## RADIO PARIS and ELECTRONIC EQUIPMENT

## CONGORD RADTO

CITHDOE in 4.46
$1940 \times$ Mnasion


## DO NOT ORDER UNTIL JULY 1si



## ONLY 8 INCHES HIGH

Typicalof Concord's topnotel design and engineering. Small and lightweight enough to be easily carried.


## This Record-Changer is Tops!

Rugged-trouble-proof-and noiseless . . . remarkably efficient mechanism. . . plays and changes ten $12^{\prime \prime}$ records or twelve $10^{\prime \prime}$ records at one setting ... with the cabinet lid closed. Fast! . . . takes only 5 seconds to change a record. l-ounce crystal pick-up uses any kind of needle that's easily replaced. Easy loading and gentle with your records. Will not jam even if you're careless. Off-on reject switch conveniently located in front of cabinet. Only 43 parts in the entire mechanism. Frequency range from 40-7000 cycles.

## conconiz New Pllo 10 - 1 IIIIIO

What? A complete table model Phono-Radio only 8 inches kigh? Yes . . and look! . . . it aiso has a fine, trouble-free automatic record changer! Small and compact, but a mighty performer because it handles ten $12^{\prime \prime}$ records or twelve $10^{\prime \prime}$ records with the lid closed. And remember, this little wonder houses a top-quality SIX TUBE Superheterodyne Receiving Set that tunes in far and near radio stations with volume and fidelity you'd expect from much bigger sets.

## This Radio Delivers!

See the radio value you get! Six tube (including rectifier) Superheterodyne, using 6SK7GT/G. Amplifier, 6SA7GT Converter, 6SK7GT I.F. Amplifier, 6SQ7GT Detector-lst Audio, 6K6GT Output and 5Y3GT Rectifier. Sensitive selectivity guaranteed by the tuned R. F. Stage. Quick, easy taning and volume control of radio and phonograph with streamlined slide rule dial, and recessed central knobs on top of cabinet. Built-in loop antenna with provision for connecting outside aerial. Continuously variable tone control. 5 -inch Electrodynamic Speaker, adequately baffled, with 5 watts output produce plenty of power and excellent tone quality. Equa-Spaced large numerals on dial for quick, easy, accurate tuning. Tuning range- 535 to 1620 KC only.

## This Cabinet Has Style!

By far the most beautiful table model Phono-Radio cabinet ever designed . . . so different from the pre-war ugly, bulky models! It's made of carefully selected walnut veneers and hardwoods to blend with any furniture . . . easily carried about from room to room . . . it's only 8 inches high overall, by $191 / 4$ inches wide and $161 / 2$ inches long. When the lid on left is opened, there's the recordchanger, ready to go to work! Easy to load and operate . . . no "well" to dig into to reach the mechanism. Record surface noise and "leedback" never heard because records play and change with the cabinet lid closed.
Model 6D61P for operation of 110 Volts, 60 cycle AC current. Walnut Wood(size) $19^{1 / 4^{\prime \prime}}$ wide, $16 \frac{1}{2} 2^{\prime \prime}$ deep, $8^{\prime \prime}$ high. Shipping weight 27 lbs .
Youx Cost
$\$ 79.00$

# For EVENY ROOW IN IOUR HOME 



## A CONCORD MASTERPIECE...

Yes! . . . this is the receiving set you've been waiting for answering your wish for the last, last word in beautiful, modern cabinet desion, and satisfying your desire for the last, last word in rich-toned, clear-toned, true-toned recepticn. It's a completely new creation, embodying many special improvements develcped during war research. This is the radio for you if you're looking for a cabinet that will add the touch of tomorrow to your room if you seek a new and thrilling adveriture in Superbet reception. We promise you both!

## Tested War-Time Research in this Peace-Time Radio!

IMPROVED SUPERHETERODYNE CIRCUIT-Different better ... with many brand-new improvements that help deliver top-quality reception.
BUILT-IN LOOP ANTENNA-Now you don't need an outside antenna to bring in nearby and remote stations clear and strang. Provision for outside antenna is included fer these who prefer it.
5 INCH ELECTRODYNAMIC SPEAKER . . . a speaker that gives you plenty of tone . . . a whisper, a high violin note, a low brass, or a whole orchestra, with larger set tone quality.
STREAMLINED AIRPLANE DIAL-Tune in your stations faster, get them clearer with Equa-Spaced Illuminated Airplane Dial. No crowding of stations at high frequency end of broadcast band... all stations indicated with large numerals, evenly spaced.
WIDE TUNING RANGE-Complete band from 535 KC to 1620 KC .
5 TUBES (including rectifier)-115 VOLTS-AC-DC-Equipped with these tubes: 12SK7 IF, 12SA7 Converter, 12SQ7 Det. and 1st Audio, 50L6GT Output and 35Z5GT Rectifier.
Shipping Weight-10 lbs.
6D51B-Brown Plastic with Ivory Trim.
$12^{\prime \prime}$ wide, $6 \frac{1}{4}{ }^{\prime \prime}$ deep, $63_{4}^{\prime \prime}$ high.

## Your Cost

[^0]

## Same Model in Wood and Plastic

Do you prefer this radio in a luxurious walnut wond veneer cabinet, trimmed to a king's taste with ivory plastic? Here it is' It contains the same fine receiv. ing set described on this page, and the only difference is in the cabinet. It's meant for those who wan: BOTH an eleçant piece of furniture and a receiver they can boast about. The top and sides of this cabinet are made of genuine fine-grain walnut wood veneer. The front is soft-hued ivory plastic, molded into an exquisite grill that blends with the wood to complete a cabinet so outstandingly beautiful, so fresh and modern in design, you'll enjcy owning it for years. $\AA$ novel lucite nameplate glows sof:ly as the radio plays. In all details the $r \in c e i v e r$ is exactly the same as Models 6D51B and 6D51I. The only difference is the cabinet . . . made of quality, rich-grained walnut veneer.
Shipping Weight-9 lbs.
6D5IW-Walnut with Ivory Plastic.
 Your Cost
\$23.95

# NEPEVIDABILITIT 

The most important quality to look for in your postwar radio equipment

In the postwar confusion of new names, new products and new features, how can you know that what you buy in radio sets, equipment and parts will measure up? Beyond appearance, beyond specifications and beyond price there is one vitally important ingredient you cannot see . . . DEPENDABILITY. You are absolutely sure of DEPENDABILITY when you order from CONCORD RADIO CORPORATION . . . a company that for a quarter of a century has taken pride in building national confidence by adhering to the highest standards of quality.

In Concord's modern, fully-equipped laboratories, expert technicians test every item before
it reaches you. They are your critical eyes ... Hey are your critical ears. Before being cataloged, everything must meet the highest standard of specifications. Before shipment, everything is inspected again and again. With every item you order from Concord you receive also an intangible, an invisible but precious ingredient . . DEPENDABILITY. In advance you know that no matter what you have ordered . . . a postwar radio, amplifying equipment, parts, test equipment . . . whatever it may be . . . Concord has fully pre-tested and carefully inspected it before shipping it to you. You are assured of complete and absolute DEPENDABILITY.

## An Old

and Trusted
Company-

# Everything You Order From Concord is backed by this <br> <br> na <br> <br> na r r an an te te e 

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WE GUARANTEE that everything you order from Concord Radio Corporation will be exactly as pictured and described we guarantee to repair without charge any article that may prove defective in material or workmanship within 90 days after receipt-and, finally, we guarantee that if you are not fully satisfied with your
purchase, we shall either replace it free or refund your money. . . . as you prefer, if returned within 30 days.
This guarantee does not apply to any products or parts which have been subjected to misuse, neglect, accident, incorrect wiring not our own, improper installation, or used contrary to instructions furnished by us.

CONCORD RADIO CORPORATION

## SAME-DAY SERVICE From These Central Points CHICAGO-ATLANTA

YOU SAVE TIME-because Concord ships $99 \%$ of all orders for currently-available items on the day they come in. Yes, shipment is made within 24 hours from the centrally-located Concord warehouse nearest to you . . . from CHICAGO or ATLANTA.

Whatever you want in radio and electronics whether one small part or one thousand, Concord will ship it to you from vast and varied stocks containing many thousands of items. In this catalog.you'll see all the known and respectedlines ...you'll see complete assortments...great variety.

Concord is FIRST with the LATEST . . . ahead of the parade in bringing you more quickly all the newest postwar developments in radio and electronics. As fast as they become available provided they are found worthy of Concord's high quality standards . . new products are cataloged and offered to you AT PRICES THAT SAVE YOU MONEY.

## SUPPLY AND DEMAND

As this catalog goes to press the demand for many parts exceeds the relatively limited supply. This is particularly true of radio sets, tubes, test equipment, phonograph motors and record changers. Unpredictable developments in the industry may affect delivery of other merchar.dise. We are doing our level best to distribute scarce items among our many customers on a fair basis-but when there is not enough to go around, you may at times be disappointed. If you do not always receive all the merchandise you order, please reorder again at a later date. It is our sincere hope that these abnormal conditions will not last many more months and that increased production will soon enable us to meet all of your demands promptly. In the meantime your patience and cooperation are sincerely appreciated.

Prices Subiect to Change without Notice Within the rights granted by OPA, we reserve the right to lower or raise prices on items in this catalog, wherever such changes may be necessary.


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## EQUA-SPACED

 DIAL

A high violin note on a distant station... get it quickly, easily, beautifully-clear with EQUA-SPACED DIALING!


## SELECTIVITY

A solo performance on a lowfrequency station . . . bring it into your home at once, distortion-free ... with EQUA-SPACED DIALING!

An important news-cast don't miss a word! EQUASPACED DIALING gives you pin-point selectivity of any station on the band!

## CONCORD'S SUPERIOR SUPERHET!

You'll enjoy features galore in this champion among table model receiving sets, and the most important is the winning team of 6 tubes (including rectitier) in the powerful, sensitive Superbeterodyne circuit, with an added stage of tuned radio frequency amplification. Seldom do you find a stage of T.R.F. used in a small radio, but here Concord offers it to you to add to your listening pleasure by increasing the range of your program selection, both in distance and selectivity.
NEW MODERN CABINET: The photograph can only begin to tell how beautiful the cabinet, which houses this fine performing radio, really is. Constructed of durable plastic, finished a rich brown, with grill and dial frame in soft ivory, its free flowing lines make it a welcome addition to the most luxurious surroundings.
RADIO FEATURES: NEW SUPERHET CIRCUIT with an added stage of tuned R.F. gives you clear, powertul, interference free reception.
SLIDE RULE DIAL: A big slide rule dial with large Equa-Spaced Calibrations make it easy to tune in near and far stations as quickly, as clearly and as easily as powerful local stations.
BUILT-IN ANTENNA : Sensitive, high gain built-in loop antenna makes possible the reception of not only local, but distant stations in most locations. Just plug-in and play. However, for operation in a steel building or extremely remote locations, provision is made for attaching an outside antenna.
ELECTRODYNAMIC SPEAKER: A five inch electrodynamic speaker brings music and voice into your room crystal clear at any volume.
TUNING RANGE: 535 to 1620 KC covering American and Canadian broadcasts.
TUBES USED: 12SK7 R.F. amplifier, 12SA7 converter, 12SK7 I.F. amplifier, 12SQ7 detector and lst audio, 35L6GT output plus 35Z5GT rectifier.
Model 6D61B-Brown Plastic. Operates on 115 volts AC-DC. Size $13^{\prime \prime}$ wide, $714^{\prime \prime}$ deep, $8^{3 / 4^{\prime \prime}}$ high. Sipg, wt. -12 lbs .
Your Cost

ALL CONCORD Radios axe R.C.A. and Hazeltine Licensed.

## CONCORD'S SHORT WAVE AND LONG WAVE RECEIVER!

Combining everything you expect in your postwar radio, this, our finest table model, gives you an elegant, modern cabinet and a powerful 6 -tube (including rectifier) A.C. receiver for standard and short wave reception, THE radio guaran-
teed to satisfy your longing for the utmost in beauty and performance. Study the featuresmany usually seen only in bigger, more expensive models-and you'll see why this radio is our proudest achievement!


## SAME MODEL AVAILABLE IN WALNUT WOOD...



## PIN POINT

 selectivityGet all stations- domestic and forsign-quick and easy . . right on the nose! with Concord's amazing new Equa-Spaced Slide Rule Dial! Numerals are large and rpaced equally along whole length of both bands.

CABINET-Exceptionally large, providing best baffling for superior tone. Of plastic-in soft Walnut Brown, with attractive ivory front inset-or of selected, beautifully finished Walnut Veneers and Hardwoods.
RADIO-Six tubes, including rectifier, PLUS these features: $\star$ POWERFUL SUPERHETERODYNE CIRCUIT for clear reception of even the weakest, most distant stations.

- TUNED R. F. STAGE separates stations; gives you inter-ference-tree reception anywhere. 3 gang condenser.
$\star$ I. F. STAGE is trimmer-tuned.
* TUBES-6SK7 R. F. Amplifier, GSA7 Converter, 6SK7 I.F. Amplifier, 6SQ7 Detector and Ist Audio, 6K6GT Output and 5Y3GT Rectifier.
* 5 INCH ELECTRODYNAMIC SPEAKER for faithful tone quality.
* 6 WATT OUTPUT, enough volume for any average room. $\star$ BROADCAST BAND tuning from 535 to 1620 KC . SHORTWAVE BAND from 5.8 to 18.3 Megacycles. Gets everything domestic, Canadian, foreign!
$\star$ LARGE EQUA-SPACED NUMERALS ON SLIDE-RULE DIAL for quick accurate tuning. No jamming of stations-no double reception at !o'v frequency end of either band!
$\star$ BUILT-IN LOOP ANTENNA, with provision for outside aerial for best short wave reception.
* OPERATES on 60 cycle, 110 Volt, A.C. only.

All-in-all-the most beautiful, the best-performing table model radio receiving set our 25 years of experience has ever produced! Shipping Weight-20 lbs.
Model 6D62B-Brown Plastic with Ivory Trim.
$153 / 4^{\prime \prime}$ wide, $81 / 2^{\prime \prime}$ deep, $87 / 8^{\prime \prime}$ high.......
Model 6D62W-Walnut Wood Veneer.
$15^{3} 4^{\prime \prime}$ wide, $9^{\prime \prime}$ deep, $8^{3}{ }_{4}^{\prime \prime}$ high................. . Write for Price

## Hoge

| TYPE | $\begin{aligned} & \text { NET } \\ & \text { RCA } \\ & \text { GE } \end{aligned}$ | PRICES CONCORD | TYPE | $\begin{gathered} \text { NET } \\ \text { RCA } \\ \text { GE } \end{gathered}$ | PRICES CONCORD | TYPE | NET <br> RCA GE | PRICES CONCORD | TYPE | $\begin{aligned} & \text { NET } \\ & \text { RCA } \end{aligned}$ $\mathbf{G E}$ | PRICES CON- CORD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 024 $\dagger$ | \$0.88 | \$0.71 | 6AG5 | \$1.29 |  | 6SF5 $\dagger$ | \$0.53 |  | 125A7GT/G |  |  |
| 024G | . 88 | . 71 | 6AG7 $\dagger$ | 1.29 |  | 6SF5GT | \$0.53 | \$0.43 | 12Sc7 $\dagger$ / | \$0.71 | \$0.56 |
| 143 | . 71 | 56 | 6AK6 | 1.08 |  | 6SF7t | 71 | \$0.43 |  | . 60 |  |
| 1A4P | . 88 | 71 | 6AL5 | . 88 |  | 6SG7t | . 71 |  | 12SF7t | . 60 |  |
| 1A5GT/G | .60 | 48 | 6AQ6 | . 88 |  | 6SH7 | . 71 |  | 125G7 $\dagger$ | .71 |  |
| 1 A6 | . 71 | . 56 | 6AT6 | . 53 |  | 6SH7GT |  | 71 | 12SH7 |  |  |
| 1A7GT | .71 | . 56 | 6AU6 | . 71 |  | $6517 \dagger$ | . 60 | . 7 | 12517 | . 60 |  |
| 184P ${ }^{\text {185 }}$ / ${ }^{\text {S }}$ | . 71 | . 56 | ${ }_{\text {6B45 }}$ | 1.08 | \$0.88 | 6SJ7GT | . 60 | . 48 | $125 J 7 \mathrm{GT}$ | . 60 | 48 |
| $1 \mathrm{B5} / 25 \mathrm{~S}$ (C5GT/G | . 71 | . 56 | 6B5 6R6G | 1.08 | . 88 | 6SK7t | . 53 | . 48 | 12SK7t | 53 |  |
| 1C5GT/G | . 71 | . 56 |  | . 60 |  | 6SK7GT/G | . 60 | . 48 | 12SM7GT/G | 60 | 48 |
| $1 \mathrm{C6}$ | . 71 | . 56 | 6 6 7 | 71 | . 56 | 6SL7GT | 88 | 71 | 12SL7GT | 88 | 74 |
| ${ }_{10}^{107 G}{ }^{\text {105 }}$ | . 71 | . 56 | $688 \dagger$ | 1.08 |  | 6SN7GT | . 71 | . 56 | 12SN7GT | 71 | . 56 |
| 107G | . 88 | . 71 | 6B8G | . 71 | . 56 | 6507 | . 53 |  | 12SQ7t | . 53 |  |
| 108GT | 1.08 | . 88 | GBE6 | . 71 |  | 6SQ7GT/G GSR7 $\dagger$ | . 60 | . 48 | 12SQ7GT/G | 60 | . 48 |
| 1E5GP |  | . 71 | As the catalog goes to press most types of Tubes are being allocated by the manufacturers and at present the demand greatly exceeds the relatively limited supply. Therefore, if you do not always receive all the types or as many tubes as you order, please reorder at a later date. We are doing everything possible to equitably and fairly distribute all the tubes allocated to us. We sincerely hope that increased production will, before long, permit us to supply all of your demands from our normally large tube stocks. In the meantime your understanding and cooperation is indeed appreciated. |  |  |  |  |  | 12S | 7 |  |
| $1 F 4$ | . 71 | . 56 |  |  |  |  |  |  | 1273 | 53 | . 43 |
| 1F5G | . 71 | . 56 |  |  |  |  |  |  | 15 | 1.08 |  |
| $1 F 6$ | . 88 |  |  |  |  |  |  |  | ${ }_{24}^{19}$ | . 71 | . 56 |
| 1F7G | . 88 |  |  |  |  |  |  |  | ${ }_{25 A 6}^{24}+$ | .48 1.08 | . 38 |
| 1G4GT/G | . 71 | . 56 |  |  |  |  |  |  | 25L6 $\dagger$ |  |  |
| 195 C | . 71 | . 56 |  |  |  |  |  |  | 25L6GT/G | . 68 |  |
| 1G6GT/G | . 88 | .71 |  |  |  |  |  |  | 2525 | . 53 | 43 |
| $1{ }^{1} 4{ }^{\text {a }}$ | . 53 | . 43 |  |  |  |  |  |  | $2526 \dagger$ | .71 | . 43 |
| 1H5GT/G | . 60 | . 48 |  |  |  |  |  |  | 2526GT/G | . 53 | 3 |
| 1H6G | . 71 | . 56 | New higher prices on Radio Tubes have been authorized by the Office of Price Administration, but final figures arrived too late for this catalog. O.P.A. ceiling prices or less, in effect at time of shipment will apply. |  |  |  |  |  |  |  |  |
| 116G | 71 | . 56 |  |  |  |  |  |  | 27 | . 46 | . 28 |
| $1{ }^{1} 4$ | . 71 | . 6 |  |  |  |  |  |  | 30 | . 36 | . 28 |
| 1LA4 | 1.29 | 1.06 |  |  |  |  |  |  | 31 | . 53 | . 43 |
| 1LA6 | 1.29 | 1.06 |  |  |  |  |  |  | 32 | . 71 | . 56 |
| 1LB4 | 1.29 |  | $6 \mathrm{C4}$ | . 71 |  | 6557 $\dagger$ | . 53 | . 43 | 33 | . 71 | . 56 |
| 1LH4 | 1.29 | 1.06 | $6 \mathrm{C5} \dagger$ | . 60 |  | 6577 | . 71 |  | 34 | .71 | . 56 |
| 1LN5 | 1.29 | 1.06 | 6C5GT/G | . 53 | 43 | 6T7G | . 71 | . 56 | 35 | . 53 |  |
| 1N5GT/G | 71 | . 56 | 6 C6 | . 53 | 43 | 6U5/6G5 | . 71 | . 56 | 35A5 | . 71 | . 56 |
| 1P5GT | . 88 | . 71 | 6C8G | . 88 | .71 | 6U7G | . 53 | . 43 | 35L6GT/G | . 53 | . 43 |
| 1Q5GT/G | . 88 | 71 | 6D6 | 53 | . 43 | 6V6 $\dagger$ | 1.08 |  | 35W4 | 42 | 3 |
| 185 | . 88 | 71 | 6D8G | 88 | .71 | 6V6GT/G | . 60 | . 48 | 3523 | 71 | . 56 |
| 154 | . 88 | 71 | GE5 | . 60 | . 48 | 6W7G | . 88 | . 71 | 3524GT | . 42 | .33 |
| 155 | 88 | 71 | 6F5 $\dagger$ | . 60 |  | $6 \times 5 \dagger$ | . 88 | . 71 | 3525GT/G | 45 | . 36 |
| 174 | . 88 | 71 | 6F5GT/G | . 53 | 43 | 6X5GT/G | . 53 | 43 | 36 | . 53 | . 43 |
| 1T5GT | 88 | 71 | 6F6 $\dagger$ | . 60 |  | 6YGG | 88 | 71 | 37 | . 45 | . 36 |
| 1V 243 | .53 .08 | 43 | 6F67 | . 48 | 38 | 624/84 | . 60 | . 48 | 38 | . 60 | . 48 |
| 2 A5 | 1.08 .53 | . 43 | 6F8G | . 71 | .71 56 | ${ }_{627 \mathrm{G}}^{6} \mathrm{G}$ | 1.08 |  | 39/44 | . 53 | . 43 |
| 246 | . 53 | . 43 | 6G6G | . 71 | 56 56 | 7A45G | . 71 | . 56 | 41 | . 45 | . 36 |
| 2A7 | . 60 | 48 | 6H6 $\dagger$ | 60 |  | 7A5 | 71 | 56 |  | 45 | . 36 |
| $2 \mathrm{B7}$ | . 71 | . 56 | 6H6GT/G | 60 | 48 | 7A7 | 71 | . 56 | 43 | . 60 | . 48 |
| 2 E 5 | . 71 |  | 6J5 $\dagger$ | . 48 |  | 784 | 71 | . 56 | $45 \mathrm{Z3}$ | . 42 | . 33 |
| 304 | . 88 | 71 | 6J5GT/G | . 48 | . 38 | 785 | . 71 | . 56 | ${ }_{4525}{ }^{\text {4 }}$ T | . 53 | . 43 |
| 3Q5GT/G | . 88 | . 71 | 656 | 1.08 |  | 786 | . 71 | . 56 | $4^{45}$ | . 60 | 8 |
| 354 | . 88 | . 71 | ${ }_{6}^{637} \dagger$ | . 71 |  | 787 | . 71 |  |  |  |  |
| 5 T 4 | 1.08 |  | 687 C | 60 | .48 | 788 | . 71 | . 56 | 49 | . 71 | . 48 |
| SU4G | . 53 | 43 | $6 \pm 7 \mathrm{GT}$ | 60 | . 48 | $7 \mathrm{7C5}$ | . 71 | . 56 | 50 | 1.29 | 1.06 |
| 5V4G | . 88 | 71 | 6K6GT/G | . 53 | . 43 | $7 \mathrm{C6}$ | . 71 | . 56 | 5085 | - 71 | . 56 |
| 5W4t | . 60 |  | 6K7 $\dagger$ | . 60 |  | $7 \mathrm{C7}$ | 71 | . 56 | 50L6GT | . 60 | . 48 |
| 5W4GT/G | . 48 | .38 | 6K7G | . 60 | . 48 | 7E6 | . 71 | 56 | 53 | . 88 | . 71 |
| $5 \times 4 \mathrm{G}$ | . 60 | 48 | GK7GT | . 53 | . 43 | 7 7 7 | . 88 | .71 | 55 | . 60 | . 7 |
| SY3GT/G | . 36 | 28 | 6K8 ${ }^{\text {¢ }}$ | . 71 |  | 7F7 | . 88 | 71 | 56 | . 42 | . 33 |
| 5Y4G | . 40 | . 31 | 6K8G | . 71 |  | 7G7/1232 | 1.08 | . 88 | 57 | . 48 | . 38 |
| $5 \mathrm{Z3}$ | . 60 | . 48 | 6K8GT | . 71 | 56 | 7H7 | 1.08 | . 88 | 58 | . 48 | . 38 |
| 244 $\dagger$ | . 71 |  | 6L5G | . 60 | .48 | 717 | 1.08 | . 88 | 59 | . 88 |  |
| A3 | 1.08 | 88 | $626 \dagger$ | 1.08 |  | 797 | . 71 | . 56 | 70L7GT | 1.08 | 88 |
| 646/LA | . 88 |  | 6L6G | 1.08 | . 88 | 7Y4 | . 71 | . 56 | 71A | . 48 | . 38 |
| A6 | . 88 | 71 | $617 \dagger$ | . 88 |  | 10 | 1.58 |  | 75 | . 45 | . 36 |
| 6 A7 | . 53 | 43 | 627G | 88 | 71 | 12A6GT |  | 1.10 | 76 | 48 | . 38 |
| A8 ${ }^{+}$ A8G | . 71 |  | 6N7t | . 88 |  | $12 A 7$ | 1.08 | . 88 | 77 | . 48 | . 38 |
| $\begin{array}{\|c\|c\|} \hline \text { BABG } \end{array}$ | $\begin{aligned} & .53 \\ & .53 \end{aligned}$ | . 43 | 6N7GT/G $607 \dagger$ | . 88 | . 71 | 12A8GT/G | . 53 | . 43 | 78 | . 48 | . 38 |
| AB5 /6N5 | . 88 | . 43 | 697¢ | . 71 | 38 | 12AH7GT | . 88 |  | 79 | . 88 |  |
| AB7/1853 $\dagger$ | 1.08 |  | 6Q7GT | . 48 | . 38 | 12AT6 | . 51 |  | 80 | . 36 | 28 |
| GAC5GT G | . 60 | 48 | 6R7† | . 88 |  | 12BE6 | 71 | $\frac{.56}{56}$ | 81 | 1.08 | . 88 |
| 6AC7/1852 $\dagger$ | 1.29 | 1.06 | 6R7GT/G | . 48 | . 38 | $12 \mathrm{C} 8+$ | 1.08 | . 56 | 82 | . 71 | . 56 |
| 6AD7G | . 88 | . 71 | $657+$ | . 88 |  | 12F5GT | 1.53 | 43 | ${ }^{83} \mathrm{~V} \mathrm{~V}$ | .71 1.08 | . 56 |
| 6AE5GT/G | 71 |  | 657G | . 88 | . 71 | 12H6† | . 53 |  | 85 | 1.08 |  |
| 6AF6G | . 88 | . 71 | 6SA7 $\dagger$ | . 53 |  | 1255GT | . 53 | 43 | 89 | . 48 | . 43 |
| $\dagger$ Due to present conditions, whon out of stock on metal types we will substltute and shlp "GT/G" equivalents |  |  | 6SA7GT/G | . 60 | . 48 | 12J7GTG | . 60 | . 48 | 117L7/M7GT | 1.29 | 1.06 |
|  |  |  | 6587-Y $65 c 7 t$ | . 81 |  | 12K7GT/G | . 53 | 43 | 117N7GT | 1.29 | 1.06 |
|  |  |  | 6SC7† $65 C 7 G T$ | . 71 |  | $12 \times 8 \dagger$ $1207 G T / G$ | . 88 |  | 117P7GT | 1.29 | 1.06 |
|  |  |  | 6SD7GT | . 71 | . 56 | 12SA7† ${ }_{\text {12 }}$ (G | . 48 | . 38 | 11723 GT/G | . 88 | .71 |

## Entroducing The New Line of Concord De Luxe and Multiamp $a d d+a+U$ nit AMPLIFIERS

History has been made in the development of amplifying equipment! The amplifiers offered on the next pages are the finest in Concord's long history . . . the finest in design, construction and performance. They invite comparison! They challenge competition! These amplifiers are the fruits of many years of skillful engineering . . . of many months of careful experimenting. They combine new, modern design and improved construction with a host of EXCLUSIVE postwar performance features never before seen in amplifiers of any make, at any price. Everyone interested in sound amplification will study the new line of CONCORD DELUXE and MULTIAMP ADD-A-UNIT Amplifiers with absorbing interest. It is our proudest achievement!


Concord's superiority in sound engineering is evident in the presentation of our Deluxe 15 watt amplifier. This amplifier has more important features than any medium power amplifier, and is destined to be the leader in the medium power sound equipment field.

## Flexibility of Input and Output

Of all the various features an amplifier might have, flexibility is one of the most essential. To the user of sound equipment this feature alone stands uppermost in his mind as he studies the various equipment available. To fully appreciate the importance of this fact one must actually visualize the number of uses to which your own amplifier might be ap. plied. For instance if you're an orchestra leader you would not only use an amplifier for increasing the vocal range of singers or the range of musical instruments; but would also use an amplifier for some of the following purposes: Playing records to assist in arranging; recording certain numbers for future aid in arranging, and for remote rehearsing. In order to accomplish these requirements an amplifier must have extreme flexibility of input and output impedances and channels.

This is a very suitable size amplifier for use in chapels, mortuaries, medium sized cabarets, and school auditoriums. In chapels and mortaaries, recordings may be played of chimes and organs thereby getting the same effect of larger institutions of this $k$ nd where thousands of dollars are spent for pipe organ equipment. In medium sized cabarets this amplifier may be used for evenly distributing the range of performers and announcers, also for playing recorded entertainment between shows or performances. This 15 watt Deluxe amplifier in the school auditorium will be found in. valuable in the presentation of school plays, dramatic coaching, and also for lectures.

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 simultaneausly, or 1 phono and 1 microphone. Microphone and phono inputs may be mixed with the smoothness of broadcast studio equipment. The microphone input gain of 120 db . is more than enough to match eny high quality microphone or other input device.

| Normal Power Output 15 watts; Peak Power 30 watts <br> Distortion $2 \%$ at 15 watts <br> Microphone Channels-2 .......eeach at 120 db . <br> Phono Channels-2................each at 73 db . <br> Bass-Treble Tone Control. <br> Hum Level. . . . . . . . . . . . . 65 db . below full signal <br> Frequency Response <br> 50 to 10000 c.p.s. <br> 15 Output Impedances: $1.3,2.7,4,5.3,8,16,125$, <br> $167,180,200,250,415,460,500$, and 600 ohms. <br> A.C. Line Power Requirements: 117 volts, 60 cycles, <br> 70 watts; with phono 84 watts. <br> Tube Line up: 4-6SJ7, 2-6V6 GT, 1-6X5. <br> Dimensions: $15^{\prime \prime}$ by $10^{\prime \prime}$ by $8^{33} 16^{\prime \prime}$. <br> With Phono: $15^{\prime \prime}$ by $10^{\prime \prime}$ by $10^{3} / 16^{\prime \prime}$. |
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# DFLUXE AMPLIFIER in 15 WATT SIZE 

$\star 2$ Dual Purpose Inputs<br>Phono Model Available<br>$\star 120 \mathrm{db}$. Microphone gain

## 15 Output Impedances

Fifteen output impedances are provided in order that 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 imprinted 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 crisp high treble. This well tapered tone control will make possible the compensation of acoustical differences.

## Minimum Percentage Distortion

The power output of our 15 watt Deluxe amplifier is not only conservatively rated at 15 watts output, but also with the unbelievably low percentage of distortion- $2 \%$ at normal rated output and at peak power. The 15 watt Deluxe amplifier also has such additional features as: pilot light, fuse and 73 db . low gain inputs.

## Advanced Circuit Design

High gain tubes and parts are mounted on shock absorbing mounts to prevent microphonic noises that frequently occur with amplifiers 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 efficiency of power conversion. The resulting high quality output of this amplifier is truly remarkable and is to be equalled only in higher power amplifiers at far greater cost.

## Streamline Design Cabinet

Regardless of technical advantages and features, amplifier users are desirous of having the best looking equipment available. Equipment must not be too heavy, outer shape must conform to modern streamline design, and while color scheme must not be fancy and "loud," it must be pleasing to the eye as well as conform to the trend of modern industrial design. To accomplish this Concord secured the services of one of the nation's leading industrial designers. The result of their painstaking efforts is exemplified by the attractiveness of the Concord 15 watt Deluxe amplifier.
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

## $\star$ Portable Models Available <br> $\star$ For Indoor Audiences up to 1000 <br> $\star$ For Outdoor Areas up to 15,000 sq. $\mathbf{f t}$.

the overall size. Cabinets are finished in two-toned burgundy enamel and wrinkle with polished aluminum borders for decorative effects. Knobs are of a contrasting ivory tone. The entire top of the amplifier is perforated, to allow for maximum ventilation.

## Single Unit Portable System

This amplifier is also the nucleus for our highly efficient complete portable 15 watt sound system that will find great favor with traveling demonstrators, lecturers, small orchestras, and others who have need of a compact medium power system of high dependability. The 15 watt Deluxe amplifier fits snugly in our handsome carrying case affording a minimum of movement when in transit, and is easily removable for use when desired. This handsome single unit carrying case has metal reinforced corners and is covered with British $\tan$ Spanish grain fabricoid.

## Phono Model Available

A phono motor top is available as optional equipment and is provided with large ventilating holes beneath the turn table. The above listed features and technical description prove that the Concord 15 watt Deluxe amplifier is the solution to your medium power sound problem.

## AMPLIFIER ONLY

Model 315WL 15 watt Deluxe amplifier only, complete with tubes. Shpg. wt. 21 lbs .
List Price \$79.08
Your Cost
$\$ 49.49$
Additional for phono player on above amplifier $\$ 10.46$

## PORTABLE SYSTEMS

System No. 90-315WL consists of: one Model 315WL amplifier as described above with tubes and including the following accessories: 2-12 inch permanent magnet dynamic speakers in attractive portable case which also houses the amplifier; 35 ft . speaker cable for each speaker; one microphone selection A appearing on page 13; one desk type microphone stand; microphone cable; all necessary plugs, connectors, etc., overall size of case with all equipment: $141 / 4^{\prime \prime} \times 181 / 4^{\prime \prime} \times 211 / 2^{\prime \prime}$. Shpg. wt. 52 lbs .
Your Cost
$\$ 79.79$
Additional for phono player on above system $\$ 10.46$ Model C22056 case as used in above portable sound system only. Overall size: $14 \frac{1}{4}{ }^{\prime \prime} \times 181 / 4^{\prime \prime} \times 21 / /^{\prime \prime}$. Shpg. wt. 24 lbs ,
Youx Cost
$\$ 10.45$

See pages 13 and 23 for optional microphones and stand to go with the above system,


## 30 Wat CONCORD

# DELUXE ECONOMY 

$\star$ For audiences of 2000 indoors and outdoor areas of $35,000 \mathrm{sq}$. ft.

## $\star 4,8$, and 166 ohm output impedances

 $\star$ Features new Electron Focusing $\star$ Phono player model available $\star 2$ Mike or 2 phono channels

Concord's latest model of this very popular size amplifier. This is a highly perfected amplifier for use in a wide variety of applications. With adequate pawer for indoor audiences up to 2000 people; it is an ideal unit for ballrooms, churches, theatres, railroad terminals, etc. It is also an excellent amplifier for outdoor use covering areas up to 35,000 square feet with ease.

## Exclusive Patented Circuit

By means of a newly patented circuit the electron beams of beam power tubes are kept in focus even on heavy overloads, which results in a greater undistorted power output with little or no increase in power dissipation. Following are the features realized by this new method:

1. Conservatively rated at 30 watts from $4-6 \mathrm{~V} 6$ 's.
2. Only $7 \%$ distortion at 30 watts.
3. Constant plate current.
4. Quality comparable to a class A triode.
5. D.C. supply power of 48 watts regardless of output, and will actually deliver forty watts with only an eight watt power dissipation or loss in the tubes.
6. Cost is actually lower than standard circuit giving less output.
7. Extremely stable.
8. Practically no driving power, tubes operate strictly class AB.
9. Our new system is outstanding in its ability to handle extreme overloads. A 30 watt amplifier will deliver 60 watts peak.
10. Hum is 20 db . lower than the average amplifier. Regardless of the volume control and tone control set-
tings, the amplifier can be turned to full volume with no hum, motor boats, etc
11. Tone control finely tapered for maximum efficiency.
12. Output impedance is universal with impedances of $4,8,166$ ohms.

## New Streamline Design

The cabinets have cast aluminum end bells with sheet steel panels. These aluminum castings offer a new era of beautiful streamlined construction. Aluminum was selected not only for its light weight but also because of its excellent heat dissipation factor. Handles are cast into the cabinet end bells, enhancing the overall design and eliminating the usual ugly protruding handles on the sides. Cabinets are finished in a rich two-tone burgundy.

## Phonograph Model Available

The top panel can be removed and replaced by a new panel housing the phono motor. The phono motor panel is drilled beneath the phonoturntable in order to provide adequate ventilation for the motor and amplifier. All connections to amplifier come from a panel on the back, therefore there are no connections on the ends or front panel to mar the appearance of the amplifier and where they could easily be broken.

