array}\right\} \ldots 4\)




BARKER \& WILLIAMSON
Junior \& Type B Inductors
(A) Juniors for powers up to 75 watts input with (A) plate voltages up to 850 . Fitted with stand ard 5 -prong Steatite base. \(3^{1} 1_{16} \times 1^{15}{ }_{10} \times 314^{\prime \prime}\)
(B) Type B for powers up to 150 watts input with plug-in jack mounting 31500 . Steatite base and plug in jack mounting. \(3 / 2 \times 25 / g \times 4\)
Capacities shown (in mmf to resonate the L.F. end of the band can actually be 5 to "3) mmf less because of tube and wiring capacities.
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[b]{3}{*}{Hand Cap.}} & \multicolumn{3}{|l|}{Juniors} & \multicolumn{2}{|l|}{Type B} \\
\hline & & Stock & Your & & Stuck & Your \\
\hline & & No & Cost & Cap. & N & Cost \\
\hline \multirow[t]{2}{*}{} & End & d & I & End & Linl & \\
\hline & 15 & C10460 & \$1.38 & 14 & C10479 & \$2.41 \\
\hline 10 & 22 & C10461 & 1.38 & 21 & C10480 & 2.41 \\
\hline 15 & 22 & C10462 & 1.38 & 21 & C10481 & 2.48 \\
\hline 20 & 34 & C10463 & 1.38 & 33 & C10482 & 2.48 \\
\hline & 47 & C10464 & 1.38 & 36 & C10483 & 2.83 \\
\hline 80 & 60 & C10465 & 1.38 & 36 & C10484 & 3.16 \\
\hline \multicolumn{4}{|r|}{Center Link Models} & \multicolumn{3}{|l|}{Center I.ink Models*} \\
\hline & 15 & C10466 & \$1.38 & 14 & C10485 & 52.41 \\
\hline & 16 & C10467 & 1.38 & 20 & C10486 & 2.41 \\
\hline 15 & 16 & C10468 & 1.38 & 21 & C10487 & 2.48 \\
\hline 20 & 16 & C10469 & 1.38 & 34 & C10488 & 2.48 \\
\hline 40 & 33 & C10470 & 1.38 & 37 & C10489 & 2.83 \\
\hline 80 & 53 & C10471 & 1.38 & 39 & C10490 & 3.16 \\
\hline \multicolumn{4}{|r|}{Variable Link Models} & \multicolumn{3}{|l|}{Variable Link Models*} \\
\hline & 15 & C10472 & \$1.38 & 15 & C10491 & \$1.93 \\
\hline 10 & 22 & C10473 & 1.38 & 14 & C10492 & 1.93 \\
\hline 15 & 27 & C10474 & 1.38 & 25 & C10493 & 2.00 \\
\hline 2 & 21 & C10476 & 1.38 & 25 & C10494 & 2.00 \\
\hline 40 & 31 & C10477 & 1.38 & 29 & C10495 & 2.28 \\
\hline & 46 & C10478 & 1.38 & 46 & C10496 & 2.61 \\
\hline
\end{tabular}

\section*{B \& W Types T and HD}

Type T: up to 500 watts input. For most amateur uses. The link for the variable center-linked models is hinged on the jack base and may be arranged for easy panel adjust nent. Matches load impedances of 72 ohms. The same link is used with the plug-in coils for all hands. Allow mte space \(732^{\prime}\) long \(\times 6.1^{\prime \prime}\) high and approx. \(5^{\circ}\) wide.
(C) Type HD: heavy duty, up to 1000 watts input. Similar in arrangement to "Type \(T\). Heavy steatite plug har and jumbo banana plugs. Alow nitg. space \(11 \times 9^{\circ}\) and approx. \(7^{\circ}\) wide.
Capacities: can be 5 to 20 minf legs than shown because of tube and wiring capacities.
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Type T} & \multicolumn{2}{|l|}{Type H} \\
\hline Band Cap & Stock & Your & & Stock & \\
\hline \multicolumn{6}{|l|}{Center Linked Models, Center-Tapped} \\
\hline 1019 & C & \$2. & 0 & C105 & \\
\hline 21 & C105 & 2.96 & ) & C1051 & \\
\hline \(20 \quad 21\) & C1050 & 2.96 & , & C1051 & \\
\hline 34 & C10502 & 3.30 & 20 & C1051 & \\
\hline 55 & C10 & 3.65 & 3. & C1051 & \\
\hline \multicolumn{6}{|l|}{Variable Linked Models, Center-Tappe} \\
\hline \(10 \quad 17\) & C10504 & 2.20 & 16 & C10516 & \\
\hline 22 & C10505 & 2.28 & 16 & C10517 & 5. \\
\hline 22 & C1050 & 2.28 & 18 & C10518 & 5.16 \\
\hline \(40 \quad 29\) & C10507 & 2.61 & 33 & C10519 & 5 \\
\hline \(80 \quad 39\) & C1 & 2.96 & 11 & 20 & 6.19 \\
\hline \multicolumn{6}{|l|}{\multirow[t]{3}{*}{Steatite Jack Bar Assembly for center link Ty Tinductors (old type \(\mathbf{A 5}\) ) C10509 Your Cost.}} \\
\hline & & & & & \\
\hline & & & & & \\
\hline \multicolumn{6}{|l|}{\multirow[t]{2}{*}{Base Assembly and Swinging Link for variablelink "I'ype 'T" Inductors. C10510 Your Cost.}} \\
\hline & & & & & \\
\hline \multicolumn{6}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
Jack Bar Assemhly for center link Type HD Inductors. \\
C10521-Your Cost.
\end{tabular}}} \\
\hline & & & & & \\
\hline \multicolumn{6}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
Base Assembly and Swinging Link for variablelink Type III) Inductors. \\
C10522-Your Cost.
\end{tabular}}} \\
\hline & & & & & \\
\hline
\end{tabular}

\section*{38 W Turrets}

The successful development of the turret by \(B \&\) W has made possible fast, positive band switching so much in demand for amateur rigs. By the use of a unique switching assembly unused coils are shorted, thereb climinating absorption effects. Al models mount in a single \(3 / 5\) pane hole and cover the \(80,40,20,15\) and 10 meter bands by shaft rotation.

\section*{Band Hoppers}
(D)

For powers up to 75 watts. Uses same coil design as the Juniors listed at left. Unusually compact, mounts in space \(3^{13} /\) if \(^{2} \mathbf{x}^{2}\), depth be hind panel \(3^{\prime \prime}\). Tunes with a 50 mm vatiable capacitor. For interstage coupling between 2 beam-power tubes or between beam-power tubes and
trios. Type 2 A .
C10523-Your Cost. . \(\$ 48\)

\section*{75 Watt Turrets}
(E) For link counling single-ended or push-pull low power stages, with tubes operating at voltages up 850 . \(4^{\circ}\) deep behind panel, \(6 \frac{8}{8}\) dia. Type Your Cost Type 25 TEL, end linked, untapped,

\section*{150 Watt Turrets}
(E) For single and double ended cir1000 . \(47 / 8^{\text {ch }}\) deep behind panel, \(81 / \mathbf{B}^{3}\) dia. Type iBCl, center linked, center tanped.
C10526 Your Cost \$1.5. 5 c10527-Your Cost.......... \(\$ 11.69\)

Steatite Jack Bar Assembly for end or center c10497-Your Cost
lack Bar and Swinging Link for variable link Type 13 inductors.
C10498- Your Cos
\$3.44


\section*{Reliance}

\section*{Transmitting Chokes}
(R) Tapered 6-section winding on a ceramic dowel. Distributed Stacity 1 mm \(\begin{array}{ccccc}\text { Stock } & \text { Milli- } & \text { Cap. DC } & \text { Your } \\ \text { No. } & \text { henries } & \text { Ma. } & \text { Ohms } & \text { Cost } \\ \text { C10234 } & 2.8 & 1000 & 5 & \$ 1.62 \\ \text { C10235 } & 5.5 & 500 & 12.5 & 1.44 \\ \text { C10229 } & 5.9 & 200 & 34.9 & 1.44\end{array}\)

\section*{Parasitic Suppressor}
(5) (S) Non-inductive, 50 ohm re-cro-II. and 003 choke of 0.3 mi -cro-II. and .003 ohms DC res C10021-Each
\(\$ 1.15\)

\section*{Power Line Chokes}
(1) For suppressing interference, as a filter, or to keep high RF currents from power lines. With mtg. brackets.
Stock M.H. Ohms Core Your Nio. Tot. Ampa. D.C. Dim. Cour \(\begin{array}{llllll}C 10017 & 14 & 5 & .15 & 4 \times 2 \times & \$ 1.26 \\ C 10018 & 15 & 10 & .07 & 61 / 2 x^{2} & 2.11\end{array}\) \begin{tabular}{llll} 
C10019-18 & 20 & .045 & \(81 / 2114\) \\
\(C 10020\) & 46 & 2.06 \\
\hline
\end{tabular} OHMITE R.F. Chokes
(V) Solenoid chokes designed to avoid functamental or har monic resonations. All 1000 ma No brackets on 2 or 6 meter chokes.
Stock. Band Mic. Dimen. Your
No. Meters Hys. I.x. Dia. Cost
 C10080 10,11.

\(\begin{array}{llllll}\text { Cloos2 } 20 \text { toll } 60 & 193 & 61 / 288 / 6 & 1.26\end{array}\)

\section*{MILLEN Worm Drive}
（A）Right－angle worm drive as－ sembly for variable condens－ May be panl or base mounted Ratio 16 to 1．Frame of cast aluminum．Employs spring－ oaded split gears which eliminate backlash．Drive shaft \(1 / 4^{\prime}\) diam．； geared－shaft \(1 / 4^{\circ}\) dia．，couples to condenser by means of lexible coupling（not supplied）．Excellent for transmitters and receivers． Shpg．wt． 21 bs．
C8000－Type 10，000\＄4，50

\section*{MILLEN Dial Lock}

（B）Rotation of knob depresses dial＇without imparting any rotary C8079．Your Cost．．．．\({ }^{4}\) 子

\section*{MILLEN}

\section*{Right Angle Drive}

（C）
Extremely compact right angle drive unit，ideal for operating switches and potentiometers that must be located for short leads in remote parts of chassis．Uses bevel gears．Mounts on adjustable ＂standoff rods，＂single hole pane bushing or tapped holes in frame． Case size only \(1_{2} \times 11 / 2 \times 3 / 4\) ． C8001－Millen
10012．Your Cost

\section*{NATIONAL} Shaft Couplings
（D）
Nll take \(1 /{ }^{\prime \prime}\) shafts． \(7 \times-8\) C8461 Your Cost Es ET C8461－S Your Cost Ea．
Y \(\times 8470\)－Eatite insulation \(\boldsymbol{T}\)
C8471－EAch


MILLEN

\section*{Flexible Coupling}

\section*{（E）For angle drive up to \(45^{\circ}\) Steatite insulated，for \(1 /{ }^{\circ}\) sharts． 8039 \\ Your Cost}

Flexible Shaft Couplings
（F）Isolantite insulation with short length of dexible shaft ing．Will drive shaft at any angle up to \(50^{\circ}\) ．Takes \(1_{4}\)＂shafts．
C14530－1X． \(12{ }^{8} \mathrm{Oz}\) ．
Your Cost Each
84 Your Cost Each

1／8＂．
894
tite insulation． \(43^{\circ}\) ．\(\quad 24\) Solid \(1 / 4\) Shaft Couplings： C14501－TX．


\section*{\(\cos ^{8} \underbrace{c}\)}

\section*{JOHNSON Shaft} Couplings Ultrasteatite insulated units （A）and（B）．Flexibility is obtained by cadmium plated phos－ phor bronze spring．（C）A solid insulated Ultrasteatite unit．Long leakage path and accurate align－ ment．（D）Cadmium plated brass
 Flexible \(1 / 4\)＂Shaft Couplex （H）For use in coupling two \(1 / 4\) haft at or extending C9751 Baket angl Your Cost Each C975
A돕（A）

\section*{X＇MITTER Knobs}

For \(1 / 4\)＂Shafts．Black bakelite （except＊which are black lac－ quered wood）
\begin{tabular}{|c|c|c|c|c|}
\hline No． & Type & Size & \multicolumn{2}{|l|}{Ea． 10 For} \\
\hline C13022 & A & 11／2d． & 30 c & 2.70 \\
\hline C13018 & A＊ & \(15^{5} \mathrm{~d}\) d． & 12c & 1.08 \\
\hline C13004 & A & 18／4．\({ }^{\text {c }}\) ． & 31c & 2.79 \\
\hline C13011 & A & \(2{ }^{1} 56\) & 32c & 2.88 \\
\hline C13010 & A & \(3^{\prime \prime}\) d． & 41c & 3.69 \\
\hline C9896 & 13 & \(11 /{ }^{\prime} \mathrm{d}\) ． & 21 c & 1.89 \\
\hline C13014 & C & 11／8＇d． & 17c & 1.53 \\
\hline C13005 & C & \(11^{\circ} \mathrm{d}\) ． & 20c & 1.80 \\
\hline C13013 & C & \(13 / 8{ }^{\prime \prime}\) d． & 214 & 1.89 \\
\hline C13012 & C & 2\％ \(8^{\prime}\) d． & 26c & 2.34 \\
\hline C9885 & D & 11／8＇d． & 11c & ． 99 \\
\hline C9886 & D & 11／2＇d． & 12c & 1.08 \\
\hline C13007 & E & 11／8＇d． & 26 c & 2.34 \\
\hline C13008 & E & \(1^{1 \%}{ }^{\circ} \mathrm{d}\) ． & 35c & 3.15 \\
\hline C13009 & E & 23\％\({ }^{\circ}\) d． & 41c & 3.69 \\
\hline
\end{tabular}


\section*{ICA Chrome Silver} Dial Plates


Attractive grain satin finish． on Chrome Silver 1background llates．Finished in 3 different sizes．With various markings Calibrations：（0－100
\begin{tabular}{|c|c|c|c|}
\hline Stock No． & De－ grees & Dia．of Dial & Your Cost \\
\hline C14184 & 180 & \(2{ }^{\prime \prime}\) & 43 c \\
\hline C14191 & 325 & \(2 *\) & 43 c \\
\hline C14192 & 180 & 31尔 & 67e \\
\hline C14193 & 325 & \(31 / 2 *\) & 67 c \\
\hline C14194 & 180 & \(4 *\) & 76 c \\
\hline C14195 & 325 & \(4 *\) & \(76 c\) \\
\hline
\end{tabular}


\section*{Dial Plates}
（G）Fine etched melal black dial \(300^{\circ} \cdot 2_{21 / 4}^{\text {plates，}} \times 1^{11}{ }_{16}{ }^{\circ}\) ，withed four mount－ ing holes．
Plain Tone Record
Gain Microphone Specify marking chesired．24 MILLEN

\section*{Panel Transfers}

\section*{（H）}
（－）Block letters \(1 / 8\)＂high．Ample all narkings for C8012－13lack on \(\$ \$ 25\) C8013 White on Black． Your Cost．

\section*{SSEAKERC}

\section*{Etched Metal Plates}
（J） \(11 / 2 x^{8} / 8^{8}\) ．With following A．C．markings：
A．C．Input Modulator Grid Amp．（iricl Curr．Modulator Flato Amp．Screen Curr．Monitor Antenna Oseillator Buffer Plate Curr．（\％sc．I late Curr． lst Buffer（irid Output lst Buffer 1 Hate \(\quad 500 \mathrm{hm}\) Output Tilament Voltage 125 Ohm（）ut put Fil．Ist（IN ；2d OFF 200 Ohm Output Gain Control 500 Ohm Output input Plate
50 ohm Input Plate Voltage 125 （ hm Input 200 Ohm Input 500 Ohin Injut
Microphone
Microluatation Ind
Specify marking desired．
C9898－Any Type，Each．

（B）
C．Have etched caibrations graduated from zero to knob－shaftarge flanged knoh has bushing for if． No．Dia．Rot．Each No．Dia．l2ot．Each \(\begin{array}{lllllllll}\text { C14236 } & 4^{\prime \prime} & 325^{\circ} & \$ 1.62 & \text { C14238 } & 4^{\circ} & 180^{\circ} & \$ 1.62 \\ \text { C14237 } & 284^{\circ} & 325^{\circ} & 1.23 & \text { C14239 } & 23 / 4^{\circ} & 180^{\circ} & 1.23\end{array}\)

\section*{NATIONAL R \＆ 0 Dials}
（E）Type \(\mathbb{R}-15 / 8^{\circ}\) Dial．Fiched nickel silver． 180 C．degrees．Marked \(0-10\) ．It＂shaft． C1456S Your Cost

514 （D）Type O－31，Diall Nickel silver Marked 0－100． For \({ }^{1 / 4^{\circ}}\) shaft． cost

994

\section*{＂B＂Type Verniez Dial}
（F）Ratio variable from 6：1 to 20：1．Black Bakelite C14367－4＇\({ }^{\text {siam }}\) ． C14367－Clock 200－0 in \(360^{\circ}\) ．\} Either \(\$ 1.80\) C14368－0－100－0； \(180^{\circ}\) ．\(\}\) Either 91,80

MILLEN Model 10035 Panel and Dial （A）Four scales for hand calibration，0－1（10）linaar turbing dial mechanism，for casy cillibation div （A）C8077－Your Cost
\(\$ 6.00\)

\section*{NATIONAL Type＂ACN／f Dial}
（B）For F．C．oscillator or U．1．F．F．receiver．5－Range scale for hand calibration，（）－1（x）linear scale as


\section*{Precision Vernier Dials}


\section*{Type＂N＂Precision Dial}
（G）Engine divided scae and vernier．Reads to \(1 / 101\) （3）of a division．Planetary drive ratio 5：1．Liam． \(4^{\prime \prime}\) I3akelite knob．
C14363－Counter－clock． \(0-100,180^{\circ}\)
C14364－Clockwise 100－0， \(180^{\circ}\) ．
C14365－Clock wise \(150-0,270^{\circ}\) ．
C14366－（lock wise 200－0， \(360^{\circ}\) ．
Your Cost，Each
\(\$ 4.50\)

\section*{GORDON Hand Wheels}
（H）Bakelite Wheel with pointer．Fits all \(1 / 4^{\circ}\) shafts of Tuning controls that will add to the appearance C14641－ \(31^{\prime}\) ，and electronic equipment．Wt． \(180^{\circ}\) scale．Each．．．．．．．．\(\$ 1.23\) C14642－21，with \(180^{\circ}\) scale．Each．．．．．．．．．．．． 1.09 C14643－18，with \(180^{\circ}\) scale．Each．．．．．．．．．．．． 1.06 C14644－1 \({ }^{\circ}\) with \(180^{\circ}\) scale．Each
C14645－1，with \(2.0^{\circ}\) scale．Each
c14646－31，Your Cost．
C14647－2， \(1 .{ }^{1}\) ．Your Cost．
C14648－1 \(3_{8}^{\circ}\) ．Your Cost
C14649－11复：Your Cost
\(82 c\)
\(65 c\)

（1）MILLEN Dial
（J）o to 100 Counter－clockwise，heavy gauge nickel y iarge black Overall diameter \(31, \mathrm{WL} 1 \mathrm{lb}\) C8078－Your Cost

\section*{ICA Miniature Dials}
（K）Chrome Silver dials with black etched numerals （1）Egluipped with linger grip black knob．Only \(15 \%\) diameter．Fit \(1 / 4^{\circ}\) shafts．Ranges from \(1-10\) over 180 and also 270 degrees．1deal for matching dials on in－ struments，amplifiers，receivers，etc． C14234－ \(10.180^{\circ}\) Your Cost．


\section*{HAmmarlund and NATIO NAL CONDENSERS}

\section*{national Variable Condensers}


\section*{"TMA" Heavy Duty Units}
(A) Plates of heavy aluminum with bulfed rounded edges. Isolantite insulation; 4 hole bolt-spacer panel mtg.: \(1 / 6^{\circ}\) shafts I \(1 / 2^{\circ}\) long: \(48 /\) / \(^{\circ}\) wide, \(3^{1 / 8}\) high; type A (last letter)
 C14369 TMA-100B 23 3000 \(\$ 8.3\) \begin{tabular}{llccc} 
C14328 & TMA-50A & 7 & i0000 & \(\mathbf{4 . 1 5}\) \\
C14329 & TMA-100A & 15 & 6000 & \(\mathbf{6 . 3 9}\) \\
C14330 & TMA-150A & 21 & 6000 & \(\mathbf{7 . 6 7}\) \\
C14332 & TMA-50DA* & 8.8 & 6000 & \(\mathbf{7 . 0 3}\) \\
\hline
\end{tabular} \begin{tabular}{lllll}
\hline C14333 TMA-1001DA* & \(14-14\) & 6000 & 11.18
\end{tabular} \(\begin{array}{lllll}\text { C14544 } & \text { TMA-15013 } & 35 & 9000 & 10.87 \\ \text { C14545 } & \text { TMA-60DB* } & 15-15 & 9000 & 11.82\end{array}\) \(\begin{array}{lllll}\text { C14545 } \\ \text { C14546 TMA-50C } & 15-15 & 9000 & 11.82 \\ \text { C1 } & 12000 & 5.11\end{array}\) \begin{tabular}{llll} 
C14548 TMA-40DC* & \(11-1112000\) & \(\mathbf{8 . 6 3}\) \\
*Split stator units. & & \\
\hline
\end{tabular}

\section*{Midget Receiving Condensers} (C)

SI" types \(180^{\circ}\) straight-line wavelength (B)
 *l'or neutralizing \(10,45,47\), etc.; 3000 V.I (H) craw Neutralizing ths and similar output for use with lsolantite insulation
C14252 Your Cost Each chaft exteron at Did thakes this low ander condenser especially handy where ganging is required. Steatite base. Conducting parts silver plated.
\begin{tabular}{rlrr} 
No. & TyIr & Mmfd. & Each \\
14345 & PSE-25 & 25 & \(\$ 2.15\) \\
14346 & PSE & 20 & 50 \\
14347 & PSE & 2.15 \\
14348 & PSE & 75 & 2.15 \\
100 & 100 & 2.15
\end{tabular}
"TMC" Moderate Power Units

(E)For use with RK18. RK20,
\(800,830,203 \mathrm{~A}\) Air gap is . \(0^{-}\): butfed plate edges, arminum frates and heavy aluminum frame; - solantite insulaton: mounting with pane mounting with boits and spacers: llanged legs for base mounting: '4 shafts, \(1^{1}{ }^{\circ}\) long; over(except TCN
Letter D after type denotes split stator.
\begin{tabular}{|c|c|c|c|c|}
\hline Stock No. & Nat'l S゙o \& Ciar. & Nio. & Peak Volts & \[
\begin{array}{|l|l}
\text { Your } \\
\text { Cost }
\end{array}
\] \\
\hline \(\overline{\text { C14592 }}\) & TMC-50 & 7 & 300 & \$2.81 \\
\hline C14593 & Tac'-100 & 13 & 3000 & 3.20 \\
\hline C14594 & TMC-150 & 21 & 3000 & 3.67 \\
\hline C14596 & TMC-300 & 34 & 3000 & 4.63 \\
\hline 14595 & TMC- & 13-13 & 3000 & 5.27 \\
\hline C14261 & TCN* & & 6000 & 278 \\
\hline
\end{tabular}
"UM" Ultra Midgets
(F) Nounted on isolantite base shield can. Shafts extend for ganging. UM1325 has two sta tors and a single rotor
Si4336 \(\left\lvert\, \begin{array}{cc}\text { Mybe } & \text { Mmid. } \\ \text { Gap| Each }\end{array}\right.\) \begin{tabular}{c|c|c|c|c|} 
C14336 & {\([\mathrm{M}-15\)} & 15 & .017 & \(\$ 0.06\) \\
\hline
\end{tabular} \begin{tabular}{l|l|l|l|l} 
C14337 & LM -35 & 35 & .017 & 1.08 \\
C14338 & \(\mathrm{L} M-50\) & 50 & .017 & 1.20
\end{tabular} \begin{tabular}{l|l|lll} 
C14338 & CM-30 & 50 & .017 & 1.20 \\
C14339 & LM \\
C15 & 75 & .017 & 1.44
\end{tabular} \begin{tabular}{ll|llll} 
C14319 & [M-160 & 100 & .017 & 1.53
\end{tabular} C14340 CMA-25 \(25 \quad .042 \quad 1.62\)

Low Power Units
(G) "TMIS" Aluminurn plates and frames; solantite in sulation, \({ }^{4}\) shafts, -1 2 long; both panel mounting and 2-hole base mounting; adjustable rear bearing: "[JIS units have, 026 air gap, [MS. 1 units, . \(065^{\circ}\); all cews have lock-washers; overall dimensions: \(18 / 8 \times 21 \times 23 / 4\) All 1000 P.V., except C14555 and C14556 are 2000 P.V
\begin{tabular}{|c|c|c|c|}
\hline \[
\begin{aligned}
& \text { stock } \\
& \text { No. }
\end{aligned}
\] & Nat'l No. \& Cap. & \[
\begin{aligned}
& \text { No of } \\
& \text { Plates }
\end{aligned}
\] & Cost \\
\hline C14550 & TMS-100 & 9 & \$1. \\
\hline C14551 & TMs-150 & 14 & 1.92 \\
\hline C14552 & TMs-250 & 22 & 2.11 \\
\hline C14553 & TMS-5uD & 5-5 & 2.72 \\
\hline C14554 & TMS-100D* & 9-9 & 3.20 \\
\hline C14549 & TMS-300 & 27 & 2.56 \\
\hline C14555 & TMS.1-35 & 7 & 2.11 \\
\hline C14556 & TM心A-50 & 11 & 2.30 \\
\hline
\end{tabular}

\section*{HAMMARLUND Variable Condensers}

\section*{"HE" Micro Condensers}
(K) Cadmium plated: soldered brass plates; I solantite insulation; single-
hole mounting or base mounting hole mounting or base mounting.
\begin{tabular}{c|c|c|c}
\hline No. & Mmfd & Plates & Each \\
\hline \(\mathbf{C 8 7 0 0}\) & 17.5 & 5 & \(\mathbf{5 1 . 0 2}\) \\
C8701 & 35 & 10 & 1.17 \\
C8702 & 50 & 11 & 1.23 \\
C8703 & 100 & 27 & \(\mathbf{1 . 5 3}\) \\
C8704 & 1.10 & 37 & 1.74 \\
C8705* & 30 & 20 & 1.38
\end{tabular}

Type "MC" Midget Units (L) Cadmiumplated soldered brass aluminum ends: single-hole nount: (1245 gap; 025 plates; shaft, can wiper; f(x)-volt anc. test
\begin{tabular}{|c|c|c|c|}
\hline No. & 1 Mates & Cap.Mmfd & Each \\
\hline C8503* & - & 5.5-20 & 51.80 \\
\hline C8504* & 5 & 6-35 & 1.86 \\
\hline C8505* & , & 6.5-50 & 1.92 \\
\hline C8506 \(\dagger\) & 11 & 8-80 & 2.04 \\
\hline C8507* & 11 & 7.3-80 & 2.04 \\
\hline C8508* & 1.4 & 8.3-100 & 2.16 \\
\hline C8509 \(\dagger\) & 1.4 & 7.5-100) & 2.16 \\
\hline C8510 \(\dagger\) & 19 & 9-140 & 2.34 \\
\hline C8514* & 19 & 10-140 & 2.34 \\
\hline C8511 \(\dagger\) & 27 & 10.3-200 & 2.58 \\
\hline C8512 \(\dagger\) & 3.4 & 12-260 & 2.70 \\
\hline C8513 \(\dagger\) & 43 & 13.5-320 & 2.98 \\
\hline
\end{tabular}

\section*{NZ-10 Neutralizer}
(M) New locking type. One screwdriver partially final adjust and linal lock 2.3-10 mmf., 3 KV at minimum lock For single-ended or push-pull tubes with grid-plate cap. of 10 mmf . or less, such as \(812,811,8005,740 . \$ 3,5\) c8710-Each

\section*{Type APC}

Air-Padding Condensers (N) Type APC Isolantite base sol (N) dered brass plates; \(0.15^{\circ}\) air
 rent aduacity ander all con ditions.
\begin{tabular}{|c|c|c|}
\hline No. & Cap. Mmifd & Ea \\
\hline C8623 & to 25 & \$1.02 \\
\hline C8624 & 3.9 to 50) & 1.14 \\
\hline 625 & 4.5 to 75 & 1.26 \\
\hline C8626 & 5.5 (1) 100 & 1.38 \\
\hline C8743 & 6.510110 & 1.62 \\
\hline
\end{tabular}

Dual-Spaced Midgets ion: sugle-hole solant
\begin{tabular}{|c|c|c|c|}
\hline No. & Type & Mmmid & Each \\
\hline C8527 & Mc*onx & 20 & \$2.04 \\
\hline C8468 \(\dagger\) & MC20s. & 20 & 2.04 \\
\hline C8488 \({ }^{\text {+ }}\) & MC35MX & 32 & 2.22 \\
\hline C8489 \(\dagger\) & MC50MX & 50) & 2.52 \\
\hline C8502 & MClousx & 100 & 2.94 \\
\hline
\end{tabular}

\section*{Type "HFA/" Condensers}
(0) Construction features al struction which eliminates losse, shafts, and \(1(1) \%\) soldered construction which eliminates losses due to high resistance contacts. All
plates are semi-circular, and \(.020^{\circ}\) thick. Shaft extends \(9 / 6^{\circ}\). All rear bearings are singie ball ihrust. Bountiny brackets as shown.
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stock No. & \[
\begin{aligned}
& \text { Hammal'd } \\
& \text { No. }
\end{aligned}
\] & \multicolumn{2}{|l|}{\begin{tabular}{l}
l'er Section \\
Mmfd. No. Plates
\end{tabular}} & \[
\begin{aligned}
& \text { Air } \\
& \text { Ciap }
\end{aligned}
\] & length! Ins. & Your Cost \\
\hline C7233 & 11FA100A & 100 & 19 & .120 & 113/6 & \$1.98 \\
\hline C7234 & IFA140A & 110 & 27 & .020 & 13/4 & 2.31 \\
\hline C7235 & LFFAIOB & 10 & 3 & . \(030^{\circ}\) & 25 \% & 1.53 \\
\hline C7236 & LIFA15B & 15 & & . \(1030^{\circ}\) & 1/8 & 1.62 \\
\hline C7237 & 1FA25B & 25 & 7 & . \(030{ }^{\circ}\) & 31/23 & 1.68 \\
\hline C7238 & IIFA50B & 50 & 1.4 & . \(0330^{\circ}\) & 13 & 1.86 \\
\hline C7239 & HFA15E & 15 & 9 & . \(070^{\circ}\) & \(18 / 3\) & 1.68 \\
\hline
\end{tabular}

\section*{"NC-800A" Neutralizing Conderiser}
(J) Wigh voltage Disc type neutralizing condenser for RCA 800 , las micromer screw adjustment C14259 \$2.70

\section*{YAMAIEUR.PROFEESIONAL HEADSETS}

\section*{CANNON BALL "Chief" All Bakelite Phones}
(A) High grade, sensitive phones in molded bakelite housings; leather


\section*{BRUSH Crystal Phones}
(B) Range 60 to \(10,000 \mathrm{cps}\). High impedance. Ligh
\$7.06

\section*{TRIMM Headsets}
(C) "Dependable" Model: Well made economy model. Bakelite Chrome-steel magnets.
C13914-2000 ohms. Your Cost
\(\$ 2.44\)
"Professional" Model: Similar to above but 4000 ohms. \(\$ 2\) 2 9 Cl3915-Your Cost.

(C)

\section*{Belfance Dx Type Eeadphones}
(A) For DX fans. Highly sensitive. Powerful bi-polar magnets. Feather-



\section*{ACME DeLuxe Headphones}

Ilas chrome steel magnets and weighs only 6 ounces complete with C13904-I ouble Headset. 2000 C13905-Single Headset. 1000 ohms d.c. resistance. \$1. 80 ohms d.c. resistance. .............

\section*{BRANDES "Admiral" Meadphones}



\section*{Relfarce Single Unit Headsets}

Featherweight shell. Bi-polar magnet. Clockard.
C13896 1000 ohm single set.
Your Cost
1500 ohm single set
904
BRUSH Crystal Single Headset
(C) Metallic headhand with rubber
\(\$ 2770\) C13922- Your Cost
3. 32

\section*{BRUSH Crystal Lorgnette Phone}
(D) Single phone with chromium and black c13923. Your Cost. ...cht 11 b . ..... \(\$\)

\section*{TELEX MONOSET}
(E) Stethoscope-type. Tenite tubes. Replaceable E ear pieces hang above earlobes, not inserted into ear. Likht. only 1.2 cx. Comfortable. No mussed hair. Ideal for amateur radio operators or yping from transcription machines. 2000 ohms. excellent tidelity. Thru-line volume control clips to lapel.
C13890-Less volume control.
Your Cost
C13891-With volume control

\section*{Popular Phone Plugs}
C.

For 1 or 2 phone or spraker C14974-Black C14971-Red. Each 10 for. .
"Stubby" Metal SheII As above but with short meta shell. \(21 / 4\) overall. \(4 \boldsymbol{4}\) C14959-Each 0 For................. \(\$ 3.75\)

Metal Shell Type Same with nickeled brass shell \(33 / 8 \times 80^{*} .10\) For \(\$ 4.41\)
C14970-Each.....

\section*{MIdget Bakelite Plug} Bakelite shell. \(214^{\circ}\) overall \(\pi^{\circ}{ }^{516}\) diameter. Solder lug connections Your Cost 10 For \(\$ 2.43\) R \(\%\)


Flat Plug
(D) Ittra-compact type, for use Molded bakelite is limited. 14" thick. Companion to lhe jack box with volume control for hearing-aid pews. control for
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|r|}{Phone and Speaker Cords} \\
\hline \multicolumn{2}{|l|}{(E) Cotton Braid Insulation} \\
\hline No. & Type Feet \\
\hline \multicolumn{2}{|l|}{C13955 Double* \(41 / 2\) )} \\
\hline \multicolumn{2}{|l|}{C13956 Doublet 41'́} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{C13957 Single \(\dagger 412 . .23 \mathrm{c}\)}} \\
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{*Spade tips one end; straight tip.}} \\
\hline & \\
\hline
\end{tabular}


TRIMM Outlet Box With Volume Control
(F) 1000 ohms, for lines up to 50 ohm impedance, or 10,000 ohms for lines up to 500 ohms. C13876-1000 ohms, Brown. C13877- 1000 ohms, lvory. C13878-10,000 ohms, Brown. C13879 - 10,000 ohms, Ivory. Any of above, Your Cost
:2.35
(G) Headphone Adapter With \(18^{\circ}\) Cable
On fibre panel. \(2 \times 2^{\circ}\). For all sets
C13942-


\section*{LINGUAPHONE}

Code Lesson Records (A) Learn code this easy way at down or speed up your phono as you progress. Will operate on any phonograph or record player. Includes text book and 5 doublefaced \(10^{\circ}\) discs (in album). Shpg. wt. 6 lbs C21895 Your Cost
\(\$ 8.82\)

\section*{Gardiner Model S}
(B) Deluxe compact automatic tape sender. llas silent 110 volt a.c. mutor. Variable code minute Only 3 controls: mor minute. Only 3 controls: motor switch, contact switch and speed control. Terminals for use with double perforated tape. Complete with case, \(512 x+\) nxt . Shipped rostpaid in U.S.A.
\(\begin{array}{ll}\text { C14060 } & \$ 20.00\end{array}\)

\section*{Automatic Tape Sender} Model J

C Compact, easy to operate tape is spaced and puncherl, then tape is space the sender at sjeveds
run through the sender run through the sender it speeds
from 10 to 60 words per minute. from operation on \(11(1)-120\) ) volts For operation on \(11(1-120\) volts a.c. Complete with cord and fulug. blank tape. Shipped postpaid in U.S.A.
\(\underset{\text { Your cost }}{\text { cincen }} \mathbf{\$ 1 6 . 5 0}\)

\section*{IC A Deluxe Signa-tone} (D) An Audio fscillator, having antinuoubly variahle volume control. A number of phones and keys may be connected for clas: keys may be connected for clas room or radio clubs insiruction. Audio notes similar to thone of Audio notes similar to thome of
high quality commercial \(W\) sta high quality commercial CW sta-
 contained speaker, for 110 V AC- \({ }^{\circ}\)
C14086
Your Cost. Ea. \$11.
1

\section*{ICA Signatone}
(E) For class and radio club use Ias 3 earphones or speakers las 3 tone audio output conrol. Exiris terminals for con rol. Extra terminals for key and C14076
Your Cos
s8.82

\section*{IC A Terminal Box}
(F) For quick and neat wiring of ande chassromm set ups, has pact case. C14077
Your Cost
\(\$ 2.06\)

\section*{Code Practice Set}
(H) Moxtel 150 . Constant freand a standard hand key with \(1 / 8^{\circ}\) ilver contacts, mounter on a brown bakelite base 6x \(!^{\circ}\). Metal parts plated. Code card included. C14027-Singleset. \(\$ 265\) Your Cos c20622

\section*{Codehous AND ACCESSORIES}

\section*{BUD}

Code Practice Oscillator (G) An audis, oscillator with a Mill alse overate wh to twenty headiphones. Internal speaker is automatically cut out of the cir cuit when headphones are in serteel. 1'rovided with variable volumic control and variahle pitel control. Any number of keys may be connected in parallel to the excillator for group) practiac. Mee at case tinished in grey C14074 enanel.
Your cost \$12.25
SIGNAL Model R-68 Code Practice Set
(1) Key and high frequency buz gase Hex hatery (1) lied) and it is required, ratt sup hotal coxle plate on base. Wi. c14001 Your cost \(\$ \mathbf{3 . 8 2}\) Type R-60 BUZZER ONLY: ally adjunn 1206 Constant Tone Buzzer Black hakelite hase atrde calp. Sil-
ver omntacts. Ad jusitment on vibrator. Resist. 2 ohms. ( \()\) perates \(\$ \mathbf{1 . 0 6}\)


©


(a)

ess). Bright tinish parts. hlack hase.
Shin. wt.1llsp \(\$ 9.95\)
c1405s Each Model 515 Hi-Speed Key (G) Heavy duty high speed kcy. Metal parts heavily plated. Black rinkle finish, base is \(3 \times 61 / 1 / x^{3} /{ }^{3}\) Iligh quatity construction. Less \({ }^{4} 14033\) Each \(\$ 7=35\) C14054-Your Cost

88c

\section*{Carrying Case for Keys}
(H) Plush-lined.black morocco linish. Reinforced corners. Lock C14059-Each .... \(\$ 5.50\)


\section*{Llow loss Msulhrors \\ }

JOHNSON Thru-Panel Insulators
(A) Made of white glazed porcelain; non-hygroAcopic. Feature great mechanical strength and increased breakdown voltage. Flat mounting surfaces with cushion washers eliminates breakage. All have longest possible leakage path. Jack types have terminals permitting connection above as well as below the panel. Nickel plated brass hardware furnished. Ideal for use as terminals on high frequency, high voltage and low frequency devices. Jack tops take standard banana plugs
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline , & Type & Top & Bot. & Panel & 1 & Your \\
\hline No. & No. & Ht. & Ht. & Hole & ware & Cost \\
\hline C16736 & 40 & 11/ & \(1 / 2\) & \(1 /{ }^{\circ}\) & 10/32 & 18c \\
\hline C16737 & 40J & 11 & & 12 & Jack & 24c \\
\hline C16738 & 42 & & & 710 & 10/32 & 17 c \\
\hline C1673 & 42J & & & & Jack & 21 c \\
\hline C16740 & 44 & & & & 6.32 & 14c \\
\hline C16741 & 45 & 1\% & \(11 /{ }^{\circ}\) & 1 & 10/32 & 24. \\
\hline C16742 & 45J & 1\%" & 11/18" & \(90^{\circ}\) & Jack & 29 c \\
\hline
\end{tabular}

We can supply any Johnson products not listed here, at standard discounts from the list price.

\section*{JOHNSON Stand-Off Insulators}

All-purpose stand-offs made of white glazed porcelain. All furnished with nickel-plated hardware as listed below.


\section*{JOHNSON Cones}

(F)
Made of ultra steatite insuring minimum of loss at high frequencies. Threads are apped directly into the ceramic. Ideal for mounting condensers, conls. tulse sockets and with mounting hardware.
\begin{tabular}{|c|c|c|c|c|}
\hline No. & 1 lt & B. Dia & Thread & Ea \\
\hline C17005 & & & 632 & 12c \\
\hline C17006 & \(1{ }^{\prime \prime}\) & 1/4 & 8/32 & 18 c \\
\hline C17007 & 11/2' & 1 * & 832 & 32c \\
\hline C17008 & 2 & 11/80 & 16,32 & 44 c \\
\hline
\end{tabular}

\section*{JOHNSON Lead-In Bushings}

For antenna lead-in bushings, panel bushings, and other applications where insulated mounting is required. Feature long leakage paths. Type A made of white glazed porcelain, type 13 made of Alsimag 196; provided with all necessary hardware. Suitable for high frequency work. Cushion washers furnished.


\section*{JOHNSON Feeder Spreaders}

(J)
Jilicone impregnated unglazed porce ain. mpervious to moisture. Sheds water. The adeal line spreader for receiver all sizes is \(3 / 8 \times 1 / 2 "\).
 C17029 fr Long. Each. . . . . . . . . . . . . . . . 15 c


BIRNBACH Hi-Voltage Feed-Through eakage path. Botiom slecve tapped. Height \(15 / 8^{\circ \prime}\); base dia. \(2^{\prime \prime}\) C16712 Each

\section*{BIRNBACH X-mitter} Lead-in InsulatorsEach 28/4" high of vitrified glazed porcelain. With nickel plated brass hardware. Also have ead and cork washers to mak watertight seals
\begin{tabular}{crcr} 
No. & Rod & Sushing & Each \\
C17037 & \(10^{\prime}\) & Metal & 51.03 \\
C17038 & \(15^{\prime}\) & Metal & 1.18 \\
C17039 & \(10^{\prime}\) & Porcelain & 1.32 \\
C17040 & \(15^{\prime}\) & Porcelain & 1.68 \\
\hline
\end{tabular}

\section*{NATIONAL}

\section*{Steatite Stand-Off:}
(M)
\(18 / 8\) " high, \(11 / 8^{\prime \prime}\) centers. GS-8 GS-9 has jack top for hanana plug.