## Limited Overload Distortion

Many amplitiers have a heavy distorted overload signal. This loud distorted signal is not only very objectionable to the ear but is very iniurious to loud speakers. This overload signal has beensolimited on our design that this 30 watt amplifier can be permanently attached to a speaker rated only 15 watts. This does not mean that the 15 watt speaker will work elficiently at 30 watts, but does mean that its cone will not be ruined.

## Universal Input

Choice of four inputs is provided, either two high gain or two low gain or one of two high gain or two low gain or one of faded in and out with absolute smoothness.

## Amplifier Only

Model 325WL 30 watt Deluxe Economy amplifier complete with tubes. Shpg. wt. 24 lbs .
List Price $\$ 97.60$
Your Cost.

Model 325WM above amplifier complete with tubes and single player phono top. Shpg. wt. 28 lbs.
List Price $\$ 113$.
s69.95
Portable $\mathbf{3 0}$ Watt System Available
The 30 watt Deluxe Economy amplifier is also a vailable in a portable carrying case with two 12 " speakers, $2.35^{\prime}$ speaker cables, desk stand, and a microphone as illustrated on pages 8 and 9 . Prices on this system are quoted below
Above amplifier Model 325 W L with tubes Above amplitier Model 325 WL with tubes
and 2-12 inch permanent magnet dyzamic speakers in attractive portable case and speakers in attractive poriable case and
including the following accessories: 35 ft . speaker cable for each speaker, one microphone item A on page 13, microphone cable, one microphone desk stand, all necessary plugs, connectors, etc. Model 90.325 WL. Shpg. wt. 54 lbs. $\$ 89.79$ Additional for phono player... $\$ 10.46$
See pages 13 and 23 for optional micro. phomes and stand.

# HOW TO SELECT YOUR SOUND SYSTEMS 



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 Capacily Room Volume Indoor |  | AreaOuldoor Outdoor | Required Woths |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 500 | $350,000 \mathrm{cu} . \mathrm{ft}$. |  | 15,000 sq. ft. |  | 15 | 30 |
| 1,500 | $800,000 \mathrm{cu} . \mathrm{ft}$. | 35,000 sq. ft. | 15 | 30 | 45 |
| 2,000 | 1,000,000 cu. ft. | 50,000 sq. ft. | 30 | 45 | 60 |
| 4,000 | 1,800,000 cu. ft. | 65,000 sq. ft. | 45 | 60 | 75 |
| 6,000 | 2,500,000 cu. ft. | 90,000 sq. ft. | 60 | 75 | 90 |
| 8,000 | 3,000,000 cu. ft. | 150,000 sq. ft. | 75 | 90 |  |



> CONSULT OUR TECHNICAL ADVISORY SERVICE ON ANY AMPLIFIER PROBLEMS

After selecting the proper wattage, determine the number of microphones that may be used, whether a phonograph will be required and if an output level indicator will be necessary Amplifiers with the necessary inputs for any or all of the above requirements can be selected from the listings on our amplifier pages. The Concord from the listings on our amplitier pages. The Concord
MULTIAMP is available with a builf-in output level indicator if desired and can also be equipped with a single record playing phono top, or an automatic record changer top, making it possible to consolidate all the features you require in ONE UNIT

## Microphones

A number of different types of microphones are in common use today and the following describes their features and application in a general manner to assist you in selecting a most suitable type. All of the following microphones representing the majority of accepted manulacfurers are listed on pages 26 to 29

## Crystal Microphones

Usually have good frequency range and therefore can be used for speech and music. The crystal microphone is considered a general purpose unit of light weight and economy and can be used for either indoor or outdoor work. Crystal microphones should not be used where temperatures reach 120 degrees. Such conditions often exist in a closed car on hot days.

## Dynamic Microphones

These microphones prove most satisfactory as a general purpose microphone either indoors or outdoors, since wind will not prove troublesome under ordinary conditions. It is not affected by climatic conditions and although no microphone is built to take too much abuse, this type is the most rugged.

## Velocity Microphones

This type of microphone is recommended especially for music. The greatest response is obtained from the front and back and sounds from the sides of the microphone will not register as well. It is adaptable for recording and studio purposes but not for outdoor use where wind conditions are likely to affect its performance.

## Unidirectional Microphones

These are microphones of the obove mentioned types or combinations of them that incorporate a design that picks up equally all sounds from the front but loses its sensitivity as the source of sound moves to a position behind it, and becomes less sensitive to sounds from the rear and sides. This microphone is desirable in the majority of applications because its unidirectional characteristics divide the audience from the entertainerthe din of dancers from the orchestra, the roller noise of skaters from the microphone, etc. With the proper positioning of this unit with respect to the loud speakers, will solve a great many troublesome feedback prob lems; thereby permitting greater volume levels to be used.

## Contact Microphones

These units are mounted in direct contact with a vibrating element of the instrument whose music is being amplified. An instrument equipped with a contact microphone can "solo" without moving closer to the regular microphone and feedback effects are greatly reduced.

The unit is able to provide musical passages at will and can create many beautiful effects.

## Microphone Fidelity

Now that you have decided upon the "type" of microphone it is only necessary to consider the FIDELITY or quality of reproduction you desire. The fidelity is the accuracy with which a microphone reproduces all the sounds it picks up. As an example, a mike rated at 70 to 5000 cycles may be considered as an ideal one for speech only, one rated at 45 to 8000 cycles for speech and most music, and one rated at 30 to 10,000 cycles especially fine for all voice, speech and music. The better the fidelity of the microphone the more natural will be its tone

## Speaker Equipment

All speakers shown on our speaker pages have a power handling rating indicated in watts. 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 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 should operate in some kind of enclosure, to protect the speaker and act as a sounding board. Several types of enclosures or baffles are available and fully described on page 23.

## Proper Locations

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 shert as possible.

Speakers should be mounted in such a manner that they will reproduce the sound to the desired location only. It is well to keep in mind also that with a sound system the sound we wish to amplify 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 directions and possibly create an echo effect as well as distortion. 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 properiy distributed only where it is required, that is in the seating area and not at the dome or ceiling.

## Free Consulting Service

Although we have endeavored to give you some general helpful information to assist you in selecting sound equipment, you may have a special problem or application regarding such apparatus. If you do, feel free to call upon the facilities of our Sound Consulting Division to assist you, no obligation, of course. There is no sound problem too small or too large for us to consider

## CONCORD <br> SAVE MONEY BY BUYING



## COMPLETE CONCORD DELUXE SOUND SYSTEMS

The experienced and discriminating buyer of amplifying equipment will immediately recognize that Concord Deluxe Sound Systems represent equipment that has been built to the highest engineering standards. As a result, the purchaser is assured of deluxe performance at all times. Concord engineers have painstakingly selected accessory equipment to perfectly match the quality and performance of the amplifiers. Thus, a purchaser of a complete Concord Deluxe System avoids any possibility of selecting incorrect or non-matching units with a consequent waste of money and imperfect amplifier performance. You will also note that prices quoted below for an entire system are considerably less than when amplifiers are purchased individually. There are two reasons for this fact: 1 . Concord is one of the largest manufacturers of high quality amplifiers dealing with the large users of this equipment and thus avoid-
ing the expense of dealing through various other channels. A considerable saving is made in this manner which is passed along to our customers. 2. By purchasing exceptionally large quantities of equipment we abtain the lowest possible cost, an additional saving that is passed along to and benefits you, our customer. The net result to purchasers of Concord Complete Systems is top quality equipment at the best possible prices!

## 15 WATT DELUXE SYSTEM

The basic 15 Watt Deluxe System consists of: 1 Concord Deluxe Model 315WL fifteen watt amplifier (fully described on pages 8 and 9), two 12 -inch high quality PM speakers No. C19222, 35 ft . speaker cable for each speaker, one satin chrome finished desk stand No. Cl3538, 1 Shure Model 207A crystal microphone with cable No. C13630 (item A on opposite page), and all necessary plugs, tubes
and connectors; as well as a complete maintenance and operating instruction booklet.
Catalog No. 93-315WL.
Shpg. Wt. 45 lbs. Your Cost $\mathbf{\$ 9 . 7 9}$

## 30 WATT SYSTEM

The basic 30 Watt Economy System consists of: One Concord Deluxe Economy 325WL thirty watt amplifier (fully described on page 10), two 12 -inch high quality PM speakers $\mathrm{Cl} 9222,35 \mathrm{ft}$. speaker cable for each speaker, one satin chrome finished desk stand No. Cl3538, One Shure Model 707A Crystal microphone with cable No. Cl3630 (item A on opposite page), and all necessary plugs, tubes and connectors; as well as a complete maintenance and operating instruction booklet.
Catalog No. 93-325WL.
Shpg. Wt. 49 lbs. Your Cost
$\$ 79.79$

## OPTIONAL ADDITIONS AVAILABLE ON ABOVE DELUXE SYSTEMS

For special installations and to afford greater choice of accessory equipment for your systeme we offer the following optional equipment illustrated on the opposite page.

## PHONO PLAYER

If Phono Player (as illustrated above), is desired so state in your order and Add
s10.46

## BAFELES

If Wall baffle group "GL" is desired, so state in your order and
Add
If Spun metal baffle group "GM" is desired, so state in your order and
Add ............
$\$ 20.00$

## TRUMPET AND DRIVER UNIT

If Trumpet and Driver unit "GO" is desiren, so state in your order and so sta
Add.
$\$ 53.22$

## MICROPHONES

If microphone " $B$ " an page 13 or " J " on page 23 is desired in place of miciophone $\$ \mathbf{3} 98$ If microphone "C," "D," or "E" on page 13 or "L," "M," or " $N$ " on page 23 is de- $\$ 7,65$
sired in place of microphone " $A_{,}$. Add. 4,05 If microphone " F " or " G " or page 13, or " O " or "U" on page 23 is desired in $\$ 10,72$
place of microphone "A," Add.

If microphone " $H$ " on page 13 or " $W$ " on parje 23 is desired in place of micro- $\mathbf{p h o n e}$ "A," Add. ................. 17 If floor stand " $K$ " is desired instead $\$ 3.82$
of desk stand, Add...............
If Additional $12^{\prime \prime}$ speakers are desired, Add, per pair. s11.40 If additional speaker cable is
desired, Add, per ft............... 015 Whenever the above changes are desired, please state these changes in your order.
The above prices only applicable when used to enlarge a basic system, either the Deluxe I5 or 30 W att package systems.

## YOUR ENTIRE SYSTEM AT ONE TIME!



## CHOOSE ANY OF THESE BAFFLES

## WALL MOUNT BAFFLES

Flat baffle boards can be used for mounting speakers flush with walls, but in most cases wall mounting speaker baffles (see illus. GL), are used for installations such as ball rooms, restaurants, offices and churches. A speaker carrying case is another type of baffle for use in all portable work. The third is a reflex baffle (see illus. GU, page 23), which has been designed to emphasize bass response, and provides excellent results for music where low tones are important as from organs in mortuaries and churches. The above mentioned faffles are very popular in better type installations and they spread the sound over wide areas rather than direct them over longer distances.

## PROJECTORS

These tend to direct sound and carry it farther than wall baffles. They create a crisp penetrating tone and are recommended for directing sound under structures such as balconies and out over athletic fields or stands. The conventional type of metal projector (illus. GM) accommodates the regular cone type of speakers and protects them from the elements to a certain degree.

## TRUMPETS

These are also projectors often referred to as reflex type (illus. GO), and are usually longer. They have been designed for use with the driver type unit (shown below, illus. GO) of speaker and direct sound the farthest possible distance. Extensive use for these units is found in chime installations, stadiums and other similar large sound installations.
Baffles are not included in the basic 15 watt Deluxe and 30 watt Economy Sound Systems because baffles are always selected to meet the individual requirements of the location in which the sound equipment is installed. How-
ever, we are presenting herewith a list of baffles for various applications. If none of the following baffles suit your particular requirements refer to our complete list of baffles appearing elsewhere in this catalog.

## GROUP GL

Consists of two fabricoid covered wall baffles to accommodate the two 12 -inch PM dynamic speakers (illus. G) supplied with 15 Watt Deluxe and 30 Watt Standard Package Systems. Well designed and sturdily built to give excellent reproduction. Cat. No. C20056for complete description see page 32.

## GRGUP GM

Consists of two spun metal baffles. These baffles are highly efficient units providing high quality reproduction and easy mounting facilities. Finished in gray wrinkle lacquer. Complete with $1 / 2^{\prime \prime}$ pipe thread mounting socket. These units fit all 12 -inch P.M. dynamic speakers. Cat. No. C20077-For complete description see page 31 .

## GROUP GO

Consists of two University reflex projectors and two University driver units in place of two 12 -inch speakers shown in hasic system. These projectors are highly efficient exponential air column type horns. The projectors in this group have a 30 -inch acoustic length. Driver units employ alnico magnets which require no field excitation and provide very high efficiency. These units also feature-breakdown proof diaphragm suspension and heat dissipating voice coils. These units are recommended for use indoors and are especially suited for outdoor use as they are $100 \%$ waterproofed.
University projector-Cat. No. C20046.
University driver unit-Cat. No. C21301.
For complete description of above units see pages $30-31$.


GI


GM


## CONCORD LEADS AGAIN WITH

# MUHTAMP A Add $+\mathscr{f}+2 \mathrm{Mnit}$ <br> Mm, AMPLIFIERS 

## GREATER FLEXIBILITY-FIDELITY-ECONOMY

Many, many months ago we started work on the amplifiers we now offer you. Into this project we put all the advanced engineering, all the technical skill gained during our years of war work. Our engineers and designers completed the plans, we received OPA approval on prices, and immediately began to manufacture. The result-an entirely new line of Amplifiers . . . new in conception and design, new in construction, and amazingly new and better in performance! These MULTIAMP Amplifiers are not worked-over prewar models . . . but began with new basic designs and we believe offer the only genuine amplifiers of postwar design and production. And they are available for immediate shipment although, because quantities are not unlimited due to material shortages, we advise that you order quickly.
The entire Multiamp line is an entirely new and original concept in amplifier design! Take the Add-A-Unit feature
for example. When you want more power, you simply plug in additional inexpensive units. Instead of requiring five different amplifiers to cover $30,45,60,75$ or 90 watt jobs you now need only TWO! Yes, two units do the work of five! Other equally sensational and impressive EXCLU. SIVE features of this MULTIAMP Add-A-Unit line will convince you that it is extraordinary in many other ways. Dealers will be especially delighted with these amplifiers because they deliver the utmost in customer satisfaction and assure repeat business when customers come back for additional Multiamp matched power and accessory units available only in the MULTIAMP line.
Read carefully the pages that follow for complete details of the MULTIAMP Add-A-Unit line of amplifiers . . . the latest, greatest units it has been our privilege to present in over twenty-five years in this industry!

## Sdd+Af+Tuit POWBR STAGES

## Add+tA+Unit INPUT CHANNALS

# The Greatest Amplifier Achievement 

 in Our 25 Year History !
# Read How MUltiAMP Fills Every Amplifier Need 

# SCHOOLS - HOTELS FACTORIES • HOSPITALS 

find the flexibility of Concord Multiamp Amplifiers of inestimable value. There are innumerable uses for the high power capabilities - the 15 output impedances-multiple input circuitthe phono player and record changer and other Add-A-Unit features of the Multiamp Amplifiers. For the auditorium the Multiamp is used for lecturers, school plays, providing music with recordings before and after stage presentations. For the office-enough power is available through the use of Add-A-Unit power slages to affiord a sound outlet in every classroom. Hospitals use the Multiamp for providing centralized sound to all rooms for the enjoyment of convalescing patients, for instruction in operating rooms and for general call systems; also for application of special therapy for convalescing patients. The Multiamp is the ideal sound equipment from the standpoint of economy, flexibility, quality and simplicity of operation.

## ORCHESTRAS

## MUSICIANS EECTURERS

who use Multiamp sound systems are assured of adequate power, high fidelity, distortion-free sound reproduction, and protection against obsolescence. Until Concord developed the Multiamp there was no way of increasing the power output of an amplifier beyond its rated power output. Just imagine, it is no longer necessary to ever worry about finding a large enough sound system because your next appearance will be held in a larger auditorium. Now with the Multiamp you can increase your power output without buying a new amplitier or complete sound system merely by plugging in (notools required), a low cost Multiamp Add-A.Unit power stage. Musicians who use contact microphones with their sound equipment know that an amplifier for this service must have absolute faithfulness of reproduction to amplify everything put into an instrument. The Concord Multiamp's high fidelity, portability and power versatility make it the ideal amplitier for all traveling units.

## CARNIVALS • BALL PARKS TERMINALS OUTDOOR ARENAS

require sound systems having great sound coverage and with output impedances to match many speakers and lines. Through the use of the Multiamp outpuis up to 270 watts may be real-ized-enough audio power to fill almost any stadium, ball park, or transportation terminal if properly distributed by using a sufficient number of speakers. The 15 output impedances which are listed on page 16 provide a universal output system whereby any number of speakers may be matched. Enough inputs are provided so that trains, busses, or planes may be called from as many as four or more locations. The Multiamp's rated power output has the almost unbelievably low distortion content of $2 \%$ ! This assures you clear, distinct, and perfect reproduction. The Concord Multiamp is the answer to sound problems in all places where sound must cover extremely large areas.

## THEATRES - CABARETS RESTAURANTS

require the ultimate in high quality sound reproduction. They are not only extremely critical of their sound equipment for the benelit of their many patrons, but must also have sound equipment that will satisfy the requirements of the many artists and performers that depend on this equipment to help put over their artistry. Entertainers are usually very critical of sound equipment with which they work, and they are justified in feeling this way, because equipment inadeguacy or failure can sometimes be very embarrassing to an entertainer. The extremely high fidelity and the low rate of hum and distortion of Multiamp amplifiers will delight the most critical and discriminating performers. Sound equipment must also be able to match any kind of input and output equipment. Take advantage of the 15 output impedances by using as many apeakers as are necessary, regardless of the

## Immediate Delivery On

## MIILTIAMP ADD-A-UNIT CENTRALIZED SOUND SYSTEMS

Tnlimited Output . . . Unlimited Input Channels

78 not considered feasible to list - equipment, systems with power an 100 watts or with facilities impedances, etc. Equipment with special input facilities nich vary greatly with each were considered to be in 't class. This in turn meant id little or no flexibility manufactured to special
ve been thrown into nt of Concord Multi.1 With these unita it 1 matter of minutes istom built installa
tions with unlimited wattage output. Facilities for phono players, automatic record changer, outputindicator, recorder and other devices are available and may be included in a stacked cabinet assembly as illustrated at the right all at the cost of regular stock iteme rather than the usual high cost of custom built units. In this manner an infinite variety of systems can be assembled in a matter of hours . . . all of Multiamp quality!
You will save considerable money and time by writing to our Technical Advisory Service for complete details of how Concord Multiamp Add-A-Unit Amplifiers and accessory equipment will fill to perfection your public address and other amplifier requirements.
number. Use the Multiamp dual tone control to compensate for unsatisfactory acoustical conditions. These and other features assure you of perfect sound reproduction under all conditions.

## CHURCHES • MORTUARIES

may benefit greatly from the installation of the Concord Multiamp. Some of the uses to which the Multiamp might be used in church arefor the playing of recorded bells or chimes, thus obtaining the same effect as with a very expensive bell or chime installation; for sermons or making announcements in the main chapel, which is usually a large area. It may also be used on church outings, pienics, and conventions to provide facilities for making announcements as well as music for the occasion. Mortuaries will find the Multiamp an excellent amplifier for providing recorded organ music in their chapels. The lifelike quality of the Multiamp's sound reproduction is so real-so natural-so free from hum and distortion-that it is hardly believable that music is being produced by artificial means.

## consult our FREE TECHNICAL advisory service on any of your amplifier problems



# 30 and 45 wart 

A Startling Innovation MULTIAMP

## $\star$ Plug in power up to 90 watts!

$\star$ And phono player, record changex, output meter!

$\star$ Add two more channels to total 6 channels! $\star$ Universal Output-15 impedances!

## $\star$ 2\% total harmonic distortion!

Now within the reach of every user of high quality amplifiers is the new Concord Multiamp series; produced by Concord in answer to the demand for custombuilt units at factory prices. Possessing exclusive
^ Individual Bass and Treble fone controls!
patented features and performance equalled only by the best broadcast studio equipment, these amplifiers are the last word in flexibility. design, beauty, economy and performance.

Minimum cost for up to triple power increase! Radically new and original, these amplitiers are improved postwar products. Imagine a basic amplifier in 30 or 45 watt size to which may be added in a matter of minutes, additional output stages that will provide power outputs up to 60 , 75 or 90 watts-all in the same basic cabinet. This "Add-A-Unit" feature of our Multiamp line of sound equipment makes it no longer necessary for you to worry about the expense of a new amplifier when a higher output is needed. If for instance you plan to redecorate your auditorium interior walls with drapes or other sound absorbing material, it would only be necessary to purchase an "Add-A-Unit" auxiliary power stage which plugs right into the amplifier to provide the extra needed power, not even requiring the presence of a technician or even the cost of a new cabinet. The cost of this unit would representonly a fraction of the cost of a new amplifier. From this you can also see that if you moved to a new and larger location, only this inexpensive "Add-Alarger location, only this inexpensive "Add-Aeliminating the expense of a complete newamplieliminating the expense of complete newamplibuilt as integral plug-in units requiring only a screwdriver to change the overall output watt. screwdriver to chang
age of the amplifier.

## Tone Control of Advanced Design

Through the use of our newly designed tone control circuit, a new world of tonal beauty opens. Separate controls are provided for bass and treble reproduction in order that either the high or low frequencies may be attenuated or accentuated
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. The purity of tone, the full bodied volume and the almost unbelievable degree of tonal shading provided by thisdualtone control really must be heard to be appreciated.

## Univexsal Input and Output

The Concord Multiamp series provide inputs to accommodate up to 4 microphones and 2 phono pickups. Input and output jacks and connectors are recessed so that no unsightly cords obstruct the front of the amplifier. Kecessing of these plugs and connectors also eliminates the possibility of damaged plugs and connectors
Extreme flexibility of output is provided through the availability of 15 output impedances that facilitate the matching of any conceivable combination of speakers or lines.
For this feature to be fully apprecialed, one must imagine being confronted with the problems of placing extra speakers in an outdoor dance papilion, or if used in a chapel or auditorium you might require extra speakers in recently added rooms, or additional impedances might be required to match some new piece of equipment quired to match some new piece of equipment such as a recorder, or a special line. All or any
of the above conditions can be handled by our of the above conditions can be handled by our
multi output channel. In addition, by an ingenmulti output channel. In addition, by an ingenfrom the output and power stages, resulting in surprisingly low hum level. The 15 output im pedances are- $1.3,2.7,4,5.3,8,16,125,167$, $180,200,250,415,460,500$, and 600 ohms.

SPECIFICATIONS

# Add $+\mathscr{A}+$ Unit AMPLIFIERS 



## All Auxiliay Equipmenf Self-Contained

Some of the other contributing features that -~ke the Multiamp so far superior to ordinary amplifiers are: The basic, uplifier unit has been so designed that it is possible to include record l layer, record changer, and monitoring indicator, all ire one compact unit, with all controls on the same front panel within easy access of the operator.

## Ulta Modern Design

The Multiamp is years ahead in engineering; ready for tomorrow's scene. The Multiamp cabinet is the very latest in modern streamlined design, styled by one of the country's leading industrial designers. The front panel is finished in a burgundy smooth tone enamel, with knobs and nomenclature of a contrasting ivory. Indirect lighting is provided for panel illumination, resulting in a striking overall appearance. The cabinets are finished in a two toned burgundy wrinkle with the added beauty of polished aluminum for decorative emphasis.
Carrying handles are cast into the aluminum ends adding to the streamined modern design and elimizating prstruding handles which would add to the overall size and terd to scratch or mar other surfaces or objects. The top of the unit is resnovable, and may be eliminated entirely to allow full circulation of air when additional matching units are stackea for much larger installations.
Top panels to accommodate either a heavy duty turntable and pick up arm, or a record changer mechanism, are available to replace the normal I planning that went into even the less important phases of design
Uted by the imprinted charl with all output impedances clearly anently screened on the bottam cover plate. A line fuse is each unit.
Heretofore it $\mathbf{w}$ - $-\mathbf{A}$-Unit Accessory Equipment Available as standard stoch outputs greater thipment we have avaidablional mikes, (2) outpul indicator, for special inputs, top, (4) record changur top. Any one or all of thes in these larger sizes top, (4) recond changur top. Any one or all of the within or on top the amplifier cabinet rnand other features wl ${ }^{3}$ l cabinets or extra space. The removable right hand particular installation the amplifier is provided for a speaker switching the special custom buinss of desing or may be used for other accessory oxtremely high cost ar ${ }^{\circ n}$ of the user.
once the equipment was . Visual Type Output Meter requirements.
nel is of new design and enables the operator to All of these thoughts ha. and maintain mroper output level. This outpat discard NOW with the adveh closer check on the output of the amplifier amp Add-A-Unit Amplifiers in addition, may be readily interpreted by the is possible to assemble in "ssentially, it consists of two neon indicators, is possible to assemble in "i the other marked "Overload." A calibrated what would ordinarily be el sef the outputat any predetermined value of
the total amplifier output. When this pre-set level is reached, the firs neon indicator lights. When pre-set paint is overloaded, the second neon indicator will light, indicating that the output of the amplifier has ezceeded the predetermined level
This enables a very close overall check to be kept on the amplifier; even though the speakers a re located in remote positions. This type of indicator may also be used with other makes of $\varepsilon$ mplitiers if the simple instructions re followed. For additional details, illustrations and specifications of the utout indicator, phono motor and record changer mechanism, see pages 18 and 19
Panels for Add-A-Unit may be fitted into matching cabinets; allowing additional output stages to be utilized as booster amplifiers, enabling almost any conceivable situation to be handled in one installation. A monitoning speaker of the PM type, mounted on a grill which replaces the front panel of the cabinet, is available to use with these booster units. These units will stack on top of each other and connect with the original amplifier. For dditional details on booster amplifiers and power stages see page 21

## 45 Watt Multiamp Available

The Deluxe Multiamp is also available in a 45 watt basic power unit. The 45 watt unit is identical with the 30 watt unit with the exception of power output. It has all of the tine Multiamp features such as: separate ass-trable tone control, multi-channel input circuit, universal output, dit outpo provisions for adding self-contained accessories, Add-A-Unit oulp, prov bits, and the patented focused beam circnit. In other words the only difer.

## Blank Cabinets Available for Special Equipments

Blank Multiamp cabinets are available as a separate item for use of those who may wish to build companion equipment, or for use in filling blank peces in a rack. The Concord Multiamp has been designed, engineered, nd constructed to delight the most discriminating eye and ear. It is destined to become the standard by which all fine custom built sound equipment will be judged for years to come

Model 430 CT- 30 watt Deluxe Multiamp complete with tubes. Shpg wt 38 lbs.
List Price $\$ 124.48$.
Your Cost. . . . . . . . . $\$ 77.95$
Your Cost
Model 445CT-45 watt Deluxe Multiamp amplifier complete with tubes. Shpg. wt. 47 lbs . List Price \$141.00.
\$87.95

## Youx Cost .

t
PHONO PLAYER TOP described on page 19 for either of above
models ADD
pace 19
AUTOMATIC RECORD CHANGER TOP described on page 19 for either of above models ADD


You can add these extra units when you first purchase your Multiamp amplifier-or later as they are needed!
Regardless of when you add these units THEY SAVE YOU MONEY! If you need a 6 channel mixer and originally purchased only a 4 channel Multiamp amplifier, YOU DON'T HAVE TO BUY A COMPLETELY NEW AMPLIFIER! You merely buy a 6 channel input stage and add it to your own Multiamp amplifier. If you need a phono player or record changer-just buy the Add-A-Unit and add it on. No special tools -just a screwdriver is required-no circuit changes necessitated for installation. If you use portable equipment-no need to buy and carry extra cases for a phono player, output indicator or 6 channel mixer -just add them to your original Multiamp amplifier. They require no additional space -no additional cabinets and accordingly, are low in cost.
A really revolutionary but practical innovation developed by CONCORD!


## FOUR CHANNEL INPUT STAGE

The Add-A-Unit four channel mixer will permit you to mix or control four different inputs smoothly and with the precision of real studio control equipment. You will find this four channel mixer adequate for all medium sized sound installations where not more than two "mike" inputs and two phono inputs will be required. Microphone inputs are rated at 122 db . and phono input at 83 db . when used with either the 30 or 45 watt power stage.
The frequency range of this mixer-preamplifier when used with any Multiamp power unit is flat within 2 db . from 20 to 10,000 cycles which assures extreme fidelity.
Model Four, Add-A-Unit four channel mixer. Shpg. wt. 12 lbs.
List Price $\$ 50.42$
Your Cost .
\$31.75

## SIX CHANNEL INPUT STAGE

The Add-A-Unit six channel mixer is for use on very large installations where more than two microphone inputs might be required. A typical example is as follows: Two microphones for orchestra or chorus pickup, a third "mike" for soloists, vocalists or actors, and a fourth "mike" for the control man or announcer. This piece of equipment is invaluable for large bands where a number of "mikes" have to be used to effect a balance. Two phono inputs are also provided so that a "phono" input might be mixed to provide sound effects or to play records for dances, meetings -or for fading in any other sound source. The four microphone channels are rated at 122 db . and the phono channels are rated at 83 db . when used with at least one 30 or 45 watt power stage.
Model Six, Add-A-Unit six channel mixer. Shpg. wt. 12 lbs.
List Price $\$ 64.70$
Your Cost
$\$ 40.75$

# ADD *INPUT CHANNELS <br> * POWER STAGES $\star$ OUTPUT INDICATOR $\star$ RECORD CHANGER * PHONO PLAYER * OTHER FEATURES 

## Any or All in the Same Cabinet!



## SINGLE PLAYER PHONO TOP

This single player phono player together with the Multiamp offers a new world of high fidelity recorded musical reproduction. With this phono player and Multiamp ampifier, churches, chapels, and mortuaries requiring top quality humless and distortion free reproduction of recorded music may benefit immeasurably by playing recorded organ music, bells, and chimes, etc. Skating rinks, dance pavilions, and other users of recordings may now enjoy the ultimate in recorded dance music. Record player consists of single speed motor and bigh quality crystal pickup. Model P Add-A-Unit single record player top. Shpg. wt. 8 lbs. List Frice $\$ 16.60$ Your Cost .
$\$ 11.00$


## VOLUME LEVEL INDICATOR

One of the most accurate means of visually monitoring sound output. Operates as follows: Control is set to certain percentage of total amplifier output. When volume is reasonably close to this figure only neon light marked "Normal" lights. When output exceeds this value by a preset limit, the second neon bulb marked "Overload" lights. Then operator reduces main volume control to point where overload light beccmes inoperative. This method is used throughout the sound field, monitoring and paging systems. Simplicity of operation makes professional operation of Concord Multiamp a reality by even an inexperienced operator.
Model $Z$ Add-A-Unit volume level indicator. Shpg. wt. 5 lbs.
List Price $\$ 6.96$
Your Cost


## AUTOMATIC RECORD CHANGER TOP

Plays 10 twelve inch records or 12 ten inch records automatically, with the last record repeating itself until it is reloaded with records or shut off.
With this unit you may have 30 minutes of uninterrupted music from 10 inch records. The changer supplied with this unit uses single speed 78 r.p.m. motor with high quality crystal pickup in true tangent tone arm. Record support is of the single shelf type, which in addition to being used to furnish continual entertainment and dance music, is ideal for supplying background music in restaurants or for ballyhoo or sales promotion purposes where the same program must be repeated continuously.
Model E Add-A-Unit automatic record changer. Shpg. wt. 12 lbs .
Your Cost
\$20.95

# PORTABLE SYSTEMS 

## $\star$ From 30 to 90 watts power output as desired $\star$ Four or six inputs... Universal output $\star$ Only $2 \%$ distortion at rated output $\star$ Speakers in Bass Reflex Carrying Cases $\star$ Extreme Fidelity-Flexibility



The new Multiamp series fully described on pages $16-19$ is the basic unit for the new Concord Add-A-Unit portables. The exclusive "focused beam" circuit provides more than enough volume for small and very large areas due to the fact that a single portable unit may have a power output of $30,45,60,75$, or 90 watts.

## Output Power Up to 90 Watts

Musicians, political speakers, lecturers, orchestra leaders, and band managers no longer need worry about going into a hall or auditorium where size or acoustics are such as to render their sound system incapable of covering the desired area.
Power outputs up to 90 watts are possible from a single basic 30 or 45 watt unit. Imagine being able to increase from 30 or 45 watts to 75 or 90 watts in the same cabinet merely by plugging in an additional power stage; requiring the use of a screwdriver only, but no technician.

## Self-Contained Optional Equipment

Through the use of the Concord Add-A-Unit optional equipment which is fully described on pages 18 and 19 the most complete sound system ever designed for so little space consumption is at last available. This optional equipment consists of: 1 -an output monitor of the neon indicating type which permits you to actually see how well you are covering unfamiliar halls or auditoriums, 2 -a record player, and 3-a multi-channel input panel with siz inputs. Any or all of this equipment may be mounted in the same cabinet with the amplifier which fits into a carrying case that measures only $15^{\prime \prime}$ x15 $\frac{1}{2} 2^{\prime \prime}$ x $20^{\prime \prime}$.

## Extreme Flexibility of Input

Four input channels are provided on the portable Multiamp Add-AUnit sound syatem; microphones may be mized or phonos may be mixed with microphone inputs. The input mixing system is designed so that mixing is smooth and gradual without "plops" or any perception of a change of input "connections" except the subtle and graceful blending of speech with music or whatever inputs are being mixed. See page 18 for complete details on the six input channel unit.

## Bass Reflex Speaker Enclosure

Reproducer equipment includes: $2-12$ inch permanent magret dynamic speakers housed in bass rellex enclosures for perfect bass response. These bass refler enclosures are designed so that they form a two piece portable carrying case altractively covered in handsome British tan Spanish grain fabricoid which also is used to cover the amplifier case. Speaker carrying cases have recessed receptacles which safeguards against damaged connectors.
In addition to the above described equipment the Multiamp portable speakers come complete with 35 ft . speaker cables complete with male and female plugs for each speaker. Shure crystal microphone illustrated at left is the basic microphone furnished with this system. If any microphone on pages 13 and 23 is desired in place of microphone $\bar{A}$, so specify on your order and add difference shown in price. We can also supply the portable Mulbamp in 45, 60, 75, and 90 watt sound systems. Write in for special prices.
Model $96-430 \mathrm{CT}$ complete portable Multiamp 30 wat system. Includes; 30 watt Deluxe Multiamp amplifier complete with tubes in carrying case; $2-12$ inch Deluze permanent magnet speakers in portable bass reflex carrying case; 35 ft . speaker cables for each speaker; one microphone $A$ from selection on page 13 or 23 ; one desk type mike stand; microphone cable; all necessary plugs, connectors, etc. Shpg. wt. 99 lbs.
Your Cost
\$129.85
Model 94-430CT-30 watt Deluxe Multiamp amplifier complete with tubes in carrying case only. Overall size: $15^{\prime \prime} x 15, \frac{1}{2 \prime 2} \times 20^{\prime \prime}$. Shpg. wt. 63 lbs .
Your Cost
s86.90
Model 92-GN-2-12 inch permanent magnet dynamic speakers with 2-35' specker cables in postable bass rellex type carrying

Model C22055 portable bass reflex type carrying case only. Overall size: $14^{\prime \prime}$ z $19^{\prime \prime}$ z213 $4^{\prime \prime}$. Shpg. wt. 25 lbs.

## Your Cost

\$13.25
Model C22057 portable amplifier carrying case only. Overall size: $15^{\prime \prime}$ z $151 / 2^{\prime \prime}$ z $20^{\prime \prime}$. Shpg. wt. 17 lbs .
Your Cost
\$10.75
Additional for phono player top . . $\$ 11.00$
(see page 19 for details)

# MULTIAMP AMPLIFIERS 

$\star$ More than 270 Watt Output
$\star$ Choice of 4 or 6 Channel Imput
$\star$ Phono and Record Changer Models

## * For Portable or Permanent Installations

Multiamp power amplifiers are supplied in 60, 75 and 90 watt sizes as well as 30 and 45 watt sizes. All the functions, characteristics and other features of the 30 and 45 watt Multiamps as described on pages 16 and 17 apply to the 60,75 and 90 watt Multiamp including the fact that it is possible to add a phono player, record changer and output indicator to these units as described on pages 18 and 19
Power output of either of these amplifiers may be further increased up to 270 watts of output and higher merely by stacking Booster Amplifiers (Illus. A) especially designed for this purpose and which are fully described below. Power amplifier equipment of this size ( 270 watts) is especially suited for ball parks, stadiums, race tracks and for other installations requiring extremely large sound coverage. The 60,75 and 90 watt Multiamps listed below are equipped with the 4 channel input equipment which is fully described on page 18. Model 460 CT, 60 Watt Multiamp 4 channel amplifier complete with tubes. Shpg. wt. 51 lbs. List Price \$176.00.

## Your Cost

s109.95
Model 475CT, 75 Watt Multiamp 4 channel amplifier complete with tubes. Shpg. wt. 58 lbs. List Price $\$ 192.60$.

## Your Cost

s119.95 Model 490CT, 90 Watt Multiamp 4 channel amplifier complete with tubes. Shpg. wt. 65 lbs. List Price $\$ 209.14$.
Your Cost
s129.95

## MULTIAMP BOOSTER AMPLIFIERS

Booster amplifiers are designed for use with Concord Multiamp Amplifiers for the purpose of increasing power output of the unit to which they are added by values to total up to 270 watts of output. Amplifiers with this extremely high output are especially suited for use in ball parks, outdoor arenas, race tracks, stadiums and other indoor or outdoor locations requiring great sound coverage. Booster Amplifiers come in $30,45,60,75$ and 90 watt power output and have such features as: minimum of $2 \%$ output distortion, patented beam focusing circuit, fifteen output impedances, all of which are fully described on pages 16 and 17. The Booster Amplifier is identical to the Multiamp plug-in power unit but in addition includes a cabinet with an attractive front panel of modern design, and provision for a monitor speaker. The bottoms of these Booster Amplifier cabinets are designed to recess and stack on top of other Booster Amplifiers.
Model 30CTB, 30 Watt Booster Amplifier, complete with tubes. Shpg. wt. 36 lbs. List Price $\$ 88.10$. Your Cost $\$ 55.05$ Model 45CTB, 45 Watt Booster Amplifier, complete with tubes. Shpg. wt. 38 lbs . List Price $\$ 104.66$. Your Cost
$\$ 65.05$
Model 60CTB, 60 Watt Booster Amplifier, complete with tubes. Shpg. wt. 50 lbs. List Price $\$ 139.64$. Your Cost $\$ 87.05$ Model 75CTB, 75 Watt Booster Amplifier, complete with tubes. Shpg. wt. 53 lbs. List Price $\$ 156.20$. Your Cost
$\$ 97.05$ Model 90CTB, 90 Watt Booster Amplifier, complete with tubes. Shpg. wt. 56 lbs . List Price $\$ 172.76$. Your Cost
$\$ 107.05$
For larger size Multiamp Amplifiers write to our Technical Advisory Department.

## MULTIAMP POWER STAGES

The following units are plug-in Multiamp power stages. These power stages are the same high quality output stages used with the 30 and 45 watt Multiamps. They feature: minimum of $2 \%$ harmonic distortion, patented focused beam circuit.
These units may be used to increase the power output of any Multiamp Amplifier simply by plugging into the basic unit which takes only a few seconds. Installation of these units does not require the use of special tools or a technician. The 30 watt Multiamp power unit uses $4-6 \mathrm{~V} 6^{\prime}$ 's and $2-6 X 5$ 's. The 45 watt Multiamp uses $6-6 V 6$ 's and 2-5Z4's.
Dimensions $171 / 2^{\prime \prime} \mathrm{W} \times 43 / 4^{\prime \prime} \mathrm{D} \times 51 / 2^{\prime \prime} \mathrm{H}$.
Model 30, 30 watt Multiamp plug-in power stage, complete with tubes. Shpg. wt. 16 lbs. List Price $\$ 51.54$.

## Youx Cost

\$32.00
Model 45,45 watt Multiamp plug-in power stage, complete with tubes. Shpg. wt. 18 lbs. List Price $\$ 68.10$.
Youx Cost


## COMPLETE MULTIAMP ADD-A-UNIT SOUND SYSTEMS

Concord's Complete Multiamp Sound Systems represent the ultimate in coordinated sound equipment. Components for these sound systems are carefully chosen to afford a maximum of quality performance and long troublefree service from the entire system.
An important factor to consider is the economy of buying the Complete Multiamp System. The entire system and high quality components actually cost considerably less when purchased as a complete Multiamp Sound System than when purchased individually. In addition you eliminate any possibility of selecting incorrect or non-matching units that will nct perform to perfection.
As one of the largest manufacturers of high quality amplifiers and dealing with large users of this equipment we avoid
the expense of dealing through other distribution channels. Consequently we effect a substantial saving which we pass on to our customers in the form of lower prices for complete systems. In addition, our tremendous buying power enables us to purchase a considerable quantity of equipment at one time at an additional saving in cost, another saving which is also passed on to our customers. From the above facts one can readily see the economy and other advantages of purchasing a complete Multiamp Sound System.

## MULTIAMP COMPLETE SYSTEMS

The basic Multiamp Sound System consists of a Multiamp Add-A-Unit Amplifier in $30,45,60,75$, or 90 watt sizes,

2 No. Cl9228 extra heavy duty 12 -inch PM speakers, 35 ft . of cable for each speaker (Illus. GN), 1 No. Cl3630 Shure model 707A crystal microphone with cable (item " $A$ " opposite page), 1 No. C-13538 satin chrome desk stand, a complete set of tubes and all necessary plugs and connectors, as well as a complete maintenance, installation and operating instructions booklet. Prices of the complete systems are as follows:
Complete Multiamp Sound System

Stock Shpg. Your
No. Wt. Cost
30 Watt $99-430 \mathrm{CT} \quad 53 \$ 107.50$
45 Watt 99-445CT $60 \quad 117.50$ 60 Watt $99-460 \mathrm{CT} \quad 76 \quad 139.50$ 75 Watt $99-475 \mathrm{CT} 83 \quad 149.50$ 90 Watt $99-490 \mathrm{CT} \quad 90 \quad 159.50$

## OPTIONAL ADDITIONS AVAILABLE ON ABOVE MULTIAMP SYSTEMS

## For special installations and to afford greater choice of accessory equipment for your system, we offer the following optional equipment. <br> PHONO PLAYER <br> Phonc-Player Add-A-Unit fully de. $\$ \mathbf{1 1 . 0 0}$ zcribed on page 19. Add.

## RECORD CHANGER

Automatic Add-A. Unit rocord changer fully de-
scribed on page 19 . $\$ \mathbf{2 0 . 9 5}$

## 6 CHANNEL PRE-AMP

6 channel pre-amp Add-A-Unit instead of 4 channel fully described on page 18. Add
$\$ 9.00$
OUTPUT INDICATOR
Output indicolor Add-A. Unit fully
described on page described on page 19. Add

## MICROPHONES

Microphone "J" on opposite page, or "B" on prage 13, fully described on pages
2.9 in place of microphone "A." Add $\$ 3.98$

Microphone " "L," "M," or " N " on opposite page or "C," "D," or "E" on page 13, fully described on paqes 26-29 in place of micro- $\$ \mathbf{7 . 6 5}$
Miccophone "O" or " F " on opposite page, or
F " or " G ." prace 13 , fully described on ' $\mathrm{F}^{\prime}$ " or "G." page 13 , fully described on pages $26-29$ in place of microphone "A." $\$ 10.72$
Mic:ophone "W" on opposite page, or "H" on page 13, fully described on pages 26.29 in Add of microphone "A."
If floor stand "K," fully described on page 29 , is desired instead of desk stand, Add.

## BAEFLES

If walnut baffe group "GU", on apposite page, fully described on page 32, is de- $\$ 9.90$
sired, Add. spun metal baffle group " $\mathrm{GM}^{3}$ " on opposite prage, fully described on page 31
is desiived, Add
$\mathbf{2 0 . 0}$
.00 II additional pairs of baffles are desired add baffle prices shown above.
TRUMPET AND DRIVER UNIT If trumpet and driver unit group "GY" on opposite page fully described on page $\$ 55.40$
31, is desired, Add If additional pairs of $12^{\prime \prime} \mathrm{PM}$ speak. era are desired, add
\$20.46
Ii additional speaker cable is
desired. Add. per it.
If the above systerns or alternate equipmets does not suit your requirements feel free to call on our Sound Enginearing Department for advise or special quotations.

## ON COMPLETE SOUND SYSTEMS!



## LOW IMPEDANCE MICROPHONES <br> LOW IMPEDANC

NOTE-Dynamic microphones $N, U$ and $W$ shown above and E and H on page 13 can be supplied in low impedance where it is necessary to run extremely long microphone lines. If this is the case, state so in your order. No. C 13673 transformer at $\$ 7.70$ and as many
feet of low impedance cable (Catalog No. C 16079 at 5.5 c per foot), as desired. Micro. phones $N, U$, and $W$ are normally furnished in high impedance output and in most cases can be used without any change in input can be used

## ChOOSE ANY OF

## THESE BAFFLES

## WALL MOUNT BAFELES

Flat baffle boards can be used for mounting speakers flush with walls, but in most cases wall mounting speaker baffles are used for installations such as ball rooms, restaurants, offices and churches. A speaker carrying case is another type of baffle for use in all portable work. The wall baffle (see illus. GU, page 23), which has been designed to emphasize bass response and provides excellent results for music where low tones are important, as from organs in mortuaries and churches. The above mentioned baffles are very popular in better type installations and they spread the sound over wide areas rather than direct them over longer distances.

## PROJECTORS

These tend to direct sound and carry it farther than wall baffles. They create a crisp penetrating tone and are recommended for directing sound under structures sach as balconies and out over athletic fields or stands. The conventional type of metal projector (illus. GM) accommodates the regular cone type of speakers and protects them from the elements considerably.

## TRUMPET (RE-ENTRANT TYPE)

These are also projectors often referred to as reflex type (illus. GY) and are usually longer. They have been designed for use with the driver units shown at right (illus: D), and direct sound the farthest possible distance. Extensive use for these units is found in chime installations, stadiums and other similar large sound installations. Baffles are not included in the basic Sound Systems because baffles are always selected to meet the individual reauirements of the location in which
the sound equipment is installed. However, we are presenting herewith a list of baffles for various applications. If none of the following baffles suit your particular requirements refer to complete list of baffles appearing elsewhere in this catalog.

## GROUP GU

Consists of two walnut finish wall baffles for the two 12 -inch permanent magnet speakers supplied with the Multiamp System. Sturdily built of heavy seven-ply panel with a handsome one-quarter ply lyre front. Breathing slots are arranged on the sides to give better reproduction.

## GROUP GM

Consists of two spun metal baffles. These baffles are highly efficient units providing high quality reproduction and easy mounting facilities. Finished in gray wrinkle lacquer. Have $1^{1 \prime}$ pipe thread bracket for mounting. These units fit all 12 -inch PM dynamic speakers.

## GROUP GY

Consists of two University reflex prcjectors and two University driver units in place of the two $12^{\prime \prime}$ PM speakers. These projectors are highly efficient exponential air column type horns. Entire units are 100\% waterproof. The projectors in this group have a 42 -inch acoustic length. Driver units employ alnico magnets which require no field excitation and provide very high efficiency. These units also featurebreakdown proof diaphragm suspension, and heat dissipating voice coil. These units are recommended for use outdoors as well as indoors.
University projector Cat. No. C20049. University driver unit Cat. No. C21301.


# Talk-A.Phone 

2 to 100 Stations

## MASTER SELECTIVE SYSTEM



## SUPER-SELECTIVE SYSTEM



NOTE: solid lines indicote direction of conversotion. Dashes indicate how units are inter-connected with cable. See listings at right for proper cable.

## SYSTEMS•INVALUABLE TIME SAVERS

## No waiting... get an immediate reply!



## Deluxe

## Chief

## STANDARD MASTER SELECTIVE

Consists of one Master Station working up to a total of 5 Sub-stations when using Model LP-5 or to 10 stations when using Model LP-10. Master station can talk privately to any of the Sub-stations or to all at one time. Each Sub-station can answer and call the Master, but Sub-stations cannot call each other. Units operate with stations as far as 2000 ft . apart. For $110 \mathrm{~V}, \mathrm{AC}$ or DC. Model LPS Standard Master Station complete with tubes and instructions. For operation with from one to five Sub-stations. Less cable. \$19.95
Shpg. wt. $8 \mathrm{lbs} .\mathrm{Your} \mathrm{Cost}$.
Model LP10-Same as above, but for operation with from one to ten SLb. stations. Your Cost . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\mathbf{5 2 4 . 9 5}$ Model RS3-Standard Sub-stations, for use with either of the above. Shpg. wt. 4 lbs . Your Cost
\$7.25
C16011-Cable for connecting Sub-stations to Masters. Per 10 ft
$27 c$

## STANDARD SUPER SELECTIVE

Made up exclusively of Master stations up to 5 when using Model LP-100 and up to 10 with Model LP-110. Permits 2 complete two-way conversations to be maintained simultaneously, without crossialk. Masters may call one another regardless of whether station being called has power on or not. An exclusive advantage is the silent feature that assures $100 \%$ silence at the Master station between conversations and complete privacy of operation is assured. For 110 Volts, AC or DC.
Model LP100 Super Selective Master Station. From two to five may be used in a system. With tubes and instructions, but less cable. Shpg. \$23.50
wt. 8 lbs. Your Cost

## Your Cost

C16001-Cable for connection between LP100 units. Per 10 ft . . . . . . . . . 85c
C16002-Cable for connection between LP 110 units. Per 10 ft .
$\$ 1.30$

## DELUXE MASTER SELECTIVE

Affords private two way communication between Master and any Sub-station up to ten as well as simultaneous address from the Master to all sub-stations. Individuals at Sub-stations may answer when called without leaving their work Individuals at Sub-stations may answer when called without leaving their work
and without adjusting the unit, from as far away as 25 to 50 feet. "Silent feature" and without adjusting the unit, iromastarion-yay as shuts out noise in vicinity them to originate calls to shuts out noise in vicinity of Sub-sta
the Master. For 110 V , AC or DC.
Model KR40-Deluxe Master Station, for use with up to ten Sub-stations, complete with tubes and instructions but less cable. Shpg. wt. $10 \mathrm{lbs} . \$ 34.95$ Youx Cost
$\$ 43.50$ Model RU43-Deluze Sub-station, for use with either of above. Shpg wt. 4 lbs Your Cost
\$11.25
C16000-Cable for connecting Sub-station to either type Master. Per 10 ft . . 45c

## DELUXE SUPER SELECTIVE

Consists only of Master stations up to 10 . Permits 5 two-way private conversa. tions to be held simultaneously. Masters can call one another regardless of whether the station being called has power on or not. You can begin with two Masters and then add units up to a total of ten as required. Complete privacy of communication is assured by the KS-60 system. The "silent feature" assures $100 \%$ silence at every Master station between conversations. The volume may $100 \%$ silence at every Master station between conversations. The volume may
be adjusted at each Master. The KS. 60 gystems will operate universally on be adjusted at each Maste
110.115 Volts, AC or DC.
Model KS60-Deluxe Super Selective Master station. From two to ten may be Mued in an sytem. Completo with tubes and instructions, but less. $\$ 34.95$
cable. Shpg. wt. 10 lbs. Your Cost cable. Shpg. wt. 10 lbs . Your Cost Model KS60C-Same as above, but with Privacy Earphone. Your Cost . . $\$ 43.50$ C16002-Cable for connecting stations. Per 10 ft .
. $\$ 1.30$

## CHIEF MASTER SELECTIVE

Offers instant communication between one, two, three, etc. or all Sub-stations at same time. "Silent Feature" makes it possible to shut out sounds from the Sub-stations and yelto originate calls to the Master station. The Master station uses push buttons for quick contact and the "power" button is depressed if used with an auxiliary matched amplifier to overcome extremely high noise levels or to provide paging facilities. For $110 \mathrm{~V}, \mathrm{AC}$ or DC.
Model C410-Chief Master Station for use with up to ter Sub-stations, comMlote with tubes and instructions but less cable, Shpg. wt. 14 lbs. \$41.25 Your Cost
Model 410C-Same as above, but with Privacy Earphone. Your Cost. . $\$ 50.25$ Mode! RU43-Chief Sub-station, for use with either of the above. Shpg, wt. 4 lbs. Your Cost
C16000-Cable for connecting Sub-stations to Master. Per 10 ft.

## CHIEF SUPER SELECTIVE

Utilizes Master stations from one up to a total of ten. 5 private two-way conversations may be held simultaneously without cross-talk; and a conference may be held between any number of stations. The "Chief" incorporates a feature whereby complete privacy is perfected to the extent that when two people are speaking, it is impossible for a third party to listen in on the conversation. It is possible to talk to one or as many as you like. Will operate on $110-115$ Volts, AC or DC.
Model C610-Super Selective Master station, for use in ten sation system, complete with tubes and instructions, but less cable, wt. $15 \mathrm{lbs} . \$ 4125$ Your Cost
1.425

Model C610C-Same as above, but with Privacy Earphone. Your Cost. . $\$ 50.25$
C16002-Cable for interconnecting stations. Per 10 ft .


## (A) Model T-3

A new and improved semi-directional crystal mike with superb response. Tilting head; tilts from horizontal to vertical. ()utput-52 db., response 30 to $10,000 \mathrm{cps}$. Standard plug and connector, with sis -27 thread, spring cable protector and $15-\mathrm{ft}$. cable. Chrome plated finish with fine mesh screen grille. High impedance. C13670-Wt. 3 lbs. $\$ 1 母, 08$
Your Cost.......

Mike and Stand
C13525 Model GT-3-T-3 mike as above with Grip-To-Talk Stand as shown on page 5. Shipping weight 5 pounds.

$\$ 19.32$ C13550-Model IDN-50. 50 ohm impedance High Impedance.
(B) Model D-104

A favorite for communications use. Ilas a new type Ciraphoil crystal element with improved shock mounting. Output. -48 db .; response rises grad. ualty from 500 to 4000 c.p.s. Solicl bronze case finished bright chrome. With plug and connector for :x $x^{\circ}-27$ thread, spring cable protector and 7 ft cable. High impedance. Shpg. wt. 2 liss.
C13363-Your Cost $\$ 14.46$
Model GD-104: D-104 mike on "Crip-to-talk" desk stand described on page 19. Shpg. wt. 5 lbs.
C13358
Your Cost.
(C) Model N-30

A model with excellent frequency response that mahes it highly desirable for use in sound systems. Careful engineering, efficient manufacture and rigid laboratory control to provide perfect satisfaction. Ideal for all-round public address use. High impedance. Tilting head permits adjustment to directional or non-directional positions. Concentric cable connector provides for quick interchange of cables. Chrome finish. $15-\mathrm{ft}$. cable. Shpg. wt. 5 lbs.
Model $\mathbf{N}-30$. Wide-Range
C13401
Your Cost.
(D) L-I Lapel Mike

Small watch case model using the dual-diaphragm principle. Bimorph crystal cartridge harometrically compensated and shockproof mounted. Developed to meet especially difficult pickup conditions where the speaker or artist requires a wider latitude of movement than can he tolerated with a microphone in fxed rosition. Equipped with t Spring Clip. Equippee with t Spring Clip. $10,000 \mathrm{c} .11 . \mathrm{s}$. $1.6^{\circ}$ diameter 15 -ft. cable. Staruary bronze. High impedance. \$16.08

## ASTATIC Model JT-30-TT

Incorporates an "Ebonite" treated sealed Bimorph crystal element in an acoustically designed cartridge case. Output is -52 db . Pleasing bass response. Case $2^{5} \mathrm{n}^{\circ \prime}$ diam. $3^{\circ} \mathrm{h} .3^{1,16^{\circ}} \mathrm{d}$. Finished in two-tone gray. Mounted on a combination hand or desk stand with diecast base and locking wood handle. Excellent for use with home recording outlits, etc. Especially well suited for use with portable and permanently installed sound systems or communication equipment. High impedance. All purpose mike. $15^{\prime}$ cable. Shpg. wt. 4 lbs.
C13427-Your Cost Complete
s9.97

## ASTATIC Model DN

A semi-directional all-purpose microphone incorporating a new unitary moving coil system and carefully proportioned acoustic circuit to highly damp the natural resonance of the movsponse from 50 to 7,000 cycles. Has tilting head, and plug-connector with spring cable protector. Finished in two lone gray and chrome. Output level, -55 db . Fits standard $\mathrm{A}^{\circ}-2^{-}$mike stand thread. With 15 ft . cable. C13551-Model DN-HZ.

## s12.88

\$14.46


## ELECTRO-VOICE CARDAX UNI-DIRECTIONAL CRYSTAL MIKE

This microphone is professional in appearance and employs the new "mechanophase" principle to provide cardioid unidirectional resulis. This feature gives wide application where feedback, reverberation and extraneous noise are a problem. Output level rating 57 db . (flat curve), 48 db . (risine curve). The frequency response is 40 to 10,000 cycles adjustable to either of two characteristics. A screw control in back of microphone enables user to select the flat or rising response. An on-of switch is supplied and the three response. An on-onnswitch is supplied and the three contact wipitg connector built-in assures long life and quiet operation. The microphone is of satin chromium finish with facilities for mounting of at standard $3 \times 27$ thread. It is equipped with 2 c fect of a 11
shielded cable and the head is tiltable for nondirectional and directional pickup. C13720-Your Cost.
\$21.76

## Electro-Voice Cardyne

A new single head dynamic cardioid microphone employing the Mechanophase princuple. Output employing the Mechanophase principle, Output
level: -54 db . frequency response: $4 \jmath-8000 \mathrm{c} . \mathrm{p} .8$. level: -54 db . frequency response: $0 \downarrow-8000$ c.p.s.
substantially flat. Cardioid polar patern. Alnico substantially flat. Cardoid polar patern. Alnico
magnet material V. Satin chromium finish and magnet material V. Satin chromium finish and
equipped with 20 feet of mike cabe. Standard equipped with 20 feet of mike cabe. Standard " 8 "- 27 thread. High impedance.
C13718 Your Cost
$\$ 3234$

## Tlictro-Voice Microphones


(A) Model 630

A popular priced dynamic with excellent characteristics. Pure piston-acting diaphragm to eliminate spurious frequencies. Frequency response 40 to $10,000 \mathrm{cps}$. Out put level: -55 db . Tiltable. Built-in on-off switch. 20-ft. cable. Shpg, wt. 5 lbs. High impedance. This is an excellent microphone for recording and broadcast work or any type of service requiring a hish fidelity microphone. Chrome Finish C13505- \$19 ?
Cost Each

## (B) Model 605

Anewlow-cost dynamicthat provides excellent quality, appearance and durability, Frequency response 45 to 8,000 ciss., excellent for P.A. and recording. Output level: -57 db). Head has fixed tilt of $22^{\circ}$. Available in chromium or gunmetal finish. With 8 -ft. cable. High impedance. Shpg, wt. 5 lhs. Chrome Finish. C13785-
Your Cost 12.88 C13784 Cost C13784 With 20-ft. Cable
Your Your
Cost

## (C) Model 612

Frequency restwnse 40 to $9,000 \mathrm{cps}$. Output level: -56 dib. The head is tiltable through a $90^{\circ}$ arc. Convenient on-off switch. Cableconnector part of stand coupler not subject to strain when head is tilted. Available in chrome or gun-metal. 20 -ft. cable supplied. A high quality microphone with an excellent frequency response which makes it almost universal in application. Jligh impedance. Chrome Finish. \$1771
Chrome Finish. $\$ 1770$
C13787-Each
(D) MODEL V2

A wide-range high impedance velocity microphone that will provide long and trouble-free service with amazing accuracy of reproduction of both speech and music. No inductive hum pickup to within $18^{\circ}$ of a power supply. With rubber mounted shock absorber, $20^{\circ}$ cable and locking cradle. Response: $35-11.000 \mathrm{c}$.p.s sulsstantially flat. Output? -(i) db. Rich Brown Finish

## C13740-

Your
Cost..
(E) Model V-1

A real high-fidelity velocity microphone. Excellent for P.A., recording, ttc. Small in size, yet highly flexible in operation. Carefully engineered under rigidly supervised testing. Frequency response $40-16,000 \mathrm{cps}$. Output level: 65 db . May be tilted for ncn-directional use. Zero cavity resonance, reduced feedtack. On-off switch, 20-1t. cable. Satin Chrome Finish. Built-in transformer. Wt. 6 lbs. High impedance. $\$ 103 ?$ High impeda
C13722-Ea.
$\$ 19.32$


UNIDIRECTIONAL MICROPHONES

* Greater output without feedback
$\star$ Eliminates reverberations and background noises
$\star$ Permits closer placement of mike and speakers


## (A) Model 556 DYNAMIC

Super-Cardioid. Has the most unidirectional pattern in the limacon family. It is twice as unidirectional as the Cardioid, from the standpoint of receiving front sounds and rejecting rear sounds, yet has wide-angle front pick-up. This new pick-up pattern decreases pick-up of reverberation and random noise $73 \%$. "Ulitra" wide range frequency response from 40 to 10,000 cycles assures excellent reproduction. Moving coil unit is highly to 10,000 cycles assures excelient reproduction. Moving coil unit complete immune to mechanical vibration and
with 18 inch cable. Shpg. wt. 6 - Model 556 . Hi impedance
C13564-Model 5568. 200-250 ohms
C13568-Model 556A. 35-50 ohms. An

## (B) Model 730B "UNIPLEX" Uni-Directional Crystal

A true uni-directional mike-sensitive at the front, dead at the rear. Solves feedback, room and background noise and reverberation probems. Ideal for use in theatres, night clubs, restaurants, churches, etc. High quality-wide range response. Average front to rear discrimination about 15 db . Output level 63 db . below 1 volt per bar. Triple moisture-proofed Grafoil Bimorph crystal. Head diameter 3y\% , depth $33 / 8^{\circ}$. Fits standard $5 / 8^{\prime \prime}-27$ threaded stand. 25 ft . cable and connector. Shpg. wt. 4 lbs.
C13679—Model 730B.
Your Cost
\$21.87

## (C) Model 55 "UNIDYNE" Uni-Directional Dynamic

Famous Shure "Cardioid" Dynamic-dead at rear. The answer to many difficult installation. Eliminates feed-back problems and provides greater usable output. Response: $40-10,000$ c.p.s. Ideal for high quality broadcast. P.A. and Recording. High output: 55.5 db . below 1 volt per bar. Complete with Shure cable connector and 25 ft . cable. Case dimensions: $414^{\circ}$ high, $31 / 4^{\prime \prime}$ wide and $31 / 2^{\prime}$ deep. High impedance model with built-in transformer. Shpg, wt. 5 'bs
C13688-Model 55 C-High Impedance. EACH
\$31.87
C13672-Model 55A - Low Impedance. Same as 55C but 35-50 ohms impedance. Recommended where long lines are necessary. Cable length practically unlimited. Complete with 25 ft . cable. YOUR COST.
$\$ 30.25$ C13664-Model 55B. Same as 55A but for $200-250$ ohms. With $25-\mathrm{ft}$. cable.
\$31.87
C13673-Cable type transformer to match 55B or 55C to hi-imped. $\$ 7.70$


## MODEL S36A Desk Stand

Streamlined die-cast base with rubber feet for stable support at correct height. Takes Shure connector or any standard type mike, concealing plug in base. Others mount as shown in illustration. Ornamental button on front can be removed and a switch or volume control substituted. Adapter plate and tubing provided for other type microphones. Iridescent ray finish. Base $21^{\circ} \mathrm{H}, 5^{\circ} \mathrm{W}, 7^{\circ} \mathrm{L}$ Shog wt 21 bs 213602-(Less Mike)
YOUR COST
$\$ 2.56$

## Model S32D Desk Stand

Popular design and quality construction. Modernistic style beautifully finished in iridescent gray and pol ished metal. Height adjustable from 7 to 11". $6^{\circ}$ diameter base. Siandard $8 / 8{ }^{\prime \prime}-27$ thread for mike Wt. 4 lbs. (Less Mike)
C13643
YOUR COST
$\$ 4.82$

## MILITARY CARBON HAND MIKE

$\star$ Push-to-Talk Button
$\star$ Light-Compact-Sturdy
$\star$ For P.A. Communication Worle
$\star$ For Mobile Use


This type is widely used with Police Radio and other conmmications equipment. Designed to fit comfortanly in the palm of the hand with the thumb resting on the push-to-talk button. Light and compact yet very sturdy. Finished in blue-gray crackle with polished trim. Dimensions: $33 / /^{\prime \prime}$ high, $23 / 4^{\prime \prime}$ wide, $13 / /^{\prime \prime}$ thick. The frequency response has been designed to give clear distinct voice reproduction. Mike comes complete with suspension hook and bracket for wall mounting.
C13654-Model 105B. Mike switch normally open. No relay switch. -ft. shielded cable. Shpg. wt. 1 lb .
C13655-Model 101B. No mike switch. Two-wire relay switch normally open-close to talk. 4-ft. 4-conductor unshielded cable. Shpg. wt. 1 lb . C13656-Model 1028. Mike switch normally open. Relay switch normall

## COST, ANY TYPE

\$16.08
Model 250-B Crystal Hand Mike
Similar in appearance to the carbon hand mikes above but with crystal element. Excellent response and output level. Has push-to-talk mike switch and $7-1 \mathrm{t}$. shielded cable. Shpg. wt. 1 lb . C13649-Model 750B. Crystal Hand Mike. YOUR COST
\$16.08

(A) Model 708A Crystal Mike

Excellent, smooth, wide-range response. Output 49.7 db . below one volt per bar at end of 7 ft . cable. Bimorph crystal mechanically isolated. Convenient swivel. Diam. $2 \frac{1,2^{\prime}}{}$. Length $4^{7} 10^{\prime \prime}$. Satin-chrome die-cast case polished bars. Shpg. wt. 3 lbs. With 7 -ft. cable.
C13633-YOUR COST
\$12.55
C13634-Same with 18 ft . cable. Shpg. wt. 6 lbs. YOUR COST
$\$ 13.05$
(B) Model 707A Crystal Mike

General purpose mike. Die-cast case finished iridescent gray. Polished grille. Output- 49.7 db . Diam. 2\%/8". 7-ft. cable. C13630-Wt. 2 lbs.

## (B) Model 508C Dynamic Mike

Moving coil type with smooth wide-range response. Rugged, practically immune to heat and humidity. Output -63db. below one volt per bar. Hi -impedance. 18 ft. single shjelded single conductor cable and connector. For size and weight see 708A at top C13635-YOUR COST.
(C) Model $717 B$

Low priced hand mike for home recording and communication use. Tenite case. Mechanically isolated crystal. Output level -49.7 db Diam. $21^{\prime \prime}$, Height $6^{\prime \prime}$, Depth $11^{\prime \prime} .7-\mathrm{ft}$. cable. Wt. 2 lbs. $\$ \$ 4$,

## MODEL S34B Desk Stand

Handy low-cost combination hand and desk stand. One twist of handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base, wood handle. Metal top threaded $5^{\circ \prime}-27$. Height over all $6^{11}, 16^{\circ}$. Base diam. $41 / 2^{\prime \prime}$ Length of handle $57 /{ }^{\prime \prime}$. Shpg. wt. 1 lb . C13591 (Less Mike)
YOUR COST
1.29

## MODEL 76B Lapel Mike

Small ( $17 / 8^{\circ}$ diameter), light ( $11 / 2$ ozs.) and inconspicuous crystal mike with high output level. Clips to lapel by means of a spring clip. Iridescent gray finish. 25 feet of special flexible cable. Particularly designed for voice frequencies Excellent for lecturers, instructors, etc. becausc of the freedom it gives. Shipping wt. 1 lb . C13638
YOUR COST
$\$ 15.8 ?$


## AMPERITE Microphones


"PG" Pressure Gradient Dynamics (1) $\star$ Eliminates Feedback *Uni-Directional *Flat Response New superior elipsoid pickup patiern. Eliminates reedback trouble because it has lowest feedback point of all diaphragm type microphones. Frec from annoying peaks, giving studio cuality reproduction Range 40 to 11,000 c.p.s. Output level- 56 db . Station-type cable connector, built-in "on-off" switch. Case is designed according to modern acoustic principles with satin chromium finish. Rursed, not affected by temperature, altitude or humidity. Has unusually high out put.

C13610 PGII. Ijikh Impedance C13613-PGI. 200 Ohms
Your Cost, Either of Above
C13611-I PAH. As above, but 70 to 8000 c.p.s. 12 f ligh Impedance
Your Cost
C13607-Plastic Baffle for PG Microphone

Each 88c

## Velocity Microphones

(2) These models are considered the finest types of microphones available for P.A. work and are excellent for close talking, distant pickup speech, music, and for all applications requiring a high quality micro phone. Frequency range, 40 to 11,000 cps. Uutput, -65 db . Excellent also for studio or recording. Complete with switch, cable connector, and 25 feet of cable. The acoustic compensator permits the increase of the high frequencies by the mere flip of the finger. Simply push the knob up to increase high frequencies, and down to increase lows. Makes microphone adjustable for close talking or distant pickup. Chrome finish. Wt., 8 lbs. C13668-RB1iK. Hi-Impedance. C13669-RBMK. 200 Ohms.


## (3) Standard Models

Similar but range: $60-8000$ c.p.s. Output:- 68 db . 12 -ft. cable
C13598-RSHK. Hi-Impedance Your Cost $\$ 18: 82$
(4) This Type not Available


## KONTAK MIKES For Musicians

Faithfully reproduce the vlbrations of any musical instrument. They reproduce the entire audible range without introducing any been used by the I'hiladelphia Symphony Orchestra to re-enforce a been used by the Ihiladelphia Symphony Orchestra to re-enforce a mandoled solo. Increase timbre-create new enects. Avaiable, as thustrated at left above, without hand volume control and also with his control as illustrated at right. Model KR is a special hi-output model that will work on phono inputs of most amplifiers and radio receivers (built after 1935). Other models are for use on regular mike channels. All are high impedance (available in 200 ohms impedance on order only). Average shpg. wt. 4 lbs , each.

Models Without Volume Contrcl ( $1 \times 3 \times 1{ }^{\circ}$ )
Stock No. Model Range Level Cable EACH

$$
\begin{array}{llllll}
\text { C13675 } & \text { SKH } & 40-6000 & \text { c.p.s. } & -40 \mathrm{db} & 15-\mathrm{ft} . \\
\text { C13698 } & \text { KR } & 40-6000 \text { c.p.s. } & \text { Spec. } & 15.06 \\
& \text { Model } & \text { With Volume Control } & \left(3 \times 1 \times 5 / \mathbf{n}^{\circ}\right) & 7.06 \\
& &
\end{array}
$$

C13690 KKII $40-6000 \mathrm{c} . \mathrm{p} . \mathrm{s} . \quad-30 \mathrm{db} .25-\mathrm{ft} . \quad 10.58$
"KF" Foot Volume Contral
Provides smooth control of volume by loot action. For ams lugh impedance Kontak mike. Size: $9 \times 21 / 2 \times 2 \frac{1}{2}$. Supplied Shpg. wt. 4 lbs.
C13663-Your Cost Each
\$. 06

## Bridge Clamp

For guitars, mandolins and similar instruments, Simplifies installation of Kontak microphones on string instruments. Adjustable from to $11 /{ }^{\circ}$. C13686-Your Cost Each Strap for fiat top guitars. C13687-Your Cost

## LGP Input Transformer

Matches 50 or 200 ohms to hi-impedance input. Standard for clos 1alking microphones; laboratory for voice and music. \$3.53 C13609-Laboratory for voice and music. Your Cost Replacement Rlbbons (Not Shown) For use with Amperite Velocity Microphones RBIIK, RBMK, RSHK C13566-S a package

## Nmerican lunamic N:ticrophones



## Model D7T

A good quality moving-coil dynamic with a semicommunication type response suitable for general PA work. Compact-2x23/4. Output: -56 db (below IV. bar). Hi-impedance. Semi-directional. Equipped with $121 / 2 \mathrm{ft}$. cable. Fits $/ \mathrm{B}-27$ threarded stand. Wt. 3 lbs. C13486- Hi-Impedance C13487-200 ohms. Either Type, Each
514.55

## Model D9AT Unidirectional Mike

A pressure-velocity combination microphone with pickup only from the front, broad frequency response and high output plus the usual dynamic microphone qualities of ruggedness, immunity to weather conditions and ruggedness, immunity to age output approximately -5.1 db . Response age output approximate to 10,000 c.p.s. Size: $7 \times 23.2 \times 234^{\circ}$ deep. Sillin good to 10,000 c.p.s. Size: $7 \times 21,2 \times 23$ deep. Sill in chrome finish. $25-\mathrm{ft}$, shielded rubber covered
cable. Standard $58^{\prime \prime}-27$ thread. Equipped with cable. Standard 5/8"- 27 thread. Equipped with swivel and standard cord connector. Wt. 4 lbs. C13571-Ili-impedance.
C13572-200 ohms impedince $\$ \mathbf{2} \boldsymbol{2} \boldsymbol{2} 5$
Each............................