\section*{Steatite Buttons}
(N) Simplifies Wiring Use as
binding post. binding post insulator or as stand-off insulator Special screw locks both sections. C16711-6/32 stud

Isolantite Plug \& Socket (O) For use with XR-16 coil C14614-PB-16 Plug. Your Cost Each 47

\section*{Industrial Tubes \\ Ignitrons}

High－peak－current gas－filled tubes with a mercury poof cathode．Supply heavy current for use in spot or seam weld
tating machinery for changing \(A C\) to \(D\) ． Stock
NO．
\(\mathbf{C 2 4 7 7 6}\)
\(\mathbf{C 2 4 7 7 7}\)
\(C 24777\)
\(C 2478\)
\(C 24778\)
\(C 24779\)

\section*{}

Gas－filled and high－vacuum types otubes
\begin{tabular}{lcc} 
Gas－filled and high－vacuum types．No grid． \\
Stock & G－E & \\
No． & Type & Kind \\
C24880 & PJ．22 & Vacuum \\
C24881 & PJ－23 & Gas \\
C24782 & FJ－401 & Gas \\
C24783 & GL－441 & Vacuum \\
& \multicolumn{2}{c}{ Thyxatrons }
\end{tabular}

Grid－controlled gaseous discharge rectitser tubes with one or more grids to control the starting of the ble current．Will rund－c

\section*{Sock
No．} C24784 C24785 C24786 C24787
C2478
C24789 C 24788
\(\mathbf{C 2 4 7 8 9}\)
\(\mathbf{C} 24790\) C24791



\section*{\begin{tabular}{ll} 
Stock & \\
No． & Type \\
C24721 & T－20 \\
C24722 & TUF－20 \\
C24723 & TZ－20 \\
C24724 & T－ 21 \\
C24725 & TB． 35 \\
C24726 & T－40
\end{tabular}}

As factory representatives we are in a position to quote special prices to quantity users of TAYLOR high quality well known，heavy duty \(86 \mathrm{rim}_{\mathrm{A}}-86 \mathrm{k}\) ，shown at left，has ceramic insulation between plate cap and glass，assuring breakdown protection．Peak inverse voltage， \(10,0(0)\) oits．Peak current 1 amp
C24735－Type 866A／866－Fil； 2.5 V at 5 A．net．．．．\(\$ 1.50\)

\section*{Taylor General Purpose Tubes}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Watts & Your & Stuck & & Watts & Your \\
\hline Itiss． & Cost & No． & Type & I Diss． & Cost \\
\hline 20 & \＄ 2.75 & C24728 & T－55 & 55 & 56.50 \\
\hline 20 & 5.50 & C24729 & T＇125 & 125 & 13.50 \\
\hline 20 & 2.75 & C24730 & T．200 & 200 & 21.50 \\
\hline 21 & 1.95 & C24731 & 203－A & 100） & 12.00 \\
\hline 35 & 10.00 & C24732 & 20：3－Z & 65 & 9.00 \\
\hline 40 & 3.95 & C24733 & 803 & 125 & 21.00 \\
\hline 40 & 3.95 & C24734 & 822 & 200 & 18.50 \\
\hline
\end{tabular}

TRANSMITTING and
SPECIAL PURPOSE TUBES

EIMAC Power Tubes
Famous for their efficiency，long life，and performance．
\begin{tabular}{|c|c|c|c|c|c|}
\hline Stock & & Your & Stock & & You \\
\hline No． & Type & Cost & No． & Type & Cos \\
\hline C24700 & \(3 \times 2500.43\) & \＄165．00 & C24708 & 35T & \＄ 7.0 \\
\hline C24701 & 4－65A & 14.50 & C24709 & 35 TG & 8.0 \\
\hline C24702 & ＋125A & 25.00 & C24710 & 75 TL & 10.5 \\
\hline C24703 & \(4 \times 150 \mathrm{~A}\) & 31.00 & C24711 & 75 TH & 10.5 \\
\hline C24704 & 4－250： & 36.00 & C24712 & 100 TL & 15.0 \\
\hline C24705 & \(4 \times 500 \mathrm{~A}\) & 85.00 & C24713 & 100 TH & 15.0 \\
\hline C24706 & \(3 \mathrm{C} 21 / 2 \mathrm{CG}\) & 6.00 & C24714 & 250 TL & 27.5 \\
\hline C24707 & 25 T & 6.00 & C24715 & 250 TH & 27.5 \\
\hline
\end{tabular}

HYTRON Tubes
\begin{tabular}{|c|c|c|c|c|c|}
\hline Stock & & Your & Stock & & rr \\
\hline No． & Type & Cost & No． & Typé & Cost \\
\hline C24740 & OA2 & \＄2．30 & C24749 & HY615 & 52.25 \\
\hline C24741 & O132 & 2.30 & C24750 & 801 A & 3.00 \\
\hline C24742 & 2E：25 & 3.95 & C24751 & 807 & 2.30 \\
\hline C24743 & 2E（3） & 2.25 & C24752 & 816＊ & 1.25 \\
\hline C24744 & IIY21 & 1.50 & C24753 & 866A／866 & 1.75 \\
\hline C24745 & 117312 & 3.95 & C24754 & IIY12312 & 4.50 \\
\hline C24746 & HY69 & 3.95 & C24755 & 11Y1269 & 4.50 \\
\hline C24747 & IIY75A & 3.95 & C24756 & \(5511+\) & 3.95 \\
\hline C24748 & HY11413 & 2.25 & C24757 & 5516 & 3.95 \\
\hline \begin{tabular}{l}
＊Replac \\
\(\dagger\) Replac
\end{tabular} & \begin{tabular}{l}
type 86 \\
types 11
\end{tabular} & 2，40， & \(51 \mathrm{~A}, 51\) & ，and 517． & \\
\hline
\end{tabular}

\section*{HEINTZ and KAUFMAN Gammatrons}
\begin{tabular}{|c|c|c|c|c|c|}
\hline Stock & & Your & Stock & & Your \\
\hline No． & Type & Cost & No． & Type & Cost \\
\hline C24763 & 21 & \＄ 4.75 & C24767 & 257B & \＄24．50 \\
\hline C24764 & 51 & 8.00 & C24768 & 354 C & 24.50 \\
\hline C24765 & 53＊ & 15.00 & C24769 & \(45411+\) & 27.50 \\
\hline C24766 & 25.4 & 13.50 & C24770 & 8541 1 \(\dagger\) & 60.00 \\
\hline
\end{tabular}
＊New air－cooled beam pentode， 50 watt diss．VHF without neutralization．Very low driving power．T＇antalum grid and plate． \(\dagger\) High－Mu types（Low－Mlu on special order）．

\section*{TRANSMITTING AND SPECIAL PURPOSE TUBES}

As one of the largest distributors of RCA tubes，we carry a complete stock of transmitting，power，and special purpose types．If the particu－ lar type you want is not listed，please write for quotation．RCA tubes
are widely used in and throughout the helds of tadio and Electronics．
RCA
REA
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{3}{|l|}{RCA} & \multicolumn{2}{|l|}{GE} \\
\hline Stock． & Your & & Stock & Your \\
\hline \[
\begin{aligned}
& \text { No. } \\
& \text { C24797 }
\end{aligned}
\] & Cost & On2 \({ }^{\text {Type }}\) & No． & Cost \\
\hline C24798 & 1.20 & （）A3／VR75 & C24566 & \＄1．20 \\
\hline C24799 & 1.15 & OAl＇； & & \\
\hline & & （）33／VR90 & C24568 & 1.40 \\
\hline C24801 & 1.20 & OC3／－12105 & C24569 & 1.20 \\
\hline C24802 & 1.20 & （13） 3 VR150 & C24570 & 1.20 \\
\hline C24803 & 2.20 & 1 C 21 & & \\
\hline C24804 & 13.60 & 2 Cl 10 & C24572 & 13.50 \\
\hline C24305 & 10.30 & 2 C 43 & C24573 & 10.30 \\
\hline C24806 & 1.80 & 2131 & C24574 & 1.80 \\
\hline C24807 & 5.10 & \(2 \mathrm{E}^{2}\) & C24575 & 5.10 \\
\hline C24808 & 3.50 & 2F24 & C24576 & 3.50 \\
\hline C24809 & 2.75 & 2い゙いく & & \\
\hline C24810 & 1.80 & 2 2゙っ／879 & C24578 & 1.80 \\
\hline C24811 & 5.80 & 3132\％ & & \\
\hline C24812 & 11.00 & \(3{ }^{3} 2\) & C24580 & 12.00 \\
\hline C24813 & 12.00 & \(31) 2\) & & \\
\hline C24814 & 25.00 & 4－12．／ 11121 & C24582 & 25.00 \\
\hline C24815 & 1.30 & 5R．u； & C24583 & 1.30 \\
\hline C24816 & 1.50 & 6AG75 & & \\
\hline C24817 & 2.15 & 6AK5 & & \\
\hline C24818 & 4.90 & 6 J 4 & & \\
\hline C24819 & 2.30 & 10 Y & & \\
\hline C24820 & 12.00 & 203A & C24588 & 12.00 \\
\hline C24821 & 12.00 & 211 & C24589 & 12.00 \\
\hline C24822 & 3.00 & 801 A & C24590 & 3.00 \\
\hline C24823 & 4.25 & 802 & C24591 & 4.25 \\
\hline C24824 & 10.00 & 80.7 & C24592 & 11.75 \\
\hline C24825 & 2.30 & \(80 \%\) & C24593 & 2.30 \\
\hline C24826 & 8.50 & 808 & & \\
\hline C24827 & 3.50 & 809 & C24595 & 3.50 \\
\hline C24828 & 12.50 & 810 & C24596 & 12.50 \\
\hline C24829 & 3.50 & 811 & C24597 & 3.50 \\
\hline C24830 & 3.50 & 812 & C24598 & 3.50 \\
\hline C24831 & 14.50 & 813 & C24599 & 14.50 \\
\hline C24832 & 14.00 & 814 & C24600 & 12.50 \\
\hline C24833 & 6.25 & 815 & C24601 & 6.25 \\
\hline C24834 & 1.25 & 816 & C24602 & 1.25 \\
\hline C24835 & 9.25 & 826 & C24603 & 9.25 \\
\hline
\end{tabular}

G－E monosram tubes are manufactured with the most modern high－ precision equipment，and are pretested to insure long trouble－free－serv－ ice．A written warranty further assures you of full dollar－value from
every - －E tube you purchase and install．
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{RCA} & \multicolumn{3}{|c|}{GE} \\
\hline Stock & Your & & Stock & Your \\
\hline No． & Cost & Type & No． & Cost \\
\hline C24836 & \＄12．50 & 828 & C24604 & \＄12．50 \\
\hline C24837 & 14.75 & 82913 & C24605 & 14.75 \\
\hline C24838 & 10.60 & 832A & C24606 & 10.60 \\
\hline C24839 & 4.15 & 837 & C24607 & 4.15 \\
\hline C24840 & 3.80 & 811 & & \\
\hline C24841 & 12.00 & 8.15 & C24609 & 12.00 \\
\hline C24842 & 1.75 & 8ixis & C24610 & 1.75 \\
\hline C24843 & 2.15 & 8 8i8 & C24611 & 2.15 \\
\hline C24844 & 7.50 & \(8 \div 2 A\) & C24612 & 7.50 \\
\hline C24845 & 11.00 & 878 & & \\
\hline C24846 & 1.70 & 884 & C24614 & 1.70 \\
\hline C24847 & 1.80 & 88.5 & C24615 & 1.80 \\
\hline C24848 & 3.00 & 917 & C24616 & 3.00 \\
\hline C24849 & 2.60 & 918 & C24617 & 2.60 \\
\hline C24850 & 3.00 & 919 & C24618 & 3.00 \\
\hline C24851 & 3.60 & 920 & C24619 & 3.60 \\
\hline C24852 & 1.75 & 921 & C24620 & 1.75 \\
\hline C24853 & 1.80 & 922 & C24621 & 1.80 \\
\hline C24854 & 1.75 & 923 & C24622 & 1.75 \\
\hline C24855 & 1.85 & 925 & & \\
\hline C24856 & 2.50 & 920 & & \\
\hline C24857 & 2.50 & 927 & C24625 & 2.50 \\
\hline C24858 & 1.75 & 929 & C24626 & 1.75 \\
\hline C24859 & 1.50 & 930 & C24627 & 1.50 \\
\hline C24860 & 9.25 & 9318 & C24628 & 9.25 \\
\hline C24861 & 4.90 & 954 & C24629 & 4.90 \\
\hline C24862 & 3.10 & 95\％ & C24630 & 3.10 \\
\hline C24863 & 5.45 & 9．j & C24631 & 5.45 \\
\hline C24864 & 3.25 & 957 & C24632 & 3.25 \\
\hline C24865 & 5.45 & 958A & & \\
\hline C24866 & 6.15 & 1ix）3 & C24834 & 6.15 \\
\hline C24867 & 2.60 & 1612 & C24635 & 2.60 \\
\hline C24868 & 6.00 & 1620 & C24636 & 6.00 \\
\hline C24869 & 2.00 & 1622 & C24637 & 2.00 \\
\hline C24870 & 3.50 & 1623 & C24638 & 3.50 \\
\hline C24871 & 3.50 & 1122 & C24639 & 3.50 \\
\hline C24872 & 2.30 & 1625 & C24640 & 2.30 \\
\hline C24873 & 1.60 & 1636 & & \\
\hline C24874 & 1.20 & 1629 & C24642 & 1.20 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{3}{|c|}{RCA} & \multicolumn{2}{|l|}{GE} \\
\hline Stock & Your & & Stock & Your \\
\hline No． & Cost & Type & No． & Cost \\
\hline C24875 & \＄ 2.70 & 1851 & C24643． & \＄ 2.70 \\
\hline C24876 & 1.70 & 2050 & C24644 & 1.70 \\
\hline C24877 & 1.70 & 20．21 & C24645 & 1.70 \\
\hline C24878 & 7.00 & 8005 & C24646 & 7.00 \\
\hline C24879 & 14.00 & 8012 A & C24647 & 14.00 \\
\hline C24880 & 9.00 & 80134 & C24648 & 9.00 \\
\hline C24881 & 2.70 & \(9(6) 1\) & C24649 & 2.70 \\
\hline C24882 & 2.15 & （\％02 & C24650 & 2.15 \\
\hline C24883 & 2.70 & （20）3 & C24651 & 2.70 \\
\hline C24884 & 1.40 & （\％）岳 & C24652 & 1.40 \\
\hline
\end{tabular}

\section*{RCA－GE}

Television and

\section*{Cathode Ray Tubes}

Post－war tubes．Incorporate all the recent improvements in materials and design．
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{3}{|c|}{RCA} & \multicolumn{2}{|l|}{CE} \\
\hline Stock & Your & & Stock & Your \\
\hline No． & Cost & Type & No． & Cost \\
\hline C24905 & \＄ 9.50 & 2AP1A & C24673 & \＄ 9.50 \\
\hline C24906 & 8.75 & 2 BPl & & \\
\hline C24907 & 13.00 & 3AP1A & C24675 & 13.00 \\
\hline C24908 & 13.25 & 3 KPl & & \\
\hline C24909 & 20.50 & \(5 \mathrm{BP1A}\) & C24677 & 20.50 \\
\hline C24910 & 21.00 & \(5 \mathrm{CP1A}\) & C24678 & 21.00 \\
\hline C24911 & 27.50 & 51314 & C24679 & 27.50 \\
\hline C24912 & 67.50 & 5 T14 & & \\
\hline C24913 & 15.50 & 5 U1＇1 & & \\
\hline C24914 & 24.00 & 7 CPl & & \\
\hline C24915 & 27.00 & \(7 \mathrm{DP4}\) & & \\
\hline C24916 & 24.25 & \(7 \mathrm{CP4}\) & & \\
\hline C24917 & 62.50 & 9AP4 & & \\
\hline C24918 & 49.50 & 10BP4 & & \\
\hline C24919 & 75.00 & 12AP4 & c24687 & 75.00 \\
\hline C24920 & 14.00 & 913 & & \\
\hline C24921 & 47.50 & 5527 & & \\
\hline
\end{tabular}

\title{
RACKS•PANELS CABINETS
}


(C)


(A)1 is steel with black ripple finish. Mounting holes on 18 " centers, tapped for 10-32 screws. 130 th 20 wide and \(12^{\prime \prime}\) deep. C22102-25" high, Panel space 21×19*, Shipping Yeight 33 lb Your Cost C22103-32" high. Panel space \(28 \times 19\) \(\$ 6.76\)

\section*{Enclosed Steel Racks}

(G)Deluxe type, streamlined. Universally drilled for all standard panels. Stainless stecl trimming at top available, specify on order). Jenel wid black ripple are \(22^{\circ}\). wide, \(164^{2}\) deep. Hinged hack. Shipped knocked down, with all hardware. With 2 locks on rear door.
\begin{tabular}{ccccc} 
Stock & lleight & Panel & Weight Your \\
Nu. & In. & Space & Lbs. & Cost \\
C22145 & \(42^{\circ}\) & \(36 \%^{\circ}\) & 100 & \(\$ 29.40\) \\
C22146 & \(6 i(1)\) & \(5.11^{\circ}\) & 150 & 39.69 \\
C22148 & 82 & \(77^{\circ}\) & 175 & 47.04 \\
\hline
\end{tabular}

\section*{Steel Channel Racks}

(i)Built of \(1 / \%^{\prime \prime}\) steel with spot-welded corners. Finished in ripple black. Designed for use with standard 19 long panels and are universally drilled for all standard panels. Base is wobble and to keep units are tapped for \(10-32\) screws. Base is braced to insure freedom from C22150-731/" high. W't. 85 libs. I'anel space \(713 / 4^{\prime \prime}\). Your Cost C22151- \(381 / 4\) high. Wit. 57 lbs. Panel space \(36 \%\) Your Cost
\(\$ 77.64\)

\section*{MASONITE and BAKELITE Radio Panels}
(B) Masonite: Tempered Masonite, nonmagnetic, sturdy, yet casily worked with ordinary Batworking tools. All panels 3/ro thick, finished in Black Ripple ments, meters, etc.
\begin{tabular}{|c|c|c|}
\hline & \multicolumn{2}{|l|}{MASONITE PANELS} \\
\hline Size & Wts. & Stock No. \\
\hline \(7 \times 10^{\circ}\) & \(3 / 1 \mathrm{lb}\). & C22280 \\
\hline 7x12* & 1 lb . & C22281 \\
\hline 7x14" & 1 lb . & C22282 \\
\hline 7x18" & 1 lb . & C22283 \\
\hline \(7 \times 21 *\) & 1 1/2 lbs. & C22279 \\
\hline \(7 \times 24\) & \(11 / 2 \mathrm{lbs}\). & \\
\hline \(7 \times 30{ }^{\prime \prime}\) & 2 lbs . & \\
\hline
\end{tabular}
\begin{tabular}{cr} 
BAKELITE PANELS \\
Stock No. & Each \\
C19600 & \(\$ 1.32\) \\
C19601 & 1.62 \\
C19602 & 1.91 \\
C19603 & 2.41 \\
C19604 & 2.73 \\
C19605 & 3.23 \\
C19608 & 3.97
\end{tabular}


\section*{MASONITE Relay Rack Panels}
. Same as panels listed at left, but with amateur standard notching.
\begin{tabular}{|c|c|c|}
\hline No. & Size & Each \\
\hline C22267 & \(18 / 4 \times 19^{*}\) & \$0.50 \\
\hline C22268 & \(3^{12} \times 19^{*}\) & . 65 \\
\hline C22269 & 51/4×19* & . 85 \\
\hline C22277 & \(7 \times 19^{*}\) & . 94 \\
\hline C 22284 & \(88.4 \times 19^{*}\) & 1.18 \\
\hline C22283 & 101. \({ }^{1} \times 19^{*}\) & 1.32 \\
\hline C22286 & 1214×19* & 1.47 \\
\hline
\end{tabular}

\section*{I.C.A. Heavy Steel Rack Panels, Black or Gray}

(D)D) Heavy-duty I's steel parksts Yor all standard \(19^{\circ}\) Thchs. Availeble with either black ripple finish or with commercial slate grayripple. These panelsdon't cullect dust-and they dun't show finger marks. A vailable in 12 standiard sizes to meet any requirenients. Black Gray Moight Weight Your
No. No

C22170

C 22171
C 22160
C 22161
C 22162
C 22163
C22164
\(C 22165\)
\(C 22166\)
C22166
\(C 22167\)
\(C 22168\)
C22168
C22118
\(C 22119\)
\(C 22125\)
\(C 22121\)
\(C 22122\)
C22122
\(C 22123\)
\(C 22124\)
C22124
C22126
C 22127
C 22128
I.C.A. \(1 / 16^{\prime \prime}\) Steel Panels (E) Black
ppli\begin{tabular}{l} 
No. \\
Nation \\
\hline
\end{tabular}
50.47
\begin{tabular}{|c|c|c|c|}
\hline No. & Size & Wt. & Each \\
\hline C22218 & \(7 \times 10^{\prime \prime}\) & 2 lbs . & \$0.47 \\
\hline C22219 & \(7 \times 12^{\prime \prime}\) & 2 lbs. & . 53 \\
\hline C22220 & "x14" & 3 ! bs. & .71 \\
\hline C22221 & \(7 \times 18=\) & 4 lbs & 88 \\
\hline
\end{tabular}

I.C.A. Steel Cabinets for Rack Panels
* Standerd Rack Panel Mounting * Built-in Louvres Latch Covers
* Regular Black Ripple Finish
(A) Heavy-duty cabinets built of 1 ic steel and finished in black ripple. Standard and Deluxe models. standard models have square re-enforced corners: spot welded joints. Deluxe models have neatly rounded corners. Both types are universally drilled to take all standard \(19^{\circ}\) rack panels. All have louvres and latch covers. All take chassis \(13^{\circ}\) deep.
De Luxe available with slate gray finish on special order.

\section*{Standard Steel Cabinets}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{6}{|c|}{Cab} \\
\hline Stock & Cabinet & Pan & & & \\
\hline & Dimensions & Surace & Location & & \\
\hline 22194 & \(885 \times 10 \times 1\) & 83 ¢ \(\times 1\) & Top Only & 20 Ibs. & 7.35 \\
\hline C22070 & 12 \(1 \times 10 \times 13\) & & TonOul. & 27 lbs. & 10.73 \\
\hline C22193 & \(17^{1}\) ¢ \(210 x\) & \(12 \times 1\) & \& Rear & 34 libs. & 13.82 \\
\hline C22192 & 26\% \(\times 10\) & 261/4x & Hear Unly & \(4{ }^{4}\) & 15.14 \\
\hline C22190 & & & & 55 & 18 \\
\hline
\end{tabular}

\section*{I.C.A. De Luxe Steel Cabinets}

\section*{ C22071 \(14 \times 21 \times 13^{3} 3^{*} 121^{\prime} \times 19^{\prime \prime}\) Top Onty 291 bs .11 .76 C20191 191/4 \(\times 21 \times 1315^{\prime \prime}, 17,2 \times 19^{\prime \prime}\) Top \& Rear 34 lbs. 16.32
}

\section*{I.C.A. Portable Steel Cabinets}
(B) For housing oscillators, transceivers, test equipment. Front and back panels are removable. Equipped with leather handle. Finished in black ripple.
\(\begin{array}{lll}\text { No. } & & \text { Size } \\ \text { c22273 } & 12 \times-3 / 4 \times 7^{\circ} & \\ \text { Coust }\end{array}\)
 C27275 Chassis for above \((71 / 3 \times 68 / 1 \times 21 / 29 \quad 2.91\)

\section*{I.C.A. DeLuxe Hinged Steel Cabinets}

Attractive streamlined cabinets, with full length piano hinged top and removable front panel. Chrome trim moulding and ventilators on side. Finished in slate gray ripple enamel. All less chassis.
\begin{tabular}{|c|c|c|c|c|}
\hline No. & 11. L. D. & 1'anel & For Chassis & Each \\
\hline C22087 & \(8 \times 10 \times 8{ }^{\circ}\) & \(8 \times 8{ }^{\circ}\) & -x ix2* & \$4.26 \\
\hline C22088 & \(8 \times 12 \times 8{ }^{\circ}\) & \(8 \times 10^{\circ}\) & - \(\times 9 \times 2\) * & 4.41 \\
\hline C22089 & \(8 \times 1.4 \times 8{ }^{\prime \prime}\) & \(8 \times 12^{\prime}\) & - \(\times 13 \times 2\) * & 5.29 \\
\hline C22091 & \(12 \times 20 \times 12^{\circ}\) & \(12 \times 18{ }^{\circ}\) & \(10 \times 17 \times 3^{\circ}\) & 8.23 \\
\hline
\end{tabular}

\section*{I.C.A. Standard Hinged Steel Cabinets}

Similar to above. less chrome trim with ventilating louvres.
\begin{tabular}{|c|c|c|c|}
\hline Stock & & Panel & Your \\
\hline No. & Limen & Size & Cost \\
\hline C22200 & \(8 \times 10 \times 8{ }^{\prime \prime}\) & \(8 \times 8\). & \$2.94 \\
\hline C22201 & \(8 \times 12 \times 8\) & \(8 \times 10^{\circ}\) & 3.23 \\
\hline C22202 & \(8 \times 11 \times 8\) & \(8 \times 12=\) & 4.12 \\
\hline C22203 & \(12 \times 20 \times 12^{\prime \prime}\) & \(12 \mathrm{x} 18^{\prime \prime}\) & 7.64 \\
\hline
\end{tabular}

\section*{I.C.A. General Utility Steel Cabinets \(\star\) Sheet Steel \(\star\) Spot Welded Corners}

(D)Can be used for a multitude of radio and other purposes. All are substantially made of sheet steel. with spot welded re inforced corners. The tops and bottoms are renovable: held in place by means of self-tapping screws that are furnished. Black ripple.
\begin{tabular}{|c|c|c|c|}
\hline No. & Size & Shpg. Wt. & Each \\
\hline C22209 & - \(\times 2 \times 4\) - & 2 lbs . & \$0.76 \\
\hline C22210 & \(1 \mathrm{x} 3 \times 5\) & 3 lbs. & . 82 \\
\hline C22174 & fx \(6 \times 6\) & 3 lbs . & . 91 \\
\hline C22175 & \(9 \mathrm{Ex} \mathrm{S}^{\prime \prime}\) & 5 lbs & 1.47 \\
\hline C22173 & \(10 \times 8 \mathrm{c}=\) & 6 lbs. & 1.85 \\
\hline C22176 & \(10 \times 8 \times 10^{\circ}\) & - lbs. & 2.26 \\
\hline C22177 & \(11 \times 12 \times 8^{\prime \prime}\) & 9 libs. & 2.45 \\
\hline C22181 & 12x \(7 \times 6\) - & 5 lbs . & 1.82 \\
\hline C22182 & 15x 9x \(7^{\prime \prime}\) & 10 lbs. & 2.56 \\
\hline
\end{tabular}

\section*{ \\  \\ (B) \\ (A) \\ (D)}

ICA Sloping Panel Steel Cabinets
Streamlined cabinets with rounded corners. Compact and rugged. For use as speaker cabinets, oscillator cases, monitors, tele-talk systems, small receivers, etc. \(130 t h\) have marine gray ripple finish.
C22097-(A) \(41 / 4 \times 11.141\) Wit. Each C22098-(B) 2.26

\section*{ICA Sloping Front Cabinets}

©
Trimmed with red-strined moulding, movable slate gray ripple hinish. Jront bane emovable. Rear with openings for ventila ion, leads, eic. Less chassis.
Stock
No. H.W.D. Chassis Wh. Cost
\(623928 \mathrm{x} 8 \mathrm{x} 8^{\prime \prime} 7 \mathrm{x} 7 \mathrm{x}^{\prime \prime} .6 \mathrm{lbs} . \$ 3.88\)

C22096 12×18×12" \(10 \times 17 \times 3^{\circ} 1+1 \mathrm{bs} .7 .50\)

\section*{Chrome Handles}
(D) A beautiful adornment for any cabinet. mtg. screws. \(4^{*}\) long. Mig. cenicrs 2 C13563 Your Cost


\section*{ICA Standard Amplifier Toundation Chassis}
(A) Streamlined amplitier chassis and covers lators. Chassis stamped from one piece coldators. chassis stamped from one piece cold are \(6^{\circ}\) deep and slate in black ripple. Covers re deep and slate gray, presenting a con frasting twotone effect. Chassis are drilled or bottom plates (not supplied) see listing
on opposite page. (hassis height \(3^{\prime \prime}\). on opporsite page. (hassis height "3" \(\begin{array}{cccc}\text { Nu. } & \text { Size } & \text { Nt. } & \text { Each } \\ \text { c22132 } & 5{ }_{2} \times 10 \times 90 & 9 \text { lbs. } & \$ 2.20\end{array}\)

 \(\begin{array}{llll}\mathbf{C 2 2 1 3 7} & 10 & \text { xliג } 9^{\circ} & 13 \\ & 1 \mathrm{lbs} & \mathbf{3 . 6 8}\end{array}\) CA leluxe Ampli .rrChisuis, Same asabove but with chromiuin molding and handles. \(\begin{array}{llll}\mathbf{C 2 2 1 8 3} & 5^{1} \times 10 \times 9^{\circ} & 91 \mathrm{bs} & \$ 3.62 \\ \mathbf{C 2 2 1 3 9} & 8 \times 12 \times 9^{\circ} & 111 \mathrm{bs} & \mathbf{4 . 7 0}\end{array}\) \(\begin{array}{lccll}\text { C22139 } & 8 & \times 12 \times 9^{\circ} & 11 \mathrm{lbs} & 4.70 \\ \text { C22185 } & 6 \times 17 \times 9^{\circ} & 11 \mathrm{lbs} & 4.85 \\ \text { C22186 } & 10 & \times 1+\times 9^{\circ} & 111 \mathrm{bs} & 5.29\end{array}\)



\section*{ICA Sloping Chassis Units}

(C)fronts stecl amplifier units with sloping ith chrome chassis bases, Bases evluipped have beautiful chrome handes; top covers ventilatore with red stined chrone kate Ventilating louvres on sides and trome trim. ventilating louvres on sides and back. Raised screen openings on top, with red striped chrome molding. Rounded corners, Marine gray ripple linish. All have \(4^{\circ}\) slope; bases 1/2 high.
 C22134 \(\quad\) ( \(x 17 \times 91 \%\) 10x17 \(111 \mathrm{bs} . \$ 6.03\)
 \begin{tabular}{llll} 
\\
\(\mathbf{c} 22147\) & \(10 \times 17 \times 99^{\prime}\) & \(13 \times 17^{\circ}\) & 11 lbs \\
\hline
\end{tabular}


\section*{ICA DeLuxe Meter Cases}

(E)
Designed to harmonize with the trend of modern streamlined equipnemt. Finished in Marine Gray Ripple Enamel and trinmed with red striped Chrume band. For \(3^{\prime}\) meters C22080-41/4x43/6x41反". Meter Ilole \(2^{13} /\) Mo". Your Cost \(^{\prime}\)
\({ }^{\$ 1.32}\) C22081-Same as above with \(2^{3} 16\) meter hole. Your Cost
\(\$ 1.32\)

\section*{MILIEN Quartz "Q' Sheet}

(F)
For pancis, condenser mitg., insulaticu, Mrillsand cutsrapidly. Quariz"' \({ }^{\prime \prime}\) is a highly prilymorized styrene having remark voltage breakdown, size: :3x81. "; \(1 / 10^{\circ}\) thick. C8024-Millen No. 5. (0)1. Your Cost Ea. 45c

\section*{Shearing Punch}
(G) Cuts any size odd shape hole (square rectangular, hexagon, etc.), on any size panel or chaseis. (only hammer is necessary C15067
Your Cost Each
\(\$ 9.70\)

(C)

ICA Steel and Aluminum Chassis
(D) Have four solid sicles, welded corners reinforcenent, drilled for hottom plates ite chassis. No. 20 gauge, black ripple tinished Aluminum chassis \(.055^{\circ}\) thick unfinished.
\begin{tabular}{|c|c|c|c|c|}
\hline & \multicolumn{2}{|c|}{Steel} & \multicolumn{2}{|l|}{Aluminum} \\
\hline L. 11. & No & Ea & No. & \\
\hline 5x9'戞1 & 22211 & \$0.67 & C22037 & \$0.7 \\
\hline ¢x \(\times 22^{\prime \prime}\) & C22212 & . 82 & C22238 & . 9 \\
\hline -x 9x2* & C22213 & . 88 & C22239 & . 0 \\
\hline - \(111 \times 2{ }^{\prime \prime}\) & C22214 & 97 & C22243 & 1.1 \\
\hline \% \(113 \times 2\) " & C22215 & 1.06 & C22244 & 1.2 \\
\hline \(7 \times 15 \times 3\) & C22216 & 1.26 & C22245 & 1.4 \\
\hline -x17x3 & C22217 & 1.26 & C22246 & 1.4 \\
\hline 10x12x3 & C22226 & 1.38 & C22247 & 1.6 \\
\hline 10x17x3' & C222 & 1.29 & C22 & \\
\hline
\end{tabular}

ICA Black Ripple Finish Steel Bottom Plates
Bot tom plates have holes to match the steel chatsis listed athove, and have pressed "bump-
\begin{tabular}{|c|c|c|c|c|}
\hline Stock & & Size & Wit. & Your \\
\hline No. & & I) xL. & l.hs. & Cost \\
\hline C22228 & & \(\times 91\). & 1 & \$0.38 \\
\hline C22233 & & \(\times \times 10\) & I & . 41 \\
\hline C22241 & 7 & \(\times\)-" & 1 & . 44 \\
\hline C22242 & 7 & x \(9^{\prime \prime}\) & 1 & . 44 \\
\hline C22249 & 7 & \(\times 11\) " & 1 & . 53 \\
\hline C22256 & 7 & x1:3* & 2 & . 56 \\
\hline C22288 & 7 & 115" & 2 & . 62 \\
\hline C22260 & - & \(\times 15\) & 2 & . 65 \\
\hline C20261 & 8 & x12" & & . 65 \\
\hline C22265 & 10 & \(\times 120\) & 2 & . 68 \\
\hline C22262 & 10 & \(\times 1{ }^{\prime \prime}\) & 3 & . 71 \\
\hline C22266 & 1) & 11-" & 3 & . 82 \\
\hline
\end{tabular}

\section*{Steel Chassis With Bottom Cover Plates Heavy Duty Type}

One piece \(1 /{ }^{\circ}\) steel. All corners reinforced. Ends drilled to fit standard mig. bracket. Mil black wrinkle finish.
\begin{tabular}{cccr} 
No. & W. L. D. & Lbs. & Each \\
C22155 & \(8 \times 17 \times 2^{\circ}\) & 9 & \(\$ 2.53\) \\
C22229 & \(8 \times 17 \times 3^{\circ}\) & 10 & 2.79 \\
C22231 & \(11 \times 17 \times 2^{\circ}\) & 11 & 2.99 \\
C22156 & \(11 \times 17 \times 3^{\circ}\) & 12 & 3.03 \\
C22230 & \(13 \times 17 \times 2^{\circ}\) & 13 & 3.26 \\
C22232 & \(13 \times 17 \times 3^{\circ}\) & 1.4 & 3.53
\end{tabular}

\section*{FOUNDATION CABINETSCHHSSSIS}


\section*{GREENLEE Punches}Driven by screw action handy tool quit action, this accurate holes for sockets, plugs, etc., in radio chassis. Only. necessary oo drill sh or hole to fit 2 capscrew; "3/" or larger hole to fit \(34^{\circ}\) cap screw. Fach size tool consists of the punch, die for supporting the tnetal and cap screw. Wt. 2 lbs. the inetal and cap screw. C15130-5 Complete. C15130-C15132-7/8" Complete \(\$ 1.94\) C15134-Screw for s/ov and 1 .unches. Your Cost.........23c lunches. Your Cost C15135-Screw for \(8 / /^{\prime}\) and 23 \& C15136-1" Complete......... 52.12




\section*{Blank Metal Chassis Bases}
(E) Here s your chance to buy all-purpose radio chassis undrilled, at unusually low prices. All have reinforced spot welded corners for extra sirength.
Three types available: Electralloy is a non-magnetic zinc. Steel, plated with lead or zinc as availathe; also Steel with black wrinkle finish.

Flectralloy Ilated Steel Black Wrinkle No. Each No. Each No. Ezch C22320: 50.69 C22299" 50.54 C22306 \(\$ 0.56\) c22321 . 99 C22300 72 C22307 74
 Length: - 10 idth: \(725 \mathrm{Ht} .: 2^{\circ}\)-W2. 31 lbs.


 C2232f 1.65 C22303-1.06 C22313 1.09 C22334 1.59 C22328 1.15 c22253 1.17


 \(\begin{array}{llllll}\text { C22338 } & 2.25 & \mathbf{C 2 2 3 0 5} & 1.98 & \mathbf{c} 22319 & 2.02\end{array}\) Length: \(13^{\prime \prime}-\) Width: \(17^{\circ}-\mathrm{H}^{-1} .: 3^{\prime \prime}-\mathrm{Wt} .7 \mathrm{lbs}\).

\section*{ICA Standard Speaker Cabinets}

Substantially made from sheet steel, with louvred back cover with slots for wall hanging. Finished in black ripple enamel.
\begin{tabular}{|c|c|c|c|c|}
\hline Stock & & Size & Shpg. & \\
\hline No. & Spkr. & Cabinet & Wt. & Cost \\
\hline C22140 & \(6{ }^{\prime}\) & \(10 \times 10 \times 6{ }^{\prime}\) & 8 lbs . & \$3.00 \\
\hline C22141 & \(8{ }^{\circ}\) & 12x12x7* & 9 lbs . & 3.59 \\
\hline C22142 & \(10^{*}\) & \(14 \times 14 \times 8{ }^{\prime \prime}\) & 15 lbs . & 4.70 \\
\hline C22143 & 12" & \(16 \times 16 \times 8^{\prime \prime}\) & 20 lbs & 6.3 \\
\hline
\end{tabular}

FLUORESCENT
LIGHTING

\section*{Fluorescent Kitchen Unit}

With this unit fluoescent lighting can ee installed instant \(y\) in any incandes. cent type of lixture amploying a slobe employing a globe holder This par holder. This par ticular Kitchen unit ust insert the plug of \(4^{\circ}\) Fitter. No electrical knowledge is necessary-just insert the plug of
the adaptor in the shade holder and enjoy modern better lighting instantly.
Although listed as a Kitchen unit. this is a superbly designed fixture whereby the average householder can install fluorescent lighting in not only the kitchen, but in the bathroom. hallway and many other places where a soft light is desired. Underwriters' approved naterials enamel." Wired for \(118-125\) volts. 60 cycles alternating current only. For use with two 20-watt, 24 " fluorescent lamps. Shpg.Wt. 7 lbs. \(\$ 5\) C25551-Y our Cost (

\section*{WARD Fluorescent Kitchen Unit}


Beautifully designed fuorescent unit for kitchen use. Special erior mish distributes light scientifically through glass shields for maximum illumination. Can be installed instantly in any incandescent type fixture employing 4 diameter holker. Unit complete with ring pluy on short cord and 4" \(^{\text {cos diameter }}\) ring. Fixture is \(25^{\circ}\) lo
C2j5S5- Your Cost

\section*{Bed and Utility Lamp}


Here is a real fluorescent bed lamp. Soft, coollight that is easy on-the eyes. Beautiful hammerloid with stainless steel. The universal type of mounting brackets at the rear of this lamp enables this unit to be fastened wherever desirable. Dlay br easily hooked into the headrest of your bed. 1ts attractive lines make it suitable for many other applications too, such as: over pictures, bullet in boards, music stands, cashier cages, etc
las a high efliciency white ennaneled reflector that gets every bit of light out of the difteen watt \(18^{\circ}\) fluorescent lamp. This fixture is ready for use on 110-125 volts, 60 cycle alternating wt. 4 lbs.
C2S5S2-Your Cost (Less Lamp
\$5.07
C2S496-White Fluorescent I.amp. Each
56 c
56 c

\section*{All-Steel Industrialite}


For high in ized lightims ized ightime of produc
ion. assem tion, assem
hy, and in spection lines over henche
tables. Underwriters approved. Has been ensineered for tlush, chain or stem mounting and has double knockouts at each end for switches or for end to end continuous row mounting. Kinockouts along top for stem mounting.
Maximum lighting efficiency assured by the use of a pressed steel re. flector of "glazenamel." IBallast fully enclosed, and starters easily accessible on side of pressed steel housing. For use on 110 volt, ik) cycle AC flector can be easily removed for cleaning without disturbing the wirins

C25565-Your Cost (Less Lamps)
\$23.9
C25539-White Fluorescent Lamp. Each
\begin{tabular}{l}
90 c \\
\hline
\end{tabular}
Industrialite Accessories
C25690-U/L Approved Cord and Plug Set. 6y/2• L . . . . . . . . . . . . . 60c
C25692-6 ft. Electro (Falvanized "lenso Chains with Silooks.
Your Cost per Pair.