## Model RC Crystal Mike

Chrome and walnut finished Mike. With cable and spring prolector for cable at mike. Wide range, semi-directional. Output-52 db. Twopiece removable desk stand easily converted into hand mike. Mike can be mounted on floor stand. $5 / 8^{\circ}-27$ thread. Suitable for home-recording, PA etc. Wt. $11 / 2$ lbs.
C13477-Wit
Your Cost
$\$ 5.85$


## Model D220T

A unique moving-coil, wide range dynamic mike with two generators each with a specific frecuency with two generators each with a specific frec|uency
response. Combined outputs electrically and response. Combined outputs electrically and
acoustically coupled produce an ideal response acoustically coupled produce an ideal response
variable to three positions-high 150 to 10,100 c.p.s.) full ( 30 to above 10,000 (c.p.s.) and low ( 25 to 5000 c.p.s.). In the "full" position there is a broad crossover ( 150 . to 5000 c.p.s.) between yenerators. Output level -55 db . $51 / 2 \times 4 \times 2^{\prime \prime}$ Brushed chrome finish. 25-ft. cable. W't. 4 lbs . C13573-Hi-Impedance.
C13569-200 ohms.
\$38.22

## Model D4T

Fine response from 60 to 7500 cycles and a high output of - 56 db . feature this new model. Rugged yet light in weight (app. $101 / 2 \mathrm{oz}$.) $180^{\circ}$ vertical yet light in weight (app. $101 / 20$ oz.) $180^{\circ}$ vertical angular setting, and positive friction lock at the
swivel. Single contact shielded plug. $121 / 2 \mathrm{ft}$. swivel. Single contact
C13586-Hi-Impedance
C13587-200 ohms.
Either Type, Your Cost
\$12.93

## Model C6 Crystal Mike

Ias a crystal driving lever twice as efficient providing twice the output with equal sound pressure. Broader response-better bass. Output approx. - 18 db . Swivel head. 7 -ft. cable with connector at inike end. Range: $40-9000$ c.p.s. connector at inike end. Range: Diameter $2^{3} 8^{\circ}$. Standard $\delta^{\circ} \cdot 27$ thread. Wi. 2 lbs
C13580-With 7-ft. cable.
Your Cost


## CRYSTAL MICROPHONES

## (D) Model 34X Crystal

A semi-directional Crystal microphone with particularly smooth response. Crystal is moisture-proof. Mike has automatic barometric compensator, and is blast and mechanical shock-proofed. 50 -foot lines may be used. Equipped with a $90^{\circ}$ tilting head. Range: $30-10,000$ cycles
Level: 52 DB . With diagrams and 20 ft. removable cable set. Chrome type finish
C13767-Your Cost
\$17.05

## (B) Model 22X Crystal

Top performance in clean and sharp reproduction with a minimum of feed-back. Built-in windgag, automatic barometric compensator, and tharough impregnation against moisture adapt this excellent crystal mike for both indoor and outdoor operation. Has $90^{\circ}$ tilting head, 7 ft removable cable set and chrome type finish. Range, 30 put level, ${ }^{52} \mathbf{5 2 d 5}$. High Imp. C13750- Your Cost
\$11.76

## (E) Model BX Crystal

The new TURNER CMALLENGER model with shock proof crystal cartridge, barometric valve. moisture-sealed crystal, and windgay to
 C13764-
$\$ 6.38$
(E) Model CX Crystal

In heautiful chrome type finish. Complete with 7 -foot removable cable set using Amphenol connectors. Where the going is tough, and acoustic conditions practically impossible, this mike will do the job! Range $50-7,000$ cycles. Level: 55 DB .
C13765-Your Cost
\$9.55

## (A) Model 33X Crystal

Equipped with $90^{\circ}$ tilting head permitting semi-or non-directional operation, and high capacity crystal cartridge to permit the use of extra long cables. Wide range, $30-10,000 \mathrm{cps}$ with output level oi -52 db With 20 ft . detachable cable. High Impedance. C13753-Your Cost $\qquad$ s14.41

## TURNER Han-D Crystal or Dynamic Microphone



Has suspension hook for hanging mike applications, stage work and call systems. Can be mounted on any standard floor or desk stand. Positive contact slide switch permits on-C13759-9X Crystal with 7 - ft . cable-Level 48 DI . Range

C13760-9D Dynamic-Level-50DB cycles. With 7 -foot removable cable set Hl-impedance. Your Cost Each

## Lecturer's Microphoñe Neckstand

0For lecturers, demonstrators, teachers, etc. Fits comfortably around the neck and leaves hands free. Always perfect reproduction no matter which way the lecturer faces. Fits any Shipg. wt. C13451-Each
\$1.95


Mike Cable Clip
Nickel plated brass. Holds cable close to stand. 9 C11661-Each

SHURE Mike Switch Type A83A: For Shure cable, connector


ASTATIC
Grip-To-Talk Desk Stand
Has built-in switch to operate relay for "breakin" operation. Fits all Astatic mikes with 3 ; upright. Tele phone black base. Fine for X'mirs.
or P.A. systems. or P.A. systems
Shpg. wt. 3 lbs.
C13373-Your Cost

## Microphone Springs

$\qquad$ C13402-Set of 8 Made of fine mpered steel Your Cost

## Deluxe Floor Stand

One of the finest values we have ever offered in a floor stand. Base is of heavysteel spotwelded construction and the upright is heavily chrome finished. Features the friction clutchlocking device which prevents upright
from slipping. May be adjusted from a minimum of $36^{*}$ to $64^{\circ}$ a minimum Threaded $5 / 8=-27$ thread to fit practically all types to fit practically all types of microphones. B
wrinkle $11^{\prime \prime}$ dia. base. wrinkle $11 "$ dia. base.
Equipped with trianglespaced mounting feet.
Shpg. wt. 20 lbs.
C22050-Each..... $\$ 5.29$
$\square$

## DYNAMIC MICROPHONES

## (C) Model 99 Dynamic

This exceptionally rugged mike features efficiency and dependability at low cost. It is immune to temperature and climatic changes. It fits any
standard stand, and the adjustable saddle gives choice of semi- or nonstandard stand, and the adjustable saddle gives choice of semi- or nonGunmetal type finish. Level 59DB. Range 40-9,000 cycles. With 20-ft. cable set and diagrams. High-impedance. C13766-Your Cost
s19.99

## (E) Model CD Dymamic

These dynamic mikes give clear cut results on voice and music and are exceptionally rugged. Chrome type finish with 7 -ft. removable cable set. Level: 52 DB. Range: 50-7,000 cycles. Hi-impedance. The utmost in quality at the lowest possible cost ! C13763 Your Cost
s11.47

## (B) Model 22D Dynamic

Tops in performance at all frequencies within range. Smartly engineered design cuts feed back to a minimum. Dependable indoors and out. With smooth-response dynamic cartridge. Output level,-5 db. Range. $40-8,000 \mathrm{cps}$. With tilting head, $7-\mathrm{ft}$. cord set, and chrome type finish Hiph Impedance C13751-Your Cost
$\$ 14.99$
(A) Model 33D Dynamic

A rugged all purpose dynamic microphone with $90^{\circ}$ tilting head for semi or non-directional operation. Attractive Chrome type finish. $20-\mathrm{ft}$. detachable cable. Wide range, $40-10,000 \mathrm{cps}$. with -54 db . out put level High Impedance. C13752-Your Cost
$\$ 18.17$
NOTE-Models 33 and 22 are available on special order with built-in push-to-talk switch at an additional \$1.18.

## (C) Madel U9S Dynamic

A twist of the switch on the back of this professional dynamic will give you outputs of 50,200 , or 500 ohmis, or high impedance at an output evel of - 52 db . Smooth response from $40-9.000 \mathrm{cps}$. Has tilting head, c13754-Your Cost..... detachable cord set.

## Model 211 Broadcast

$\xrightarrow{4}$
A A unique diaphragm structure for extended frequency range provides low harmonic and phase distortion, and improved low frequency response without sacrificing high output. Has tilting head, $20-\mathrm{ft}$. detachable cable, and chrome type finish. Response, $30-10,000 \mathrm{cps}$. with output level of -56 db . below 1 volt per bar for high imp. model, and 25 milli-volt output for 10 bar sienal on 30.50 ohm mode.
C13755
High Imp. Each.
c13756-30-50 Ohms
$\$ 27.93$
\$26.46
Model MM Provides amplified volume from any stringed instru


## Carbon Granules

 Extra fine quality-not adulterated. Contains sufaduiterated. ontanssufficient granules 10 refil C13481 Cl3chEach


High Quality Floor Stand Adjustable smooth ly and noiselessly, and provided with wearever. sure-grip automatic friction locking the stand at any height. Has tubing of heary gauge metal, triple 27 thread to fit standard mikes. Extends from 35 to $68^{\prime \prime}$. $10^{\circ}$ dia.base with black crinkle weight 19 Shipping weight

## C22047-Each

$\$ 19$ lbs.


Saverur-Mike Cover Keeps dust. grit, moist ure and dampness out of your microphone. Reproduction $95 \%$ true. Eliminates 13150 wind how
C13450 - Your Cost
$59{ }^{c}$

## ELECTRO-VOICE 6" Desk Stand

This Electro-Voice desk stand is something starthingly new in appearance price. Its trim modernistic lines and beautiful satin chrome finish make desk mikes. Stand 6 " high, base 41/2" diameter. Universal type screw mounting accommodates all stan-
dard microphones. Shpg.
lbs.

1.59

# densen SPEAKERS 

JENSEN Type "J'" Coaxial Hi-Fi Speakers


Efficient dual speaker assemblies with cone type "tweeter", mounted in the cone assembly of the "woofer". Provide true high-fidelity response, and are ideally suited for FM and fine AM receivers, for hroadcast and recording monitoring, ctc. The $15^{\prime \prime}$ models incorporate a built-in two channel network providing high and low-pass channels with attenuation of $10-12$ db per octave; also furnished with four-position High Frequency Control Switch on a $36^{\prime}$ cable, ("roll-of control type network that affords good wide-range pertype net work that affords good wide-range oper-
formance; no range control switch with this model. formance; no range control switch with this model; enclosures listed below

## Model IAP-60. 15" Speaker

Professional type for FM-AM broadcast monitoring, transcription playback, reference standard for laboratories, etc. Range 50 to 1200015000 c.p.s. Efficiency 3 db higher than other $15^{\circ}$ models. Input impedance 500 ohms. Max input 14 C19007-Shpg. wt. 21 lhs. Your Cost
$\$ 49.22$

## Model JHP-52. 15" Speaker

For all general applications such as FM and AM receivers, fine phonographs, broadcast and recording monitoring, etc. Range 50 to $12000-$ 15000 c.p.s. Maximum input 12-14 watts. Input impedance 500 ohms Integral 2-channel network. With 4-position II.F. control Shpe, wt. 23 lbs.
\$34.81
Model JCP-40. 12"/ Speaker
Excellent modernizing unit to replace 12 ' speakers in radios and phonoradio combinations. Range 50 to $10000-12000$ c.p.s. Max. input $8-10$ watts. Input impiedance 6 ohms. Has simplified bridging type network no 1.F. control)
C19008-Shpg. wt. 16 lbs . Your Cost
\$20.73

## JENSEN "CA" Bass Reflex Enclosures



I Iandsomely designed and finished. Constructed throughout of genuine striped wainut. Excellent for Jensen coaxial speakers above, or for high-fidelity radio, phono or Public Address installations. Styled to go with practically any urrounding. Incorporate Bass Reflex principle; vide, $31{ }^{2}$ " high, $12^{*}$ deep. Shpg. wt. 47 lbs C18945 Your Cost $\$ 32.38$ Model CA-15: For 15 speakers. Size: 273 wide, $311 /{ }^{\prime \prime}$ high, $11^{\prime \prime}$ deep. Shp C18946-
\$38.14

## JENSEN Model BR Peri-Dynamic Enclosures With Bass Reflex


lmproved speaker housings providing finer reproduction than that offered by "Infinite" baifles. Incorporate both "Peri-Dynamic" and "Bass Reflex" features, insuring crisp, clear reproduction of all notes. Made solidly of 13 . plywood. Finished in double coat of rich brown ware furnished

Stock For Dimensions Wt. Your No. Speakers H. W. D. Lbs. Cost | C18994 | $8^{\prime \prime}$ | $24 \times 171 / 2 \times 1114^{\prime \prime}$ | 35 | $\$ 13.29$ |
| :--- | ---: | :--- | :--- | :--- | :--- |
| C18996 | $12^{\prime \prime}$ | $303 \times 23.4 \times 1238^{\prime \prime}$ | 47 | 18.61 |
| C18998 | $15^{\prime \prime}$ | $331 / 25 \times 135$ | 60 | 21.79 |

JENSEN MT8-C High-Fidelity Reproducer
Comprises a high quality $8^{\circ}{ }^{\prime} \mathrm{M}$ speaker housed in a BR enclosure (as shown above). Mandles 6 watts continuously. Recommended for all applications where substantially flat response is required from about 50 to 10,000 c.p.s. Ideal for broadcast work, auditoriums, for fine radio receivers, etc. Voice coil impedance 6 ohms. Enclosure has Bass Reflex fenture; constructed of plywood with brown lacquer finish. Size: $171 / 2 \times 24 \times 111$.
Shpg. wt. 40 ibs.
Chpq. wt. 40 lbs.
\$24.31
C18948 - 8" PM Speaker only ('M8C' $)$. Your Cost.
C18949-8' Dynamic (G81'1). 2500 ohm field. Your Cost.

## 9 -Watt Model MT-12C

Like the above, but for usc where greater power handling capacity is required. Has $12^{\prime \prime} \mathrm{PM}$ speaker and handles 9 watts continuously. In MT-121 enclosure, $300_{4}^{3} \times 233 \times 12 \frac{3}{8}$. Shpg. wt. 53 ibs. C19001-Enclosure with $12^{\prime \prime} \mathrm{I}^{3} \mathrm{M}$ Speaker Your Cost Complete
\$34.10
C19000 $12^{\prime}$ PM Speaker only (PM12CT). Your Cost C19006-12' Dynamic (G121र「). 2500 Ohm field. Your Cost. .. \$8.79

## C19177- Matches voransformers For Above

C19181-Universal Line ( $500 / 1000 / 1500 / 2000$ ohms). Each
C19183-Universal Tube (any tube, single or p.p.). Each

## JENSEN PM \& Field Coil Dynamic

## Concert Speakers

 A serics of heavy-duty highly efficien phonographs and public address equip ment. All are designed so that they may be used in Jensen BASS REFLEX enclosures and cabinets. Field coil models have hum bucking coils. All models less output transformer. A complete listing of suitable transformers will be found below. F'requency response range of all models meets the accepted standard for high fidelity performance

## Permanent Magnet Types

| No. | Moriel | Size | Watts | V.C. | Shpg. Wt. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C19076 | PM8-C | $8{ }^{\prime \prime}$ | 8 | 6 ohms | 4 lbs . | \$ 7.73 |
| C19088 | 13M10-C | $10^{\prime \prime}$ | 9 | 6 ohms | 5 libs. | 9.47 |
| C19092 | $1{ }^{1}$ M 12-C | 12' | 10 | 6 ohms | 7 lbs . | 10.88 |
| C19071 | 1PM12-H | $12^{\prime \prime}$ | 12 | 8 ohms | 9 lbs. | 16.52 |
| C19069 | A12-PM | $12^{\prime \prime}$ | 15 | 8 ohms | 16 lhs. | 28.80 |


| Field Coil Types |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Model | Size | Cap. | Field | V.C. | Slipg. | Your |
| No. | No. | In. | Watts | Ohms | Imp. | Wit. | ICost |
| C19068 | A-12 | $12^{\prime \prime}$ | 15 | 840 | 8 ohms | 18 .bs. | \$17.58 |
| C19070 | A-12 | 12* | 15 | 2500 | 8 ohms | 18 ins. | 17.58 |
| C19072 | B12-X | 12* | 14 | 1250 | 8 ohms | 16 ibs. | 14.41 |
| C19074 | B12-X | $12^{\prime \prime}$ | 1.4 | 2500 | 8 ohms | 16 lbs . | 14.41 |

$8^{\prime \prime}, 10^{\prime \prime}$ and 12"' Standard Dynamics Models "c"
ligh quality dynamics ideally suited for radio receivers, P. A. work, etc. Employ heavy field pots, $114^{\prime \prime}$ voice coils and hum bucking coils. VC impedance 8 ohms at 400 c.p.s. 8 models have power capacity of 6 watts, $10^{\circ}$ models- 8 watts. $12^{\prime \prime}$ (See listing below)

| Stock No. | Model | Field Res. | Shpg wt. | Your Cost |
| :---: | :---: | :---: | :---: | :---: |
| C18988 | C8-RS (8) | 2500 ohms | 6 lbs. |  |
| C18990 | C10-RS (10) | 2500 ohms | 7 lbs.! |  |
| C18991 | C10-RS (10*) | 1250 ohms | 7 lbs. ${ }^{\text {a }}$ |  |
| C18992 | C12-R (12') | 2500 ohms | 9 lbs. |  |
| C18993 | C12-R (12') | 1250 ohms | 9 lbs.$\}$ | Y - - |

## JENSEN STANDARD SPEAKERS



Dynamics Standard
Replace-
ments. All
less output
transformers
(see listing
underSeries
"S" PM).
excepting
No. C1897f
which in.
cludesa 4500
ohm transforme- to match 43 , etc. No. Model Size Ohms Each C18956 H4-S C18957 H4-s 18957 H4C18958 H15-S C18978 H5-S 18977 H 5 S C18979 H5-s C18980 H6-S C18981 H6-S

| 4" | 450 |
| :--- | :--- |
| $4^{\prime \prime}$ | 3000 |
| 5 | 450 |
| $5^{\prime \prime}$ | 2750 |
| 5 | $=3000$ |
| 5 | 6 volt |
| $6 " .2750$ |  |
| $6^{\prime \prime}$ | 1800 tap- |
| ped at |  |
| 300 |  | ped at

C18982 H6-s
C18983 FS-RS
6. 6 vo

C18984 F8-RS $8^{\circ} 100$
C18959 l'8-RS
8. 1800 ta
$\$ 3.29$ ped
300
C18985 G10-RS $10^{*}, 2500 \quad \$ 5.79$
$\begin{array}{llll}\text { C18928 G12-12N } & 12^{\prime \prime} & 1250 & \$ 7.14\end{array}$
18987 G12-RS 12.1250

## Universal Matching Transformers

Match Jensen speakers to any output tubes, single or push-pull, or to universal line ( $500,1000,1500$, and 2060 ohms). Shpg. wt. 4 liss.
 C19025 1

Sexies "S" PM Speakers Rugged
compact speakers. speaker voice coils impedance cycles; $10^{\circ \prime}$ speakersare
6 ohersas


Less output transformer.

| Stock | Model | Your |
| :---: | :---: | :---: |
| No. | \$o. | Cost |
| C18960 | PM4-FS, 4 * | \$2.41 |
| C18968 | PM5-FS, $5^{\text {, }}$ | 2.44 |
| C18969 | PM6-ES, ${ }^{\text {² }}$ | 3.09 |
| C18970 | PM8-DS $8^{\prime \prime}$ | 4.41 |
| C18971 | PM10-GS, 10 * | 6.17 |
| C18972 | PM12-GS, 12* | 7.73 |

Universal Output Transformers For Series "S" Spenkers No. Type For Eech C18973 Line PM \& H 4, 5, 6, 5 97C C18975 Line PM8 DS, FS ${ }^{\text {Cl }}$ \$1.53 C18976 Tube PM8 DS, FS 1.35
NOTE: $10^{\prime \prime}$ and $12^{\prime \prime}$ speakers use transformers listed below.
use transformers Iisted below.

C19025 Lniv. Tube A12, B12X, PM12H $\quad \$ 2.82$
C18964 Lniv. Line C8-R, C10-RS, C12-R, PAH-8, FAB-s $\} \quad \$ 2.09$

C18967 Einiv. Tube PM10-GS,G10-RS.
N?F. We can supply any Jensen item not listed here. Send tion or write for particulars.

# QOSPEAKER UNIITS-PROJ ECTORS 

## JENSEN Hypex Projectors

Especially suitable for speech reproduction and commercially ac ceptable music reproduction. Sturdy steel encased unit, plus reflex horn construction insures dependable operation under all weather conditions. Finished in durable baked twotone gray lacquer. Increased efficiency in the region above acoust ic cut-off.
Type H-20. Horn only. Bell diam. $203 \mathrm{a}^{\circ}$ Dept, $163^{\circ}$. Acoustical length, 4 ft . Nominal acoustic cut-off, 165 cps. Stand coupling lange ta
C18926-Your Cost
s20.02
Type H24. Horn only. Bell diam., 243/4. Depth, $2018^{\prime \prime}$. Acoustical length, 5 ft . Nominal acoustic cut-off, 140 cps . lbs. C18927-Your Cost
s24.61

## Stands and Supports

Adjustable Stand. Sturdy cast fitting with three-lex base, for mount ing projector on wall or other surface. Horizontal and vertical ad justment.
C18924-Your Cost
$\$ 3.50$
Adjustable Support. Provides adjustment when projector on pipe mast. $3 / 2$ pipe thread on both ends.
$\$ 2.82$
Jensen Type "U" Annular Driver Units
 $\mathrm{U}-20, \mathrm{PM}$ type. Rated at 15 W . average, 25 W . max Normal voice or music input. 1

16 ohm $V$ Depth $3^{7} \mathbf{y}^{\circ}$. Wt. 11 lbs C18919-Your Cost
$\$ 25.31$ UF-20-Field Coil type. 1250 ohns. Normal excita${ }^{\text {Lion. }} 91820-$ Your Cost
25.31 Your Cost
Same as a st

25.31 C18921-Your Cost \$25.31 Fixed Impedance Tr | directly on speaker |
| :---: |
| C18922 |
| 500 |
| to | C18923-500 to 8 or 16 ohms. $1 / 4^{2} \times 1 / 4^{\circ}$

Each \$3.41

## JENSEN S-81 Pexi-Dynamic Projector



All steel. Speaker enclosure is sealed to the weatherproof a neoprene gasket. Entirely $2412^{\circ}$. Shpg. wt. 23 lbs Less Stand C19045-
$\$ 2980$
PAH-8 PM SPEAKER: Handles 15 to 25 watts. Has heavy magnet, $7^{\prime \prime}$ diaphragm and $11 / 6$ voice coil. Range 110 to 5.500 c.p.s. Especially ine midde register. Less trans-
former. Shpg. wt. 8 lbs. $\$ 1$. FAB-8 DYNAMIC SPEAKER: Like above, but field coil type. Field resistance 1250 ohms. Requires 10 watts excitation. $\$ 14$ Projector with PM Speaker. Less stand. SPH-81. \$45 C19004-Shpg. wt. 30 lbs. Your Cost
Projector with Dynamic Speaker. SFB-81 C18932-Less Stand. Wt. 32 lbs. Your Cost C19005-EA-5 Stand only. Adjustable. Wt. 6 lbs Each 5 . C19041-Waterproof cover for proj, bell (ST-570) Each.

## JENSEN

"Speech-Master"


AP-10: Desk
ypeaker $\mathbf{P} \mathbf{M}$ ploys PeriDynamic principle. For desk or wall mtg. Has"tilt" adjustment and sturdy proof. fully enclosed. Internal bracket for $1 / 2 x$ 1/2" transformer. Ht. $6^{8 /} 4^{\prime \prime}$; dia. $5^{\prime \prime}$. d. $5^{\circ}$. With $36^{\circ}$ cord. Gray finish, satin chrome trim. 4 ohm volce coil. Wt. 6 lbs . $\$ 7757$ AP-11: As above, less base and swivel bracket. Mounts in $4^{2774}$ C18930-Each
$\$ 6.23$

## UNIVERSITY

"Baby Bull" Projector


A dual-driver 50-watt unit ideal for alarm, stadium applications, ball parks, dance halls, etc. Su-per-power cov-
es and overcomes ers long distances and overcomes high background noise. Dual acoustic assembly uses lerme be low. Overall length $27^{\prime \prime}$; bell dia 31". With universal type "U" bracket. Heavy metal. Shpg. wit 25 1bs.
C24018-Less both driver units Your
Cost
$\$ 34.99$

## Car-Top Horn Carrier

Consists of a waterproof varnished plywood platform with sturdy angle irons secured to four suction cups. Doubly secured by straps that anchor to the drip rail over the doors For all steel cartops or for steel tops with fabric center pin to $411 / 2$ wide. Easy to install. $8 \times 461 / 2^{\prime \prime}$. Shpg. wt. 8 Ibs. C20028-Your Cost

## UNIVERSITY Ref: ex Projectors

## With "Rubber Tire" Rims

Iligh efficiency exponential air column typ projectors with heavy-gauge all-metal spun horns. Ultra compact and easy to install. Incorporate design features that insure superior acoustic results. Non-resonant rubber rims with each unit. Easily handle 25 watts of audio power. All furnished complete with universal " $U$ " type mounting bracket. Finished in battleship grey. All are $100 \%$ water-proof-suitable for outdoor use. Less driver units (listed below)


| Stock | Model | Bell | Length | C.P.S. | Shpg. | Your |
| ---: | :---: | :---: | :---: | :---: | :---: | ---: |
| No. | No. | Dia. | In. | Cutoff | Wt. | Cost |
| C20049 | PH | $20^{\prime \prime}$ | $16^{\prime \prime}$ | 140 | 10 lhs | $\$ 16.17$ |
| C20047 | LH | $25^{\prime \prime}$ | $21^{\prime \prime}$ | 115 | 15 lbs | 26.17 |
| C20046 | SMH | $15^{\prime \prime}$ | $12^{\prime \prime}$ | 180 | 61 bs. | 12.05 |

## UNIVERSITY Driver Units

Built to the most exacting standards of precision engineering. All employ Alnico magnets to insure peak efficiency. Other features include: rim centering for perfect alignment and greater efficiency; brcakdown proof diaphragm suspension; heat dissipating voice coil; sealed diaphragm construction makes the balance of the unit waterproof. All have standard thread to fit all standard
 projectors

| Stock | Model | Cap. | V.C. | Range | Shpg. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| No. | No. | Watts | Impled. | C.P.S. | Wt. | Cost |
| C21301 | SAH | 25 | 15 ohms | $100-6000$ | 5 lbs. | $\$ 21.76$ |
| C21302* | PAH | 25 | 15 ohms | $100-6000$ | 9 lbs. | 31.16 |

## UNIVERSITY IB-8 "Booster" Speaker



Compact intercommunicator "booster" speaker having extremely high projecting power due to very high reflex efficiency. Clear sound output overcomes industrial factory background noises. "Booster" effe" of speaker gives same results as added "booster" amplifiers. Impedance 8 ohms; power cal acity 12 watts. Bell $716^{\circ}$ dia., depth $712^{\circ}$. sh

s17.64 above, that has a power capacity


## UNIVERSITY $360^{\circ}$ Radial Projectors

"Infinite Baffle" sealed acoustic chamber is responsible for the added bass response afforded; cone is properly loaded. Give uniform coverage in all horizontal directions ( $360^{\circ}$ ). Easily mounted; single point suspension. Projection angle is about $15^{\circ}$ down for most effective sound placement. Other features: All Metal weatherproof construction; "rubber tire" rims: "floating rubber" cone mounting; back pressure

| No. | Model | Cone | Diam. | Height | Weight | Each |
| :--- | :--- | :---: | :---: | :---: | :---: | ---: |
| C2401S | RBP8 | $8^{\circ}$ | $17^{\circ}$ | $8^{\circ}$ | 9 lbs. | $\$ 21.52$ |
| C24017 | RBP12 | $12^{\circ}$ | $26^{\circ}$ | $10^{\circ}$ | 19 lbs. | 17.29 |



## KAINER

## Chandelier Baffle

## For Uniform Coverage

Designed to replace multiple wall speaker installations where desirable. Ideal for Restaurants, Clubs, Cabarets and Dance sound close to the performers is where the necessily of projecting ceiling heights above 12 ft Suspended from ceiling with link chain or sash cord-easy to install. Accommodates any heavy duty $12^{\circ}$ P.M. sash cord-easy to install. Accommodates any heavy duty 12 P.M.
speaker. Constructed of spun steel alloy and finished in a beautiful speaker. Constructed of spun steel alloy and finished in a beautiful
high lustre, baked-on, art enamel. Diam. $32^{\circ}$. Height 17. Shpg. wt. ${ }_{2}{ }^{2} 9 \mathrm{lbs}$ lus C20088 er.
$\$ 20.02$

## Kainer De Luxe All-Steel Projector

Constructed of heavy spun steel alloy and will accommodate all types of $12^{\prime}$ speakers with or without transformers. Rear housing has back pressure release. Overall length, $20^{\circ}$; bell, opening. Finished in baked art metal grey. The fixture to which the lower bracket or extensioncan be attached is welded to the baffle. Fixture is tapped to fit standard $1 / /^{\circ}$ pipe. Base has a tilting dog-toothed adjustment, with swivel and lock nut. Sh C20077-J-12
$\$ 10.00$


C20078-Bracket with base only. Your Cost.

## COCONCORDRphacementSPEAKERS <br> \section*{CONCORD Dynamic Speakers}



QUAM Alnico V PM Speakers Utilizes the new Alnico V magnet-recent development providing maximum pertormance with minimum weight. Widely
used for AC - $) \mathrm{C}$ radios, record players, inter office and auto receivers. High conversion factor. 3.2 ohm V.C. Less Irans $4^{*}$ sq. $5^{* \prime}$ and $6^{*}$ round.


Stork No Dia



## QUAM 4x6 Oval Speakers

Available in both dynamic and PM types, these highly eflicient R M A Standard $4 \times 6$ speakers are for general replacement purposec. Depth $21 \%^{*}, 3.2$ ohm V.C. Less Transformer. Your | Alnico V Cost | Cost | Cohm Field |
| :--- | :--- | :--- |
| C19300-Each | $\$ 2.47$ | Cost | C19300—Each $\$ 2.47$ C19303-Each.... $\$ 2.62$

## CONCORD PM Speakers

High quality permanent magnet all-purpose speakers Each matches in sensitivity a comparable field coil type. Have high permeability magnets; one piece seamless cones; plated metal frames. Voice coil impedance 3.2 ohms up to $8^{*}$ size. $8^{*}$. $10^{\prime \prime}$ and $12^{\prime \prime} 6-8$ ohms All supplied less output transformer.

| Stock | İiam | V.C | Wattage | Depth |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | eter | Dia. | Nor.-Peak | In | W | Cost |
| C19155 | 2 " | ${ }^{15}$ | 2 | 121 | 11 b | \$1.55 |
| C19268 | 3.2 | $8 / 8{ }^{\circ}$ | $2^{1 / 2}$ | 21/8* | 2 libs. | 2.37 |
| C19269 | 5 |  | 3 41/2 | $2^{19} 9{ }^{\text {¢ }}$ " | 3 lhs. | 2.44 |
| C19270 | 6 |  | 46 | $2^{13}$ | 3 lbs. | 2.99 |
| $C 19271$ | 8 |  | 58 | $3^{19}$ | 4 lbs . | 3.64 |
| C19290 | $10^{*}$ | 1 " | 810 | $615 \%$ | 6 lbs | 5.24 |
| C19272 | $12^{*}$ | $1{ }^{\text {" }}$ | $9 \quad 12$ | 6? 16 | 7 lbs . | 6.40 |
| Universal Tube Transformers for Above <br> C1530-For $3112^{*}, 5^{*}$ and $6^{*}$ models. Your Cost <br> C5667 For 8 " model. Your Cost <br> C1535- For $10^{\boldsymbol{n}}$ and $12^{\boldsymbol{n}}$ models. Your Cost. ......................... 1.13 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |



## CONCORD

## 12"/ PM Dynamics

These highly efficient P M speakers utilize the latest type magnets to insure extremely fine quality. Will handle great audio output without distortion. Frequency response covers the entire audible range. Construction features include: plated metal frames, ruggedly assembled; dust -proof magnets covered by removable pressed fibre housings. Ideal for P.A. Systems, fine radios, centralized systems, etc. Less transformers.
Normal Peak

| No. | M | Watts | Watts | Voice Coil | Magnet | Shpg. ${ }_{\text {L }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19222 | Pl2 | 10 | 15 | $6-8$ ohms l" | 12 oz . | 7 lbs . |  |
| 19227 | P12F | 13 | 20 | $6-8$ ohms I* | 20 oz | 9 lbs | 1 |
| C19228 | P12F | 16 | 2.4 | $6-8$ ohms 11 | 31 oz | 11 lb | 10.9 |
| 19224 | 112C: | 18 | 26 | $6-8$ ohms 1 | 460 | 13 lbs | 15. |

## UNIVERSAL Line and Tube Transformers

For use with Concord and other speakers. Universal tube transformere match voice coil to any tube, single or push pull: universal ine transformers match voice coil to $500,1000,1500$, or 2000 ohm line. Average Shpg. wt. cach 2 lbs.

For Syeaker
P12, P12E
P12F, P12G
Univ. LIne Univ. Tube Each
C19190
C19194
$\$ 1.22$ $\begin{array}{lll}\text { C19190 } & \text { C19194 } & \$ 1.22 \\ \text { C19191 } & \text { C19195 } & \mathbf{1 . 5 9}\end{array}$

## A quality line of speakers for general replacement

 purposes. Also good for light public address work. They have a practically flat response, when properly baffed, covering from 100 to 4500 c.p.s. Formed one-piece cones. Models with universal tube matching transformers will match any single or push-pull output tubes. Connection chart included $31 / 2^{*}$ and $4^{*}$ Diameter Models For call systems, hearing aids and midget radios. Less transformer. Shpg. wt. 3 Ibs $31,2^{*}$ No. $4^{n}$ No. Field C19279 C19115 450 ohms C19265 C19116 2750 ohms C1530-Universal tube matco former for any of the above models
## $5^{-}$Diameter Models

All Iess transformers. Average wit. 3 lbs Stock No. Field Stock No. Field C19263-3000 ohms C19264-1800 tapped at 300 ohms. Special Transformers for $5^{*}$ Models Stock No. Impedance For Tubes
C19286
2,000 ohms $\begin{array}{lll}\text { C19286 } & 2,000 \text { ohms } & 25 B 6,25 L 6 \text {, etc }\end{array}$ C19288 10,000 ohms $41,6 \mathrm{C} 6 \mathrm{G}, 6 \mathrm{~A} 4-1, \mathrm{~A}$ Your Cost Each
$57^{\text {c }}$
6* Diameter Models
All equipped with universal tube matching transformers. Average shpg, wt. 4 lbs . Stock No. Field Resistance
C19122
C19165 ohms (for auto sets)
1000 ohms Each $\left.\begin{array}{c}\text { C19165 } \\ \text { C19109 } \\ \text { C19166 } \\ \text { ohms tapped at } 300 \\ 2500 \text { ohms }\end{array}\right\} \$ 2.76$

## 8* Diameter Models

All equipped with universal tube matching transformers. Shpg. wt. each 6 lbs. Stock No. Field Resistance
C19307
1000 ohms $\quad$ Each $\left.\begin{array}{l}\text { C19283 } \\ \text { C19292 } \\ \text { C1800 ohms tapped at } \\ 2500 \text { ohms }\end{array}\right\} \$ 3.83$

## 10. Diameter Models

All equipped with universal tube matching translormers. Shpg. wt. each 7 lbs . Stock No. Field Resistance C19284 1000 ohms ।
$\$ 5-21$

## 12. Dlameter Models

All equipped with universal tube matching transformers. Shpg, wt. each 9 lbs. Stock No. Field Resistance $\left.\begin{array}{ll}\text { C19294 } \\ \text { C19295 } & 2500 \text { ohms } \\ 2500\end{array}\right\}$

## CONCORD Dynamic Auto Speakers



High quality speakers that are exact replacements for over $90 \%$
of the units in use today. Feature of the units in use today. Feature excellent quality of reproduction and correct design. All have 3 ohm vorce coils and 4 ohm trelds. mountiness transformer and jack terminals. One side of field yrounded to frame. Modelsmarked
 with asterask ( $\left(^{*}\right.$ ) are also drilled and tapped for $1 /{ }^{*}$ No. 20 mtg , bolt.