Tubular Executive Desk Lamp

\section*{\(\star\) Morocco Brown Finish} \(\star\) U.L. Approved Materials \(\star\) Convenient Pen Trough

\author{
Scientifically engineered. this fine
} unit is built to give maximum light distribution. Combined with the latest in smart, attractive design of sturdy and substantial materials this fluorescent desk lamp has a strade and base of one piece pressed steel construction. Gives a miraculously high lighting performance Curved reflecting surface in baked-on white plastic "glazenamel" con Curved reflecting surface in baked-on white plastic glazenamel con-
centrates light forward to provide an even and useful light over an encentrates light forward to provide an even and useful light over an en-
tire desk areat. Wired exclusively with Underwriters approved matire desk area. Wired exclusively with Underwriters approved ma
terials. For 110 - 125 volts, ( f\()\) cycle, alternating current only. Uses 1 erials. For \(110-125\) volts, 80 cycle, atier
15 watt, \(18^{*}\) type lamp. Shpg. wi. 8 lbs. c255S0-Your Cost (Less Lamp).
\(\$ 5.73\)
C25496-White Fluorescent Lamp. Each. 56c
C25497-Daylight Fluorescent Lamp. Each 56c

\section*{Circular Executive Desk Lamp}

+32-Watt Circular Lamp \(\star\) More Uniform Light \(\star\) Instant Starting
Attractively designed, beautiful bronze linished executive desk lamp. Employs new type 32 -watt circular fluorescent lamp that starts in stantly without flicker. The circular consiruction of the lamp gives reater lisht intensity and more reater distribution of light more nilorm antr in in ore larger area. This type lamp per mits the use of a circular shade which enhances the appearance of the lamp. The heavy base makes the lamp perfectly balanced and prevents topheaviness. An attrac tive lamp for offices, homes, lounges stores, and wherever good light and appearance are desired. For operation on 117 volts 60 cycle alter nating current only. Overall size: 14' \(^{\prime \prime}\) diameter by \(18^{\circ}\) high. Shpg. wt. 13 lbs.
C25554-With Circular Lamp.
Your Cost
\(\$ 22.00\)

\section*{COMPCO "Circline Series" Lamps}

\section*{Desk and Table Lamp}

Beautifully designed executive lamp for soft, glareless illumination over the entire desk or table top. Sturdily constructed of heavy gauge sted, perfectly balanced by gracefully curved base enclosing the ballast Complete with 32 -watt Circline luorescent tube. Raked on enamel inish in metallic "statuary bronze." \(15{ }^{\prime \prime}\) high. Shipping weight 10 lbs C25557-
Your Cost,
With Lamp
\(\$ 14.11\)

\section*{Pin-up Mirror Light}

Novel decorative effect as well as fine illunination in homes, hotels and public buildings. \(f\) inest quality -inch plate glass mirror encireled with soft flattering fluorescent light Uses 12 -inch diameter \(3^{2}\)-watt glare less circline. Back of lixure provided with buffers to keep fixture from laying that on watl, atlowing air cir culation between wall and jixture For 110 volt 60 cycle AC only Complete with lamp. Shipping reight 9 los.
C25558
Your Cost
\$12.20

\section*{Ceiling and Wall Fixture}


For the kitchen, bat hroom, entrance halls and playroom. Sturdily built. artistically designed fluorescent unit of heavy gauge stect. (ileaming White baked on enamel washable finish - with polished aluminum trim. Uses the new 32 watt glareless circline tube, which gives more il lumination than 100 watt incandescent. Diameter 131, inches, fits flush on ceiling or wall. For 110 volt ti0 cycle AC only. Shpg. wt. 9 lbs C25S56
Your Cost, With Lamp.


\section*{PENWOODCLOCKS}

Newly designed and styled Numechron electric clocks provide quiet, trouble-free time keeping wit hout winding, oiling or regulating. A style and color for every need, in the home, ollice or elsewhere. 1arge \(5 / 6\)-inch block numerals. Birect reading dials for the hours, minutes and seconds. Ruggedly constructed self-starting synchronous notors, precision made mechanisms and gear assemblies for accurate dependable time. Operates on 110 volts, 60 cycle. AC
(A) Commander. Ilesk model, beautifully styled modern plastic case, Available in Walnut or Ivory linish. length \(i^{3 / 4^{\prime}}\), beight \(4^{\circ}\).

C25450 Walnut
C25451-lvory.
\$7.11
(B) Vogue. Attractively styled Kitchen or Wall Clock. Available in C25452-Ivory.
Your Cost.


(C)Topper. Desk or table morel in non-l)reakible (eellulowe Acetate plastic case. Recessed clock face can be easily rend. Available in Walnut or Ivery linish. Iength \(53^{\circ} \mathbf{y}^{\circ}\), height \(3^{\circ} n^{\circ}\). depth \(3^{\circ} 3^{\circ}\). Shpg. C25455. C25450-Walnut
C25456-Ivory,
\(\$ 6.46\)Starlet. Jigh quality streamlined plastic case. For desk, table or mantel, at home or at the oflice. Available in Walnut or lvory C25453-Walnut.
C25454-lvory.
Your Cost Each
\(\$ 5.81\)

Ciocth flimecent

(-)


\section*{TORK Commercial Electric Wall Clock Automatic Setting Feature}
(E) Something new in a wall clock for storc, banks, schools, factories of 125 ft . or more. Nlovement is a ruged celf-ctarting synchronous motor with high precision gear train which includes an entirely new setting feature. Length of cord attached to smatl ring at bottom of clock eliminates necessity of climbing chairs or desks to reset an out-of-reach clock. Slight pull on ring sperde clock hands to \(3(0)\) times normal speed for resetting. large hack numeral on white face. Hlour and minute hands are black, second hand is red. Ileavy spun aluminum case finished in washable baked on maremen enamel. Sia. \(16^{\circ}\) with strong \(1 /{ }^{\circ}\) head, depth \(234^{\circ}\). Equuped with of ft. cord and plug. C25465-Your Cost
\$12.37

\section*{SELECTRON Clock}
(F) Wake up and ge to sleen tunefully with Selectron, the clock that Just plomatically turns your radio into the of off at any 15 -minute point; switch. The "scleciron" will atutomatically turn on your favorite radio program at the exact time you de-jit .edectron can also be used to turn on or of houschold apmiance: such ar al P'ercolator. Ileating Pad and night light. Self-atirting motor, preverion engineered mechanism for accurate dependable tine keeping. How-d in beautiful non-shatterable Celanese plastic culse. Winh 6-ft. cord and jlug. For 110 volt. AC only. C25470- Rich Maroon Finish.
C25471 - I vory Finish.
Your Cost Each
45.25


AC to DC Conversion Ballasts
(B) 115 V AC 1 -lamp fluorescent lixtures may hese cused on t15 tio by plugking one of outlet and plugring the fixture power cord in to the receptacle in the latlast. Users a glass-
 C13818-195 ohm, for 15 lamp. C13819- 144 ohn, for 201W lamp. \(\$ 1.10\)

\section*{Portable Fluorescent TOTELITE}

Now Development in Portable Lighting!
(A) TOTELITE changes the entire concent of portable, self-powered (A) lighting. No longer a long, skinny le:am, but : full ilooding light. This versatile light has many applications in the home, garage. office, factory, laboratory, farm, maintenance. installation. sports, watchman, and many other uses. Just the light to meet any emen gency need. Especially suitable as a trouble light for motorists and truck operators. Economicat to use, for the batteries last approximately 36 hours and the 6 watt tluorescent tube lasts approxirnately 1001 hours. Attractive black crackle finished steel case with plastic shield-lens that is nonbreakable and non-shatterable. Finger-tip controt switches under han-
List Price (with batteries)
\(\$ 15.95\)
C25553 Complete with batteries
Your Cost.
910.53

\section*{CORNELL-DUBILIER Noise Filter}

(C)C-I Fluorescent Filter 1F24, 110 volts AC or DC. Mounts inside Case is fixture by slotted strap which slips under any assembly bolt. Case is grounded and leads are shunted across power line. Cylindrical, 21/21."Shpg. wt. \(1 / 2 \mathrm{lb}\). \(\qquad\)


\section*{Mazda Fluorescent Lamps}
(D) "White" lamps provide a quality of light approximating that of daye incandescent lamp. Daylight lampe approximate that of incandescent lamps. Rated life beiter than 2500 hours Prices Below Include Federal Excise Tax.
White Daylight GE Dimen. Wouts Ea, Lots EA. Lots
Stk.No. Stk.No. No. L N I) Wats
 C 25527 C25525 C25525 \(C 25529\)
\(C 25535\) \(C 25535\)
\(C 2553\) \(C 25537\)
\(C 2559\) C25539
 \(\begin{array}{llllllllll}\text { C25541 } & \mathrm{C} 25542 & \mathrm{~T} 10 \dagger & 124^{\circ} \mathrm{Od} . & 32 & 1.93 & 3 & \mathbf{1 . 5 8} & 12 & 1.96\end{array}\) *100-watt lamps have mogul 2-pin base: all others have standard 2 -pin base. Approx. shipping weights. 6 and 8 -watt- \(11 / 2\) lbs.; \(14,15,20-\) watis- \(2 \mathrm{lbs} ; 30\) and 40 -watt- \(3^{\prime}, ~ \mathrm{lhs}\).; l lku-watt- 8 lbs .
\(\dagger\) Circline". circular lamp. Requires special socket. 1.D. is \(9 \frac{1}{2} \times 1,8^{\prime \prime}\).
Note: When purchasins lamps with any fluorescent fixture listed use 1st "Lots of" price instead of single price.

\section*{Electrical Noise Suppressor}

(E)Eliminates electrical noise from 115 volt 50,60 cycle AC fluorescent fixtures. Leads from hilter are shunted across the power line, case is grounded to the fixture by mounting. When fixture is grounded elecrical noise is shunted to ground. Cures the most obstinate cases. \(41 /{ }^{\prime \prime} \pi\)

C12520-Your Cost.
754

\title{
ELECTRICRL APPLIRNCES and PCCESSDRIES
}

(B)


\section*{Bakelite Plug}
(A) Standard plug. Well made c13306- Your prongs. C13306-Your Cost \(6^{4}\) Midget Cord Connector (B) Flat two-piece \(\underset{\substack{\mathrm{C} 1327 \\ 10 \text { for }}}{ }\)

25

\section*{Cord Switch}
(C)

Line cord switches for home ances.

Outlet Box Receptacles
(D) Fits standard outlet C13329 Your Cost \(\mathbf{1 4} \mathbf{4}\) 10 for.

Wall Plates
(E) Pressed ripple design \({ }_{\text {c13 }}\) less steel. \(\mathbf{P o u r}\) Cost 10 ¢

\section*{Power Cord and Plug} (F) High quality 6 - foot cord with c13285-Your cost...184 Fitsall Iron Element (G) For most irons including 1 lot Gienuine India mica, wired with Nichrome riblon wire.
C13270
Your Cost

\section*{Cone Elements}
(1) Fisind wite electric heaters. C13305-1010 w. each......72c Insulated Staples (J) For holding inside lead-in


\section*{Handle Plug}

Made of soft rubber. For alt
ald
c13301 linnces. Your cost..... 8 ¢ (13 appliances. Cost.....88 8
10 for \(\ldots\). Your co.......75c

\section*{Cube Tap}


Current Tap
(M) Straipht socket with 15 cas


\section*{Fluorescent Ballasts}
(N) High power factor units from 90 to \(100 \%\). Normal power factor (N) units from 55 to \(63 \%\). All are Underwriters listed. For \(105-125\) y 60 cyc . AC
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Stock No. & \[
\begin{aligned}
& \text { Type } \\
& \text { No, }
\end{aligned}
\] & Lamp Watts & & Wt. & Each & Lots
10/ea. \\
\hline \multicolumn{7}{|c|}{Factor} \\
\hline C25616 & 15 B & 15 & 129x139x419 & 1 & \(\mathbf{5 0 . 7 0}\) & \$0.63 \\
\hline C25617 & & 20 & \(1{ }^{13}=1 \times 13 \times 114\) & & & \\
\hline C25618 & 3013 & 30 & \(1{ }^{3} 4 \times{ }^{2}{ }^{3} \times 1 \times 84\) & & 2.25 & 2.03 \\
\hline C25619 & 4013 & 40 & \(13,4 \times 25 \times 8 \times 8\) & 3 & 2.25 & 2.03 \\
\hline \multicolumn{7}{|l|}{\multirow[t]{2}{*}{}} \\
\hline & & & & & & \\
\hline & 3081 & 5 &  & & 4.60 & 4.14 \\
\hline C25605 & 40 HL 2 & & \(1+1{ }^{20 \times 27}{ }_{16 \times 14}\) & \(5{ }^{12}\) & & 4.19 \\
\hline
\end{tabular}

\section*{Fluorescent Sockets}
(P) For T-8 and T-12 lamps. Combination sockets include socket for starter. All are molded of durable heatproof plastic having a high insulating value. 'T17 sockets include one plain and one combination socket.

No. Each
c13803-Comb. black. ....... . 20c
c13804-Comb, white....... 22c
C13805-I'lain black......... . . 12c C13806-Plain white........ .14c C13807-Starter only . . . . . . .12c C13801 - Comb. white for T-17 amps. Per Pair C13808 - Plain black for \(\Gamma\)-5 amps. Per Pair
.58 c
No-Blink Instant Starters
(B) Starter acts in one second or C13825-N-2NA. For 18"15-W or \(24^{\circ} 20-\mathrm{W}\). lamps.
C13826 I'S-4NA. For \(36^{\circ} 30-W\).
or \(48^{\prime \prime} 40-W\). lamps

C13828-FS-6NA. For \(60^{\circ} 100\) Your Cost.

\section*{Fluorescent Starter Switches}
(R) C13802-FS-5 For \(6^{\circ} 4\) W Your

29
C138
8. 15-W.: \({ }_{24}{ }^{2} 0-\mathrm{W},-2\). For \({ }^{24} 13811-\mathrm{FS}-4\).
 C13313-FS-6. For \(60^{\circ}\) 100-W


\section*{Automatic Starters}
(B) Life time starter, removes deerates automatically when lamp is replaced.
C13812-FS-2NB. For \(18^{\circ}\) 15-W \({ }^{\text {or }}{ }^{2} 24^{2}\) 20-W lamp C13814-FS-4NB. For \(36^{*} 30\)-W. or \(48^{\circ}\) 40-W lamps. Cost each. \(\leq 5\) 个 C13815 FS-6NB. For \(60^{\circ} 100\) Your Cost each


PRINCESS All-Chrome Broiler
Cooks quickly and efficiently. Holds and saves natural food flavors and vitamins. Minimum loss of valuable health-giving minerals. Dry-bakes potatoes and vegetables.
Polished Chromium linish for long lasting beauty. Smooth surfaces permit cleaning with but a whisk of a damp cloth-no rusting or corrosion. Mirror finish reflects random heat rays inside closed cover to realize on efficiency unparalleled in motern broiler design!
Shape and size permit the preparation of roasts, small fowl, steaks with a minimum of roasts, small fowl, steaks with a minimum of 400 or 1000 watt heats for maximum economy. Temperature dial built into top section. Provided with vents for uniform air circulaprovided with vents for uniform air circulation. Heat resistant plastic handles and mounting feet fitted to both top and bottom sections for absolute safety when handling hot unit. Complete with Nickel finished Per-ma-welded one piece grill. Broiler overall size: 151/4"x91/4"x61/4". Operates on 115 volts AC. C25401-Your Cost.
\$14.89
Lots of 6. Each.
.513 .35 Lots of 12, Each. C13303-3
Your Cost...........................75c


\section*{GEM Waftle Iron}

A waffle iron to satisfy the most discriminating eye. Superior design, construction, and efficient operation combine to make this one of the nost economical to use, as well as one of the best rahues on the market.
Heavily Chromium plated for cverlasting beauty. Circular one-piece, seamless molds. Entire sel is tinished with mirror smooth stain resisting metal. Easily cleaned, sanitary
glearning surface needs but the swish of a damp cloth to keep it new looking.
Uniform waffle thickness assured by expansion hinges and easily read built-in thermometer. Tells just when to put in the batter and when to turn off the iron to maintain a constant heat. One piece Chrome plated steel tray type base will not tip or mar table tops. Handles are mahogany finished wood, remain cool even after long periors of operation. Solid and safe internal construction. Fully Underwriters Listed. Heating elements are set in heavy insulating ceramic elements are set in heavy insulating ceramic block. All internal wiring provided with shockproof asbestos insulation. Operates from 115 volts AC or DC.
Shpp wt. 8 lbs.
C25402-Your Cost. . . . . . . . . 87
Lots of 6, Each.
Lots of 12 , Each


\section*{PRINCESS Electric Stove}

A truly portable electric stove for use in Sumner Ifomes. Apartments, where space is imited or additional cooking facilities are required. Concentrated, even heat for quicker, cleaner and cooler cookmg the year round.
One or two burners operating at 400 . 6if0 or 750 watts heat is obtained by proper insertion of line plug. Sturdy one piece steel shell forms inverted dome type structure for great strength and rigidity.
Heat is reflected upward by curved internal surfaces into the cooking area to effect greater economy of operation. Safe-fully Underwriters Approved. Internal wiring protected by heavy coating of asbestos.
Sides fitted with heat resistant black plastic handles. 'Table tops are protected by four feet made of the same material. Harmonizes with anyy color scheme. Top is in highly polished Chromium, the burners dark blue and the body finished in gray crackle enamel. For 110 v. AC-DC. Shpg. wt. 8 lbs. \(\$ 9.89\) Lots of 6, Each. \(\$ 6.11\) Lots of 12, Each. . . . . . . . . . . . . . . . . . . . . . . . . . 5.118 C13302-Two way cord and plug for Walle Iron or Electric Stove.


\section*{PACIFIC FM-AM Tuner}

(C)An entirely new FM-AM tuner for the tubes, and rectifier, to achieve High Frequency performance usually found only in much larger and more expensive sets. Covers Broadcast band from 4.40 KC to 1750 KC and the new FM1 band from 88 MC to 108 MC
FM section uses new ratio detector, AVC and 1F coils wound on Polystyrene forms for highest gain and stability possible. " Io-signed for use with standard 300 ohm transmission line and dipole antenna.

AM section is an advanced high fidelity superheterodyne circuit incorporating a high gain stage of tuned RF, band expanding permeability tuned iron core 1 F coils and 10 KC tilter to prevent interference from adjacent channels. tenna. Infinite impedance detector. Full AVC action.
Output is flat within 2 d from 30 to \(15,(0) 60\) cps, will match any ampliiter imput impedance. Selection of F.M. A.A or Phono may be made at front panel switch. Tone control for use on FM, All or phone to suit your individual taste in tone reprextuction. Klodern slide rule dial with but a cingle tuning control for both FM and ANI. Built-in volume control, self contained power supply. Chassis is surfaced in attractive gray winkle finish. measures \(13^{\prime \prime}\) long, \(6^{\circ}\) high, and \(8^{\circ}\) decp. Shpg. w. \(181:\) Ibs.
Model AF-11. Complete. ready to operate, with tubes, power cord and dial. less anplitser and speaker.
c22494
Your Cost


\section*{APPROVED ELECT. INST. CO. FM Tuner}

\section*{(B)}

FM tuner of moderate price hut advanced engineering. Front end tuning is a patent pending arrangement of three pairs of resonant tuned lines, large diameter for maximum skin conduction, curyed on radius for continuous contact by rotating slides actuated by standard dial drive wheel, and mounted in ceranic. The lines have silver overlay as in the most costly Army-Navy radar tuners. The contact arms are also silver overlayed, on phosphor bronze, and are mounted on Lucite bars. The entire front end is of unit construction with floating mount in the heavy ( 16 gauge) cadmium-plated steel chassis. Alicrophonics are thus held to a minimum. Tuning is very stable; frequency drift is mum. Tuning is very stable; frequency drift is
negligible after five minutes. Ranye is 88 to 108 neghinheater 1 mpe minules. inc Im
tenna.
Superheterodyne circuit with standard IF of 10.7 mc . IF transformers are the latest iype aroncore with ceramic insulation, and provide a 1 le kc band width for maximum FA fidelity. Sonsitivity is excellc-nt: only 10 microwhts are required for full limiting, assuring noise free reception. Output is full 2 volts rms at 5 M\()\),(M) ohms. for connection to the usual high-impedance phono input in cisher an ANI radio receiver or an AF amplifier. 13ualt in power stapply is \(A C\) type, extremely well intered; hum level is \(T 0 \mathrm{db}\) below average oulput.
Tubes: GAC5 RF, 6 JJ converter, two GSH7 IF's, 6 SIIF limiter, \(6 \mathrm{AL5}\) discriminator, ilit rectifier GUES tuning eye. Cabirnet, is hand: ruthed walnut wernerer. \(13^{\circ}\) "ide. \(93^{\circ}\) high. \(10^{\circ}\) with therule dial, 115 volts, 60 cyale AC she C22491-Your Cost
\$59.50

\section*{BROWNING}

Model RJ-12 FM-AM Tuner


Designed for high fidelity. distortion free recention, high frequency FM band '87 standard broadcast standard hroadcast band livel tuner for use with Ideal tuner for use with
high-quality amplifiers. high-quality ampliiiers.
Physical size makes it Physical size makes it
adaptable to special cabinets, drawers, shelves, racks, and "built -in" applica-
tions. Two entirely intions. Two entirely in-
dependent tuners are incorporated on one chassis to provide hishest quality out put. FAl section consists of one stage TRF; mixer stage with separate oscillator; operating at higher irequency-thus minmmizing image interference; two stages IF; two-stage ciscade limiter. insuring maximum noise rejection; and discriminator stage, delivers 1.5 volis RNS to channel selector swit ch Input signal of 15 microvolis will cause complete limiting action AM section is superheterodyne type and consists of: one stage TRF eliminate image responses; a mixer stage; a high gain IF stage: and a diode detector. which furnishes AVC voltage and 05 volts RN1S audio to channel selector switch Sensitivity of this section is one microvolt Phonograph input is connected into channel setector switch controls
 volume slide rule dial thono input jack, and jarge slide rule dial, hono input jack, audio output jack. connector for \(300-\mathrm{ohm}\) antenni lead-in wire, and rear panel. Cornplete with tubes, dial escutcheron, walnut knobs, and instructions. Size: \(7 \frac{2}{8} \times 13 \frac{1}{2} \times 9^{\prime \prime}\) deep. Shpg.