## Walnut Paging Baffle

 Frieze krille dioth. 11 high, $10^{*}$ wide, 61/2 deep at trp and 3,4
tom. Shps. wt. C21326-
Your Cost
\$2 5

## amaABAAAAA KFor additional portable Camplifier and speaker दcarrying cases see pages 9 <and 20 . $\nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla \nabla$

CONCORD Wall Baffles Efficient
enclosed speaker baffles with cor
rectly angled

## facesto

provide
 coverage
over a wide area. Sturdily built of selected hardwood. Brown leatherette covered. Average No. ISpk. H. W. D. Ea. C20060 $\mathrm{h}^{*} 8 \times 7 \times 1 / \$ 1.59$ $\begin{array}{llllll}C 20042 & 8^{-} & 10^{3} \times 9 & \times 6 & 2.14\end{array}$ $\begin{array}{lllllll}C 20055 & 10^{-} & 14 \times 12 \times 8: 3.23\end{array}$


# (3) Carron SPEAKER REPIACFMFNTS 

## 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 No. | Carron No. | Model No. |
| :---: | :---: | :---: |
| 4'Speaker Cones |  |  |
| C19365 | 1623 | Belmont 510 |
| C19563 | 1562 | Emerson AX211, 4X5 |
| C19606 | 1564 | Emerson CT275, 6J5, 368U |
| C19366 | 1553 | Gen. Elec. H508 |
| C19372 | 1555 | Oxford (Fada 105-134B, RCA 9TX3) |
| C19367 | 1528 | Quam.-Nichols (paper Spider) |
| C19368 | 1614 | Utah 4A100 |
| C19369 | 1616 | Utah 4A106A |
| C19370 | 1619 | Zenith 49AG385 |
| C19371 | 1620 | Zenith 49U334 |
| Your Cost, Each. . . . . . . . . . . . . . . |  |  |

## $5^{*}$ Speaker Cones

C19411 1417 Airline 62-475, Arvin 18
C19553 1450 Airline 62-518, Crosley A157 C19437 1415 Airline 62-236, Belmont 666 C19438 1473 Airline 62-274, Belmont 425 C19439 1322 Ariston A (Detrola 140)
C19440 1286 Belmont 580, Emerson 250W C19441 1626 Chevrolet 985538 (Spkr. 41045) C19442 1491 Chevrolet 985425
$\begin{array}{llll}\text { C19442 } & 1491 & \text { Chevrolet } 985425 \\ \text { C19443 } & 1634 & \text { Chevrolet } 985538 \text { (Spkr. 42391) }\end{array}$ C19443 1634 Chevrolet 985538
C19445 1373 Crosley 516
C19446 1589 Crosley $719 \mathrm{E}, \mathrm{C}$-648-A
C19448 1369 Delco 631A, 640, Crosley 515
C19543 1489 Emerson A130, A132, A148, 149 C19449 1319 Emerson 107, 111
C19454 1505 Emerson BA199, BA201, BM-
C19462 1584 Emerson D-L-330
C19578 10.43 Jensen T3 (Crosley 175, 343)
C19463 1507 Jensen PM5DS, H5S
C19464 1353 Oxford 5A (Detrola 4F 4J etc)
C19465 1198 Ouam-Nichols (Aetna 4154W) C19466 1387 Quam-Nichols (Air King 260) Your Cost, Each .................. 810

## 6' Speaker Cones

C19525 1020 Admiral 5N, 6M, 6B, 6A, 5A C19558 1204 Airline 62-177, 62-173, Arvin $C 195581204$ Airi
C19467 1325 Bosch 505, 430J, 430
C19468 1590 Cadillac C-8-53,-52,-56
:19513 1211 Crosley 159, 634, 656, 716 C 196971379 G.E. A53, E62, A63, U70 C19469 1627 Jensen G6RS
C19470 1400 Jensen PM6C, G6R
C19607 1571 Jensen l'M6GS
C19576 1285 Jensen F6R (Belmont 777) C19471 1606 Motorola 28D
C19640 1081 Rola F5
C19472 1281 Rola DP5B (Colonial R11553) c19473 1581 Utah 6B103
Your Cost, Each

## 7 © Speaker Cones

C19474 1583 Chevrolet 985-536
C19626 1067 Majestic G10B, G10C, 151 C19475 1604 Motorola 500, 298, 258
C19476 1643 Motorola 450-Spls. No. 50B-
C19484 1605 Motorola 400-Spkr. No. 50B-
C19648 108318005
Rola F6, F8 Your Cost, Each
s.1.14

## $8^{\prime \prime}$ Speaker Cones

C19689 1347 Chevrolet 985301 (Rola) C19548 125 G Grunow 650, 651, 661, 8A4 C19612 1.111 Jensen G8R, PMI8C C19506 1200 Magnavox 154D, 48C, 158 C19485 1548 Jensen PM8DS, PM8GS
Your Cost, Each
$\$ 1.46$
$10^{\circ}$ Speaker Cones
C19501 1000 Atwater-Kent No. 15142, 55
C19782 1001 Atwater-Kent No. 14374, C19507 1367 At.-Kent No. 26243-711, 112 C19532 1060 Majestic G3, 90, 91, 101

Your Cost, Each
$\$ 1,46$

## $12^{\prime}$ Speaker Cones

C19509 1256 Grunow 901, 902, 1101, 15
C19510 1035 Jensen D7, D8 ( $111 / 1^{\prime \prime}$ )
C19512 1633 Jensen PM12GS
$\begin{array}{llll}\text { C19512 } & 1603 & \text { Jensen PM12GS } \\ \text { C19701 } & 1384 & \text { Jensen PM12C }\end{array}$

Stock Carron
No.
No. No. Model No. 19' Speaker Cones-Continued $\begin{array}{llll}\text { C196415 } & 1366 \text { Magnavox 132, } 162 \text { (Zenith }\end{array}$ 862)

C19514 1390 Masnavox 302
C19533 1062 Majestic G5, 131, 132
C19518 1611 Oxford 12AMP,12MS1,12MS2 C19588 1315 Rola G1
C19520 1642 Utah 12PG17A, 12J43-B
C19521 1664 Utah G-12-P, 12PH15-C
$\begin{array}{lll}\text { C19522 } & 1483 & \text { Utah GT13, F12P } \\ \text { C19523 } & 1457 & \text { Utah 1220, CU29 }\end{array}$
C19527 1316 Zenith 862, 1162, 811, 812 C19574 1099 Zenith Pt. No. 49-27, 50, 52, 70
Your Cost, Each

## For Philco Sets

C19534 $1542{ }^{4}$ THeaker (Pt. No. 36-1469) C19538 1587 TP4, TP12, PT25
Your Cost, Each.............. $5^{5}$ Speaker Cones
C19682 $1244 \quad$ 54, 57 (Pt. No. 36-3029) $\begin{array}{lll}\text { C19552 } & 1203 & 5,5 \mathrm{~T} \text { (Auto) (Pt. No. 02861) }\end{array}$ C19703 1343 FT9 (Ford) 816 (Pt. No. 36C19515 1529 3526)
Your Cost, Each
$6^{\prime}$ Speaker Cones
C19549 1500 C1608 (Chrysler)
C19550 1455 F1540 (Ford), (Pt. No 45-
Your Cost, Each.
$6^{4}$
C19516 $1557^{7 \prime} \quad$ Speaker Cones
C19516 1557 1708, F194D
$\begin{array}{lll}\text { C19681 } & 1246 & 34 \mathrm{~B}, \mathrm{~L} \\ \mathrm{C} 19528 & 1467 & \text { (Pt. No. 36-3157) }\end{array}$
$\begin{array}{llll}C 19528 & 1467 & 37-38 B, F \\ C 19671 & 1215 & 6,7,8,9,10 \text { (Pt. No. 36-3546) }\end{array}$

$8^{\circ}$ Speaker Cones
C19547 1079 20, 21 (Pt. No. 02625)
Your Cost... $10 \circ$ Speaker Cones
C19529 1248 16B, 14LZX (Pt. No. 02625) C19400 1078 87, 40,41, 65 (Pt. No. 36-3170) Your Cost,
-
C19551 $1539^{12}$ Speaker Cones Your Cost.

5146

## For RCA Sets

$C 194061236$ R28, 300,301 , 100 (Pt. No. C19554 1091 M34, M105 (Pt. No. 9023) C19486 1599 RCA 94BT, 94BT6, 95T, 95T1 Your Cost, Each

6" Speaker Cones
C19410 1225 R37, R38, R38P (Pt. No. 9428) Your Cost.
C19405 1124 R32, 52, RE45, E35 (Pt. No. Your Cost
10' Speaker Cones Your Cost...No. 8558 ) 50,80 , RE20 (1
C19556 $1517^{12} 91$ Speaker Cones Your Cost
$\$ 1.29$


## SPEAKER REPAIR SERVICE

Send in your old speaker for recondtioning. Our speaker engineers will replace entire con with a new one-piece genuine CARRON seam less cone, align voice coil and eliminate dust particles and other causes of noisy reproduction. Your speaker will be put in excellent condition. Approximate cost of repairs as tollows:
$4^{*}$ to $6^{\prime \prime}$ speakers.
$7^{\prime \prime}$ to $9^{\prime \prime}$ speakers.
$10^{\circ}$ to $12^{\prime \prime}$ speakers 1.86
$13^{\prime \prime}$ and over, not to exceed.

## UNIVERSAL FIETD COITS

Permit servicing many speakers for which no exact duplicate is available. Have two resistwindings in series, other in parallel. All supplied with spacing washers
tubes and directions for
installation. Select coil with outside diameter as close to original as possible. $z_{8}{ }^{\circ}$ smaller OD is limit for safe operation

## Dimensions



## Cone Centering Shims

Flexible celluloid shims that will last. Sixteen shims in a handy leatherette folder. Contains four each of the following sizes: $0125^{\circ}, .010^{\prime \prime}, .0075^{\circ}$ and $.005^{\prime \prime}$. Take care of all speakers. C19649-
Your Cost, Kit of 16.
$35^{\circ}$


Speaker Grille Cloth
Handsome frieze, $50^{\circ}$ wide, cut to your specified
length.
C20949-Per Yard, Your Cost.
$\$ 1.5$

## RECORD OHANGERS,RECORD FRSMOTORS

## 

Dual Speed Motors Model D. Powerful, governor controlled. gear drive motor that will maintain a uniform speed age and load. Lever type speed regulator and lever shift to 78 or ${ }_{33} 1 / 3$ RPM. Fully enclosed with silent helical cut gears running in a bath of oil in a sealed housing. $10^{\circ}$ turntable. $110 \mathrm{~V} \quad 60$ eycles. Furnished with mounting hardware. Shpg. wt. 13 lbs .
C22530-10" turntable.

| Your |  |
| :---: | :---: |
| C22533-As above with $12{ }^{\text {T T. T }}$ |  |
| Your Cost | \$1 |

Deluxe Record Albums
 Flat opening
type with heavy type with heavy
kraft pockets. kraft pockets
Overall
cover ing of padded brown swirl
leatherette. Gold embossed sothic design on back. Beautiful in appearance and unusually sturdy in construction, this is a truly superior album in every way
Shpg. wt. 3 lbs. each. Index inShpg, wt. 3 ibs.
side front cover.
Stock
$\begin{array}{llll} & \\ \text { No. } & \text { Size } & \text { Pockets } & \text { Each } \\ 10^{\circ} & 12 & 50.98\end{array}$ $\begin{array}{llll}\text { C21889 } & 12^{\prime \prime} & 12 & 12 \\ 1.12\end{array}$

## Standard Albums



A well-made al bum with a durable and at tractive maroon
cover. Opens cover. Opens
flat due to a flat due to a

unique type of construction. An extremely fine value at an unusually low price. Index inside sont cover. | Stock | Size | Pockets | Each |
| :---: | :---: | :---: | :---: |
| No. |  |  |  |
| c21890 | $10^{\prime \prime}$ | 12 | 65 c |
| C21891 | $12^{\prime \prime}$ | 12 | $\mathbf{7 6 c}$ |

## G-I Record Changer and Recorder



Cuts records up to $10^{\prime \prime}$ dia. Plays twelve $10^{\prime \prime}$ or ten $12^{\prime \prime}$ records automatically. Only necessary to lower the cutting arm over the record disc to start the recording operation. Convenient depth of oper adjustment on top of cutting arm. Self starting, dynamically
balanced, recording type motor balanced, recording type motor.
Non-jamming record handling Non-jamming record handling fingers which do not extend past
record lead-in space Handles recrecord lead-in space. Handles records with either run-in or oscillating trip grooves. Shock mounting provided which permits isolation of entire assembly from the cabinet. Brown iridescent finish 10. weighted T.T.. on and off switch. and spring mounting switch, and spring mounti. C22515 Your Cost.


## Constant Speed Motor

Model CX. Gear Drive, 78 r.p.m. phono motor for $10^{\prime \prime}$ and $12^{\prime \prime}$ records. Self-starting induction type. Fully enclosed helical cut gears in oil. Fan cooled. 1 iim.: 4 $411 / \mathrm{x}^{\mathrm{x}}$
$31 / 8^{\circ}$ deep. For 110 V .60 cycles. With 10 turntable and all hard ware. Wt. 10 lbs.
$\mathrm{C}-22525-E$ Each $\mathbf{6}$


## GARRARD RECORD CHANGER

Garrard's new Del.uxe "Mixer" record changer which plays both $10^{\circ}$ and $12^{*}$ records in any assortment, any combination Record changing is performed simply, elficiently, and silently, Features a 1 -ounce high-fidelity pickup, with frequency response from 30 to 8500 c.p.s. The permanent jewel stylus will last for years of normal playing The motor is silent and sturdy, built to give powerful but regular governed run-
ning. Special spring mountings for full floating non-microphonic installation. Overall dimensions with a full record supply are: $15^{7} \times 11^{3 / 4} \times 5 \frac{1}{2}$ Cabinet space, $15^{*} \times 13^{*}$ to accommodate $12^{\prime \prime}$ records. Cabinet
A.C. Model-100/130 V. 60 cycles.
$\$ 63.00$ C22551-Universal A.C.-D.C. Model $100 / 130 \mathrm{~V}$, and $200 / 250 \mathrm{~V}$., $25 / 60$ cycles. Wt. 30 lbs
$\$ 75.00$

## WEBSTYR RECORD CHANGER

Simple in design and operation, it provides manual or automatic playing of ten standard $12^{\prime \prime}$ or twelve $10^{\prime \prime}$ dises with a minimum of waiting time between records. Home recordings or "inside out records up to $12^{\prime \prime}$ size may he
played manually. Shuts off automatically after the last record has played. Lightweight pickup less needle has a $36^{*}$ lead. The unit has a 110 V. 4 pole, heavy duty, 60 cycle motor. Supplied complete with mounting template, instruction manual, and all mounting hardware for standard 5\% board. Dimensions, $14^{\prime \prime} \times 11^{\prime \prime} \times 9^{*}$ overall. Shpg. wt. 17 lbs. $\$ 26.6$ New Junior Model similar to above but last record is repeated instead of automatic stop. Dimensions $127 / 8 \times 2 \times 9^{\prime \prime}$ overall. Allow additional $1 / 2^{\prime \prime}$ front, side and rear for $12^{\circ}$ record clearance. Shipg. wt. C 22501
Model 50-Your Cost


## REK-O-KUT RECORDING EQUIPMENT

## Professional Cutter



A completely new overhead cutting mechanism, with rugged, simple, and positive features demanded by Broadcast engineers, ctc., precision machined to the ciosest tolerances: feedscrew is made of stainless stee and shadowgraphed for accuracy: slide bars chrome plated with gage chrome for ease of opperation and no wear. Enclosed gears avoid winding and binding chips. Universal mount allows immediate interchange of various cutters. Spirals can be cut to any desired width. Width not limited by pitch diameter of screw. Model B-5 Equipped with Brush RC20 Crystal Cutter. Cuts 120 lines per inch, outside-in. Shpg. wt. 616 lbs . Your Cos
$\$ 150.00$
Special Hi-fidelity transformer to Match Brush or any high-imp. Cutter to 8 or 500 ohm line C22593 -
Your Cost
s9.50

16" Recording Motor


Precision constructed dual speed $16^{\circ}$ recording motor assembly. Has a tathe turned, dynamically balanced 25 lb. cast iron turn table fitted with a 1" dia. steel shaft with special oil grooves for force feed lubrication when operating. Equipped with a 1/20 11.P. constant speed motor; one dual and one single speed idler: adjustable stops to regulate idler pressure against iurn table. It has a 10 lb . machined mounting base of cast iron, with integral lathe bored and lapped turntable bearing. Entire assembly can be permanenlly installed in 15 minutes. Shpg. wt

## C22595

Your Cost
$\$ 148,58$
Recording level meter in streamlined case. Operates from output of $8,15,200$ or a 500 ohm amplifier.
C22594-
C22594-


G-I RM4 Recording Motor
Constant speed (78 r.p.m.) selfstarting motor. Weighted $10^{\circ}$ turntable. Motor insulated from plate and table. Retractable drive pin. Rim driven; pulley idler and table in one plane. Depth $2^{15}{ }^{6}$ helow plate. 110 Volts 60 cycles. Shipping weight 13 lbs . C22528
Your Cost.
\$7.38

## Automatic Stop

For any green flyer motor with $8^{\circ}, 9^{\prime \prime}$.or $10^{\prime \prime}$ turntable. 724
c22540-Each

ALLIANCE Even-Speed Phono-Motor


Model 80
Rim-drive phono motor. $9^{*}$ turntable. Constant speed ( 78 r.p.m.) self-starting, forced draft aircooled. For $10^{\prime \prime}$ and $12^{\circ}$ records. 110 . 60 cycles only Your Cost
\$3.46

IIIRecord Reniewer Renewer: For acetate recrds. Cleans, iubricates and protects. Thin film of lubricant reduces friction.
Hardens and preserves acetate records. 2 -ounce botlle. $C 15300$
Your Cost
Renewer: Same as above but for commercial records such as RCA Victor, Columbia, Decca, etc. C15301-2-oz. bottle. Your Cost

264
Recording Fluid: Applied to recording blank before cutting, increases stylus life, reduces surface noise. For use on non-inflammable discs only. $2-\mathrm{oz}$. bot tie.
C15302
Your Cost
354
G-I Dual Speed Recorder and Play-Back Unit


Cuts records up to $10^{\prime \prime}$ dia. at 78 or $33^{1}{ }^{1}$ r.p.m. Plays records up to $12^{\prime \prime}$ dia. at 78 or $331 / 3$ r.p.m. To shift motor from one speed to another, merely turn the speed change dial. Beautiful walnut wood grain finish on steel base wood grain inish olatic Streamlined plastic trim on plate. Streamined plastic trimon pickup and cutter arms atract-
ively engraved with legends "Reively engraved with legends "Re-
producer" and "Recorder". Convenient depth of cut adjustment. Dynamically balanced rim drive type motor. Compensating switch operated by speed change dial. Assembly includes dual speed motor, $10^{\prime \prime}$ weighted turntable, cutting mechanism, crystal pickup, compensating switch, pickup and cutter arm rests, drawn steel to back. 110 V. 60 cycles.
C22516-
$\$ 235.58$

## PHONO NEEDLES•PICKUPS

## PLAYBACK NEEDLES

LONG PLAYING PHONO NEEDLES for Commercial Records, Victor, Decca, Columbia, etc.
(A) Sapphire needle with offset shank for minimum wear and low scratch level. Shadowgraphed. Play about 2500 sides without changing. C195-Your Cost Each
(B) Deluxe Fidelitone long-life needle. High fidelity. Plays 2000 standard commercial records; 4000 home recordings. latinum point
163-Your Cost Each
(C) RELIANCE 4000 play needle in plastic case ace noise.
C443-Your Cost Each. Standard for coin machines. C164-Your Cost Each
(D) Reliance Permanent Point Needles, 3000 plays. 394
(E) Fidelitone "Floating Point" needle. Filters record scratch. to 6 months average use. ( 1000 or more sides). Platinum point. Ideal for changers. C227-Your Cost Each................................ (E) Deluxe Fidelitone "Floating Point" needle. As above, C478-Your Cost Each
\$1. 10

## GENERAL PURPOSE PLAYBACK NEEDLES

For playing home recording discs or standard commercial records (Victor, Decca, Columbia, Bluebird, etc.) (J) Transcription metal alloy needle. Long life, high-fidelity. Semi-permanent self-lubricating point. 40 to 50 hours on standard records, longer on home recordings.
C286-- Your Cost Each
(1) Red shank steel needles for acetate recordings. Individ ally shadow tested.
C433-Package of 100. Your Cost
(K) Filter point highly polished surgical steel needle. Shad tested. Low surface noise. 10-15 plays
C209-Package of 12 . Your Cost
C222-Package of 35. Your Cost
84
C226-Package of 200. Your Cost...............21.20 (L) Sapphire Tipped Playback Needie! Permanent needle cellent frequency characteristics.
C448-Your Cost Each.................... $\$ \$$.

## RCA-VICTOR "ONE GRAND" NEEDLE

High quality semi-permanent needle. Good for 1000 plays. Minimum wear and surface noise. C479-Your Cost Each

## PHONO NEEDLES FOR STANDARD COMMERCIAL RECORDS

(J) High fidelity, shadow tested steel needle. Each good for 10 sides
C430A-Package of 12 . Your Cost
C430B-Package of 30 . Your Cost.
(J) RCA steel phonograph needles.
c100 rit Tone. (Package of 100 )
C160-Extra Loud (Package of 100)
10 Packs assorted. . 75c . Your Cost per Package. (J) RCA Chromium need les. Green shank.

C357-Package of 6. Your Cost per Package 10 Packs assorted.
(J) Reliance needles. Good for 15 plays each. C440-Package of 6 . Your Cost
(J) Green shank shadowgraphed needles.

Good for 12 plays each
C432-Package of 100. Your Cost
(K) Hi-Fi needles for automatic record changers. Good
$10-15$ plays each.
(K) PCA Red of 30 . Your Cost
(K) RCA Red Seal needles, designed to play back
records. Package of 50 . Your Cost

## RECORDING N\&รDIES SAPPHIRE CUTTING NEEDLES

(F) Lapped edge cutter for acetate discs. Precision cut jewel for ${ }^{r}$ low surface noise and highest fidelity. Over 5 hou C191-Your Cost
Each
$\$ 3.23$
(F) Like above, but with
${ }^{2}$ and Brush cutting heads.
C198-Your Cost Each.............................. $\operatorname{\text {achetatediscs.}}$
(G) Sapphire cutter ground to W.E. spec. For acetate discs.
About 10 hours life. Can be resharpened.
C196-Your Cost Each.....................
(G) Steel cutter for acetate; individually ground and lapped. Flattened shank
C439-Package of 3. Your Cost
(H) Stellite cutter for acetate discs. Extremely quiet hundreds of sides; can be resharpened

9 C337-Your Cost Each
(1) Individually polished steel cutter for acetate discs. Will cut
15 to 2510 -in. discs. Y
c 348 -Package of 5 . Your cost. .......................
(1) Individually polished steel cutter for acetate discs. Will cut
15 to 2510 -in. discs. Your Cost. ..........................
C348-Package of 5 . Your
(1) Alloy cutter for acetate; harder than steel. Polish cut. Hand lapped.
C434A-Package of 5. Your Cost
C434E-Package of 10. Your Cost
 (1) Alloy cutter for acetate; harde


KACTI NEEDLES


Long playing cactusneedles that produce ural tones. Mral tones. surface scratch is practically eliminated. Easy to resharpen. Will not scratch or damage records.

C359-Pkg. of 12
Peter Grey Needle Pointer
Famous "Kacti" needle pointer for sharpening made and easy to use. made and easy to use. Fitted with record
brush. Beautifully packed - an excellent gift. Wt. 2 lbs .
C293-
Your Cost.
\$1.25
C271-Extra discs. Each ... 10c
10 For
$\$ 2.50$


High 1.4 V. output combined with low 1 oz. weight make this one of the finest pickups at its price! Response 60-6000 CPS. Changeable needle. Up to $12^{\prime \prime}$ records. Shpg. wt. 8 oz. C13417-Model93A - $-1-5$ C13418-Model 93AN. Same as point needle.


Model D-38H-New relay-action principle places resonance of tion principle places resonance of
movinz system beyond audibility, moving system beyond audibility,
eliminating harsh peaks. Exciter eliminating harsh peaks. Exciter
inertia several hundred times less than in ordinary 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 Black and chrome finish. $121 / 8 ;$ Black and chrome finish. 121/8"



Model S-8: Lightweight straight arm type with ball bearing mount. Fine response. For up to $12^{*}$ records. $8^{\circ}$ arm. Shpg. C161Your Cos

S5.88 Model AB-8: Offset-head. Excellent response. Spring-axial cushioning. Brown finish. Internally damped crystal. Shpg. wt. 3 lbs. C119
Your Cost.
$55-88$

BRUSH Crystal Pickups

Model PL-20: By eliminating the usual needle chuck and set screw and employing a very small permanent, polished sapphire stylus instead of the conventional needle, the mechanical impedance of the vibratory system has been brought to a very low value. Rebrought to a very low value. Response is virtually flat (within
$\pm 2 \mathrm{db}$ ) up to approximately 6,000 $\pm 2 \mathrm{db})$ up to approximately 6,000
c.p.s., with a very slightly rising c.p.s., with a very slightly rising
characteristic to 10,000 c.p.s. Will drive - a conventional two-stage amplifier. $14^{4}$ overall. Taupe and bronze finish. For up tol $6^{\prime \prime}$ records.

##  <br> $\frac{{ }_{\text {W }}}{\text { Your Cost }}$ WESTER

 than 2 oz . Range 40 to 8500 c.p.s. For up to $12^{\prime \prime}$ records. Brown finish. Shpr. wt. 3 lbs. High Impedance. C523-ModeI AE-10. With naturalsapphirencedle. $\$ 3.57$ C529-As above, but less needle. less needle.
\$3.23
C530-Model AC-10-1. Response C530-Model Ac $-10-1$. Response
50.7000 c.p.s. $21 / 2-\mathrm{oz}$. pressure. Less needle.
Your Cost.
\$2.91

## Crystal Pickups

# APCOBPDNG BLANUSC CARTRIDGESS 



PROFESSIONAL RECORD

## BLANKS

## Gould-Moody

## Aluminum Base Discs

Professional quality blanks having a perfectly uniform coating 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 $.063^{\circ}$ hole type
Stock N
C11986 C11987
C11988

| Size | Price Each. | per 25 Ea. |
| :---: | ---: | ---: |
| $10^{\circ}$ | $\$ 0.73$ | $\$ 0.59$ |
| $12^{\prime \prime}$ | .91 | .73 |
| $16^{\circ}$ | 1.83 | 1.47 |

## 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

| StockNo. | Size | Price Ea. | Per 12 Ea. |
| :--- | ---: | ---: | ---: |
| C11950 | 131, | $\$ 1.65$ | $\$ 1.32$ |
| C11951 | 171, | 2.75 | 2.20 |

## AUDIODISCS

## "RED LABEL" Aluminum Base

Faultlessly coated and carefully selected to the highest standards of quality. Primarily for professional use. "Acetate" coated on smooth holes. For base. Double-sideri with 3 drive pin holes. For all applications requiring the ultiStan. pkg. quan. 25 . tan. pkg. quan. 25.
C11989- C $^{\circ}$. Each
C11995-12*. Each

## "YELLOW LABEL"

Acetate coated on Aluminum Base. Intended primarily for amateur, school or home use. Double sided and labeled. Stan. Pkg. Quan. 25. C11990- 8" Each
C11997-10" Each
C11998-12" Each

## HOME RECORDING BLANKS RECORDISCS

The Orange, Red, and Blue Label Discs listed The Orange, all Cellulose nitrate coated, thu below are all cellulose nitrate coated, thus ing qualities, and the ability to withstand ag and playback without cracking or peeling. Best quality for general home and semi-professiona use.

## ORANGE LABEL

Firm, non-warping bond base, Professional nitrate coated. Admirably suited for the average type of amateur transcription.
C11969-SIX 61/2" Discs.
C11970-SIX $8^{\prime \prime}$ Discs.
50.40

C11971-SIX $10^{\circ}$ Discs
1.20

## RED LABEL

Heavy, $.021^{\prime \prime}$ thick aluminum base discs with a smooth mirror like finish providing high fidelity reproduction over a wide frequency range. Comparable in quality to those used by broad casting stations and professional recording studios.
C11972-615
C11973- $8^{\prime \prime}$. Each
Cach.
C11973- ${ }^{\prime \prime}$. Each
C11974 10". Each
17 c

## BLUE LABEL

For brilliant and consistent reproduction qual ity over a wide frequency range we recommend these discs. Heavy coating of a professional nitrate over a carefully prepared, critically proc-
essed steel base insures quiet, smooth cut grooves. Vastly superior to commercial phonograph records in surface noise.
C11982-61/2. Each
C11983-8". Each
C11984-10". Each
$.13 c$
$20 c$

## Wilcox-Gay Recordio Discs

Lightweight, flexible discs for use with home recorders. Non-inflammable. Excellent recording quality. Coated and label both sides.
C11979-SIX $61 / /^{\prime \prime}$ Discs.
C11980-SIX $8^{\prime \prime}$ Discs
$\$ 0.60$ 1.00

## 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.

For Lightweight Pickups
Stock No. Make

C13963
C13965 Astatic
C13965 Astatic
C13968
C13985 Shure
C13986 Shure
C13987
C13988
C13966
C13970
C13971

C13407
C140
C13973
C233
C13975
C540
C540
C13976
C13977

## For

*Include needle. $\ddagger$ For $93 \wedge$ Pickup. $\ddagger$ For "07" Pickup.

## Description

*Flat 2 hole mount
*Flat 2 -hole mount
Flat 2 -hole mount Flat 2 -hole mount Flat 2
Flat 2 hole mount
hole mount Flat 2 hole mount
Flat 2 -hole mount Flat 2-hole nount Flat 2-hole mount D * Side hole mount

## For Standard Pickups

| Astatic | B-1 | D | Lugs-bakelite case |
| :--- | :--- | :--- | :--- |
| Astatic | B-4 | D | $3^{\prime \prime}$ leads. Bakelite case |
| Astatic | L-26 | B | Flat 2 hole mount |
| Astatic | M-22 | B | $\ddagger$ Flat 2-hole mount |
| Shure | Wi0A | B | Flat 2-fole mount |
| Welster | T1 | D | Side hole mount |
| Webster | C2 | C | Flat, 2-hole flange mount |
| Webster | C3 | B | Special Clamp mount |
| Welster | E4 | B | Flat 3-hole mount |
| needle. $\dagger$ For $93 \Lambda$ Pickup. $\ddagger$ For "O7" Pickup. |  |  |  |

## RCA Crystal Cartridges

$C 215$
C13424
C280
C277
C249
C13979

Pres-
sure
Out-先 NM

$$
\begin{aligned}
& 3.26 \\
& 3.26 \\
& 2.62 \\
& 3.26 \\
& 2.35 \\
& 2.85 \\
& 2.12 \\
& 2.12 \\
& 2.35
\end{aligned}
$$Less sty

## C13799--

Your Cost.
st. Each
\$3.95
In 100 lots, Each

## Gummed Record Labels

Neavly printed. Ilave spaces for title, date and name of recorder. Fit all discs; adhere firmly. C431-Package of 50 noving, but highly sensitive recording element o permit cutting of practically all recording aterials. Will match $4-8$ ohm voice coil wind gs. No mounting brackets are provided, but tapped mounting holes facilitate re-use of ackets on unit to be replaced. Size $23{ }_{4} \times 1$, ix " with needle screw and 4 -inch flexible leads. $\frac{\text { Your Cost . . . . . }}{\text { Stroboscopic }}$ Speedchecker Placed on turntable
and illuminated
with a bulb ( $\wedge C$ ) with a bulb ( $\Lambda C$ )
indicates correct speed at 88 or 33 3 r.p.m $7^{4}$

## SPECIAL VALUE * ALUMINUM BASE DISCS

High quality recording discs with a coating of professional nitrate compound on an aluminum pase. Low noise level, warp proof and unlreakable. Light weight. A favorite for amateur and semi-professional use.

| 俍 | Size | Pric | Per 10 Ea . |
| :---: | :---: | :---: | :---: |
| C11955 | $61 / 2^{\circ}$ | 17 c | 15 c |
| C11956 | $8{ }^{\circ}$ | 23 c | 21 c |
| C11957 | $10^{\prime \prime}$ | 30 c | 27c |
| C11958 | $12^{\prime \prime}$ | 53 c | 47c |

## "ORANGE SEAL" DISCS ALUMINUM BASE

Famous Presto aluminum base recording discs now a vailable again. Coated with I'resto's spe cial compound they have low surface noise and long plaving life. Non-warping and liphter in weight than Green Seal discs listed below. Mir ror smooth finish. Stan. pkg. quan. 10.
C11960-61/2". Each
C11961-8" Each
GREEN SEAL" Discs
Finest grade of recording blank made by resto. Smooth surface and minimum surface noise. Consists of a heavy Aluminum [3ase and coated by a special compound used exclusively by I'resto. Used by research lahoratories to demonstrate the capabilities of re cording equipment. Standard recording blank for a majority of the larger broadcasting stations and recording studios. Overall thickness $.052^{\circ}$ Stan. pkg quan. 30.
C11991-10. Each
C11992-12 ${ }^{\text {. Each }}$
C11967-131/2". Each
$\$ 1.00$

## Order in Standard Package Quantities and Save

To Volume Users, schools. stucios, etc., we can furnish all I'resto and Audio Discs at maximum discount when purchased in standard package quantities as shown. Write for prices or send in your order. You will be charged lowest prevailing price


High quality, wide response record cutter ideal for use in home recording equipment Standard replacement for thousands of magnetic cutters which are in service today and with a few minor circuit changes, will replace crystal cutting heads and provide more lasting service Designed to operate directly from voice coil winding of output transformer, with stiff

# EBALLAST TUBESAnd CORDS <br> Line Cord Resistors <br> <br> Reliance Ballast Resistors <br> <br> Reliance Ballast Resistors <br> JFD Exact Duplicate Ballast Tubes 



Flexible, sturdy cords for AC-DC radios, field supplies, phono oscillators, etc. Voltage drop ratings are at 3 amps. tracted voltage applied to tube gives volt

| No. | Ohms | Voltage Drop |
| :---: | :---: | :---: |
| C5322 | 135 | 40.5 volts |
| C5332 | 150 | 45.0 volts |
| C5331 | 160 | 48.0 volts |
| C5323 | 180 | 51.0 volts |
| C5330 | 200 | 60.0 volts |
| C5324 | 220 | 66.0 volts |
| C5325 | 250 | 75.0 volts |
| C5329 | 280 | 81.0 volts |
| C5242 | 310 | 93.0 volts |
| C5326 | 330 | 99.0 volts |
| C5241 | 360 | 108.0 volts |
| C5320* | 535 | *78.75 volts |
| *This cord used in 3-way portable |  |  |
| sets. Vo | tage drop | calculated for |
| . 15 amp. drain. |  |  |
| Any Above |  |  |

## UNIVERSAL <br> Resistor Cord



A replacement cord for all makes of receivers. One cord fits any tylue set. Any normally used resistance from 22 to 330 ohms in one cord. Complete instructions supplied with each cord. Ideal for servicemen and dealer C5321
$71^{4}$

\section*{Special AC-DC Cords <br> With Pilot Light Tap} Like above, but 4 -conductors, with pilot light tap. Tinned leads. Stock Total Tapped at Your No. Ohms Ohms Cost $\left.\begin{array}{lll}\text { C5334 } & 160 & 24 \\ \text { C5335 } & 180 & 25 \\ \text { C5336 } & 200 & 40\end{array}\right\} \rightarrow 0$ \& | C5336 |
| :--- | Each

## Special Line Cords

For "Wireless" Players Same in appearance as above, but has fourth wire for antenna or "radiation wire" for wireless phono-oscillator, inter-communicators, etc.
C5327-350 ohms. For 6A7 and 37 or 76 tube combination Your Cost
Each
606
C5328-270 ohms For 6A7 and 2525 tulhe combination. 80
Your Cost Each.....

220 Volt to 110 Volt Line Cord Resistor
 American cord equipped with standard male plug and female receptacle: European type resistor cord has foreign plug and standard receptacle. Indispensable to servicemen abroad. Can be used on shavers, handblowers, small radios (up to 7 tubes) and small appliances.
C5243-Standard
C5244-Foreign. Each. 824
Note On Ballast Tubes Due to scarcity of materials it Due to scarcity of materials it
may be necessary to substitute glass or metal type tubes for type ordered. Substitutions will ble when unavoidable.

For use in all AC midget sets. Stock up at this low money saving price. Shpg. wt. 1 lb . Any type listed below.
Your Cost Each.
Lots of 10 (Ass't


##  <br> 

Air-Cooled Adjustable Ballast Kit Ilandy new kit of adjustable AC-DC ballasts in airmore than 2.00 different tyises of ballast tubes Contains 2 Type " $A$." 2 Type " 13 ." and 1 'lype " C " ballasts, with book giving comple C6862 Your Cost

REPLACEMENT TUBES FOR ABOVE KIT C6856-Type "A", Ballast 8 Prong Octal C6857-Type "B", Ballast 8 Prong Octal C6858-Type "C"' Balla

88 ${ }^{\text { }}$

## J.F.D. REPLACEMENT CHART

| USE | TOREPIACETYPES |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TYPE | BEGINNINGWITH |  |
| BUMBERS |  |  | | K,L,M or B |  |  |
| :--- | :--- | :--- | :--- |
| K,L,M,13K,BL or BM | 10 to 42 | A,B,C, $15, \mathrm{~F}, \mathrm{G}$ or H |
| 45 | 50105 | $\mathrm{~A}, \mathrm{~B}, \mathrm{C}, \mathrm{D}, \mathrm{F}, \mathrm{C}, \mathrm{I}, \mathrm{S} 1, \mathrm{~S} 2, \mathrm{~S} 3$ | lo replace most 4 -prong types such as $\mathrm{LX}: 2, \mathrm{KX} 49$, $K \times 55,140 \mathrm{R}, 165 \mathrm{R}$ and 185 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 145 volts. Furnished complete with starting resistor that saves pilot lights and tubes, All KLL types are octal base. *Asterisk indicates she cial unit.
Any Type Below, Your Cost Each.
REPLACES ALL AC-DC BALLASTS


## 59

${ }_{C 12239}$
${ }_{C}$ C12238
${ }_{C}^{C} 122225$

Type
KIr75
4 P - C 12227 320R4* C12237 KL-75H C12222
$4 \mathrm{P} 45 \mathrm{C12228} \mathrm{E} 57^{*}$ C12236 KL-50H1 C12221

BK KL50E ${ }_{51 \mathrm{DJ}}{ }^{\mathrm{KL}}$ 100-77*

|  | REPLACES ALL | AC-DC BALLASTS |  |
| :---: | :---: | :---: | :---: |
| Type | Beginning With | Numbers | Ending With |
| KL-25 | K, L, M or BK | 10 to 36 | A. 13, C or D |
| KL-25H | K, L, M or BK | 10 to 36 | F, G or H |
| KL-45 | K, L, M or BK | 36 to 67 | A, B, C or D |
| KL-50H | K. L. M or BK | 36 to 67 | $\mathrm{F}, \mathrm{G}$ or H |
| KL-75 | BL or BM | 67 to 105 | A, B, C or D |
| KL-75H | K, L. M or BK | 67 to 105 | F, G or H |
| KL-50S1 | K or L | 40 to 100 | S1 |
| KL-50S2 | K or L | 40 to 100 | S2 |
| KL-50S3 | K or L | 40 to 100 | S3 |
| KL-50E | K or L | 36 to 67 | E |

## Type 4P-45-4 Prong replaces the following types:

50A2

| 50B2 | 110 R 44 | 165 L 4 | LX 42 C | KX 19 C | LX 19 D | $\mathrm{LX55B}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 50 X 3 T | 110 L | 165 R | LX42D | KX49D | KX55A | LX55C | | 50X3T | 110 L 4 | $165 R 8$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 140 R 4 | 140 L | 165 R 44 |  | LX42D | KX49D | KX55A |

## Type <br> es the following <br> ypes:

5B

| 50XR |
| :--- |
| - |

42 A

Amperite AC Voltage Regulator Tubes Keens injut voltare to Exact units for popular set


Keeps input voltage to receiver constant. Protects condensers and resistors. Requires standard octal socket. Uses prongs 2 and 7. For 110 volt AC sets.
Tubes Use Tubes Use $\begin{array}{lllll}4-5 & 5.110 & 11-12 & 11 A 10 \\ 6-7 & 7.110 & 13-17 & 20.110\end{array}$ 6-7 7.110
Specify type desired. $\$ 1$ T
C19100. Each...... Stock Amp. For Use In $\frac{\text { No. }}{\text { C12455 }} \frac{\text { No. }}{9-20} \frac{\text { Models }}{\text { Brunswick 14, 21, 31 }}$
 Brem.-Tulf: 82, 8t C12457 90 Majestic 90 series Your Cost Each, 70 Any Above Type. Any Above Type C12220, Ampyerite No. 35000
FFor RCA Part Each...........
Amperite Ballasts for 2-Volt Battery Radios

| TYPE | REPL | TYPE | REPL. | TEPE | LLL225 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1N1. | 1N1 | $5 E 1$ | 1E1 |  | ( 1 K 1 |  | 1 A2 |
| 4-1. | 1G1 |  | $\left\{\begin{array}{l}\text { 5-1 } \\ 6 A\end{array}\right.$ |  | $\left\{\begin{array}{r}1 \mathrm{~V} 1 \\ 10 \mathrm{~B}\end{array}\right.$ | 31 | 1B2 |

1The following listing of ballast tubes will service $98 \circ^{\circ}$ o the sets requiring replacement ballast tubes replacement ballast tubes electrical and physical duplicate of the orixinal right into the set without the necessity of cutting pins, etc., and eliminate the possibility of choosing the incorrect ballast with resultant burning out of tubes, etc.

| Type | Type | Type |
| :---: | :---: | :---: |
| O3G | 165128 | 320R4 |
| 50.42 | D200 | 320R8 |
| 50B2 | 200R | R3003G |
| 50.5300 | 200R4 | C9266 |
| 100-37 | 200128 | W43357 |
| 100-38 | 250 R | W 45788 |
| 100-70 | 250R4 | W46416 |
| 100-77 | 250 R 8 | W46773 |
| 100-79 | 300 R | W 48670 |
| 100-81 | 30012 | K83747-6 |
| 165R | 309128 | M86892-1 |
| 165R4 | 32012 |  |
| C10348-Any Above Type. <br> Specify Type. <br> Each. |  |  |
|  |  |  |
|  |  |  |
| Type | Type | Type |
| BK 12 B | K 1911 | K55D |
| BK 42 C | L193 | L.55B |
| 13K42D | L19C | L.55C |
| K 12B | L19D | L.55D |
| K 42C | M 12B | M55B |
| K.42D | M1913 | 62A |
| L42B | M 191) | K67B |
| L42C | K52II | L67C |
| L-12D | 55 A | K801 |
| K49B | BK55B | 92A |
| BK 19B | BK 55C | 2LR212 |
| BK I9C | BK55D | 2VR215 |
| BK 19D | K55B | 2UR224 |
| K49D | K55C |  |
| C10349-Any Above Type <br> Specify Type. <br> Each |  |  |
|  |  |  |

JFD Resistance Cord Replacement Adapter


For Replacing All Untapped (3 wire) Resistance Power Cords. This adapter permits the use of an adjustable JFD type B ballast or any standard exact duplicate plug-in resistor tube, in place of following types of 3 -wire Untapped Resistance Power Cords:
 160 ohms 250 ohms 350 ohms 180 ohms 290 ohms 390 ohms 200 ohms | 300 ohms 535 ohms Each adapter is individually packed, wittf complete hardware and simple instructions for use. C12626-
Your Cost
\$1.32

## JFD Resistance Cord

## Replacement Adapter

For Replacing All Tapped (4 wire) Resistance Power Cords. Same as above. but to be used in place of the following types of 4-wire Tapped Resistance Power Cords:

160 ohms tapped at 24 ohms 180 ohms tapped at 24 ohms 200 ohms tapped at 24 ohms
200 ohms tapped at 40 ohms
280 ohms tapped at 40 ohms Each adapter is individually packed, with complete hardware and simple instructions for use C12627-
Your Cost
$\$ 132$

## PMIOT IIGHIS WWNEON BUIBS

Genuine EVEREADY-MAZDA Pilot Light Bulbs


Both pilot and flashlight type bulbs are listerl below $6-8$ volt bulbs are for 6.3 volt receivers. Bead colors aid in identifying bulb types. Ever-eady-Mazda bulbs are stand ard in most makes of radios

## Prices Below Include Federal Excise Tax.

Tubular Bulb, Miniature Screw Base (A)

| Stock No. | Type | Bead Color | Volts | Amps. | Ea. | 10 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C12274 | 48 | Pink | 2.0 | . 06 | 15c | \$0.95 | \$8.85 |
| C12250 | 41 | White | 2.5 | . 50 | 9 c | . 58 | 5.32 |
| C12254 | 40 | Brown | 6.8 | . 15 | 9 c | . 58 | 5.32 |
| C12252 | 46 | Blue | 6-8 | 25 | 9 c | 58 | 5.32 |

Tubular Bulb, Miniature Bayonet Base (B) $C 12260$
$C 12260$
$C 12259$
$C 12249$

## White Pink <br> Blue

2.5
2.0
$6-8$
.50
.06
.25
15

## Round Bulb, Miniature Screw Base (C)

$\begin{array}{ccccc}\text { C12273 } 50 \quad \text { White } \quad 6-8 \quad .60 \quad 10 c & .64 \\ \text { Round Bulb, Miniature Bayonet Base (D) }\end{array}$
C12261

## White

.41

## FLASHLIGHT BULBS

G-31/2 (C) is small round. G-4 $3 / 2$ is large round. TL 3 (E) is lens bulb. P-31/2 (not illustrated) is pre-focused miniature flange type bulb

| Stock No. Type |  | Bead Color | Volts | Amps. | Ea. | 10 For 100 For |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Green | 3.8 | ${ }^{\text {Amps }} 30$ | 9 | \$0.58 | $\$ 5.32$ |
| C12201 | 14(G-31/2) | Blue | 2.5 | 30 | 9 c | . 58 | 5.32 |
| C12202 | 605(G-4 3 ) | Brown | 6.0 | . 50 | 10 c | . 64 | 5.86 |
| C12203 | $222($ TL-3) | White | 2.2 | . 25 | 9 c | . 58 | 5.32 |
| C12204 | 112(TL-3) | Pink | 1.1 | 22 | 9 c | . 58 | 5.32 |
| C12205 | 233(G-31/2) | Purple | 2.3 | 27 | 9 c | . 58 | 5.32 |
| C12206 | PR2(P-31/2) | Blue | 2.4 | 50 | 13 c | . 82 | 7.67 |
| C12207 | PR3(P-31/2) | Green | 3.6 | 50 | 13 c | . 82 | 7.67 |
| C12208 | 263X(G-31/2) | Blue | 2.6 | 30 | 10 c | . 64 | 5.86 |

## GE NEON GLOW LAMPS

## Used extensively in test instruments. On DC

 only the negative electrode glows. All except 1/2-watt types operate on 105-125 volts AC or and require minimum starting voltages (approx.) 65 on AC, 90 on DC. $3 / 2$-watt minimum starting voltage 105 -recommended only for AC not DC. All have clear rlass except C12262 which is finished red and C12263 which is finished orange. Prices include Fed. Tax.G10 Standard Edison Base Candefabra Base No. Type Watts Ea. 10 For No. Type Watts Ea. 10 For
 $\begin{array}{ll}\text { C12267 } & \text { S1 } \\ \text { C12262 } & \text { S14 }\end{array}$ $\begin{array}{ll}\text { C12263 } & \text { S } 1 \\ \text { C12276 } & \text { Sl }\end{array}$

C12278 G10 1 $\}$ 45c ARGON (Blue) Lamp $\begin{array}{lllll}12276 & \text { S } 14 & 3 & 59 \mathrm{C} & 5.33\end{array}$ Edisonbase. Cle
C12279-Each

## Porcelain Receptacles <br> Resistorless <br> Neon Lamps Used in test instr



For neon glow lamps, etc. Mtg hole spacing all types $11 / 8{ }^{\prime}$ ex C13387 requires 11 /0" socket hole in addition.
C13331-Candelabra(B) C13327-Edison (B)
C13387-Candela
Ea
Ea

2-Contact Cand. Bay. Metal Shell Sockets
 c13332...39c| $\begin{aligned} & \text { apari. } \\ & \text { c13389- }\end{aligned}$ ments, noise silencers, cand have z-contact cept C12209 which ex leads and C12215 which is S.

## Prices include Fed. Excise Tax

$\qquad$


## CANDELABRA BASE 110-120 V. Pilot Lights

Genuine GE Mazda lamps. Type c12257-6 watts.

## Each

Type C-7. As above, but cone shape 7 watts. Available in White Frosted C12280; Clear-C12275.
Either Type, Each


## Jewelled Pilot-

 BracketsFine quality jewelled pilot brackets, for amplifiers, transmitters, etc. All have faceted jewels, highly polished nickelplated steel brackets. Standard jewelled brackets have $1 / 2^{\prime \prime}$ jewel requiring a ${ }^{7} 16^{\prime \prime}$ mounting hole. Jumbo brackets have a $3 / 4$ " jewel, requiring a 111 hole. Available with Candelabra 110 V ., Miniature Bayonet and Miniature

## Tubular Candelabra Base

 110-120 Volt Pilot LampA brand new 4 -watt lamp that is ideal for use behind small panel openings, dials, etc. Looks just like a radio pilot lamp. Size: $3 / 2$ diam. 19 is" long.
C12272- 10 for $\$ 3.56$. Each.

## VICTOR Pilot Bulb

Intermediate base, frosted bulb. 110/120 volts For 2253 -
Carton of 10, \$1.46. Each
$16^{\text {c }}$
Theater Exciter Lamps
For sound-on-film. Each measures $31 / 8$ " long, $1^{\prime \prime}$ diameter; equipped with single-contact bayonet base. Fiactory tested.

| tested. | Volts | Amps. Your Cost, |  |
| :--- | :--- | :--- | :--- |
| Type | Voun Type |  |  |
| 105 | 10 | 5.0 | Any |
| 107 | 10 | 7.5 | 4.9 |
| 854 | 8.5 | 4.0 | 4 |

Type T-5; 15 volts, 1 am- 77 Sc
pere. Your Cost, Each....


## Dial Light Coloring

 Kit of colors, Red Green, 13lue and Amber, and a bottle of solvent. Each in screw top, wide mouth bot tle. Bries in 1 minute. Color is permanent. Your Cost, Per Kit.$27^{\text {c }}$

## Miniature Panel Light



For panel mtg. S.C. Min. Bay. Base. Mts. in $8 / 8^{\prime}$ hole. With $12^{\prime \prime}$ lead, nut and washer. C6436-Each

\author{

#  

}


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

|  | Candelabra | Miniature | Bayonet |
| :---: | :---: | :---: | :---: |
| Color | Base | Base | Base |
| Red | C6403 | C6404 | C6405 |
| Opal | C6321 | C6324 | C6327 |
| Green | C6322 | C6325 | C6328 |
| Amber | C6323 | C6326 | C6329 |
| Any Type | Above, |  | ${ }^{\circ}$ |

## Full-View Neon Pilot Light

Full view plastic head
pilot light with built-in
resistor for operation on 110 volts. Uses C12215 neon bulb listed above,
dissipating only $1 / 25$ watt. Head unscrews to replace buib from front panel. $1^{3 /} \mathbf{2}^{\prime \prime}$ long, extends ${ }^{16}$ in front of panel. With mtg. nut and washer. c1 caded 27.

## C14183-Opal I lead

Any Color-Your Cost
Daliance Eull's
Takes candelabra base bulbs type S-6. For panels up to $1 / 2^{*}$ thick. $1^{*}$ diameter glass jewe! with set of 4 color discs-red-green-amber-white. Polished chrome. Jewel bezel. C14174-Your Cost
C14175-Similar to aljove, but with green faceted $1^{\prime \prime}$ jewel. Specify color C14176-Same but withminiature base. Either Type, Your Cost Each..... Soc

## 1" Enclosed Pilot Light

Underwriters' Approved
single unit socket assem-
bly unaffected by heat. Nll porcelain and brass construction. For standard S6 lamp, removable from front of panel. Single 1 hole for mounting required. Faceted red or green jewel held in highly polished chromed brass. C14140-Red Jewel C14141-Green Jewel Either Type, Your Cost $73 c$

## (ी) Miniature, Candelabra, <br> Bayonet Base



## STANDARD "C's BATTERIES

Dependable, long life batteries especially designed for " C " supply in 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. Others avail able only with binding posts.
 $\overline{C 19866}$.
C19867 C19827
c19868
2370
C19862** C19826 $\qquad$ $\times 3$
$18 \times 4$
8 $\mathrm{x}^{13 / 16^{\prime \prime}}$
$\mathrm{X} 1 \frac{5}{8} 8^{\prime \prime}$

Has spring clius. *Tapped at $3,41 / 2,16,22 \frac{1}{2}$ V. †Less plug. NOTE: Plugs for batteries above are listed at right

## SPECIAL PURPOSE BATTERIES

 FOR TEST INSTRUMENTS AND LABORATORY USE| Stock <br> No. | Burgess <br> No. | Termi- <br> nals | Volts | Shipg. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| W. |  |  |  |  |

"A" and "B" BATTERIES FOR HEARING AIDS


Type

| Volts $|$| Shpg. |
| :---: |
| Wt. | " Size

Yourcost

## Little 6 "A"' Battery

Type 4FA-1 $1 / 2$ volt radio "A" battery. Has same capacity as the
standard round cell but is $30 \%$ standard round cell but is $30 \%$
smaller and $40 \%$ lighter. Size:

 Flashlight Cells C20621-No. 1 cell. $17 /{ }^{171} \times 1^{\prime \prime}$.
 Either Above
Each
Col2
1/2 $\left.\begin{array}{l}\text { C2062 - Penlite cell. } 2 x^{3 / 1 / 4} \\ \text { Yourh Cost }\end{array}\right\}$

## Combination PACK

 for FARM RADIOS Type 17GD60-For use on all standard farm radios requiring an " A " battery voltage of $11 / 2$ volts and "B" voltage of 90 volts. Size: $151 / 2^{\prime}$ " long $X$ 41/4" wide $\times 7$ " high. Ilas pluk-in type terminals. Similar to Evercady No. 748 and Ray-O-Vac No. AB82. Shpg. wt. 25 lbs. C20619 Your Cost Each$\$ 4.36$

## BURCES

RECOGNIZED BY THEIR STRIPES-REMEMBERED FOR THEIR SERVICE-BURGESS Batteries have been used for years by governmental departments and commercial organizations demanding tops in quality. All cells are made of the finest materials availabie, and each has a seamless can of $99.9 \%$ pure drawn zinc which resists perforaion. Chrome Preservative, a Burgess discovery, is included in each cell ike oil on bright metal, sion. To insure unitormity, only high quality cels pass the rigid acceptance tests. These catures, plus string Batteries the accepted standard.

## LIGHT DUTY "B'" BATTERIES

Small light weight batterics particularly designed for use in portable equipment including radios, test equipment, aircraft, etc. All with binding post terminals. Some have insulated terminals, others plain brass. All give exceptionally long service for their weight

| Stock No. | $\begin{gathered} \text { Burgess } \\ \text { No. } \end{gathered}$ | Terminals | Volts | Dimensions <br> H. W. D. | Shpg. Wt. Lbs | $\begin{aligned} & \text { Unit } \\ & \text { Pkg. } \end{aligned}$ | Single Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C19861 | 5308 | insulated | 45 | $57 / 8 \times 481 / 1029 / 16^{\prime \prime}$ | 4 | 5 | \$1.16 |
| C19863 | 4156 | brass | 221/2 | $3 \times 33 / 8 \times 29 / 6^{\prime \prime}$ | 2 | 4 |  |

## STANDARD AND HEAVY DUTY 45 Volt <br> "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 45 V . B's (Tapped at $221 / 2 \mathrm{~V}$.)

| Stock No.  <br> Clip Sockit <br> C19829 C19825 |  | $\begin{gathered} \text { No. } \\ 2308 \end{gathered}$ | Irgess Type Regular | $\|$Dime <br> F <br> $71 / 58$ |  | Shpg. Wt. 8 lbs. | Unit Pkg. 6 | Single <br> Each <br> $\$ 1.33$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Heavy Duty 45 V . B's (Tapped at $221 / 2 \mathrm{~V}$.) |  |  |  |  |  |  |  |  |
| C19831 C19832 | C19824 C19822 | $\left.\right\|_{21308} ^{10308}$ | Regular Super |  |  | $\begin{aligned} & 12 \text { lbs. } \\ & 14 \text { lbs. } \end{aligned}$ | 6 | $\begin{array}{r} \$ 1.85 \\ 2.23 \end{array}$ |
| IGNITION |  | AND | GENERAL |  | UTILITY |  | ATTERIES |  |
| Stock No. | BurgessNo No. |  | Volts | $\begin{aligned} & \text { Shpg. } \\ & \text { Wt. } \end{aligned}$ | Size |  | Your Cos Each |  |
| C19858 | $\begin{aligned} & 4 \mathrm{FIH} \\ & 4 \mathrm{~F} 2 \mathrm{H} \\ & 4 \mathrm{~F} 4 \mathrm{H} \end{aligned}$ |  | $\begin{aligned} & 11 / 2 \\ & 3 \\ & 6 \end{aligned}$ | $\begin{aligned} & 11 / 2 \mathrm{lbs} \\ & \begin{array}{l} \text { lbs } \\ 7 \text { lbs. } \end{array} \\ & \text { lbs. } \end{aligned}$ |  |  | $\begin{array}{r} \$ 0.33 \\ .77 \\ 1.41 \end{array}$ |  |
| C19846 |  |  |  |  |  |  |  |  |
| C19837 |  |  |  |  |  |  |  |  |

## 

## Standard Battery Plugs

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

| No. | Illus. | Description | Used With Price |
| :---: | :---: | :---: | :---: |
| $\overline{C 20591}$ | (1) | 3 -prong " 3 " | 45 V " "B" Batteries................... ${ }^{\text {6cEEa.}}$ |
| C20592 | (2) | 3 -prong "C" | $41 / 2 \mathrm{~V}$. "C" Batteries. . . . . . . . . . . . . . . . 10 Asst. |
| C20593 | (3) | 5-prong "C" | 22Lid ${ }^{\text {L }}$ "C" Batteries................. ${ }^{\text {c }}$ ) 54c |
| C20590 | (4) | 2-prong "A" |  |
| C20595 | (5) | 2-prong "A" | 11/2 V. "A" Batteries.................. ScEa. |
| C20596 | (6) | 3-prong " $B$ " | Portable "B" Batteries..... irg..... $>10$ Asst. |
| C20597 | (7) | 4-prong "A\&B" | Comb. 1]2 V. "A" \& 90 V. "B" packs |
| C20598 | (8) | $2 \text {-prong "A" }$ | 6 V. "A" Batteries................ 45 c |
| C20599 | (9) | 4-prong "A\&B" | Comb. 6 V. "A" \& 90 V. "B" packs. . . . |

## PORTABLE "A" BATTERIES



| C20627 | XX45 | 1.60 | 671/2 |  |  | 467 |  | 4367 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C20612 | ${ }^{1} 30$ | 1.05 | 45* | $31,2 \times 2{ }^{1}{ }_{4}^{1} \times 4^{1} 2^{60}$ | 621 |  | $30-55$ | 430 P | 3 |
| C20614 | B30 | 1.05 | 45 |  | 624 | 762 | 30-03 | P5303 | 3 |
| C20616 | 730 | 1.12 | 45 | $3{ }^{1 / 56} x^{2} 16 \times 4$ | 620 | 738 | 30-33 | P7R30 | 2 |
| C20617 | COMBINATION PACES FOR PORTABLES |  |  |  |  |  |  |  |  |
| C19871 | 5DA60 | 2.36 | $11 / 2$ \& 90 |  | AB665 |  |  |  |  |
| C19874 | 6FA60 | 2.44 | 1115 |  | AB667 |  |  | AB84 | 6 |
| C19875 | 4GA42 | 1.82 | $11 / 2$ \& 63 | $9 \times 288$ | A3669 |  |  | AB419 | 5 |
| C20618 | G4B50 | 2.14 | 6\&75 | 4,881238882 ${ }^{13} 10$ | AB670 |  |  |  | 1 |
| C20624 | 6TA60 | 2.45 | $11 / 2$ \& 90 | $9^{15} 16 \times 21 / 4 \times 4{ }^{1 / 8}$ |  |  |  |  | 51/4 |
| C20620 | G6B60 | 2.60 | 9 \& 90 | $137 / 8 \times 4^{11 / 6} \times 2^{19}$ |  |  |  |  | $81 / 4$ |

# RGG) :NTHIIEE GENEMOTORS VOTTAES 



This easily controlled controlled
rheostat type of volt age regulator plus a high effic ien c y
transformer fills the need for a portduty unit. justment provided by means of a self-lubricating moving contact which taps turns of the winding. which taps turns of the wable from two ranges: 0 to 140 volts, and from 0 to 280 volts. Output is independent of load. Units are ruggedly constructed, well ventilated and made to operate on $50 / 60$ cycles. Control on pane! has calibrated scale. Provides smooth control of voltage to light and speed devices. All rated at 860 V.A
Stock Input Output Wt. Price No. Volts Volts lbs. Each $\begin{array}{lllll}\text { C1990 } & 115 & 0-140 & 25 & 514.21 \\ C 1991 & 230 & 0-280 & 25 & 19.11\end{array}$ $\begin{array}{lllll}\text { C1991 } & 230 & 0-280 & 25 & 19.11 \\ & 230 & 0-140 & 37 & 21.07\end{array}$

## Isolation Type

Constructed similarly to the above, but have isolated primaries. Husky cores and windings, smooth con-
tinuous control plus fuse protectinuous control plus fuse protec-

tion guarantee continuous operattion guarantee continuous operat tion requiring from 70 to 140 volts. Useful to servicemen to detect faulty oscillators by dropping line voltage to 105 volis or to check breakdown intermittent part by increasing voltage to 130 or Stock Input Shpg. Price $\begin{array}{llr}\text { No. } & \text { Volts Wt. } & \text { Each } \\ \text { C1993 } & 115 & 25 \mathrm{lbs} . \\ \mathrm{Cl} & \$ 17.15\end{array}$ | C1993 | 115 | 25 | 25 |
| :--- | :--- | :--- | :--- |
| C1 lbs. | 18.62 | 17.15 |  |

## Special Value!!! 10H 40 Ma . Choke

 Extremely compact highly efficient choke suited for use in auto radio receivers and ACIDC radios. Also excellent filter chokes for use in ot her receivers and
amplifiers.
$1 \$ 16^{\circ} \times 11 / 4 \times 158^{\circ}$. amplitiers.
shielded Aver. shpg. wt. 1 lb the mounting
c1601.................
$\mathbf{5}$


## RCA BATTERIES

RCA batteries are the preferred type and are being used more and more where dependable service is required. All standard size batteries are manufactured to fit every sort of


## WIRT Variable Voltage Regulators

Designed for use with any 110 volt to compensate for irregular line voltirregular line volt-
age. These units age. These units
will fit any stand-
ard 110 voli outlet. Compact, nea appearing and well constructed these voltage regulators will lengthen tube life in receivers and pro tect components. The majority of receivers used today develop troubles due to excess primary voltage. Use of these dependable regulators will insure long trouble free service when properly adjusted. Maximum dissipation is listed below. Model 211 is wound with high quality alloy wire on an insulated metal core with the winding encased in Di-el-ite. Adjustable five differ-
ent positions. Model 211B has air cooling features which promote rapid heat dissipation. Has 8 position

| Stock | Type |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| No. | No. | Watts | Price |  |
| C12532 | 211 | 65 | $\$ 1.13$ |  |
| Lots of 10, | Each............ | 1.02 |  |  |
| C12522 | 211B | 150 | 1.84 |  |

## FILTER CHOKE

 Supplies "A and $B$ ", power for farm or portable sets using 4,5 or 6 tubes. Delivers
## C15704-Your Cost

## Step-Down Transformers

Primarily designed as the most economical method of using standard voltage rating motors, accessories and appliances where the voltage ranges from 200 to 240 volts, 50,60 cycles. Secondary voltage 115. Each unit given a high voltage breakdown test at ten times the working voltage. Especially well suited for use under all climatic conditions.

## Stock No.

 $C 1975$$C 1976$ $C 1976$
$C 1977$
$C$ $C 1977$
$C 1978$ C1979
C1980

$\$ 8.82$


## Cost

Cost
$\$ 2.65$
3.23
3.21
4.88

## For audio

compon-
ductance 10 Henrys. Max. D. C . C. Resistance: 235
ohms. Popu-
 lar wide frame strap mounting Size: $2 \frac{1}{2} 2^{\prime \prime}$ high, $3^{1} 16^{\prime \prime}$ wide, $21 / 8^{\circ}$ deep. $3_{1 / 2}^{1 / 2}$ mounting centers. C1570
\$1.22
30 Henry Filter Choke Inductance 30 henry, 50 ma maximum d.c., resistance 450 ohms. Well made, heavy duty choke suit able for servicing and experimental use. Shpg. wt. 2 lbs.
C246-
Your Cost Each
$57^{\text {¢ }}$


## Sis POWER SUPPIY EQUIPMENT <br> PINCOR "Gold Crownis Heavy Duty <br> <br> JANETTE Converters

 <br> <br> JANETTE Converters}
## 

Designed to meet the demand for a readily portable, yet dependable and powerful lighting, power and battery charging plant for field work. Weighs only 75 lbs. Supplies 110 volts 60 cycle AC at 400 watts continuous duty, or 100 watts at 7.5 volts DC for charging 6 volt storage batteries. Both outputs may be used simultaneously at reduced ratings. Has single cylinder $3 / 4 \mathrm{~h} . \mathrm{p}$. air cooled engine, rope pull start ing. Completely filtered and shielded Size overall, $181 / 2^{\prime \prime}$ long, 10516 wide and $145 / 8^{\circ}$ high. Shpg. wt. 102 lbs C19899-Model BLA-6.
Your
$\$ 8250$

## NEW ATR INVERTERS

This newly developed line of DC to AC inverters is especially recommended for operating AC Radios, Battle Announce Systems, Amplifiers, etc., from DC voltages. Extremely well filtered to insure interference-free all-wave radio re ception. All models listed below have 110 volt 60 cycle AC output. Standard Models measure $71 / 8{ }^{\circ} \mathrm{X}$ $83 / 6^{\prime \prime} \times 4{ }^{\prime \prime}$, shipping weight, 17 lbs . Heavy Duty Model measures $77 / 8^{\circ} \mathrm{K}$ $95 /{ }^{\circ} \times 61 /{ }^{\prime \prime}$, shipping weight 26 lbs .

|  | DC |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Stock | Volts | Watts |  | YOUR |
| No. | Input | Int. | Cont. | C0ST |
| C17242 | 6 | 85 | 75 | $\$ 21.17$ |
| C17243 | 12 | 125 | 100 | 21.17 |
| C17244 | 32 | 150 | 100 | 22.05 |
| C17245 | 110 | 250 | 150 | 22.05 |
| C17246* | 110 | 325 | 225 | 27.93 |
| C17247 | 220 | 250 | 150 | 22.05 |
| *Heavy Duty Model. |  |  |  |  |

## VESTA 2 and 6 Volt Storage Batteries

Long-life storage batteries orradio and lighting ysterns. Have molded leakproof containers and oversized cells.
Bushings are molded in to
 prevent corrosion and acid seepage. With radio terminals, bail handle. Shipped fresh from factory

## 6-Volt Batteries

No. Plates Amp. Hrs. Lbs. Ea. $\begin{array}{llll}\text { C21098 } & 15 & 110 & 42 \$ 7.50\end{array}$

## 2-Volt Battery

Single cell. For 2 -volt farm receivers; no external resistor necessary. 300 hour operation at 0.5 amp . drain. 19 plates. Rechargeable. Shpg. wt 22 lbs. $\qquad$
Mydrometer
Live red rubber bulb and nozzle; beaded float. Wt. 2 lbs. 304

Gas-Electric Plants
$\star$ Filtered and Shielded $\star$ Economical Operation $\star$ Compact Design $\star$ Light Weight
Heavy Duty 110 V. A.C. Plants. Single cyl inder, 4-cycle air cooled engines. They answer he ever-increasing demand for generators of
 greater output with low first cost. Requires only small space. Electricity anywhere at anytime. The result of many years of developmental work and tests by "Pincor" engineers. 600 Watt model has 1 h.p. engine ( 7 hours on 1 gallon); 1000 Watt model has $2 \mathrm{~h} . \mathrm{p}$. engine ( $4-5$ hours per gallon). Electric start ( 12 v . Battery not included). Aux. rope starter.
C19894
$C 19895$
$\begin{array}{lc}\text { Model No. Watts } \\ \text { BA-6 } & 600\end{array}$
Wt. Lbs.
Your Cost
$\$ 171.16$
$\begin{array}{lllll}\text { C19895 } & \text { BA-10 } & 1000 & 225 & \mathbf{2 4 1 . 5 6}\end{array}$

## BATTERY BOOSTER

Dry disc rectifier type 4 charge. Has external circuit breaker with quick front reset. Perorated for thorough cord for light socket and a 4-f cord with clamp-on receptacle for dash mounting. Dimen.: $6 \times 37 / 8 x$ $33 / 8{ }^{\circ}$ deep. Finished in black wrinkle. For 115 volts, $50 / 60$ cyc
operation. Shpg. wt. 5 lbs. C15696-
s6.24

## Model 5535 Charger

Delivers 6 to 4 amperes tapering charge Employs dry-dise rectifier. Has circuit breaker and large meter indicating rate of charge. Finished in black wrinkle and chromium. Dim.: 77/8x $41 / 2 \times 43 / 4^{\prime \prime}$. With 6 ft ceptacle for dash mounting For 115 V. $50 / 60$ cycles A.C. Shpg. wt. $71 / 21 \mathrm{bs}$.


Model 107 Heavy-Duty Charger 10 to 7 ampere chargngl rate which will battery overnight. Employs a dry-disc rectifier, large meter, circuit breaker and provision for thorough ventilation. Complete ft. d.c. cord and receptacle for dash mounting: Size: $91 / 4 \times 61 / 4 \times 53 / 4$. For 115 V. $50 / 60$ cycles a.c. Shpg. wt. C15700

It Charger
Model 125 12-volt Charger Heavy duty charger
for 12 -volt batteriesas
used in aircraft, trucks, boats, buses, etc. Charging rate 5 to 3 amperes. Em-
ploys dry-disc recti-
 breaker, etc., exactly listed above. In fact all other specifications are the same C17217-Mod. 125 \$ 7 . Your Cost.

We can supply Mallory aviation rectifier battery chargers to answer the need for a practical and economical unit to charge 12 and 24 Volt aircraft batteries and battery carts. Employs the "tried and proven" Mallory magnesium-copper sulfide dry disc method of rectification. Write for prices and information

## 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. Four voltage outputs in 25 volt steps. Efficient and compact. Tube rectifier type is required where minus cannot be at ground potential.
No. Type
C6090 VP-551
6.3 225-250-275-300 100 ma . Self-Rect.
6.3 125-150-175-200 100 ma . Tube Rect C6095 VP-554 6.3 225-250-275-300 100 ma . Tube Rect. C6066 VP-555* C6067 VP-557* 6.3300 C6092 VP-G556 12.6 $\quad 225$ 250-275-300 C6052 VP-G556 12.6 225-250-275-300 100 ma . Self-Rect. C6068 VP-F558 $32.0 \quad 225-250-275-300 \quad 100 \mathrm{ma}$. Tube Rect. 14.41 *Special Dual Packs for high output. Output voltage not adjustable. ype vF-223 Filter-For all single unit packs where utmost hum

## Replacement Vibrators for Vibrapacks

No Vibrapacks Type Each No. Vibrapacks Type Each C6062 VP-551, 552, 540725 S4.50 C6065 VP-G55 G-725 $\$ 5.32$ C6063 VP-553, 554, $825 \quad 3.67$ C6065 VP-F558 F-826 4.06

## MALIORY 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 unit is fully filtered. Complete with overall unist cover and special mounting bracket. dust cover and special mount
Size: $71 / 2 \times 315 / 16 \times 51 / 8^{\circ}$. Wt. 9 lbs C6059-
Your Cost
\$15.29

For operating cycle a $c$, 6 pliances, radios, P.A. from d.c. supplies. All radio interfer ance filters


From 110-115V. D.C.

| Stock | Max. | Your |
| :---: | :---: | :---: |
| No. | Output | Cost |
| C19803 | 110W. | \$33.96 |
| C19804 | 150W. | 37.34 |
| C19809 | 225W. | 43.54 |
| C19805 | 300W. | 52.63 |
| C19815 | 500W. | 69.27 |
|  | $0 \text { Volts }$ |  |
| C19801 | 150WW. |  |
| $\begin{aligned} & \text { C19802 } \\ & \text { C19813 } \end{aligned}$ | 300W. | $\begin{aligned} & 52.63 \\ & 69.27 \end{aligned}$ |
|  |  |  |

For charging any 6-volt battery at home. Delivers full 5 amperes and tapers off as battery charges, thus preventing damage to cells due to overcharging. Has receptacle for attaching to car and ammeter so that battery can
 be charged without removing it from car. With tube and all accessories. For 110 v., 60 cyc. a.c. only. Shpg. wt C15699-
Your Cost
s11.76


Used in battery chargers, " $A$ " eliminators, etc. Can replace Rectigon inators, etc. Can replace Recligon


## Genuine Mazda 6-Volt Edison Base Bulbs

Edison base light bulbs for use in 6-volt lightin
C12255-15 W. Draws 2.5 A.
C12256-25 W. Draws 4.2A Either Type, Each.
Plus Fed. Excise Tax...


## SIMPSON Model 415



Each Signal Generator is individually crystal controlled frequency standard Leakage reduced to an absolute minimum by complete shielding and case is of steel with copper plating Smooth vernier dial assures accurate tuning ranges on a direct readine dial with continuous coverage from 70 kilocycles to 130 megacycles. Calibration is stable regardless of wide variations in line voltage. RF output is from 0 to $100 \%$ using either 400 cycle internal ine wave or an external source. For 110 volis $50 / 60$ cycles. $5 \frac{5}{8} \times 11^{3} \mathrm{~s}^{7 \times 15}{ }^{2}$. Shpg. wh. C21716.

## SIMPSON Model 315

Nine inch dial. $30 \%$ modulation at 400 cycles. Bands: $75-30,001$ ) kcs. Complete shielding.