\section*{C22512}

Less Power Supply, Your Cost
\(\$ 143.90\)
RROWNING Model PF-12 Power Supply for above Tuner, 115 -volt 60 -cycle operation, complete with tube and line cord. Size: \(6 \times 31^{1.2} 8^{\circ}\). Shpg. wt. 11 lbs.
C2513-Your Cost
\$15.78


Designed for realistic high fidelity reception. Two separate tuners, power supply, AF preamplifier, all on one chassis. Frequency response
\(\pm 20.15,000 \mathrm{cps}\). Treble control varies response at \(10,000 \mathrm{cps}\) from +12 to -14 db . Bass control provides 10 db boost at 40 cos . 10 db boost at 40 cps. in automatic bass compensation circuit to match the bass characteristic of the human ear. AM coverage 527 to 1620 kc . FMI coverage \(88-108 \mathrm{mc}\).
Sensitivity is such that less than 10 microvolis are required to produce standard output. ANI selectivity is variable to "Broad" for high fidelity or "Sharp" for selection between adjacent channel stations. AF output is 8 volts at high-impedance and \(\% \overline{5}\) volts at 500 -ohm output. Hum level is 60 dh below output. I hono input terminals are provided so that the tuner and its amplifier may be used with a record player or changer. Any antenna with a single lead-in wire can be used for AM signals. The \(\mathfrak{F M}\) section is designed for use with standard FM antenna 300 ohm transmission line. Tube complement of the AM-FM tuner is: 9003 RF
 6AL5 detector for the AMI section. For the FM section; 6 AG5 RF amplifier; 6C4 oscillator; 6A(;5 converter 3-6AC5 IF amplifiers (10.7 nugacycles), \(2-901\) limiters; and \(6 A 15\) detector. Two \(6 C 4\) s are used for audio amplitiers. a \(6 \mathrm{~S} 5 / 6 \mathrm{G} 5\) for tuning indicator and a 5 Y'3GT/G for rectilier.
Chassis is \(165^{5} \times 101 /{ }^{\prime \prime}\) (requires \(11 / 4^{\prime \prime}\) additional between chassis and panel). Net weight 191 , Ibs. Unit complete with tubes, escutcheon plate and slide rule dial \(2 x^{-1} 9^{\prime \prime}\) opening. Dial calibration AM in kilocycles. A in channel numbers (200 to 300 ). For 115 volts, 50 -60 cycles, AC

\section*{C22499 \\ Your Cott}
\(\$ 147.00\) 12 lbs .

\section*{Your Cost}

C22497-Black wrinkle cabinet panel only. Dimensions 18x88 . Net

\title{
thaM GEAR
}

SONAR Model VFX 680 All Band Exciter
(A) Complete Narrow Band Frequency Modulated plone and CW exciter with built-in power supply. Oscillator operates from Vi:O to crystal control. By varying the VFX controt, any type cut crystal becomes "rubberized.
VFO operates in the 160 meter band with frequency range from 1565 KC to 2000 KC . Variable frequency shift is from 30 KC on 80 meters to 2 meter bands meters. Frequency range covers the 2 meter bands as well as the new proposed is meter band. Pwer output jacks watts. Monitor circuits for indicator is self-contained cathode ray tuning indicator. External relay control provided for remote operaray tuning indicator. EXt and break-in operation permitted on the same frequency without shutting off the oscillator.
Plug-in coils give two-band operation on one set of coils. \(40-20\) meter bands coil set supplied with exciter. 8 tube circuit including \(V R\) and rectifier. Any type high impedance crystal or dynamic microphone with output between -48 and -52 db may be used. Front panel finished in smooth gray baked enamel with red and white screening. Complete with tubes and one set of coils but less crystal. For use on \(110-125\) volts \(50-60\) cycle AC. Size \(5 \frac{1}{4} \times 19 \times 8 \frac{1}{2}{ }^{\prime \prime}\). Shpg.

\section*{C21007-}

Your Cost
C10430- 10 meter coil C10431-15 meter coil C10432-20 meter coil

C10433-40 meter coi C10434- 80 meter coil


(A)


\section*{SONAR Model XE-10 Narrow Band FM Exciter}

\section*{(B) An icleal unit to convert any type transmitter in the 6,10 , or 11} (B) meter binds for use on Narrow Band FM operation. These are the lowest frequencies allowed by the FCC for amateur use of FM. The exciter also has an output in the 40 meter band, using an 80 reter crystal.
Complete instructions for connection and use are furnished with the equipment. Easily connected into your crystal socket or the grid circuit of a VFO. Eliminates the use of speech amplitiers, modulator and their power supples and permits the linal to be used as a highly efficient class \(C\) stage. Increases the power output and reduces the input power consumption. Unit has 3 watts output at 7 Mic. I,ink couples to trans mitter. Entire unit contained in a neat ventilated cabinet that makes a handsome addition to any Ilam shack.
Any AM receiver can be used for reception by tuning slightly out of resonance, because the deviation is only 2 to 3 KC . Contains microphone amplifier, crystal oscillator, buffer modulator, and a 115 volt 60 cycle AC power supply. Modulation and tuning controls, transmit, receive toggle switch, pilot lipht, crystal socket, and microphone iack are mounted on the front panel. Tuning meter jack and the transmission line connector are mounted at rear of cabinet
Unit is complete with tubes, but less crystals. In gray cabinet 9 3/8 \(x\) \(x 5\). Shpg. wt. 12 lbs,
C21006-
539.45

\section*{SONAR Model MB-611 Transmitter}

(C) Small compact transmitter for 10 and 11 meter operation. Uses any type power supply. Can be in stalled in any vehicle, boat or airplane. Also used for fixed station. or as driver for high power final. Employs exclusive Sonar 1'hase Modulator with direct crystal control. VFO may be used in plate of Crystal. Input for hi-impedance crystal or dynamic mike having output of -52 db or better. Tuning condensers are the screw: driver set type, with locking nuts for stable operation I Nual indicator for RF tuning and deviation. Frequency deviation adjustable from 2 to 3 KC . Will match any deviation adjustable from 2 to 3 .
prox. 22.5 watts. Supplied with 10 and 11 meter outputs. Available with 6 meter output. Requires power supply of between 250 and 600 volts DC at 100 milis from vibrator, dynamotor, or \(\Lambda \mathrm{C}\) supply. Power consumption is 2.6 amps in Stand-by and from 10 tc 20 amps in Transmit from any standard 6 volt batteryIn gray case \(101 / 8 \times 7 \times 5^{\prime \prime}\). Shpg. wt. 20 lbs. Complete with tubes but less crystal and power supply. Also available for 6 meter operation on special order c21019-
\(\$ 7245\)

\section*{MILLEN 60-Watt Transmitter-Exciter}

(D)For standard rack. Requires up to 750 v at \(250 \mathrm{ma},-45 \mathrm{v}\) and 6.3 v at 1.8 amps Osc. is Tri-tet for \(2 x\) or 1 x crystal frec . or by short-circuiting cathode tank. output is fun damental. Drives 80 , which is either straight amplifier or doubler. Therefore several possi ble combinations of coils and crystals pro duce same out put, and 25 to 50 or more watts can be had in t bands by proper choice of crystal freq. The \(0-200\) ma meter may be

\section*{New MEISSNER Signal Shifter-ECO or Xtal}

\section*{STANCOR ST-202-A 125-Watt Transmitter Kit}

(ㄷ)656 osc. 807 doubler-amp). Turret band change. Eye-tube key and tuning indi cator. Stabilized ose screen voltage, fi watts output. Vernier dials. Couples to most any circuit. Signal Shifter in cabinet \(1: 3^{13}{ }^{3} \times 1: 3^{4} \times x\)
\(8^{3}\), with tubes (including VR), less power 83/4", with tubes (including VR), less power
supply sub-chassis, less coils. Shpg. we. approx. 23 lbs . C21022 Your Cost
(1)

Shpg. wt. 15 Ibs. Mitlen No. 90800 , with 10


(F) Build your own compact desk-t ype trans10 miter to cover the 80, 40, 20, 10, 11, and Io meter bands, crystal controled. CW, but with built-in chassis, marked panel and bot with buitt-in chassis, marked panel and bottom plate, plus all circuit and construction components. 115 v , (6) cy power supply furnishes 351\()\) vdc, 1000 vde, variable bias, and lilament voltages including taps for your choice of PA tubes. You even get a prefabricated cabled harness for neat under-chassis appearance. All phases of construction and operation are fully covered by detailed instruction manual. The only extras needed are ma meter. 5 tubus, crystals, and a set of standard P'A Lank-coil plug-ins.

Power supply sub-chassis, with two 5Y3's, for C21023 cy. Shpg. wt. approx. \(\$ 15\) lbs. 00 Your Cost
Stock No. Coil Strip Stock No. Coil Strip C10389 80 meters' C10392 15 meters C10390 40 meters C10393 10,11 meters C10391 20 mers Shpg. ut. 3 lbs. Each

Novel band-switching exciter circuit with band-switch coil assembly and one tuning capacitor. Inter and intra-band tlexibility with extreme simplicity of adjustment and control. Adjustable link coil antenna cortpling. Simultaneous screen keying of both exciter tubes for clean signals. Break-in exciter tubes for clean signals. Break-in
operation. For 1 PA, you can choose a 35 T . operation. For PA, you can choose a 35 T ,
\(35 \mathrm{TG}, \mathrm{HK} 54,5514,811\), or 812 . (Wide-range neutralizer provided.)
Uses Barker and Williamson 150 watt varlink coils listed elsewhere in this catal.ggCabinet \(141 / 15 \times 9 \times 13^{3 / 15}\)
C21020-
Your Cost.
\(\$ 92.80\)

\section*{SPERTI Two-Way Hand-Held Radio}


Operates on 144-148 Mc (2 Meter band). Not surplus equipment, but a brand new exclusive design. Only high quality, new components are used anywhere in the construction. Ideal for transmitter hunts, field days, ham fests, emergency work, pleasure boating, flying or racing.
Excellent results obtained during antenna adjustments and tests by two-way contact between fieldstrength measuring equipment and antenna posiLuons.
May be used as an auxiliary or emergency transmitter. May also be used as a complete permanent lixed station. Test result: 12 mile line-of-sight communication. Average perfornance 3 miles over flat or slighty rolling country.
40 hours intermittent B-battery life. Quick change. Instant-starting filaments save A batteries (two \(\$ 2\) flashlight cells)
Engineered for performance, designed for efficiency and priced for compettion. Maximum performance in the smallist prosible size and feight. Good for boats. Push-to-takh. Instantaneous breat-in. .xet at factory within band limis, stays in band unlas- lampered with. Sliderule dial. uning cin be locked. Retractible fording dipole antenna. onnect to a high antenna to increase coverage enormously. Stable oscillator and receiver, negligible shift. Size \(10 \times 3 x\). Shog , wis 22450 - With tubes, less batteries Your Cost
C20627-A3 Bat. (2 required). Each
\(\$ 33.81\)
HY-Q 75 Xmitter Kit
For \(11 / 4\) and 2 Meters
Linear oscillator, 135 to 250 mc . 4 watts CW. II W. phone. Chart or quick location of ham bands, no cut and try. Easily assembled. ancy plumbing and tricky parts prefabricated. Alicrometric tun-
ing by adjustable lead screw. Sil-
er plated tank circuit, silver finecision mult inherer comtacts on ontains special R1 \(\mathrm{F}^{*}\) choke's and ong jath insulators. (mick band

\section*{BUD \\ 55-Watt Plug-In Coils}

All coils are atir-wound er wire and mount 5 -prong whe sockers ITT enient ceramic menuting hise he chassis when the coil focket he chassis when the conl socket link coils have fixed cenier link ith main winding center tupped. End link coils have fixed end link and are not center tapped. Varlable link coil have adjustable center link with main winding center tapped
Center End Iiri. Cap, Your link Lisk liak Band Mid Cost \(\overline{\mathrm{C}} 10635 \mathrm{C} 10641 \mathrm{C} 1060380 \mathrm{M}-\mathrm{F} \quad \$ 1.32\) C10636 C10642 C10604 40X \(50 \quad 1.32\)
 \(\begin{array}{llll}\text { C10646 C10647 C10689 15M1 } & 33 & 1.32 \\ \text { C10638 C10644 C10606 } & 1031 & 28 & 1.29\end{array}\) \(\begin{array}{lllll}\text { C10638 } & \mathrm{C} 10644 \mathrm{C} 10606 & 1031 & 28 \ddagger & 1.29 \\ \mathrm{C} 10639 & \mathrm{C} 10645 & 5 \mathrm{M} & 18 & 1.06\end{array}\) \(\$ 21\) mofid. for variable link coil,

\section*{AAAAAA NOTE AAAAAA \\  Refer to page 137 for a
compiete listing of Bar-
ker and Wilizamson
transmiting coils and
turrets from 75 watts A
to 1 KW. JOENSSON Spring Clip}

For inductor coils of all kinds. Will take wire from \(=20\) to 10 gruge. 74

\section*{Heat Radiating Grid and} Plate Caps
Use at terminals of mitting tubes. I'rotects glass.
C14377-For IIK-24
C14378-For 35-T.JK-51 35pes. \(\left.\begin{array}{l}\text { C14381-For } 100-\text { T. } 807 \\ \text { C1 } 1388 \text {-For } 866, T-125\end{array}\right\} 59 \mathrm{c}^{\text {ea }}\)

change Pictorial wirinc diagram ind instruction manual with each


\author{
AMPHENOL Miniature \\ Polystyxene Forms and Sockets
}


Undrilled. \(33^{6}\) dia., \(1210^{\prime \prime}\) long. P'rmanent mounting form has aised hole in conter for self tapnimg crew. sockets for plug-if ypes also tit Ilyrron Ibantam Jr.
C11577-Permanent 104 Ity Your Cost 28 C9628-5 Firony Fiorm . . 28c C13161--5 Contact sicket. . 24c C9629-i) l'rung l'orm ....29c C13162-1; Combact Sxeket...24c NATIONAL Grid Clips


Type A. Easily removed. Tinned grip end for soldering
\begin{tabular}{|c|c|c|}
\hline 34 & Type Tulks & Dia. Each \\
\hline & & \\
\hline C14565 & Metal toctas) & \\
\hline C1444 & X'miting* & \\
\hline *-366, & \(120,819,81\) & \\
\hline 14598 & Type B. Co & ic s \\
\hline & dia. for & 120 , \\
\hline & & \\
\hline & & \\
\hline & Ceramic as & \\
\hline & & \\
\hline
\end{tabular}

\section*{NATIONAL}

\section*{Hi-Frequency Coils}
ligh Q permeability tuned RFF crils, tune with cajaatities from 100 to 10 micro-micro farads. In-
ductive winding replaceable. ARductive winding replaceable AR-
 C14382-AR-2 Your Cost. \(\$ 1.71\) C14383-AR-5 Your Cost.. 1.46 Hi-Freguency Coil Forms XR-50 permeability tumed coil form. Winding length "re" dia. C14384 Your Cost. ..... \(\$ 1.01\)

AMATEUR RADIO
EQUIPMENT

\section*{RME VHF-A-152 Converter}

For 2, 6 and 10 Meters, 28-29.7, 50
 54, 144-148 Mc. Wide-range re ceiving facilities at low cost and with minimum equipment. Uses the extremely efficient double-conver ion system when connected to your receiver. Image rejection ratio 5 A db. Stability at 50 mc is better than in most receivers at 5 mc because of new engineering design, VR-150 regulation, and temp. stabilization in VIIF oscillator circuits, Low noise level. Sensitivity 2 microvolts on all bands. Miniature tubes. Line up is: 6AK5 RF, \(64 U 6\) mixer, 6 J 6 scillator. Power supply uses 5 Y'3GT and VR-150.
Tuning clial is black with raised white numerals. Scale is \(7^{\prime \prime}\) dia. with wifle spreading of the calibrations. Separate scale for each of the 3 bands, calibrated in Alc. Entire dial is illuminated indirectly for maximuni readabmity and minimum glare. The tuning mechanism is an allear manetary trive will no calbes, pulleys. or levers. "Out-In" switeh cansirs the reper converter to antenna. Converter has proisions or fepirate antennis, one for the receiver frequencies, and separate input circuits for "ach ot the converter ranges, each designed esperiatly for a particular DIIF range. Shielded cable is furnished for connertion to the recelver. Complete with tubes, ready for operation C21012 Vodel VIIF i59 Conver
Your Cost

\section*{\(\$ 86.60\)}

RME DB-22A Preselector 540 Kc to 44 Mc


New, completely redesigned for greater efficiency. Adds 3 tuned circuits and \(26 A B 6\) miriature tubes head of the RF stage in your present recciver. Gives trenendous increase ist gian, selectivity, and signal to-noise ratio. Average overall Kain is 30 db throughout the range. nage ratio is 50 db at 28 mc . Complelely solves the problem of mainailining contact on 10 meters. Complete with power supply using a matched double Input circuit for 6) ground, permits high-gain matching to anv antenna. Output for 150 enna posts of receiver. Antenna hange-tser swich on panel couples recolver directly to antenna when unjt in fort beist used Ranme is covered in four bands. Smouth planetary mning mechanism uith plenty of drive ratio. "*dia. dial scale, dull back litctigronand, white numerals, indirectly illuminated. Gain control ndeperndent of receiver.
I Iouscd in an altractive. clean-cut cabinet styled in the same lines and mo komk kray crachle mish as lhe R,ite 4 , receiver compleie with tube's and output connecting cable, ready for operation from \(110 / 120\) Ghing wi ', cycle source. Dimensions: \(1^{\prime \prime}\) high. 13

C21012-Your Cost
\(\$ 66.00\)

\section*{SPECIAL VAEUE!}

Smooth Coil Forms

\section*{(1u)Blank Pakelite forms your usn sjecifications. C10060-4 prong C10061-5 prong C10062-1i prong \(21^{9}\)}

\section*{MILLEN Plate Caps}
teatite covered cap, for trans-Millen-36001. C8056-*36002, s/8\%..........21c 4'3in011, Extra tight. Snap action top button to release grip. C8052- "ur" dia.
Your Cost Each
.60c
© \(\mathbf{4 6 0 5 3}\). snap action as above.

\section*{Reliance}

Ribbed Coil Forms


These coil forms are of high quality lowloss Bakelite, and are ribbed for air-spaced winding. They have knurled flanges for facility in handling, and grootes for wave band index. Eight ribs.

\section*{Medium Size}

Small Size
Undrilled. \(13 /{ }^{3}\) dia. \(21 / /^{\circ}\) high.
C9988-4 Prong Each
C9989-5-Prong
C99ch

\section*{National. Supreme RME Cquipment}

\section*{NATIONAL NC-57 Receiver}

Go "International with National." The latest product of National's long-standing reputation in the communications field. Provides reception of Phone and CW signals over the entire frequency spectrum of 550 KC to 56 MC in five bands. Features a built-in power supply, heavy duty PM speaker and maximum flexibility of operation on all bands thru use of front panel mounted controls.
RF amplifier, converter. and CW oscillator circuits include voltage regulation to insure a high order of stability on both CW and Phone reception. Nine tubes including voltage regulator and rectitier. A separate band spread dial, provides pin-point sharp tuning and accurate calibration on all bands facilitates tuning to any desired fre-yuency-quickly and easily.
Antenna terminals provide for connecting single wire, doublet, or co-ax antenna lead-in, and a socket is provided for connecting an external ' H " meter
Housed in an attractive modern cabinet finished in smooth gray enamel, \(16 \frac{1}{2}\) " wide, \(1134^{\prime \prime}\) deep, \(884^{\prime \prime}\) high. Operates on \(105-120\) volts, \(50 \cdot(0)\) cycles AC , with a socket at the rear provided to permit battery operation and/or the connection of an external relay or IB plus switch. Shpg. wt. 33 lbs . Complete with tubes.
C21266
Your Cost.

\section*{\$89.50}

\section*{SUPREME Model AF-100 Transmitter \\ * AM-NBFM-CW-ICW \\ \(\star\) Complete Metering \(\star\) Inter-Lock Protection \\ \(\star\) Single Dial Tuning of Exciter and Multiplier}

Complete, compact and inexpensive transmitter for desk top operation. NISFM availablequencies from 10 thru flip of at switch. An exceptionally stable VF:O is followed by slug-tuned buffer and doubler stages. ganged together with the VF(). Provision made for selection of two predetermized crystal frequencies. Bandswitching throughout except in output stage where plug in coils are used. NBFM deviation adjustatble from 0 to ples and minus 7.5 Kc
Metering of all essential circuits pla, pilot light indicators give operating characteristice and condition at atimes. Sesillator keying for break in operation. Antemna relay provided with exira contacts for receiver disabling during transmisum. Nicroptone and key jacks readly accessible at the front panel. (p)erator is protected against high-voltage shock by automatic interlock switches when the cabinet is opened. Twenty tubes used, including voltage regulators and rectifiers. Final uses a 31 )e: and the motutator a pair of 80 r's.
 consumption 325 watts. Size \(2 y^{*} \times 113 \frac{1}{4} \times 18^{3}\) ". Shps. w1. 195 ths. Complete
Your Cost
\(\$ 550.00\)

\section*{RME-84 Receiver}

New low cost superhet with complete coverage from 540 kc through 44 me. Design and construction are in accordance with RMIE's past standards. No. "low priced. average components" are used anywhere in this set. There is no omission of controls necessary for the reception of cither phone or CW signals. P'ower supply built in for 115 volt, 60 cycle AC power source. and a socket is provided for battery connection, made feasible by the use of low-drain loctal tubes.
Tube lineup is: \(7137 \mathrm{KF}, 7 \mathrm{~S}^{7}\) converter, two \(7 \mathrm{~B} / \mathrm{IF} \mathrm{F}\), \(7 \mathrm{~K} / \mathrm{det} . / 1 \mathrm{st} \mathrm{AF}\),
 chosen not only for their low drain, but also because of their efficiency at hish frequencies.
Bandspread on any setting of the main dial is provided by a vern-er dial which has 200 divisions on the edge of a \(3^{1 / 2}\) " diameter disc. Scate makes live complete revolutions for the \(180^{\circ}\) rotation of the tuning capacitor. Tuning mechanisn is a planetary-drive system, spring-loided to eliminate all back lash. The overalt calibration is held to wit hin one-tenth of one per cent. Complete with tubes and seff-
contained speaker. I \(8 \times 93 / 8 \times 93 / 4\). Shpg. wh. 35 lbs . contained speaker. \(18 \times 93 / 8 \times 984^{\prime \prime}\). Shpg. wL. 35 lbs .