SUPREME Model 576


Compact Signal Generator incorporating
electron coupled circuit giving greatest stability. Iron core
coils. Leakage minimized by double shielding. RF range
from 65 to 20,500 kilocycles and harmonics to 82 megacycles. Audio frequency: 400 cycleslinuously variable from minimum to maximum Internal modulation at appromimately $50 \%$ on RF carrier. Jack provided for external modulation. 115 volts
Shpg. Wt. 19 lbs. C21667-Your Cost Approximately
\$67.57

## RCA Model 162 B



Although used primarily to service radio cillator is useful in a wide variety of applications. Its output may be adjusted to any frequency with the over all range of 100 to 30,000 kilocycles, and may be regulated in strength bet ween the limits of four microvolts and one volt. A source of modulation at
approximately 400 cycles is internally provided approximately 100 cycles is internally provided
to facilitate alignment operations. Moclulation to facilitate alignment operations. Nom alation
from an external source may he applied if overall fidelity measurements are required. $2 \%$ calibration accuracy. Frequency range is covered in six different bands: 100-270, $10000-30000$ kilocycles AF $10000-30000$ kilocycles. AF output: 5 volts
across 50,000$)$ ohms impedance at no load. $A F$ input; $11 / 2$ volts for $30 \%$ modulation. 110 - 120 volt. 50 -(in) cycles.
C21448
$\$ 45-50$

## PRECISION Model E200



## Units are individu-

ally hand calibrated
to better than $1 \%$ which range from 90 kc . to 88 mc . I irect reading: no charts needed. Large ful! vision ( $612^{\prime \prime}$ no-glare dial with a 0-1000 point vernier scale allowing direct reading to one part in lovios 4to cycle sine-wave audio oscillat or provides 50 volts. Complete shielding including electrostatically shielded transformer and AC line is RF filtered. $0-100 \%$ modulation control more than triples signal utility. $110 \mathrm{v}, 50 / 60$ cycle. Black ripple finished, heavy gauge portable steel case. $101^{1 / 2} \times 12^{\circ} \times 6^{\prime \prime}$. Shpg. wt. 20 lbs .
C21715

## HICKOK Model 288X

Four crystal controlled outpuls with accuracy
of $.01 \%$. Ideal for AM, FM, Television and P.A. servicing. Wide ated sweep. 100 kc . to 133 mes. 150 kc . standard sweep from 1000 kc to 133 mcs. 30 kc . sweep for visual alignment of
 1M recuivers from 100 kc . to 110 mcs . AF outputs at 400 cycles fixed and 100 to 10,000 cycles varinbe cyes fixed racy of $5 \%$. Accuracy of better than $15 \%$ on seven RF ranges. All coils but (io to 110 mes. are high " $Q$ " iron core type, permeability and capacity tuned. Voltage regulation may be used if desired. Complete with 6 tube's less regulator tube), necessary cables, instruction manual Operates on 110 volts $50-60$ cycles. $13^{\prime \prime} \times 13^{\prime \prime} x^{7 \prime \prime}$
Shipg. Wt. 28 lbs.
C21455
912637

## TRIPLETT Model 2432

Extremely accurate Signal Generator employing a large etched
total length made up of 6 arcs approximately 330 degrees each. Output connections on the front panel use the coaxial type fittings-one for
 AF and one for RF
Vollage regulated power supply provides fo sreater accuracy. Six bands are wied $75-22$ i $220-750,700-2500,2150-8500,8000) 250(10$ and $21000-50000$ kilocycles. Output attenuators provide coarse and fine control thru 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 $10^{\prime \prime} \times 10^{\circ} \times 6^{2} 4^{\prime \prime} .110 \mathrm{v}$. 60 cycles. Shpg. wt. $151 / 2$ lbs.
C21484-Approximately.
$\$ 60.00$


##  <br> SUPREME Tube and Set Tester <br> SIMPSON Tube Tester <br> HICKOK Tube and Set Tester

Model 504A
 One of the finest
combination tube combination tube tester and set testTests all tubes in Tests all tubes
cluding loktals, tals, non-octals television video am plifiers, Bantam Jr. miniatures, pilot
lights, etc. Uses a lights, etc. Uses a and the "Arrow Way" indicator system. Contains a rheostat line adjustment. Section checks are made on ing 31 ranges are available: 0.1 to $2500 \mathrm{d.c}$. volts at 1000 ohms per volt in seven ranges, 10 microamperes to 10 amps. in seven d.c. ranges, 0.1 to 1000 volts in five ranges for effient receiver output volts in five ranges for efficient receiver adjustment, 0.1 ohm to 20 megs, in five ranges, "Good-Bad" indicator used for x121/ $8^{*} \times 57 / 8^{\prime \prime}$. Shpg. wt. 20 lbs.
C21678-Approx. Cost. $\qquad$
SUPREME Model 599 Tube and Set Tester

values in tube, bat tery and set testers ever olfered. Emission type tube checker with patDouble Floating Filament Return Selector System tection against obsolescence. Roller chart. Arrow-Way" indication system. Ranges: D 5 . 1 s ( 1000 ohms/volt) 0-6/15/150/600/ 1500; AC volts (carbon-oxide rectifier) 0-6/15/ volts 0.2 to 600 volts, include $0-6 / 15 / 150 / 600$ : Resistance $0-200,20000$ ohms $/ 2 / 20$ megs.: 20 megohm range used for paper condenser checks; Dry Battery check 1.5/4.5/6.0/45/90


SUPREME Model 589
Tube and Battery Tester

Approx. Cost
\$48.75
SPRAGUE DeLuxe "Tel-Ohmike"
Capacitor Analyzer
 ances ones capaciing scales from . 00001 to $2,000 \mathrm{mfds}$. Checks paper, mica, oil, wet and dry electrolytic condensers. Measures d.c. resistance from $1 / 2$ ohm to 5 megs and insulation resistance up to 1,000 megs. Provides power factor and leakage tests. Built-in power supply (up to $1,000 \mathrm{v}$.) permits checking under direct working conditions. A magic eye indicates resonance. The voltmilliammeter has a switch providing 8 ranges: (0-1.5-15-50 d.c. ma and 0-15-50-500-1500 volts d.c. Switch and pin jacks permit use of volt-milliammeter for external measurements.


SOLAR Exam-Eter CF-1-60


Provides an accurate Wien bridge for capacitance and capacitor power factor measurements. Circuit may be switched to a
Wheatstone type bridge for resistance measurements. Capacitance determination from 10 mmid. to 2000 mfd . Insulation resistance from 3 to sistance of resistors from 100 ohms to 7.5 megs. may be accurately checked. Uses $1-6 L 6$. $10^{\prime \prime} \times 51 /^{\prime \prime}$. Shpg. wt. 13 lbs. $\$ 123 / 4 x^{\prime \prime}$
c21790-Approximates. Size:

Model 330


A test tube in terms of percentage of rated dynamic mu tual conductance. $41 / 2^{*}$ me-
ter with colored dial indicates good, fair, bad and doubtful
Sockets are provided for all types of tubes. Ten push button and nine rotating switches provide infinite combinations in tube element and circuit selection. A tube chart is used for quickly identifying tubes and setting controls. A reset bution returns all switches to normal position. Neon short indicator. Size: $151 / 2^{\prime \prime} \times 91 / 2{ }^{\prime \prime} \times 61 /{ }^{\prime \prime}$. Shpg.
wt. 12 lbs.
C21714-Your Cost
s96.53

## SIMPSON Model 305

Emission type tube tester with 3 way switches making it possible to test any nections. Neon short tester. Line control from 100 to 130 volts. Size: $8^{\prime \prime} \times 10^{3 / \prime \prime} \times 51^{\prime \prime}$ Shpg. wt. 12 lbs.
C21711-Your Cost
$\$ 3871$

## HICKOK Model 532P



This portable tube tester has $t h e$ world famous Hickok Dynamic Mutual Conductance circuit
which actually which actually method used by the tube manufacturers. Easy to read scales MHO ranges as well as "Replace," "Doubtful" and "Good" indications. Tests all tubes including octal, loktal, miniature, ballast and magic eliminates gassy tubes. 110 volt quickly Size $17^{\prime \prime} \times 18^{\prime \prime} \times 8^{1 / 2^{n}}$. Shpg 110 volt 60 cycle c21454-your cost... \$1 24

## TRIPLETT Model 2413



Multi-purpose test circuit provides for emission test, short and open ele-
ment test and transcontance comparison
test for matching tubes. Tests a!l receiving tubes, gaseous rectifiers, ballamps. Neon short test indicator, Mleter indicates whether tubes are "Good," "Bad" or "Doubtful." Quick reference chart, measuring $9^{\prime \prime} \times 9^{\prime \prime}$ is carried in the lid of the tesShpg wt. 12 lbs. 843 Your Cost. .... $\$ 4$


## (20) <br> Model TC3P

For all standard loktal and miniature series tubes.
Fil. volts 1 to 117 . Has 18 lever telephone type switches. Shorts, line and emission all checked using one control. $3^{\prime \prime}$ square $1 l l u m i n a t e d$ jeweled D'Arsonval type meter; accuracy between every element including cathode to heater. DC voltmeter range, $0-10-100$ 1000 . This is a portable tester of the 1000 . This is a portable tester of the
emission type measuring $141 / 2^{\prime \prime} \times 14^{\circ} \times 71 / 2^{4}$. Shpg. wt. 22 lbs.
C21514-Your Cost
$\$ 51.00$

Model 534


An all purpose mutual conductance tube tester and set tester. The tube test features are the same as in Model 532P which adjoining column adjoining column. $0-20-200-500-1,000$ -$0-20-200-500-1,000$
5,000 volts d. c. Sensitivity 20,000 ohms per volt d.c., and $1,000 \mathrm{ohms}$ per volt a.c. Resistance measurements in three ranges from 0.1 ohm to 100 megs. No batteries needed. Capacitance checks from 0.0001 to 100 mfds . Checks leak age of electrolytics and paper condensers Inductance checks up to 100 henries (or higher by simple calculation) with or without D.C. component. -10 to +50 DB scale. Tube complement: 1-83, $1-5 \mathrm{Y} 3 \mathrm{GT}$, 2-6H6. Operates on 110 volts 60 cycles. Size: 17"x 18*x $8^{1 / 2}{ }^{n}$. Shpg. wt. 35
C21452-Your Cost.
lbs. \$123. 91
PRECISION Tube and Radio Analyzer Model 920P


This is a complete service laboratory including a dynamic mutual conductance type tube tester, battery tester multi-range set tester Tests all types of tubes, and tests all types of portable radio dry batteries. Batteries are checked under actual
load conditions and scale indicates when to replace. Roll type chart. A.C. and D.C voltage measurements to 3000 volts. 1000 ohms per volt on both ranges. D.C. measure ments to 12 amps . Resistances up to 10 megs. Decibel readings to +64 DB . Output readings to 3000 volts. Size: $12^{\prime \prime} \times 13^{\prime \prime} \times 6^{\prime \prime}$.
\$69.06
PRECISION Model $912 P$ Tube and Battery Tester Same as Model 920P bu feature. Shpg. wt. 19
\$48.32

## Cornell-Dubilier

 Capacitor Decades

Accurate standards covering a wide range of capacity in units. For use with Type BN" Capacity Bridge shown on page 50 or similar precise unit. Capacity range: . 0001 to 11.1 mfd . Calibration chart with each. Rating 600 V . DC-220 V. AC; Tolerance $\pm 5 \%$. Walnut Bakelite case, dim.: $3 \frac{5}{8} \times 5 \times 3^{\prime \prime}$. Shpg. wt. 4 lbs. C21729-. 011 mfd in .0001 steps C21730-1.1 mfd. in 01 steps. $\$ 798$ c21731- 10.0 mfd in 1.0 mfd . steps. Your
$+13.13$
CORNELL-DUBILIER Instruments BE-50" Capacitor Analyzer


For measuring all important characteristics of capacitors. Inbridge with single stage of amplification and visual "eye" for measurements. Has (for 110 V., 60 cycles AC) 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, etc. Uses 12A7 and 6E5 tubes. In Walnut portable case, dim.: $61 / 2 \times 12 \times 93 / 4^{\prime \prime}$. Shpg.
C21727-
Your Cost, Less Tubes.
\$
\$34.08


A balanced highly degenerative bridge circuit allows higher input impedances with less detuning of than ever before. There is negligible frequency error from 50 cycles to 100 megacyles. All ranges selected by means of push buttons. Zero adjustment control. Four inch full-vision type meter. Fuse protected. Ranges:
DC volts $0-1 / 2.5 / 10 / 50 / 250 / 500$; DC volts $0-1 / 2.5 / 10 / 50 / 250 / 500 ;$
AC volts $0-1 / 2.5 / 10 / 50 / 250$. In put resistance: $\mathrm{DC}-80$ megohms on 1 volt range, 40 megohms on 500 volt range; $A C-40$ megohms on 1 volt range, 20 megrohms on
250 volt range. Audio frequency voltages up to 20,000 cycles may be measured. The input capacity of the probe is 5 MMFDS . Attractive metal case with a hinged cover. Size: $911{ }_{16}{ }^{\circ} \times 9{ }^{16}{ }^{\circ} \times 4.8{ }^{8}$.
Shpg. wt. 11 lbs. $110-125$ voits Ahpg. $50 / 60$ cycles. C21682-
Approx.

PRECISION EV-10MCP V-T Multi-Range Tester


Employs $81 / 2^{\prime \prime}$ 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 $300 / 600 / 1200 / 6000$ volts at 13
to 133 meg . input resistance; six circuit probing zero-center ranges, sensitivity as above, using coaxia cable for measurement in AVC, AFC, FM and television circuits. $0 / 3 / 6 / 12 / 60300 / 600$ volts; re-
sistance $0 / 2000 / 200,000$ ohms sistance $0 / 2000 / 200,000$ ohms and $0 / 2 / 20 / 200 ; 2000$ megohms; eight A.C. and D.C. voltage 6000 volts D.C ohms/volt to microamps, $0 / 3 / 12 / 60 / 300 / 1200$ ma. 0/12 amperes; output ranges from -26 to +70 db . Shpg.

C21765-Model EV-10MCP in black ripple metal case with hanyour cost.... ${ }^{\text {die. }} 12 \mathrm{y}=55$ Model EV-10P, hardwood portable above, in movable cover and case with re movable cover and tool compart-
ment.
c21766-Each.. $\$ 2.5$

HICKOK Model 203 A.C.-D.C. Multitester


Compact universal test instru ment for A.C.-D.C. voltage meas urements, with extremely high in put impedance, ideal for alignment of discriminator circuits in FM receivers. Electronics circuit arrangement makes it impossible to damage meter due to over voltage. Contains a voltage regu lated power supply. Ranges lated power supply. Ranges:
$0.5 / 2.5 / 10 / 50 / 250$ 1000 at constant input impedance of 2.5 stant input impedance of $0-2.5 /$ megohms on A.C. volts. $0-2.5 /$
$10 / 50 / 250 / 1000 \mathrm{D}$. . volis at input impedance of 14 megs.; Resistance in 6 ranges from 1 ohm to 1000 megohms; $0-2.5 / 10 / 50 /$
$250 / 1000$ D.C. milliamperes. Large $5^{* \prime}$ square meter. Complete with shielded test probes and tubes. 110 volts, $50-60$ cycles A.C $7{ }^{1} 2^{*} \times 8^{*} \times 101^{1} 2^{\prime}$. libs. 453
$\$ 73.50$
RF-10 PROBE: for Precision EV R.F. and U.H.F. veltages. With R.F. and U.H.F. voltages. With
955 acorn tube. $\$ 16.07$
C21784 Each..

RCA Voltohmyst Model 195-A
One of the most useful, and versavoltage test-
ing devices ing devices
providing manyimportant adVantages. High input impedance may be signal pres-
 signal pres-
ent), high can be mealues of resistances stant protection against meter burnout is assured. Ranges: 0-5/10/50/100/500/1000 D.C. volts with a constant input irnpedance of 10 megohms; 0 read on a inear scale. 0-1004 $10,000 / 100,000$ ohms $/ 1$ meg/10 megs , 1000 megs. by using internal source of 3 volts; as an A.F voltmeter has frequency response from flat 30 cycles to 100 kc . Input impedance 200,000 ohms plus 170 mmfd . $0-5 / 10 / 50 / 100$ volts: -20 to +62 db . When used for measurements across $6!0$ ohm audio circuits the readings are equivalent to volume units for a reference level of 1 milliwait.
FM alignment indicator with a plus or minus indicator with a New style easily read meter face.


C21771-Ea.
$\$ 5750$

## GENERAL ELECTRIC UM3 Unimeter

Completely portable all around utility for "on the service work in the feld. Scales in alterrate red and black. (55) Range DC volts $1000 / 2500.2000$ ohms per volt. AC
volts same at 1300
 ohms per volt. Re-
sistance $0-100$ sistance 0-100/100000, 1 megohm with self contained battery. With external battery the range can be easily raised to 30 megs. (68) $0-1 / 10 / 100$ milliampere. $0-1 / 10$ amps. 12 to $\pm 54$ decibels in 5 ranges, 6 milliwatts into 500 ohms is used as 0 reference level. Accuracy $2 \%$ on $\mathrm{DC}, 5 \%$ on AC . Steel case, gray wrinkle with test prods and leads but less battery. Uses 6 volt battery. $9^{\prime \times \times 10^{\prime \prime} \times 455^{\prime \prime} \text {. Shag. wt. }}$ e21515-Your Cost

## ELECTRONIC DESIGNS Model 100 <br> V-T Volt-Ohmmeter

The Model 100 has been withstand the critical demands for a compact sturdily built meter, and at the same time supply the demand for vacuum tube Volt-ohmvacuum tube Volt-ohm-
meter. Extreme care in meter. Extching and the matching and
choice of component parts has resulted in a high quality test in-
strument. DC Ranges: $0-3 / 10 / 30 / 100 / 300 / 1000$ volts. All ranges have a constant input resistance of $11,000,000$ ohms. Accuracy $3 \% \pm$. AC Ranges: $0-10 / 30 / 100 / 300$; 1000 volts. 1,000 ohms per volt sensitivity with accuracy of $5 \% \pm$. Electronic Ohmmeter Ranges: $0-100010000 / 100000$ ohms $/ 1 \mathrm{meg} / 10$ megs $/$ 1000 megs. This extremely neat meter is complete with signal tracer probe, two test leads 1bs. $110-120$ volts. $50-60$ cycles. $\$ 4750$ C21710-Your Cost


## TRIPLETT Model 2400 Volt-Ohm-Milliammeter

## WESTON Model 779-1

 Super-Sensitive Analyzer DC voltage ranges at a
sensitivity of sensitivity of
either 1000 or 20000 ohms/ volt. Precision resistors used. Ranges: AC and DC volts. $0-2.5 /$
$10 / 50 / 250 \%$
1005 1000;DCcurrent $0.1 / 1 /-$ 10/50/250 milliamperes, $0-1 / 10$ amps.; $03000 /-$ $30000 / 300000$ ohms and $0-30$ megohms; Decibels -14 to +54 . Solid oak case $63 / 8^{\prime \prime} \times 91 / 8^{\circ} \times 47 / 8^{\prime \prime}$. Shpg. wt. 6 lbs. c21647Approx.
$\$ 69.19 \underbrace{\substack{\text { c27 } \\ \text { Yot }}}_{\text {Your cost }}$

SIMPSON Model 260 Volt-Ohm Milliammeter A high sensitivity gible current neglisumption which full scale readines. Ranges:-Volts AC and $\mathrm{DC} 0-2.5$, 10, 50, 250, 1000, 5000 at 20,000 ohms per volt DC and 1000 ohms per volt AC. Output AC volts $2.5,10,50,250$, 1000, 5000. Milliamp. DC: 0-10, 100,500 . Microamp. DC $0-50$, 100 . DB. 5 ranges -10 to +52 . Ohms: $0-1000, \quad 0-100,000, \quad 0-10$ megohms. Size $51 / 2^{\prime \prime}$ wide, $7^{\prime \prime}$ long, $3^{\prime \prime}$ deep. Wt. $21 / 2$ lbs.

TRIPLETT Model 625N Volt-Ohm-Milliammeter
Ultra-sensitive.
multi-range in. strument utilstring a $5^{n}$ yong
ing
scale. Ranges: scale. Rolts 0 $1.25 / 5 / 25 / 125$, 20.000 ohms 20.000 ohms
voit; $0-2.5 / 10$ voit; $0-2.5100$ 5000 at 10,000 ohms/volt; AC volts $0-2.5 / 10 / 50 / 250 / 1000 / 5000$; DC microamps, 0-50; DC milliamperes $0-1 / 10 / 100 / 1000$ : Re Re sistance $0-400 / 50,000$ ohms and 0 10 megs.: Decibels -30 to +69 ; Complete with $50^{\circ}$ test leads and instructions. $6^{*} \times 51 / 2^{*} \times 21 / 2^{*}$.

PRECISION Model 844P Portable Multi-Meter Single rotary master range selector. Large 45\%" rectangular meter.
Ranges: ACand DC volts 0 12/60/300/600
 at $1,000 / 6000$ at 1,000 ohms / volt; DC milliamperes 0-1.2/12/60/300/1200 and 0-12 amps.; 0/400/100.000 ohms and $0-1 / 10$ megs. Decibel ranges from -12 to +70 ; Output $(u-12 i$ 60/300/600/1200/6000 volts. Hard wood case with cover, test leads and batteries. $9^{\prime \prime} \times 10^{\prime \prime} \times 6^{\prime \prime}$. Shpg. wt. 9 lbs.
C21656-
Your Cost
R.C.A. Rider Chanalyst

Famous Rider Chanalyst pertematic method of analysis on any type of point can be interfering with operation of receiver. Various conditions can be determined at tube elements while signal is present.
Checks presence or absence of signal, operating and control voltages. Also the operation of various types of filter circuits at radio, intermediate or audio frequencies. Saves time in the shop by enabling you to locate causes of failure in minutes instead of hours. Solves the problem of intermittent reception quickly and more positively than any other method. plement of 12 tubes. Gray crackle finished steel case with carrying handles. 9 " $\times 16^{\prime \prime} \times$ $10 \%$. Wt. 28 lbs. C21666 Your Cost

## SUPREME Model 542B

 5000 O. P. V.
following ranges res and 150 and $1500 ; 4$ ohms ranges of $0-2000$. 20000, 200 ,000 and 2 megs.; 4 AC volt ranges of $0-6,30,150$ and 600 4 out put ranges of $0-6,30,150$ and 600; 1 decibel ranges of -6 to +10 , to +50 . This meter, weighing only 23 oz . is convenient to handle. It uses a full size $3^{\prime \prime}$ meter with a rurged, accurate 200 microampere movement and a knife edged pointer. This movement has a sensitivity of 5,000 OHMS PER VOLT! All resistance range are operated by batteries furnished with the unit. Ifoused in sturdy Bakelite case.
Shpr.wt. 2 lbs. $\$ 23.38$
C21732-Approx. Model 543 B
Similar to above but 1000 O.P.V. Ranges: $0 / 2000 / 200,000$ ohms ; $0 / 6 / 60 / 600$ D.C.M.A.; 0/15/150/ $600 / 3000$ volts AC and DC. Shpg. C21745-
$\$ 18.57$

## SILVER VOMAX



Vomax is a true vacuum tube every voltage/resistance db function. Tracing and measuring can be completely done on all $R$
A.F., A.V.C., and A.F.C. signals in every circuit. By means of a withdrawable R.F. diode probe complete signal servicing from 20 done Check these fetures 1200 vols done. Check these features. 3 to 1200 volts D.C. in six ranges at effective loading of 2000 megohms in six easily read ranges -10 to +50 DB in 3 ranses, 1.2 ranges, amps. in 6 d.c. ranges. Absolute stability: one zero adjustment sets all ranges, factual accuracy: plus iminus $3 \%$ on d.c.; plus/minus $5 \%$ on a.c. Only five differently colored scales on a $4 / 8^{\prime \prime}$ meter for 51 ranges. Meter $100 \%$, proSize: $12^{3} s^{\prime \prime} \times 7^{7}: 8^{\prime \prime} \times 5^{7} / 8^{\prime \prime}$. Wt. 13 lbs. c21540-Your Cost
\$59.85

## RCA DYNAMIC DEMONSTRATOR III



This 6-tube demonstration kit has been especially designed for schools and colleges. Colors indicate the basic functional sections and the large panel is supplied for clearly marked and audio input and output terminals are provided. Loudspeaker may be removed to demonstrate balle effect.
Operates on 110 volts a.c. Fuse protected Shifg. wt. 48 lbs. $\$ \& 9.50$

## , <br> 



Ilas 1000 ohms per volt sensitivit Ranges: DC Volts- $0 / 5 / 50 / 250$ 500,2500 DC Milliamperes 0/1
$10 / 100,1000$. DC Amps $0 / 1 / 10$ $10 / 100,1000.1)$
AC Volts-0/10 $100 / 500 / 1000$. AC Volts-0/1,1000/500/1000. Decibels - 8 to $+15,+12$ to $+35,+26$ to $+49,+32$ to +55 . Output ranges same as AC volts. Size: $3 \times 8,1 / 2 \times 5^{\prime \prime}$. Shpg. Wt. 5 lbs.
C21722-Model $447 . \$ 17.59$

A small pocket type tester, convenient to carry, comparable to larger testers. Basic meter is peres, accurate to within $2 \%$. Volt
ages multipliers ages multipliers
are metallized
 matched pair resistors having a tolerance of $1 \%$.
DC volts, $0-2.5-10-50-250-1000-$ 5000. DC milliamperes 0-1-10-1001000. Ohmmeter 0-500-100,000$1,000,000$. AC volts $0-10-50-2.50$ 250-1000-5000. Decibel meter: minus 10 to plus 69 Decibels. c21723 Model $\$ 2$ M 203
420 . Your Cost


The new improved Analyst is the most modern
complete servicing instrument on the mag instru day. Lacates market tohe signal les faults by od, signal tracing meth ate channels five sepawhich may be alt of at the same time. It has 4-range electron, ic volt meter, wide range audio est channel, oscillato $95-1700 \mathrm{kc}$ - if troubleshooter channel ndicator channel Controls accurately cal brated. Alimned and laboratory tested com plete with 12 tubes and ready fored. Com volt 60 cycle Includes test cables 1 instruction book.
C21706-Approx
$\$ 110.70$

## Analyst Manual

Contains a general discussion of the Analyst tions on how to service any receiver. C19994-Your Cost $25^{4}$

## PRECISION Model 832 S



This compact 31
measuring only utilizing a $3^{\prime \prime}$ square 800 microampere meter has the following scales: D.C voltage ranges $0-150,0-300,0-600$ volt: $0-6,0-30$. volt ranges at 500 ohms per volt: $0-2,0-60,0-300,0-600,0-1200$, 0-2400. D.C. current: $0-1.2,0-12$ $0-120,0-600$ milliamperes. Resis-
tance ranges: $0-5000$ ohms, $0-500-$ 000 ohms, and up to 5 megs by using an external battery. Decibels. -10 to +60 . Output ranges: $0-12$ 60-300-600-1200-2100 volts. In strument uses matcipliers of 10 accuracy. Individually sealed calibrating controls and wax impregnated telephone cabled wiring plete with test leads and internal plete with test leads and interna C21657
Your Cost
$\$ 20.39$

Many of the test instruments shown on these pages can be supplied for oper tion on 220 voles A.C. Write for data and prices. Manufacturers literature available on all models. Chitayd |ndustrial |nstrument-Porfable YolfodilW.

## Yilliammeters

Simplex Model 371


## Aocket-size Pioneer" of rug

 ged and durable construction for service. schools. service, schools,radio shops and radio shops and
wherever extreme accuracy is not required. Strictly a D.C. meter, its ranges are as fol-
lows: $0-3 / 15 /-$ $30 / 300$ volts, $0-25$ milliamperes and a resistance scale of 0 to
$1(1,000$ ohms. Operates on two $1(1,000$ ohms. Operates on two
standard flashlight cells which are included. Size $17 / 8^{* x 2} \times 1 \times 33^{3 / 8}$. C21504-Each
$\$ 4.56$

## Model 312

Similar to above but for use on both $A C$ and $D C$ volts: $0-25 / 50 /-$ 125/250; Milliamperes to 50 mills.;


Model 431
A small but very
sensitive instru ment employing a 400 microampere meter mounted on an etched aluminum panel, and set in a black wrinkle meta case. Polarized jacks and rotor switch facilitate A copper sextion. accurate accurate a.c. measurements. In-
closed flashlight battery furnishes the necessary testing current. Ranges include the following: $0-15,150$ volts a.c. $-1,000$ ohms per volt;
$0-30 / 300 / 1500$ volts d.c.-2500 ohms per volt; $0-150$ milliamperes d.c.: $3000 / 300,000$ ohms full scale; plete with $48^{\prime \prime}$ test leads, insulation breakdown test 10,000 volts. Size:



## Portable

 multirange volt/ohm/ milliammeter using I.R.C.metalized multipliers calibrated to within $1 \%$. A croampere meter is em-
ployed which utilizes the following ranges: 0 $7.5 / 15 / 150,750 / 1500$ volts a.c. and d.c- 1,000 ohms per volt; 0-7.5/75 d.c. milliamperes; $50000 / 500,000$ ohms full scale: $35 / 3500$ ohms center scale. A copper-oxide rectilier is used for accurate a.c. measure-silver-panges are brought out to identification. Battery and $48^{\circ}$ test leads rated at 10.000 volts breakSize: $5^{7}$ Í $\times 3^{\circ}$ overall. Shpg. wt. 3 lbs

Miniature Model 450
 Ideal for service and precision are required. Dustproof construction with bakelite case this unique meter this sensitivity of has a ohms per volt, and the multipliers are held to within $1 \%$. Includes two standard penlicht cells. Ranges: $0-5,10 / 50 / 500 / 1000$ volts d.c.;
$0-1$ milliamperes d.c.; 5,000/50, (100: 500,000 ohms full scale $30 / 300 / 3,000$ ohms center scale


## C21506-Each <br> <br> ch.

 <br> <br> ch.}$\$ 8.32$
Model 451. Similar to above but or use on both AC and DC volts 1000 ohms /volt-all ranges) C21507-Each
$\$ 12.74$ Model 452. Similar to Model 450 but 10,000 ohms/volt and resistance readings up 102 megohms.
C21508-Each.


D．C．Ammeters With External Shunt
These precision instru－ finest materials and are assembled by skilled cases；terminals molded cases；terminals molded
$i_{n}$ ．With external shunt．Prices on higher range meters，or on a．c Ammeters with current transformers，available on application．

| Range Amps． | $221-2^{\prime \prime}$ No． | Round Each | 321－3＇ | Round | $426-4$ No． | Square Each | $\begin{gathered} \text { 626-6" } \\ \text { No. } \end{gathered}$ | Square Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0－50 | C10926 | \＄ 4.87 | C10937 | \＄ 5.78 | C10948 | \＄ 7.03 | C10959 | \＄8．46 |
| 0.75 | C10927 | 4.87 | C10938 | 5.78 | C10949 | 7.03 | C10960 | 8.64 |
| $0-100$ | C10928 | 7.18 | C10939 | 8.10 | C10950 | 9.34 | C10961 | 10.78 |
| 0－150 | C10929 | 7.18 | C10940 | 8.10 | C10951 | 9.34 | C10962 | 10.78 |
| 0－200 | C10930 | 7.18 | C10941 | 8.10 | C10952 | 9.34 | C10963 | 10.78 |
| 0－300 | C10931 | 7.74 | C10942 | 8.65 | C10953 | 9.90 | C10964 | 11.34 |
| $0-400$ | C10932 | 8.99 | C10943 | 9.90 | C10954 | 11.14 | C10965 | 12.58 |
| 0－500 | C10933 | 10.26 | C10944 | 11.17 | C10955 | 12.42 | C10966 | 13.85 |
| 0－600 | C10934 | 11.50 | C10945 | 12.42 | C10956 | 13.65 | C10967 | 15.09 |
| $0-800$ | C10935 | 14.01 | C10946 | 14.93 | C10957 | 16.17 | C10968 | 17.61 |
| 0－1000 | C10936 | 17.61 | C10947 | 18.52 | C10958 | 19.77 | C10969 | 21.20 |

NOTE：We can supply any Triplett equipment not listed here on special order，at regular dealers prices．

## 1000 Ohms－per－Volt Foundation Meters

 $0-1$ d．c．milliammeter Foundation Instrument per－volt）Scales read：0－10－50－250－500－1000 volts；0－1－10－50－250 milliamperes；low ohms， 2 to 500 ；high ohms to 100,000 ．Shpg wt each 3 lbs． C11442－Model 321． $3^{*}$ Round． C11388 Model $326.3^{\prime}$ Square． C11278－Model 421． 4 $^{\prime}$ Square C11278－Model 421.4 ．Nound C11297－Model 521．5 Round．SHUNTS AND RESISTORS FOR ABOVE INSTRUMENTS Resistors，on bakelite，for $0-10-50-250-500-1000$ volts． C11368－Your Cost $\square$
－ 250 ma．；current limiting resistors
Shunts for $0-1-10-50-250 \mathrm{ma}$ ．current limiting resistors high ohms and shunt for low ohms． C11369－Mounted on bakelite．Your Cost C11370－Zero adjust rheostat for ohms ranges．Each． Multi－Deck Selector Switch（2 decks）．With knob． C11371 Your Cost

Power Level Indicators
 For measur ing noise P．A．，thea ters，broad cast sta tions，etc． Rangereads $u p 6$ and
down 10 db ． down 10 db ． Zero dy at
1.73 volts， 500 ohm lines， 6 milliwatts．Stand－ ard damping．Wt． 3 lbs． Model 321． $3^{\prime \prime}$ dia．
$\$ 8.46$ Model 421．4＂sq
$\$ 14.21$ C11447－Each．．
Decibel Meter Kit：Includes C11446 $3^{\prime}$ meter，selector switch， 9 wire－wound multipliers on bake－ lite boa
C11448－Each．．．\＄17，09

> Thermo－Ammeters with External Couple Model 341
$3^{\circ}$ Round $\frac{\text { No．}}{\text { C11389 }}-$ C11391
C11390
C11392 $\$ 7.18$ C11390
C11392
C11393 Amps． $2^{*}$ Round Replacement couples on order， any range，specify．．Each \＄2．87

Thermo－Ammeters with Built－in Couples
For r．f．measurements，ant．radia tion indications，etc．

| Model 341 $3^{\prime \prime}$ Round |  | Amps． | Model 347A $3^{2}$ Square |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| No． | Each |  | No． | Each |
| C11229 | 54.87 | 0.5 | C11220 | \＄4．87 |
| C11235 | 4.87 | 1.0 | C11221 | 4.87 |
| C11238 | 4.87 | 1.5 | C11222 | 4.87 |
| C11239 | 4.87 | 2.5 | C11227 | 4.87 |
| C11246 | 4.87 | 5.0 | C11228 | 4.87 |



| Prongs | Adapt．Top | Adapt．Brase |
| :---: | :---: | :---: |
|  | Stock No． | Stock No． |
| $\stackrel{4}{5}$ | C11563 | C11570 |
| 6 | C11564 | C11571 |
| 7 small | C11565 | C11572 |
| 7 large |  | $C 11573$ |
| 7 comb ．＊ | C11566 |  |
| 8 octal | C11567 | C11574 |
| 8 octal $\dagger$ |  | C11575 |
| Loktal | C11568 |  | black only．



Side Stud Only
Used in above adapter bases
C11576－Your Cost Each．
$61 / 24$ Mis Minl


## TRIPLETT

ROUND AND
SQUARE CASE
PANEL METERS


Incorporate precision enginecring，the finest materials and workman－ ship．Molded cases，all terminals molded in．Sapphire jewels in adjust－ able screws．Accuracy within $2 \%$ ．

D．C．Milliammeters－Round and Square Case

|  | $\begin{gathered} 2^{* *} \text { Round } \\ 221 \end{gathered}$ | $\begin{gathered} 2^{2} \text { Square } \\ 227 \mathrm{~A} \end{gathered}$ |  | $\begin{aligned} & 3^{* *} \text { Round } \\ & 321 \end{aligned}$ | $\begin{gathered} 3^{*} \text { Squarc } \\ 327 \mathrm{~A} \end{gathered}$ |  | $\begin{gathered} 4^{*} \text { square } \\ \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Range | No． | No． | Each | No． | No． | Each |  | Each |
| ${ }_{0}^{0-1}$ | C11208 | ${ }_{\text {C11288 }}$ | ＋4．15 | ${ }_{C}^{\text {C11200 }}$ | C11320 C11321 | \＄5．03 5.03 |  |  |
| 0－3 | C11415 | C11290 | 4.15 | C11411 | C11322 | 5.03 |  |  |
| 0－5 | C11416 | C11298 | 3.23 | C11412 | C11323 | 4.15 | C11337 | 5.39 |
| 0－10 | C11210 | C11299 | 3.23 | C11202 | C11324 | 4.15 | C11338 | 5.39 |
| 0－15 | C11211 | C11300 | 3.23 | C11203 | C11325 | 4.15 | C11339 | 5.39 |
| 0－25 | C11398 | C11306 | 3.23 | C11394 | C11326 | 4.15 | C11340 | 5.39 |
| 0－50 | C11212 | C11309 | 3.23 | C11204 | C11327 | 4.15 | C11341 | 5.39 |
| 0－100 | C11213 | C11311 | 3.23 | C11205 | C11328 | 4.15 | C11342 | 5.39 |
| 0－150 | C11417 | C11312 | 3.23 | C11413 | C11329 | 4.15 | C11343 | 5.39 |
| 0－200 | C11214 | C11313 | 3.23 | C11206 | C11330 | 4.15 | C11344 | 5.39 |
| 0－250 | C11418 | C11314 | 3.23 | C11414 | C11331 | 4.15 | C11345 | 5.39 |
| 0－300 | C11287 | C11315 | 3.23 | C11395 | C11332 | 4.15 | C11346 | 5.39 |
| 0－500 | C11215 | C11316 | 3.23 | C11207 | C11333 | 4.15 | C11347 | 5.39 |
| 0－750 | C11400 | C11317 | 3.23 | C11396 | C11334 | 4.15 | C11348 | 5.39 |
| 0－1000 | C11401 | C11318 | 3.23 | C11397 | C11335 | 4.15 | C11349 | 5.39 |

## D．C．Microammeters－Round and Square Case



 ＊With Cobalt Magnets

## A．C．Voltmeters－Round and Square Case

|  | $\left[\begin{array}{c} 2^{\circ} \text { Round } \\ 231 \end{array}\right.$ | $\begin{gathered} 2^{\circ} \text { Nquare } \\ 237 \mathrm{~A} \end{gathered}$ |  | $\left\lvert\, \begin{aligned} & 3^{*} \text { Round } \\ & 331 \end{aligned}\right.$ | $\begin{gathered} 3^{\prime} \text { Square } \\ 337.1 \end{gathered}$ |  | $\left\|\begin{array}{c} \text { "square } \\ 436 \end{array}\right\|$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Range | No． | No． | Each | No． | No． | Each | No． | Each |
| 0－5 | C11280 | C11449 | \＄3．23 | C11273 | C11459 | \＄4．15 | C11466 | \＄5．39 |
| 0－10 | C11281 | C11454 | 3.23 | C11274 | C11460 | 4.15 | C11467 | 5.39 |
| 0－15 | C11282 | C11455 | 3.23 | C11275 | C11461 | 4.15 | C11468 | 5.39 |
| 0－25 | C11283 | C11456 | 3.23 | C11276 | C11462 | 4.15 | C11469 | 5.39 |
| 0－50 | C11284 | C11380 | 3.23 | C11277 | C11381 | 4.15 | C11382 | 5.39 |
| 0－150 | C11286 | C11457 | 4.15 | C11279 | C11463 | 5.03 | C11470 | 6.47 |
| 0－300 | C11409 | C11458 | 5.22 | C11406 | C11464 | 5.95 | C11383 | 7.03 |
| 0－15－150 |  |  |  | C11408 | C11465 | 6.66 |  |  |


| D．C．VOLTMETERS <br> Model 321－1000 Ohms／Volt |  |  |
| :---: | :---: | :---: |
| No． | Range | Each |
| $\begin{aligned} & \hline \text { C11240 } \\ & \text { C11241 } \end{aligned}$ | $\begin{aligned} & 0-10 \\ & 0-50 \end{aligned}$ | \＄5．95 |
| $\begin{aligned} & \overline{\mathbf{C}} 111242 \\ & \mathbf{C} 11243 \end{aligned}$ | $\begin{aligned} & 0-100 \\ & 0-1: 50 \end{aligned}$ | $\$ 6.30$ |
| $\overline{C 11244}$ | （）－3） $0^{(0)}$ | \＄7．91 |


| A．C．MYLLIAMMETERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ModeNo．Natal |  |  | Model 231 |  |
|  | Each | Ma． | No． | Each |
| $\overline{C 1149}$ | \＄4．87 | a－10 | C11420 | \＄3．95 |
| C11265 | \＄4．15 | 0－15 | C11269 | \＄3．23 |
|  |  | $\frac{0-25}{10.50}$ |  |  |
| C11267 |  | ${ }^{(1-50)}$ | C11271 |  |
| C11421 |  | 0－2．50 | C11423 |  |
| C11422 |  | （0－5010 | C11424 |  |