\section*{C21011-}
\(\$ 98.70\)

\section*{RME-45 Receiver}

The outgrowth of a long series of fine instruments, built for practical, all-coverage phone and \(C W\) radio reception. One of the outstanding features is "CAL-O-MATIC" autornatic tuning and calibration of the scale, accomplished by an ingenious mechanism developed by RME. Once the receiver leaves the test ruom absolutely no further calibration adjustments need be made. bn consequence, all calibration points, main and bandspread. are determined automatically as tuning procceds. No dials to reset. no padders to be readjusted, and no recheck points to observe. A single, smooth as velvet, dial is used for tuning, and the circular bandspread scale is geared \(5: 1\) to the main scale. All controls streamlined, handy and convenient. The band coverage is \(5: 5 \mathrm{kc}\) to 33 mic in six bands with overtap. Tube lineup is: 7137 KF . 7.57 converter, two \(7 B 71 \mathrm{FN}\), \(7 \mathrm{B6}\) det. and 13 FO , 7 C 7 Ist \(\mathrm{AF}, 7 \mathrm{C} 5\) output. TAt autonatic noise limiter, 80 rectilier. Loctals used because of their low drain, high efficiency, and long life. The use of finest components and a sturdy double-space tuning capacitor in the oscillator section hold frequency drift to an absolute minimum. Both relay control and break-in connections are provided at the rear of the chassiz. 5 -position crystal selectivity switch. IB meter calibrated in steps of 6 db per R reading beginning at zero on up to 48 db for K 9 and up to
\(96 \mathrm{db}\left(48 \mathrm{db}\right.\) above R9). \(\mathrm{Size}^{2}\). 221 . Shpg. wt. 56 lbs . Complete with tubes and Speaker in Matching Cabinet.
C21010
Your Cost
\(\$ 198.71\)

\section*{HAMMARLUND HQ-129-X}

This is truly the Hams receiver with the professional touch. Long years of Hammarlund engineering have resulted in an extremely fine tuning unit. Antenna effects at entirely different isequencies are quickly adjusted by the antenna compensator, noise is kept to a low level compared with the desired signal.
Main tuning dial is accurately calibrated for each of the six bands. These hands are hroken down as follows: \(540-1320 \mathrm{kc} ., 1320-3200 \mathrm{kc}\)., \(3200-5700 \mathrm{kc}\)., \(5700-10,0 \times 0 \mathrm{kc}\)., \(10-18 \mathrm{mc}\)., and \(18-31 \mathrm{mc}\). In addition to the calibrated band spread dial which covers four amateur hands there the calibrated band spread dial which covers four amateur hands there
is also an arbitrary scale provided for any bands beconing available is also an arbit
Tube line-up: GSS7 RF amplifier, 6K8 converter, 6SS7 first IF amplifier, \(6 S 57\) second 11 amplitier. \(\operatorname{iSS} 7\) third \(1 F\) amplifier, 6116 second detector, AVC and noise limiter, 6SN7GT/G first AF and S-meter, \(6 \mathrm{~V} 6 \mathrm{GT} / \mathrm{G}\) audio output, 6SJ7 beat frequency oscillator, 5U46; full. wave rectifier and (0)3/VR105 voltage regulator. Antenna input impedance of 400 ohms provides for the use of single wire antenna or halanced transmission line. Audio output of approximately 3 watts. undistorted. S-meter mounted between the main dial and band spread dial calibrated 1 to 9 in steps of approximately 6 DM . Six position Crystal filter. New series type noise limiter provides better position Crystal filter. New series type noise limiter provides better \(20^{5} / \mathrm{m}^{2} \times 11^{11} \mathrm{ma}^{\prime}\). Shipping weight 52 bs. Complete with tules, less speaker.
C21035-

\section*{Your Cost}
\$177.30
c21036- Matching Speaker in Cabinet

\section*{HAMMARLUND SUPER-PRO}

For the amateur or commercial operator who wants the best available performance in communications receivers, the Super-l'ro is an outstanding selection in the field of fine receivers. Selectivity, sensitivity, signal-to-noise and signal-to-image values obtainathle in this receiver are due to 2 stages of tuned RFF amplification and 3 stages of IF amplitication. The IF amplifier features variable band-width which is controllable from the panel. "lhe crystal lilter circuit, patented by IIammarlund, has 6 switch positions: 3 for phone reception, two for C \(W\) and one for "off." AVC is applied to the 2 RF" stages and also to two of the IF amplifiers.
Tuning range is 540 KC to 30 mc .. in five bands, the 3 highest of which have bandspread provided on an arbitrary scale of 100 divisions. have bandspread provided on an arbitrary scale of Model \(\mathrm{SP}-400-5 \mathrm{~K}\) covers 1.25 to 40 mc . and has handspread on all live bands. The \(S\) meter on these receivers is calibrated from 10 approx. 9 db per step. with external adjustment. Separate heavy duty power supply, standard model. operates on \(11 . \overline{3}\) v., 60 cycle a.c.
Mordel SI'S- \(900-X\), complete with tubers, power supply, and speaker in matching cabinet.
C21037
\$398.25

\section*{HAMMARLUND Four- 11 Modulator}

Designed especially for use with the new Hammarlund Mordel Four-20 transmitter. The output imperdance is \(8,(00)\) ohnts. The push-pull audio output stage is cipsible of delivering eleven watts of power output at output stage is capmble of deliver
Careful design has resulted in ant audio response that fits the needs of amateurs who are particulariy interested in clear crisps speech that will pierce overcrowded and terrifically (LRNII) hands. Substanizally flat between 200 and \(3(M)\) cycles. Quility ats well as conservatively rated parts are used throughout. If it is desired to increase power at a later date, this modulator may be used as a very efficient driver unit
Modulator and transmitter below are in cabinets similar in appearance and size. The front panel contains a standard microphone jack. gain control on-off switch, pilot light and convenient fuse outlet. The input impedance is suitable for any high impedance nicrophone. Tube line-up: 6SL TGT first and second audio amplifier, (6) phase inverter. 7 CSL "'s in push-puld audio output and a \(5 U 1\) IC' rectitier. Size. cycles A.C. Complete with wt. -1:
C21048
Your Cost
\$72.50

\section*{HAMMARLUND Model Four-20 Transmittex}

Complete self-contained crystal controlled CW unit designed especially for the radio amateur. Conservative output of twenty watts available on the 3.5-7-14 and 28 MC amateur bands. 3.5 MC crystals only are necessary as a serics of doubler tubes and band switching provide out put in the bands mentioned. Plug-in coils used in the plate circuit of the power amplilier stage only. An outpul coupling arrangernent with an adjustable tap is a new feature on these plug-in coils. Any impedance between 50 and 600 ) ohms may be matched to the transmitter. A small high-ppeed relay is huilt into the unit to provide for excellent telegraph keying. If phone operation is anticipated the Hammarlund Four-11 morlulator described alove, provides an excellent companion unit. MONO-secןuence tuning enables the operatur to tune four circuits to four different but harmonically related frequencies by means of a single control. The stages are sharply tuned. resulting in highly efficient circuits. A constant load is kept on the oscillator stage at all times through the use of a special resistor net work. The front panel includes a milliammeter and switching arrangement so that any of the RI' tubes may be metered Tube line-up: 7C5LT oscillator, 3-7C5I.T's multipliers. 807 power amplifier and 5U4G rectilier. Size:approximately \(81 / 4^{\prime \prime} \times 151^{\prime \prime} x\) 807 power amplifier and 5 U4G rectilier. Size:approxirnately \(81 / 4 \times 151 / x\) \(91 / 2\) Shipping wt. 35 lbs. rower consumption approximately meter output coil, but less crystal.
C21049 -
Your Cost
\(\$ 120.00\)
52.70

C9967-20 meter output coil 2.70 C9968 - 10 meter outjut coil 2.70 c9969- 80 meter output coil

Hammarlund Receivers - Transmitters


\title{
hallicrafters Communications Receivers
}

\section*{HALLICRAFTERS Model S-38}

This new Hallicrafters Model S-38 is the finest receiver value ever offered in the low price field. The unusually fine styling makes this an ideal receiver for use in any room in the home. In addition its super-sensitivity makes it an excellent receiver for communications service.
Four hands are covered: 540 to \(1,680 \mathrm{KC}, 1,650\) to \(5,200 \mathrm{KC}, 4,750\) in \(15,0(0) \mathrm{KC}\) and 13,000 to \(32,400 \mathrm{KC}\). The main dial is calibrated in megacycles. All controls are clearly marked and include the following: Noise Limiter, Band Switch, BFO, BFO Pitch, Speaker/Phone Switch and Standby Switch. Headphone jacks and antenna terminals are provided at the rear of the cabinet. Steel cabinet is finished in satin gray, and the speaker grill in the cabinet top is of airodized steel. 1.5 watts of audio output is available which is more than ample for all receiver requirements.
Electrical tandspread dial permits separation of stations for communication or station logging purposes. Tubes required: 12SA7 Converter, 12SK- \(1 F\) Amplilier, \(12 S\) Q 7 BFO-Automatic Noise Limiter, 12SQT 2nd Detector-AVC-1st Audio Amplifier, 35L6(;T 2nd Audio Amplitier and a 3525 GT rectifier. Operates on \(105-120\) volts, 40 -(i) cycles AC or \(105-120\) volts IDC. May be used on \(220-250\) volts AC or IC with the 220 -volt line cord converter listed below. Receiver includes buile-in PM dynamic speaker. Overall size: \(127 / 8^{\circ}\) wide, \(71 /{ }^{\circ}\) high, \(85^{\prime \prime}\) deep. Shipping wit. 14 lbs .
C21081-Model S-38 Receiver, with tubes.
Your Cost
\(\$ 47.50\)
C5245-220-volt Line Cord Converter, Your Cost

\section*{HALLICRAFTERS S-47}

An ultra-nerr radio receiver designed to fill a long-felt need. Numerous applications in the home, schools, offices and public institutions where a superior installation is needed. Overall frequency coverage is from 535 to \(1,20 \mathrm{KC}, 5.9\) to 18.2 ALC , band spread tuning for Foreign reception of 9 to \(12 \mathrm{MC}, 15\) to 18 MC , plus new FMi Band of 88 to 108 MC Wide vision slide rule dial accurately calibrated for close tuning. Five push buttons each for FM and AM tuning. Fourteen tubes plus rectitier. Output stage uses two 6 VGGT 's, provides 12 watts of audio. AM response flat from 30 to \(7.5(0) \mathrm{cps}\). F. I flat from 30 to \(15,000 \mathrm{cps}\) Separate bass and treble tone controls. Phono connection at the rear of chassis. Automatic F'requency Control "locks-in" receiver to FM station selected-assures minimum drift and maximum accuracy in tuning. "A irodized" stec l top swings open on full length hinge. Receiver designed for use on \(105-125\) volts, 50 - 60 cycles AC. Any speaker with impedance of 500 -ifo ohms, such as \(\mathrm{R}-42\) shown below, may be C21067-11odel S-47 with tubes.
\$200.00
Your Cost
C21068-- Model \(\$\)-47C same as above but less cabinet. Your Cost
.\(\$ 189.50\)

\section*{HALLICRAFTERS SX-42}

In a new receiver that is really new, Hallicrafters sets a new high standard in performance and mechanical design. AM signals may be received over the entire range of the receiver; Fir signals on the two bands covering 27 to 110 mc . High fidelity reception is assured by the essentially flat audio response, 60 to 15,000 cycles, and an undistorted oupput of 8 wats.
Controls of the receiver are in logical order for maximum convenience. Color codng of controls sintplifies the problem of general family usage. Small red dots indicate settings for standard broadcast; green dots are uced for FM. The main tuning knob has a precision vernier scale behind a small window in the main dial housing. The main tuning dial is calibrated in megacycles and is marked for the new FM band. The bandspread dial is calibrated for the \(3.5,7,14,28\) and 50 mc . amateur bands. An additional scale is provided for logging. The smali lexking knob mounted coaxially with the main and bandspread funing knolos promits either of the two tuning knobs to be rotated while the knols ikrmits enither of
other is held in place.
Circuit features of the receiver are the split-stator tuning condenser used on the 3 higher frequency bands, making possible high stage gain, 6-position crystal inter and phase conirol, all-range BFO for CW reception, and the dual 15 amplifier system which is automatically higher frepomer (broadcast band) or doublet antenna. The audio system has output impedances of 500 and 5000 ohms. A phone jack is supplied on the front panel; a connector is on the rear of the chassis for phonograph pickup input. Miniature tubes, lemperature compensated oscil graph pickup input. Alimature tubes. emperature compensated oscire lator, two stages of RF amplication and two limiter stages produce ing iccessory to the receiver is an adjustable base with which the receiver may be tilted to meet the "eye angle" and thus increase ease and accuracy of dial settings.

\section*{IALLICRAFTERS Matching Speaker}

The \(\mathrm{R}-42\) Speaker (illustrated) represents one of the greatest innovations in speaker design in recent years. lleretofore, base retlex reproduction has been available only in large, space consuming cabinet speakers. This is the first speaker of its size to offer the wide range fidelity of bass reflex. Highly functional design has resulted in the fine performing, smart appearing speaker unit which may be used with pery other receiver having \(500 / 600 \mathrm{ohm}\) output terminals. A switch is available on the speaker cabinet for switching from high fidelity to communications reception.
C21070-SX-42 Receiver, less speaker and base. Your Cost
\(\$ 275.00\) C21069-SX-42U Receiver. Same as SX \(\mathbf{~} 42\) but for operation on 110,
\(130,150,220\) or 250 volts. 60 cycle \(A C\). Each. ........... \(\$ 287.50\) 130, 150, 220, or 250 volts. G0 cycle T. Each 29.50 C21071-B-42 Adjustable Base. Each.

\section*{HALLICRAFTER "Skyrider" Panoramic Adaptor \\ \(\star\) Avoid QRM \\ \(\star\) Spot Replies to Your CQ's \(\star\) See What You Hear!}

The Hallicrafters "Skyrider" Panoramic Adaptor enables you to see holes in busy bands as well as the signal characteristics of your own and ther stations. Helps locate your sked and avoid QRM. Locates sta tions whose exact frequencies are not known. Provides instantancous signal strength (S) meter readings for CW and Phone. Assists in making adjustments of transmitters and antennas. Indicates modulation percentage, frequency deviation. FM signals, audio distortion of carricr, carrier shift and splatter, spurious parasitics, carrier hum level, key clicks, noise and frequency drift of your own as well as other trans chitters.
Easy, simple connections to all receivers with an IF frequency of from 450 to 470 KC . Contains four simple operating controls and does not affect the operation of your receiver. Clear sharp panoramic does not affect the operation of your receiver. Clear sharp panoramily picture is prod
In sturdy black wrinkle finished steel cabinet, with high quality com ponents assuring long trouble-Íree life. \(11 \times 9\) 3/4 \(\times 6^{3}\) 价. Complete with operating instructions, tubes and connecting leads. Shpg. wt. 16 lbs

\section*{c21000-}

Your Cost
\(\$ 49.50\)

\section*{HALLICRAFTERS HT-18 Exciter \\ Directly Calibrated Variable Master Oscillator}

This completely new exciter unit is the hottest item available for the modern amateur. A "must" for modernizing your transmitter. Powe
 putpul from 4.5 wates Dial is directly calibrated in seven ranges to alle on all ranges. Built-in 3.5 to 29.7 . re-amplifier for high impedance crystal or dymamic mikes. Provision made for oscillator keying in break in operation. Threc crystal sockets movided for spot frequency operation. Tuning is extremely easy, overal stability is excellent. Drift is negligibte. FM deviation plus and minus 1200 cps on all frequencies. Audio) frequency response flat from 100 to ENKO cps. Check switch for beating oricillator against incomins signals without putting entire transmitter on the air Panel controls include tuning, band selector, operation selector, deviation selector. On'Off AC . On/Off plate, and On/Off check switch. fis tubes including two voltage regulators plus \(5 \mathrm{Y} 3 \mathrm{G}^{\prime \prime}\) rectifier. For use on 105-125 volts, 50-6: cycles Ac Size: \(123 / 4 \times 7 \times 73 /{ }^{\circ}\). Shpg wt. 25 lbs. Complete with tules but less crystals

\section*{C21074}

Your Cost
\(\$ 110.00\)

\section*{hallicrafters ht-17 10 Watt CW Transmitter}

Completely new. A high quality, low price transmit ter or exciter for a high power timal amplifier. Companion piece to the --is receiver for a ternal modulator. Stylized and finished in the latest Hallicrafter motif. 80, 40, 20, and 10 meter bands.
Ready to pluy into \(105-125\) volt, 50 - 60 cycle power source. Pi output net matches any antenna. Top hinged for casy changing of crils and crystal. 3-tule circuit with 807 final. l'ilot lamp tuning indicator can be replaced by the SM-17 plate ma meter if desired, at extra cost Complete with tubes but less coil sets and crystals. Dimensions \(127 / 8 \times 73 / 8 \times 85 / 8^{\circ}\). Shpg. wt. 25 lbs.

\section*{C21076}

Your Cost
C21077-SM-17 Meter. Your Cost
\(\$ 39.50\)
Cour Sets for Above C10298 C10297-10 meters.... \(3.50 \quad\) C10299 10 meters.... 7.00

20 meters
\(\$ 6.50\) C10296-80 meters C10297-10 meters.... \(3.50 \quad\) C10299 10 meters.... 7.00
\(\$ 7.00\)

\section*{HALLICRAFTER HT-9 100 Watt Phone CW Transmitter}

A medium powered transmitter designed for naximum flexibulity and convenience. Completely self-contained. Requires only a nike or key, antenna, and 10:-125 volts, 5)-60 cy power to go on the air. Coil con consists of "sc., Buffer, and finat. Crystal phags info top of the. cots. section at one time and selected by the fromt-panel hand switch. (\%nly remaining band-switching procedure is to replace the Final coil and readjust the linal tank tuning capacitor. Coil sets avaitable from seoch for the \(80,40,20\), and 10 meier bands. Ot hers on special order. Threc ma meters io read cathode current of exciter or modulator, poner amplifier grid current, and power amplifier plate current. Frequency response flat within 3 db from 100 to 500 cycles. Input for any nediumlevel high-imp. mike. 1(0) W on ( \(\cdot W\), \(7.5 W\) on Ihone. \(100 \%\) mod. with low distortion. Built in harmonic suppressor. Antenna coil natches mium-plated steel chassis. Steel cabinet finished in gray enamel. Ilas heavy rubber mounting feet, ventilating openings top and sides and
 hinged top with interlock switch under wi h oubes but less crystals and coil sets.
C21346-
Your Cost

Coil Sets for Above
\begin{tabular}{ll} 
C10287- -80 meters. . \(\$ 10.85\) & C10286- 20 meters.. \(\$ 15.50\) \\
C10285-40 meters. . 11.75 & C10288-10 meters . 16.50
\end{tabular}

\section*{hallicrafters} Transmitting Equipment
 this training in your oun home under G.I Bill. Mail coupon for full details.

KIT 1 (left) I send you Soldering Equipment and Radio Parts: show you how to do Radio Soldering; how to mount and connect Radio parts; give you practical experience.

KIT 2 (left) Early in my to build this N.R.1. Tester with parts! send. It soon helps you fix neighborloord laadios and carn EXTRA money in spare

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KIT 5 Building this A. M.

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Many Beginners Soon Make EXTRA Money in Spare Time While Learning
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Ohtid Radio School, Washington 9, D. C.

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64 Page Book}

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Washington 9, D. C.
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Address
City

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\section*{FOREIGN ORDERS}

On foreign orders we require payment in the United States by irrevocalble and confirmed etter of credit against documents or \(50 \%\) deposit with order, balance sight drift against with slight additional charge for export packing. Orders up to \(\$ 25\). (0) payable in full in advance. including postage. All renittances payable in U. S. funds.

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On mall orders of \$25.00 or nore, we allow you to deduct \(\mathcal{Z}^{\prime}\) ' from the total as transportation allowance, with the following except ions: Al sold under l-air Tr"de regulations; all itens marked "Shipped Post paid

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If you find it necessary to return any merchandise for adjustments, please write in advance stating the following: reason for return-when and where purchased-number of sites silip (if is received damased obtain report from the postmaster or express agent and mail it to us. Use a separate sheet of paper for all adjustment matter; do not add remarks to a new packare you return When moneying merchandise, pack carefully, insure, and write your name and address on all packages and your nations.

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Prices shown in this catalog are net. All discounts have been deducted, including \(2 \%\) discounts for cash. Prices are subject to change without notice; we give customers the benetit of all reductions taking place after the catalog is published.

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Items marked "Shipped Pustpaid" do not re quire postage. Postpaid items refer only to shipments made within the 48 states of the U . S. only (does not include U. S. possessions).

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\hline 3 & . 09 & 12 & .11 & 18 & 23 & 27 & 33 & . 38 \\
\hline 4 & 10 & 13 & 16 & 22 & 28 & . 34 & . 42 & \(.49{ }^{-}\) \\
\hline 5 & 10) & 17 & 18 & 25 & 31 & . 41 & 52 & 61 \\
\hline 6 & 11 & \(1: 5\) & \(3)\) & 3) & . 39 & 48 & . 61 & . 72 \\
\hline 7 & 11 & \(11 ;\) & 23 & . 32 & . 44 & . 56 & 70 & . 83 \\
\hline 8 & 12 & 17 & 21 & 36 & 50 & . 603 & . 79 & . 95 \\
\hline 9 & 12 & 18 & 26 & 39) & 56 & .70 & . 89 & 1.06 \\
\hline 10) & .13 & 19 & 28 & 1.3 & 61 & .77 & 98 & 1.17 \\
\hline 11 & .13 & 20 & 30 & 16 & 67 & . 81 & 107 & 1.29 \\
\hline 12 & 1.4 & 29 & . 32 & 5.5) & 72 & 92 & 1.16 & 1.40 \\
\hline 13 & 1.1 & 23 & 31 & 51 & 77 & 9 & 1.26 & 1.51 \\
\hline 14 & . 15 & 21 & . 36 & 5 & 83 & 106 & 135 & 1.63 \\
\hline 15 & 15 & . 25 & . 38 & 11 & \(8!\) & 1.13 & 1.4 .4 & 1.74 \\
\hline 16 & 16 & .26 & . 40 & 65 & 91 & 131 & 153 & 1.85 \\
\hline 17 & 16 & 27 & . 42 & 68 & 99 & 128 & 163 & 1.97 \\
\hline 18 & 17 & . 28 & . 4.4 & 72 & 105 & 13.7 & 1.72 & 2.08 \\
\hline 19 & 17 & . 29 & .16 & 75 & 1.10 & 112 & 181 & 2.19 \\
\hline 20 & . 18 & \(\therefore 30\) & . 18 & 79 & 115 & 1 19 & 1.91 & 2.31 \\
\hline
\end{tabular}

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\section*{EXPRESS CHARGES}

Express Charges are determined by the weight of the shipment and distance of Destination Office from Originating Olfice. 'lhe following chart will enable you to estimate charges.
Maximum Distance

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline * & * & 70 & * & . 99 & 1.22 & 1 & 80 & 2.38 & 315 & 372 & 581 & 7.42 \\
\hline * & " & 85 & * & 1.18 & 1.46 & 2 & 16 & 287 & & \(+50\) & 7.07 & 8. \\
\hline & * & 0 & * & 27 & 60 & & 42 & 3.25 & 43 & 5.17 & 8.20 & 10 \\
\hline
\end{tabular}

\section*{INSURANCE}

Parcel Post and Express insurance rates are hased on declared value ALL PARCELS WE SHIP MUST BE INSURED.

\section*{Valuation Parcel Post}
\(\mathrm{U}_{1}\) 'to \(\$ 5.00\)
\$5.01- \(25 .(\%)\)
\(25.01-50.00\)
\(50.01-200.00\)
Express
Up to \(\$ 50.00\)
No Cbarge
\(\$ 5(150)-150)(00\) enal \(\$ 100.00\) value or portion

\section*{thereof, charge is \(\$ 0.10\)}

\section*{EXPRESS \& FREIGHT}

Express and freight shipments are sent trans portation charges collect. If your station has no agent, please send sufficient money to cover transportation. Charges are the same either

\section*{C.O.D. SHIPMENTS}

Transportation charpes on C.O.D parcels are slightly higher than those sent prepaid. C.O.D. charges in addition to the regular postage cost are as follows (including insurance) Valuation

Extra Charge
Up to \(\$ 5.00\)
\(5.01-\quad 25.00\)
\(25.01-\quad 50.00\)
\(25.01-\quad 50.00\)
\(50.01-100.00\)
\(100.01-150.44\)
150.01 - 20000

Post Office also charges an extra small .60 order fee on cach C.O.I). parcel. Save these fees by remitting in fuil.
4) S: Equipment built or ordere requirements not especialiy to meet customero refund. All orders for special merchandise must refund. All orders for special

Article (A) AdapRIALER Auto.

Page

Beam
F.M.-Dipole

Insulators.
Loop.
Transmitting Wire . . . . \(65,128,133\) Aerial Accessories. 131, 133
AEROVOX
Alarm System.
Albums, Record
Aligning Tools.
Amateur Receivers. 155,160 , inside back cover
Ammeters.
AMPERITE
Armphenol 77, iou, ion, 142 Amplifier Accessories. 27-31 Amplifier Kits. .... 108-111 Amplifiers. Mobile. Phono
Amplifier, Pre

\section*{AMPLIFIERS PUBLIC ADDRESS}

\author{
Analyzers. . . . . . . 68-72, 7
} Antenna Coils........... 1136 Arbors
ASTATIC
Audio Oscillators Audio Tran formers. . Automatic Recor.94-97,99 Changers.....17, 42, 43 Regulators oltage

\section*{Regulator \\ (B) Paging}

\section*{Ballasts}

Conversion Batteries
Battery Charger Battery Tester



Booster Amplifiers.
Brackets, Angle. \(50-51,113\) Brackets, Jewcl
rackets
Mounting. . \(90,102,144\)

\section*{BUD}

Bulbs, Fluorescent..... . . 147 Bulbs, Pilot.
Bulbs, Resistance
Bulbs, Tungar

\section*{BURGESS}

Bus Bar

\section*{158}
\(\qquad\)

\section*{Article \\ ower Supply \\ Portables}

Article \(\underset{\substack{\text { Bushings........... } \\ \text { Bys } \\ \text { Con }}}{ }\) densers...

Page 104, 142 \(\begin{array}{r}\text { 104, } 142 \\ \text {. } 80-84 \\ \hline\end{array}\)

Public Address
Radio Sets.
inside. front 9.16
ousside back cover
Console 4-7.9,12, out-
side back cover
Receiver \begin{tabular}{l} 
side back cover \\
Kits... \\
\hline \(106-109\)
\end{tabular} Record Players.. 17, 4:3,
Speakers . . . . \(37-40\), 5 Table Model Kadios
Training Kits...108, \(10 \times 9\) Transmitter Kit . .... 150 Tubes.
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Auto............8.83, 130
13y-I'ass.......52, 80, 84
cartridge
Ceramic.
Electroytic. . . . 52 , \(80-8\)
Kits.
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1 hoto Flash
1'idder
I'yranol
Yansmitting
Variable
Vibrator
Cones, Speaker
Connectors. . Annectors, An
Connectors, Micro
Controle
Conc, Volume. 54, 9()-(
Converters, Rotary
Cords, Battery.
Cord Contectors
Cord, Dial.
Cords, Extension
Cord, line Resistor

\section*{CORNELL-}

DUBILIER 76, 81,83
Couplings, Fexible i(i. . 1,38
Covers, Nicrophonc. . .
(radle, Chassis.
rystal Detector
rystal Sels.
rystal Socke
Crystal. Trunsuitting 135
Cushions, Phone. . . . 1.10

\section*{CUTLER}

\section*{HAMMER}

\section*{Cutters, Circle \\ (D) Delect \\ ccessori}

Citble.
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FM...
Form
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Phono Oscillator
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Communicating
Systems
Communication
Receivers. . 152-155, 160,

\section*{CONCORD}

Aerial Kits. Amplifie Baffies. . . . . . . . . . . 408 -109 Cystal Detector Kit. 108

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Drills... . 122, 123, 125, 126
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1)ry ('ells..........

Driver Unit. Speaker. . 39

\section*{DUMONT}
(E) Earphone Cushions 140 Electrical Appliances

Appliances.

\section*{Page Article}

Electrode Electroplater
EIMAC

\section*{ELECTRO-} VOICE
Eminators, Battery Eliminators, Noise.83, 130 Enclesures, Speaker Estutcheon
Exciter, Transmitter Extension Cords
der Control
.eiler Analyzer
Efret Instrument
Field Coils. Speaker
Filament Trans-
formers
foilament Ressistors
filter ('hokes
lilter Condensers
Filer, Equalize
Filfers. Noise. 6l,
Fixt ures, Electric.
.6646 fashlight Julbs. Focking Kit

\section*{FLUORESCENT}

\section*{LIGHTS}

\section*{Fluorescent Noise}

Flux Solder

\section*{FREQUENCY} MODULATION
Recewcrs. .i. \(1,4-8\). 1.19. 15.4 inside hack FM Antennas. Friction condensers. Friction Tupe
Fusc Retainer

\section*{Fuses.}
(C) Gas-Electric Plants10

GARRARD
Gaunlet.

\section*{GENERAL}

\section*{ELECTRIC}

Granules, Carbon 7, 74-76
Grille Clothrbon
Grinder. .
GUARDIAN
HALLI-
CRAFTERS
48 HAMMARLUND



\section*{NATIONAL NC-46}

General coverage receiver. Professional appearance. All the latest features for smooth easy control. The long clear-vision dial has the new sloping front. Band spread dial for accurate logging. 540 kc continuous through 30 mc in 4 bands. The band-spread dial provides 7 (idial divisions in the 80 -meter band, 50 in the 40 -meter band, 56 in the 20 meter band, and 40 in the 10 -meter band.
Features include a noise limiter with automatic threshold cortrol, CW oscillator, separate RF and AF gain controls, and amplified and delayed AVC. The push-pull audio output stage delivers approximately 4 watts. Both the straight-line-frequency tuning capacitor and the separate band-spread capacitor use an inertia-type drive. Provision is made for either headphone or speaker.
Circuit consists of a 6 K 8 converter, two 6SG7 IF stages, 6 H 6 detector/ limiter, \(6 \mathrm{SF} / \mathrm{AVC}\) amplilier, \(6 \mathrm{SJ} 7 \mathrm{BFO}, 6 \mathrm{SC} 7\) phase inverter, two \(25 L\) fir ; output, and 2525 rectilier. Sensitivity approximately 5 microvolts for 50 milliwatt output over entire range. Output with AVC varies less than \(\pm 4 \mathrm{db}\) with inputs ranging from 10 to 100,000 microvolts.
 Speaker. Your Cost
s97.50
Y21258-Matching Speaker in Cabinet.

\section*{NATIONAL NC-173}

For both Amateur and Commercial use. 11-tube superhet plus rec:ifier and plus VR for both CW and I'hone stability. 1 TRIF, separate stabilized IIF osc., Ist det., 2 IF's, diode 2nd det.. AF limiter, AVC amplilier, stabilized BFO, 2 AF stages. \(540 \mathrm{kc}-31 \mathrm{mc}\) plus 48 - 56 mc . Separate bandspread tuning knob and dial for the \(80,40,20,10\), and 5 -neter amateur bands.
Separale AlC amplifier permits using AVC on both phone and CW, Cew highly effective wide range crystal if filter with adjustable band width. A new "double action" noise limiter circuit is equally efficient on cither ( \(W\) or phone, has panel mounted threshold control. 't he ' \(S^{\prime \prime}\) meter, connect"d in the AVC circuit, is calibrated \(1-9\) " \(S\) " units and does not require adjustment. Can be used on both phone and CW signals. Comventional audio tone control. Headphone and pice-up jacks are located on front panel. 3.5 watts audio output at 8 or \(5,(0)\) ohms for speaker operation. Ficceiver housed in attractive noodern metal cabinet imished in smoxth gray. The speaker in a matching table model cabinet, is the PM field type with 8 ohm impedance. Complete with tubes and instructions. Shpg, wt. 70 lbs .
C21254-Table Mlodel Ieceiver
C21256-Rack Mounting Receiver.
Your Cost, cither
Model Speaker.
C21255-Table Model Speaker. C21257-Rack Mlount ing sixaker.

\subsection*{179.50 \\ s10.00}

\section*{NATIONAL NC-2-40D}

One of the finest communications receivers ever made. \(490 \mathrm{kc}-30 \mathrm{mc}\) continuous. Knoh on the front panel moves 6 calibrated coil ranges into position below the tuning capacitor and plugs then into the circuit, thus assuring very, short leads. Tuning control has \(60: 1\) ratio, but dial can be spun rapidly for fast tuning
Superhet circuit uses 11 tubes plus rectifier. 1 RF, separate lif osc. of new design for extreme stability, 1 st det., 21 F 's, 2nd det./limiter, AVC, 13FO, AF amp./phase inverter, push-pull 6'is's which detiver 8 watts, and rectilier. The IHF osc. design eliminates detuning efiects of RF gain control and motorboating or fluttering on strong signals. RF and \(1 F\) circuits use polystyrene coil forms. I'adding and trimming capacitors are air dielectric. Signal: image better than 30 db at ten meters. Line shift from 100 to 120 volts produces less than 1 kc detuning at 30 mc . Crystal lilter has exceptionally wide selectivity range for use on both Ihone and CW.
Operates on either \(110 / 120\) volt or \(220 / 240\) volt, \(50 / 60\) cycle soarce. Switch in prinary of plate transformer permits use of either vollage. Shipping weight 95 lbs.
L21261-Model NC-2-40D, Complete with tubes, \$228. 0 c21262-10 inch speaker mounted in separate cabinet specially designed to harmonize with the receiver's trim lines.
s16.44

\section*{NATIONAL HRO-7}
l'lra-modern version of the famous HRO Communications Receipers, 11 tubses plus the new miniature type OA2 voltage regulator for extreme oscaliator stability. New miniature bicy hish-frequency uscillator. Two RF ampliders, two \(1 F\) amplitiers. Wide-range adjustable selectivity wiln dipnition switch for crystal filter operation. Maximum bandspread on the amateur bands. New automatic double-action adjustable threshold noise limiter. High signal-to-noise ratio, high innage rejection, high uennitivity These are just a few of the features of this latest addition to the IIRO line.
Although normally supplied with plug-in coil sets for 1.730 mc , will cover radio range, communications, marine, and broadcast-band frequencies by the addition of coil sets for \(50-430 \mathrm{kc}\) and \(480-1700 \mathrm{kc}\). An accessory Connector socket is provided for heater voltage, \(\mathrm{B} \pm .1 \mathrm{~F}\) output, AVC voltage, and AF input, to accommodate a wide variety of accessories such as a N13 FM discriminator, crystal calibrator, etc. Front panel contains tone control. AF output stage uses 6VGGT/G.
Eimensions: \(19 \frac{3}{2} \times 10^{8 / 8} \times 121 / 8^{\prime \prime}\). Shpg. wt. 55 lbs.
C21253-1IROTT, Table model, complete with tubes and four sets of

C21252-MCR Speaker to match HRO-7T.
Your Cost
C21265--Power Supply No. 697
Your Cost
912010
40.56


\section*{HALLICRAFTERS Model SX-43}

Designed to aive the discriminating amateur the performance of his dreams at full frequency coverage . . . to give his family superb AM and FM reception. . . in Hallicrafters richest and most professional looking cabintt and panel . . . and all at a med um price.
Frequency coverage is 540 KC to \(44 \mathrm{MC}, \mathrm{AM}\) or \(\mathrm{CW}, 44\) to 55 MC , AM, wide-band FM or narrow-band FM and 88 to 108 MC on AMi or wide-band FM. Electrical bandspread with separate dial for the 80,40 , 20 and 10 meter bands. Complete and convenient panel controls provide ior Xtal filter with phasing control, 4 degrees of selectivity, BFO pitch control, phono jack and switch, " S " meter, Noise limiter, tone control and Receive/Standby switch.
TUBES: 1-6BA. 6 RF amplifier; 1-7F8 converter-oscillator; 1-6SG7 1st IF amplifier; .6SH7 2nd IF amplifier and second converter, band 5 AM, 1-65HZ 3 rd IF amplifier ( 10.7 Mc .); \(1-6 \mathrm{H} 6\) AM detector and noise limiter. 1 - 6 ALL 5 FM detector; 1 -6SQ7 1 st AF amplifier; \(1-6 J 5\) beat frequency ascilator or second converter oscillator, band 5; 1 6V6 audia output luive; 1 -5Y3 rectifier.
Temperature compensated. 3 watts output flat from 70 to \(8,000 \mathrm{cps}\) 300 ohms aaterna input impedance. Speaker terminals for 5000 and 500 ohms coutputs to match R-44 Bass Refler speaker. Dimensions: \(181 / 2^{\prime \prime} \times 81 / 3^{\prime \prime} \mathrm{z} 13^{\circ}\). Shpg. wt. 45 lbs . For 105.125 volts, \(50 / 60\) cyc.

\section*{C21064 -}

Your Cost

\section*{\(\$ 169.50\)}

Model \(5 X-43\) U. For \(110,130,150,220,250\) volts, \(25 / 60\) cyc. \(\$ 178.05\)
C21055-Ycur Cost
Model B-44 Jass.-Reflex Speaker. For use with sX.43.
C21036 Yeur Cost



\section*{the Concoud "ellasteifiece" fm-am phono-radio WITH AUTOMATIC RECORD CHANGER}


Everything you could possibly desire in a fine Radio-Phonograph Combination is yours in this magnificent instrument. Only Concord-with its unrivaled resources -could make so outstanding an AM-FM Automatic Phonograph-Radio Combination a reality. Here is true luxury at a moderate price.

\section*{THE DISTINGUISHED} CABINET: \(\bar{A}\) luxurious mahogany console Lustrous, handrubbed finish adds richness and beauty to any home. Distinctive Regency styling. Has convenient "slide away" drawer for automatic record changer with handsome burnished brass hardware. Cabinet has convenient storage space for records and albums.
AM-FM BROADCASTS: Receives new High Fidelity FM (Frequency Modulation) stations - 88 to 108 megacyclesas well as Standard broadcasts- 540 to 1700 kilocycles. Amazingly powerful 11 tube (including rectifier) superheterodyne, with advanced circuit design, provides 15 tube performance. Remarkable sensitivity and selectivity. Has large "slide rule" dial, full range bass-treble tone control and improved automatic volume control.
ADVANCED FM RECEPTION: Newest FM Ratio Detector circuit assures ease of tuning, low noise level, freedom from AM interference and ample gain. An octdoor
aerial is unnecessary in most locations for perfect FM reception.

\section*{A UTOMATIC PHONOGRAPH: Precision automatic rec-} ord changer plays ten \(12^{\prime \prime}\) or twelve \(10^{\prime \prime}\) records at one sitting. Has "Floating Point" needle. Rides gently on your records, yet reproduces with utmost fidelity.
HIGH FIDELITY REPRODUCTION: Powerful 13 watt push-pull amplifier, with large \(10^{\prime \prime} \mathrm{PM}\) speaker provides true High Fidelity reproduction of both recordings and radio broadcasts. Gives full benefit of FM quality.
NEWEST TUBES: Powerful, efficient circuit uses 1 6BA6 FM, RF Amplitier, 1-7Q7 AM Oscillator, Mixer, 1-7AH7 IF Amplifier, 1-7AG7 FM Detector driver, \(1-\) 7A 6 FM Detector, 1-7F8 FM Oscillator, Mixer, 1-7C6 AM Detector, Audio amplifier, 1-7F7 Audio amplifier, Inverter, 2-7C5 Push-Pull amplifiers, 1-5Y3 Rectifier.
To the smallest detail-this great AM.FM Phono-Combination is an achievement. Now-you have the opportunity to own, and enjoy for years ahead, this unparalleled combination. . . at a price that makes it truly a miracle value.
Model 1-1101. Concord 11 tube (including rectifier) FMAM Console Phono-Radio Combination with Automatic Record Changer with Built-in Loop Antenna for Standard Broadcasts and Folded Dipole antenna for FM Broadcasts. For operation on 105/125 volts AC; 50/60 cycles. Size: \(341 /{ }^{\prime \prime} \times 331 / /^{\prime \prime} \times 161 / 2^{\prime \prime}\). Shpg. wt. 100 lbs .
Your Cost.
\$189.50

\section*{Tokfartant}

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265 PEACHTREE STREET

\section*{HOW TO ORDER}
















\section*{DOMESTIC ORDERS}








\section*{FOREIGN ORDERS}







\section*{\(2 \%\) TRANSPORTATION ALLOWANCE}


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\section*{RETURNING MERCHANDISE}






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\section*{FINAL PRICES}






\section*{POSTPAD ITEMS．}





\section*{SENDING MONEY}






PARCELPOST RATES FOR ALL ZONES

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\section*{EXPRESS CHARGES}



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\section*{PARCEL POST INSURANCE RATES}


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\section*{EXPRESS \＆FREIGHT SHIPMENTS}
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