125 Ohms per Volt

| $$ |  | Range | Model 22 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | No． | Each |
| 230 | \＄4．15 |  | $0-5$ | C11247 C11248 |  |
| $\begin{aligned} & \text { C11231 } \\ & \mathbf{C 1 1 2 3 2} \end{aligned}$ |  | $\left\lvert\, \begin{aligned} & 0-10 \\ & 0-15 \end{aligned}\right.$ | $\begin{aligned} & \text { C11248 } \\ & \text { C11249 } \end{aligned}$ |  |
| 1233 |  | 0－23 | C11250 |  |
| C11234 |  | （1－50 | C11251 |  |
| C11236 |  | （1－150 | C11253 |  |
| 11237 | \＄5．03 | （1－250 | C11254 | \＄4．15 |
| C11404 | 6.66 | 0－500 | C1140 | 5.59 |


| Model 33 |  | Amps． | Model 231 |  |
| :---: | :---: | :---: | :---: | :---: |
| No． | Each |  | No． | Each |
| $\begin{aligned} & \overline{\mathrm{C} 11255} \\ & \mathrm{C} 11256 \end{aligned}$ | \＄4．15 | $\begin{aligned} & 0-1 \\ & 0-3 \end{aligned}$ | $\overline{C 11260}$ <br> C11261 | \＄3．23 |
| $\begin{aligned} & \mathrm{C} 11257 \\ & \mathrm{C} 11258 \end{aligned}$ | \＄4．15 | $\begin{aligned} & 0-5 \\ & 0-10 \end{aligned}$ | $\begin{aligned} & \text { C11262 } \\ & \text { C11263 } \end{aligned}$ | \＄3．23 |
| $\begin{aligned} & \overline{\mathrm{C} 11259} \\ & \mathrm{C} 11429 \end{aligned}$ | \＄5 | $\begin{aligned} & 0-25 \\ & 0-30 \end{aligned}$ | $\begin{aligned} & \text { C11264 } \\ & \text { C11384 } \end{aligned}$ |  |
| C11431 | \＄6．47 | 0－50 | C11385 | \＄5．5 |

## D．C．AMMETERS

## METER DIMENSIONS

| Model |
| :--- |
| 221，231，241 |
| $227 \mathrm{~A}, 237 \mathrm{~A}$ |
| $32,331,341$ |
| $327 \mathrm{~A}, 337 \mathrm{~A}, 347 \mathrm{~A}$ |
| 426,436 |
| 521,531 |
| 626,636 |
| 726,736 |



| With internal shunt． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No． | Each | Amps． | No． | Each |
| $\overline{C 11216}$ |  | 0－1 | $\overline{C 11223}$ |  |
| C11372 |  | 0－3 | C11376 |  |
| C11217 |  | 0－5 | C11224 |  |
| C11218 | \＄4．15 | 0－10 | C11225 | \＄3．23 |
| C11373 |  | 0－15 | C11377 |  |
| C11374 |  | 0－25 | C11378 |  |
| C11375 |  | 0－30 | C11379 |  |

## Pelíance Meter Cases <br> Black crackle finish steel cases $4 \times 4 \times 41 / 4$ ingh．Two ceramic C10398－ $2^{3}$ 使 hole C10399－21516 hole Your Cost <br> $\theta 14$

Front Illuminator
Shielded front dial light that fits on lower part of model 321 and glare．Complete with 6.3 volt bulb．
C11292
Each


LITTELFUSES FOR TEST INSTRUMENT'

rotect delicate instruments. Break circuit inmediately on reaching blow point. Length or DC. High Speed action. Type 8AG

| Stock No. | Rating Amps | Max <br> l.oad <br> Ma. | Res. on 5 Ma. Ohms | Your <br> Cost <br> Each | Your Cost Doz. | V-M <br> Ohms <br> Per V. | ToProtect Milliammeters |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C12339 | 1,200 | 5 | 500 | 18 c | \$1.95 | over 1000 | Calv. |
| C12385 | 1/100 | 10 | 110 |  |  | 1000 | up to 0-1 |
| C12386 |  | 25 | 20 |  |  | 500-1000 | 1-10 |
| C12387 | 16 | 60 | 5 |  | . 3 | 100-500 | 10-25 |
| C12389 | ${ }^{1} 8$ | 100 | 1.5 |  |  | 20-100 | 25-75 |
| C12388 | 18 | 100 | 3 |  |  | 20-100 | 25-75 |
| C12390 | 1/4 | 200 | 6.2 |  |  | 10-20 | 75-150 |
| C12391 | 8 | 300 | 3.0 | $\checkmark$ | 1.00 | 5-10 | 150-250 |
| C12392 |  | 400 | 2.5 |  |  | 3-5 | 250-350 |
| C12393 | ${ }^{3}$ | 600 | 4 |  |  |  | 350-500 |
| C12394 | 1 | 1000 | 24 | 5 | 0.4 |  | 500 |
| C12395 | 2 | 2000 | . 11 |  |  |  | 1000-1500 |

IITTELFUSES For Radio

## Sets and Amplifiers



## Extractor Fuse Posts

Takes $1^{\prime \prime}$ in-
strument type
fuse only
$1 / 2 \mathrm{~d}$. Bush
ing for panels up to $510^{\circ}$ thick. C12328-Your Cost, Each . 24 c As alove, for 3 AG ; fuses ( $1 \frac{1}{4} \times 1 / 44^{\circ}$ ) C12326-Your Cost, Each...24c

"Meter Back" Fuse Mount Mounts directly on any meter terminal. posts. Takes $1 \times 1 / 4$ instrument fuses only
C11049-Your Cost, Each. . .12c


Copper Oxide Rectifiers

(A) $-15 \mathrm{ma} .1 / x^{2} / \mathrm{s}^{\prime} . \$ 2$
C10570 Each
 (C) $5 \mathrm{ma}{ }^{3 / 16}$ "square $\$ 2$ S. (D) 20 ma. $5 / \mathrm{r}^{2} 11 / 8$. (D) $\mathbf{C} 20 \mathrm{ma} .5 / 8 \mathrm{xl}$. C10569-Each


## Dial Drive Springs

High grade steel wire rustproof springs. Five sizes take care of all requirements Kit of 10 Assorted Springs
(all sizes). C9890-Per Kit....24. Kit of 10 Springs (small sizes
only).
C9891-Per Kit

Radio and Auto Fuses - Type 3AG: $11 / 4 x$ May le assorted forquantity price C13189-Specify Amperage


$$
\text { 10 \& } \$ 1.80
$$

LITTELFUSE Auto Fuses Type 3 AG
Ratings are at
25 . $11 / 4 \mathrm{x} 1 / 4$.
C12320-5 5 amps . Your
C12321-10 amps. 34
C12323-20 amps.)

Bakelite Fuse Mounts


Sub-Panel Type Molded bakelite. 1 6-32 studs. For in-
strument fuses only. C12382 Each.


As above, but for $111 \times 1 / 4$ "fuses
(type 3AG). C12327 Each..12c
Panel Type Molded bake-
lite. $1 \frac{1}{8} \times 5 / 8 \mathrm{x}$ ${ }^{1 / 8} 8^{\circ}$. For $1^{\circ}$ type fuses only. Plated fuse clips.
C12383-Your Cost


Same as above, but for $1 / 4 \mathrm{x}^{1 / 4}$ fuses (type 3AG)

Dial Cable "Thrift Spool"
Economical and practical assortment of popular
ypes of dial
handy 3 -section
15 feet each of phosphor bronze cable, mediumlinencord and special thin cord (total 45 ft .) Shpg. wt.
11b.
C9879-Each. . . . .


## AEHOVDX Dependable Quality

Prong-Base Midget


## Condensers

Compact, economical and easily mounted dry electrolytics. Have base prongs which slip into elliptic washer riveted or eyeletted on chassis. Fibre washer for insugrounded can. Metal and bakelite wasthers supplied. Can neg. Type F.

| No. | Mfd. | W.V. | DxH | Each |
| :---: | :---: | :---: | :---: | :---: |
| C5022 | 10 | 450 | $1 \times 2$ | \$0.62 |
| C5023 | 20 | 450 | 1x2 | . 92 |
| C5021 | 30 | 450 | $1 \times 3$ | 1.13 |
| C5024 | 40 | 450 | $1 \times 3$ | 1.33 |
| C5025 | 10-10 | 450 | $1 \times 2$ | . 99 |
| C5026 | 10-10-10 | 450 | $1 \times 3$ | 1.30 |
| C5027 | 20-20 | 450 | $1 \times 3$ | 1.36 |
| C4586 | 80 | 400 | $13 / 8 \times 2$ | 2.02 |
| C5028 | 10-10 | 250 | 1 x 2 | . 89 |
| C5029 | 20-20 | 250 | 1x2 | . 92 |
| C5030 | 20-20 | 150 | $1 \times 2$ | . 81 |
| C5031 | 30-30 | 150 | $1 \times 2$ | . 92 |
| $\overline{\mathrm{C} 5032}$ | 30 | 150 | $4 \times 2$ | . 72 |
| C5033 | $\left\{\begin{array}{c}10-10\end{array}\right.$ | 450 |  |  |
| C5033 | \} 20 | 25 \} | $1 \times 3$ | 1.10 |
| C4590 | $\left\{\begin{array}{c}30-20 \\ 20\end{array}\right.$ | 150 | $1 \times 2$ | . 95 |
|  |  | 250 |  |  |
| C4567 | $\left\{\begin{array}{c}15-15 \\ 20\end{array}\right.$ | 250, | $1 \times 2$ | . 92 |

"Adjustimount" Midget Dry Electrolytics


Feature "adjustimount" swivel mounting bracket with slotted holes.
Mounts flat, upright, singly or Mounts flat, upright, singly or
stacked. Two separate leads for each section. Wax impresnated.

Type PBS600-High Surge

Type PBSA50- -525 Volts Surge
450 V . DC Working

| Stock No. | Cap. Mfd. | Size-Ins. | $\begin{array}{\|l\|} \hline \text { Your } \\ \text { Cost } \end{array}$ |
| :---: | :---: | :---: | :---: |
| ${ }^{\text {C4633 }}$ | 2 | , $x^{3} \times 1 \times 2^{2} 16$ | \$0.55 |
| $\mathrm{C}_{4} 4634$ | 8 | \%in $\times 1 \times 27$ | ${ }^{62}$ |
| ${ }_{\text {C4636 }}$ | ${ }_{10}^{8}$ | , | .78 .95 |
| ${ }_{C 4637}$ | 12 |  | 1.10 |
| C4495 | 16 |  | 1.20 |

Type PBS450-525 Volts Surge 450 V. DC Working

|  | 8 |  | 9 |
| :---: | :---: | :---: | :---: |
| ${ }_{\text {C4645 }}$ | ${ }_{8-16}^{8-8}$ |  | 1.22 |

"DANDEE/" Ultra-Compact Tubular Dry Electrolytics-TypePRS
Space saving, yet full-rated capacity and voltage. Ideal for midgets, AC-DC ity and working voltage required in minimum space. Varnished paper insulating jacket over can. Dual units (Type PRS-A) have two leads plus common negative riveted center mounting strap

| Stock | Cap. Wkg. | Size | Your | Stock <br> Nol | Cap. Wkg. | Size | Your |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. | Mfd. Volts | Ins. | Cost | No. | Mfd. Volts | Ins. | Cost |



|  |  |  |  | . 34 | C726 |  | 350 | ${ }^{16} \times 1$ | . 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C701 | 25 | 25 | , $10 \times 1$ | . 40 | C737 | 8 | 350 | 18,16 | . 48 |
| C5050 | 50 | 25 | $14 / 10 \times 1{ }^{11 / 16}$ | 51 | C738 | 12 | 350 | $13,16 \times 2$ 3,160 | 58 |
| C5051 | 100 | 25 | ${ }^{13} / 16 \times 1{ }^{11 / 16}$ | . 75 | C739 | 16 | 350 | $1316 \times 2$ \% 16 | 69 |

Inverted Dry

## Electrolytics

## Screw-mount inverted dry

 ock-whics. Supp $80^{\circ}$ screw bushing. All have two $8^{\prime \prime}$ color-coded leads per section for terminals. Available in single, double and able in single, double andtriple section units. Insutriple section units.
lated large size can.
Type GL-600- Single section $\frac{800 \text { V. Peak } 600 \text { V. D.c. Wkg }}{\text { No }}$ C451
 525 V. Peak-450 V. D.C. Wkg.

Featuring separate sections with separate leads, reduced size. Smallest midget electrolytics on the market. Same high quality.

| No. | Mfd. | Volts Size | Each | No. Mfd. Volts | Size | Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5034 | $20-20$ | 150 | $1 \times 21$ | $\$ 1.13$ | C5036 | 88 | 450 | 1215 | | C5035 | $16-16$ | 250 | $1 \times 21 / 2$ | 1.36 | C5037 | $8-16$ | 450 | $1 \times 3 \frac{1}{2}$ | 1.57 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

 Type AEP: Quick change dry electrotesting and replacement in equipment service is important service is important.
Install merely by plugging into a standard octal socket Aluminum internal olace wet electroIytics providing surge voltaze does not exceed 525 volts.

450 V. D. C. Wke ${ }^{\text {AEP-450 }} \mathbf{5 2 5}$ V. Surge

| Stock No. | Cap. MIfd. | ${ }_{\text {Size }}^{\text {In. }}$ | $\xrightarrow{\text { Your }}$ Cost |
| :---: | :---: | :---: | :---: |
| C5014 | 10 | 15, $\mathrm{x}^{21 / 2}$ | \$1.02 |
| 015 | 20 | 15\%2312 | 1.43 |
| C5016 | 40 | 15:62 | 1.95 |
| C5017 | 80 | $15 \% \times 4$ | 3.31 |
| C5018 |  | 15\%\% |  |
| C5019 | 20.20 | 1 | 2.25 |
| C5020 | 10-10-10 | 13, x2 | 2.19 |



## Type PRV Universal Mounting Condensers

Aerovox cardboard electrolytic. A thoroughly
satisfactory satisfactory substitute for condensers at present unavailable because of priorities and other war-
time restrictions. Takes the place of standard al uminum can electrolytics requiring a hole in chassis for mounting.
Singie Section 600V. D.C.W.

| No. | Mfd | Size | Each |
| :---: | :---: | :---: | :---: |
| $\mathbf{C 4 7 0 4}$ | 4 | $188^{\prime \prime} \times 4^{\prime \prime}$ | S1.47 |
| C4705 | 8 | $18{ }^{\prime \prime} \times 41 / 2$ | 2.02 |

Single Section 450V. D.C.W.

| C4706 | 8 | 18\% ${ }^{\text {"x }}$ | \$0.78 |
| :---: | :---: | :---: | :---: |
| C4707 | 10 | $18 / 8{ }^{\circ} \times 4 *$ | . 95 |
| C4708 | 12 | $18 / 8$ "x4" | 1.10 |
| C4709 | 16 | $18 / 8{ }^{\circ} \times$ | 1.20 |
| C4710 | 20 | $13 / 8$ "x4" | 1.36 |
| C4711 | 30 | $18 / 84^{\prime \prime}$ | 1.57 |
| C4712 | 40 | 18/8"x4" | 1.80 |
| Double Section 450V. D.C.W. |  |  |  |
| C4713 | 8-8 | $13 / 8{ }^{7} \times 4^{\prime \prime}$ | 51.22 |
| C4714 | 8-16 | 13/6" $4^{\prime \prime}$ | 1.57 |
| C4715 | 16-16 | $18 / 8{ }^{\prime \prime} \times$ | 1.84 |
| C4716 | 20-20 | 15/8** ${ }^{\circ} 4^{\prime \prime}$ | 2.19 |



## PLASTICON Capacitors



## For Amateur and Industrial Use

 Sturdily built plastic film dielectric capacitors which are smaller, lighter have been specified by signal Corps have been specified by Signal Corps, operating conditions than oil filled types. Extremely wide temperature range, greater safety factor, closertolerances all insure tolerances all insure much longer life.
Complete with mounting brackets as


These standard size inverted units are furnished in grounded can mounting type only. Type $\mathbf{~}-450-$ Can negative. 450 V . $188^{\circ}$ dia.

| No. | Mid | Ht | Each |
| :---: | :---: | :---: | :---: |
| C4509 |  | $31 / 4$ | 0.89 |
|  | 12 |  | 1.1 |
| 11 | 16 | , | 1.30 |

## TOBE DPC Capacitors

Molded oil-impregnated paper condenser, physically and electri-
 able with the majority of mica capacitors used in the by-pass and coupling circuits of radio and radar equipment. IIigh grade Kraft tissue and aluminum foil. Nolded black phenolic case, securely anchored leads. Dimensions: ${ }^{13} / 16^{\prime \prime} \mathrm{X}^{13} / 10^{\prime \prime} \mathrm{X}^{19}{ }_{681}{ }^{\prime \prime}$
condance and six-months guarantce sifp. These nationally adver aud
illustrated and six-months guarantce slip. These nationally advertised condensers are without comparison. If weight is a factor, specify and as much as $90 \%$ on the higher voltage types. Operate continuously at 220 degrees $F$.
Stock Cap. DC
No. Mfd. Volts Dimensions C2150 400 Dimensions Cosi No. Nidd. Volts Dimensions Cost


We can supply a complete line of PLASTICON capacitors ranging up to 10,000 volts. Write us for prices, stating complete specifications.

| Stock No. | Cap. <br> Mfd | Wkg. <br> Volts | Your Cost |
| :---: | :---: | :---: | :---: |
| C2307 | . 001 | 1000 |  |
| C2308 | . 002 | 1000 | 13c |
| C2304 | . 003 | 600 |  |
| C2305 | . 004 | 600 | EA. |
| C2309 | . 005 | 600 |  |
| C2310 | . 006 | 600 |  |
| C2306 | . 008 | 600 |  |
| C2311 | . 01 | 600 |  |
| C2312 | . 02 | 400 |  |

## AEAOVOX Dependuble Quality <br> Drawn Metal Case

CINDENSET

"09"'Series Compact high voltage units hermetically sealed in welded steel cans. Universal mounting bracket that per mits either upright or inverted mtg Sizes to 5000 V . available on special order.

| der. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock |  | Wkg. | Size | Your |
| No. | Md | Vlts. | In. | Cost |
| C4527 | 2 |  | $31 / 4 \times 1{ }^{13} / 6 \times 13 / 16$ | 3.49 |
| C4528 | 4 |  | $31 / 6 \times 21 / 2 \times 13,16$ | 4.52 |
| C4529 | 1 |  | $21.8 \times 1$ 13 $16 \times 1116$ | 3.08 |
| C4530 | 2 |  |  | 4.11 |
| C4531 | 4 | 1000 | $43,5 \times 21 / 2 \times 13 / 16$ | 5.14 |
| C4532 | 1 | 1500 | $4 \times 1{ }^{15} 16 \times 1$ \% | 3.69 |
| C4533 | 2 | 1500 | $4 \frac{18}{8} \times 21268136$ | 5.14 |
| C4534 | 4 |  | $458 \times 33^{3} \times 11 / 4$ | 6.84 |
| C4535 | 1 | 2000 | $31 \times 21^{\frac{1}{2}} \times 1^{\frac{3}{36}}$ | 4.52 |
| C4536 | 2 | 2000 | $37 / 8 \times 3{ }^{3} \times 11 / 4$ | 5.33 |
| C4826 | 4 | 2000 | $37 \times 83^{3} \times 21$ | 7.39 |
| C4830 | 2 | 2500 | $458 \times 3{ }^{3} \times 1^{3} 4$ | 10.67 |
| C4825 | 2 | 3000 |  | 12.32 |

## (1) Aerovox 1000 V . Condensers

 Compact wax-filled and impregnated metal canst-proof $114^{\prime \prime}$ wide. $1000 \mathrm{~V}^{\prime}$ Whg. Wid. 21000 MIfd$\begin{array}{cc}\text { Depth } & \text { Each } \\ 1.1 / 6^{\circ} & \$ 1.22 \\ 111^{\circ} & 1.71 \\ 2.2 & 2.64\end{array}$ de

Oil-Filled Condensers
 Non-inductive paper sections piece drawn, hot-tinned brass case with soldered bottom plate which hermetically seals the capacitor Are both oil-impregnated and oil-filled. Riveted lug terminals. $3 / 8^{\prime \prime}$ mtg. ears. In addition to the sizes listed below we can also furnish units with 200 V . and 400 V . DC working voltages. Other capacities are also available on order; prices on request. 600V. D.C.Wkg. Type 630 .

## Single Section

| Stock | Cap. | Size | Your |
| :---: | :---: | :---: | :---: |
| No. | Mfa. | Inches | Cost |
| C3637 |  | $113 / 16 x^{15} 5 \times 18 \times 16$ | \$1.43 |
| C3638 |  | $1^{13}{ }_{16} \times 1{ }^{1 / 1} \times 15 / 16$ | 1.51 |
| C3639 | 5 | $2116 \times 1{ }^{1 / 76} \times$ 7/8 | 1.61 |
| C3640 | 1.0 | $2 \times 2^{1} \times 11 / 8$ | 1.84 |
| Dual Section |  |  |  |
| C3641 | 1-1.1 | $1{ }^{13} 16 \times 15 / 16 \times 13 / 16$ | \$1.80 |
| C3642 | . $25-.25$ | $21 / 8 \times 1{ }^{18} /{ }_{6} \times 7 / 8$ | 1.84 |
| C3643 | .5-. 5 | $2 \times 21 / 4 \times 11 / 8$ | 2.12 |

Rectangular-Can
 ness and minimum where compactsential. Idea! for weight are essevere atmospheric and climatic conditions are encountered.
Type 416 400V. D.C.Wkg. Stock Cap. Size In N W. Your
 $\begin{array}{cl}\text { Type } 616 & 600 \mathrm{~V} \text {. D.C.Wkg. }\end{array}$ $\begin{array}{llll}\text { C3633 } & .1 & 1116 \times 1516 \times 17 / 16 & \$ 1.57\end{array}$ $\begin{array}{llll}\text { C3635 } & .5 & 11 / 6 \times 15 / 16 \times 21 / 16 & 1.64\end{array}$ $\begin{array}{lll}\text { Type } 1016 & 1000 \text { V. D.C.Wkg. } \\ \text { C3627 } & .05 & 11 / 16 \times 15 / 16 \times 1718 \\ \text { c3628 } & 1.54\end{array}$ $\begin{array}{llll}\text { C3631 } & .25 & 1116 \times 15 / 16 \times 111 / 16 & 1.64 \\ \text { C3632 } & .5 & 11 / 16 \times 15 / 16 \times 21 / 6 & 1.77\end{array}$


Commercial Grade Capacitors We can also furnish the extra-heavy-duty commercial grade capacitors as used by the Army, Navy and commercial communication companies. Aerovox Transional radio and electronic engineers. Write on business letterhead
C19668-FREE on request
"05" Series
"Hyvol" filled and imaluminum cans provided with terminals mounted on high voltage stand-off insulators. Hermetically sealed. All mount either upright or inverted; mounting ring is furnished. All conservatively rated. Stock Cap. Wkg. Sizo Your

No. Mfd. Vlts. In. Cost $\begin{array}{cccccc}\text { No. } & \text { Mfd. } & \text { Vlts. } & \text { In. } & \text { Your } \\ \text { C4819 } & 1.0 & 600 & 2 & \times 23 / 3 & \$ 2.05\end{array}$ $\begin{array}{llllll}\text { C4820 } & 2.0 & 600 & 2 & \times 23,3 & 2.05 \\ \text { C4821 } & 4.0 & 600 & 2 & \mathbf{x 3} & 3.67\end{array}$ $\begin{array}{rrrrrr}C 4793 & 4.0 & 600 & 2 & \pi 33 / 4 & 3.69 \\ & 1.0 & 1000 & 2 & x 51 / 4 & 2.25\end{array}$ $\begin{array}{llllll}C 4794 & 2.0 & 1000 & 2 & 251 / 3 & 3.08 \\ 4795 & 4.0 & 1000 & 22 & 2.51 & 3.90\end{array}$ $\begin{array}{llllll}C 4796 & 1.0 & 1000 & 21 / 2 \times 51 & 3.90 \\ & 1500 & 2 & 51 / 2 & 2.87\end{array}$ $\begin{array}{lllll}\text { C4797 } & 2.0 & 1500 & 2 & \times 51 / 4 \\ C 4822 & 4.0 & 1500 & 21 / 2 \times 51 / & 4.90 \\ C 4798\end{array}$ | $C 4822$ | 4.0 | 1500 | $21 / 2 \times 51 / 4$ | 4.93 |
| :--- | :--- | :--- | :--- | :--- |
| $C 4798$ | 1.0 | 2000 | 2 | $\times 43$ |
| 479 | 3.69 |  |  |  | $\begin{array}{llllll}\text { C4798 } & 1.0 & 2000 & 2 & \times 43 / 4 & 3.69 \\ \text { C4799 } & 2.0 & 2000 & 2 & \times 51 / 4 & 4.11\end{array}$ $\begin{array}{llllll}C 4827 & 1.0 & 2500 & 2 & \times 514 & 4.11 \\ & 1.03\end{array}$ $\begin{array}{lllll}C 4828 & 2.0 & 2500 & 21,2 \times 51 / 4 & 8.21 \\ C 4823 & 1.0 & 3000 & 212 \times 51 & 7.30\end{array}$

45612.030003 x与
"10" Series
Hyvol filled inverted aluminum cans $11 / 2^{*}$ diam. Hermetically sealed. With insulated washer.


\section*{AEROVOX Paper Tubulars $\square \begin{aligned} & \text { Non-inductively wound } \\ & \text { paper tubulars. Fully } \\ & \text { wax impregnated. All }\end{aligned}$ have pigtail wire leads. <br> | 400 Volts Working |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Mid. | Each | No. | Mfd. | Each |
| C4731 | . 01 |  | C4737 | 1 | 17c |
| C4733 | . 02 | - 4 | C4739 | . 25 | 20 c |
| C4734 | . 03 | + | C4741 | . 5 | 30 c |
| C4735 | .05] |  | C4742 | 1.0 | 40c |
| 600 Volts Working |  |  |  |  |  |
| C4746 | . 0017 |  | C4754 | . 02 | 14c |
| C4747 | . 002 |  | C4755 | . 03 | 17 c |
| C4748 | . 003 |  | C4756 | . 05 | 17c |
| C4749 | . 005 | 4 c | C4758 | . 1 | 20c |
| C4750 | . 006 | A | C4760 | . 25 | 30 c |
| C4752 | . 01 |  | C4762 | . 5 | 40 c |
| C4753 | .015 |  |  |  |  |
| 1000 Volts Working |  |  |  |  |  |
| C4766 | . 0017 |  | C4772 | . 01 | 27 c |
| C4767 | . 002 | 7 ¢ | C4774 | . 02 | 27 c |
| C4768 | . 003 |  | C4776 | . 05 | 30 c |
| C4769 | . 005 |  | C4778 | . 1 | 40c |
| C4770 | . 006 |  |  |  |  |

## VIBRATOR TUBULARS

Paper type, rated at 1600 volts wkg.

 | C4779 | .01 | $1,2 \times 11 / 2$ | $30 c$ | C4782 | .04 | $11 / 16 \times 2$ | 34 c |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| C4780 | .02 | $9,16 \times 2$ | 30 c | $\mathbf{C 4 7 8 3}$ | .05 | 11620 | $37 c$ | $\begin{array}{llll}\text { C4781 } & .03 & 916 \times 2 & \text { 30c }\end{array}$



Oil Filled and Oil Impregnated Tubulars 2000 volts wkg. Ideal for
vibrators and x'mitters.
No. Mfd. Size Each No. Mid. Size Each




FREE: An informative, practical engineering paper, issued monthly, the AEROVOX RE hams, and other interested radio workers need only write us today-names will be placed on the mailing list immediately.


## AEROVOX Midget Micas



1000 V. Test, 500 V. Wkg.
Type 1467 (A) '"Postage Stamp'"Micas only



 $00005 \quad 12 \mathrm{c}$ C3420 \begin{tabular}{llll}
.00007 \& $12 c$ \& C3421 \& C4625.002 24 c <br>
\hline

 000075 12c C3422 C4626.003 29c 

.0001 \& $12 c$ \& C3423 \& C4627 \& $.004^{*}$ <br>
32c <br>
.00015 \& $12 c$ \& C3424 \& C4628 <br>
$.005 *$ \& $35 c$

 0002 12c C3425 C4629.006* 44c 

.00025 \& $15 c$ \& C3426 C4493.01* 53c
\end{tabular}



| Paper Condensers to Replace Dry Electrolytics |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Paper wound units in round metal cans or flanged cardboard containers to replace dry electrolytics rated up to 600 volts. Extremely low power factor and leakage. Leads. |  |  |
|  |  |  |  |  |
| Stock | Series PWC-Round Metal Cans $41 / 6^{\circ}$ H. |  |  | Your |
|  | Mid. | Cap. Mfd. | In. | Cost |
| C5065 |  | ${ }_{2}^{2} 75$ | 18\% | \$1.13 |
| C5067 |  | 1.75-1.75 |  | 2.32 |
|  |  | board | ses |  |
| C5068 $\mathbf{C 5 0 6 9}$ | 8 | 2 |  | 1.99 <br> 1.33 |

## © CORNELL－DUBILIER <br> TVC＂Metal <br> ＂DYR＂By－Pass Units <br> ＂TLA＂DYKANOL＂A＂ ＂TQ＂DYKANOL＂A＂＇

Tubular Capacitors

Compact tubular metal can type units designed to withstand severe climatic conditions．Noninductively Dykanol＂B＇to maintain high in－ sulation resistance．

| Stock | 1000 Volts D．C． |  |  |
| :---: | :---: | :---: | :---: |
| No． | MFD | Size | Each |
| C1175 | ． 005 | 17／6x15／16 | \＄0．55 |
| C1176 | ． 01 | $17 / 2 \times 15$ | ． 55 |
| C1177 | ． 015 | $17 \% 2 \times 19$ | ． 55 |
| C1178 | ． 02 | $176 \times 13$ | ． 55 |
| C1179 | ． 03 | 5／8×12 | ． 58 |
| C1180 | ． 04 | $8 \times 8 \times 210$ | ． 58 |
| C1181 | ． 05 | $8 / 8 \times 2{ }^{1 / 16}$ | ． 62 |
| C1182 | ． 1 |  | ． 81 |
|  | 1600 Volts D．C． |  |  |
| $C 1183$ | ． 005 | 17／52 ${ }^{19} 9$ | ． 62 |
| $C 1184$ | ． 01 | $1783 \times 19$ 价 | ． 62 |
| C1185 | ． 015 | $5 / 8 \times 1916$ | ． 62 |
| C1186 | ． 02 | $58 \times 2{ }^{1 / 6}$ | ． 62 |
| C1187 | ． 03 | $7 / 8 \times 2{ }^{1 / 6}$ | ． 62 |
| C1188 | ． 04 | $3 / 8 \times 2$ 116 | ． 69 |
| C1189 | ． 05 | $7 / 8 \times 21 / 6$ | ． 75 |
|  | ＂Si | er Mi |  |

Designed for use in electronic cir－ must be maintained．Molded in ow－loss red bakelite and provided with tinned brass wire leads． units rated 500 volts d working 1000 volts de test except on capacities higher than 0025 which are rated at 300 V．d．c．wkg．， 600 volts d．c．test

Type 8－7 ${ }^{16} x^{11}$ 伯

No．Mfd．Each No．Mfd．Each C1351 ． 000005 35c $\mid$ C1386 000015 35c \begin{tabular}{lll|lll}
C1352 \& .00001 \& 29 c \& Cl 1387 \& .0002 \& 35 c <br>
C 1353 \& 000025 \& 29 c \& C 1388 \& 00025 \& $35 c$

 $\begin{array}{llllll}\text { C1351 } & .000004 & 29 \mathrm{c} & \text { C1388 } & .00025 & \text { C13 e } \\ \text { C1 } & .0003 & 53 \mathrm{e}\end{array}$ 

C1383 \& .00005 \& 29 c \& C1390 \& .0004 \& 53 c <br>
Cl \& <br>
\hline
\end{tabular} $\begin{array}{lll}\text { C1384 } & .00007 & 29 \mathrm{c} \\ \text { C1385 } & .0001 & 29 \mathrm{c}\end{array}$

Type A－ 13 ／宛＂Square C1392 $\quad .001 \quad \$ 0.88 \mid$ C1396 $\quad .003 \quad \$ 1.59$ | $C 1393$ | .0015 | 1.06 | C1397 | .004 | 1.68 |
| :--- | :--- | :--- | :--- | :--- | :--- | $\begin{array}{lll}\mathrm{C} 1395 & .0025 & 1.41\end{array}$

C－D Molded Micas


Compact mica condensers in molded bakelite housings．With wire leads． Individually tested；will give de－ pendable service．Type 1W（fig．A）
 $7 / 16 x^{11} 16 "$ All are 1000 volts test，
500 volts DC working except sizes 500 volts DC working except sizes higher than 006 mfd．which are 60
volts test， 300 volts DC working．

| No． | Mid． | Fig． | Each |
| :---: | :---: | :---: | :---: |
| C1355 | ． 00001 | B | 15c |
| C1356 | ． 00002 | B | 15c |
| C 1357 | ． 000025 | B | 15c |
| C1358 | ． 00005 | B | 12c |
| C1359 | ． 0001 | B | 12c |
| C1360 | ． 00015 | B | 12c |
| C1361 | ． 0002 | B | 12c |
| C1362 | ． 00025 | B | 15c |
| C1363 | ． 0005 | B | 15c |
| C1364 | ． 001 | A | 18c |
| C1366 | ． 002 | A | 24c |
| C1367 | ． 003 | A | 29c |
| C1372 | ． 004 | A | 32c |
| C1373 | ． 005 | A | 35 c |
| C1374 | ． 006 | A | 44c |
| C1377 | ． 01 | A | 53 c |

Dykanol＂A＂＂
oil filled
Drawn metai
cans．Low pow－
er factor．Her－ Filter Capacitors In Sealed aluminum mid． 600 v ．and 1 mfd 1000 v．are 27 有 ${ }^{\circ}$ high）．
Mount in any position． metically metal Corrosive metal $\qquad$ 1000 V．D．C． Dykanol dielectric．

| 600 V．D．C． |  | 1000 V．D．C． |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock | $\xrightarrow{\text { Your }}$ | ${ }_{\text {Cap }}$ Mid． | Stock No | Your Cost |
| C3011 | 51.43 | ． 1 | C3035 | 51．54 |
| C3012 | 1.51 | 25 | C3036 | 1.57 |
| C3014 | 1.84 | 1.0 | C3037 | 2.25 |
| C3015 | 2.46 | 2.0 |  |  |
| C3007 | 1.80 | ．1－1 | ${ }^{\text {C3038 }}$ | 1.91 |
| C3008 | 2.12 | ． 5 － 5 | C3039 | 2.67 |
| C3009 | 2.05 | ．1－1－1．1 |  |  |
| ＂ra＂High Capacity Low Voltage Units |  |  |  |  |
|  |  |  |  |  | No．Cap．Mid．Wkg．V．Each | C4195 | 2 | 600 | $\mathbf{\$ 2 . 2 5}$ |
| ---: | ---: | ---: | ---: |
| C4196 | 4 | 600 | 3.08 |
| C4197 | 1 | 1000 | 2.05 |
| C4198 | 2 | 1000 | 2.73 |
| C4199 | 1 | 1500 | 2.73 |

## ＇BRH＂High Capacity

 Low Voltage UnitsFor motion picture sound equip－ ment，＂A battery power supplies， lug terminals on molded bakelite covers．Ex

| No． | Mfd． | Volts | Size | Each |
| :---: | :---: | :---: | :---: | :---: |
| C2560 | 1000 | 12 | $1^{3}, 8 \times 31 / 4$ | \＄2．05 |
| C2561 | 1500 | 12 | $13 / 8 \times 4 / 8$ | 2.46 |
| C2562 | 2000 | 12 | 13，9x ${ }^{\text {a }}$ | 2.67 |
| C2563 | 1000 | 18 | 13 ¢ 3 ！${ }^{\prime \prime}$ | 2.46 |
| C2564 | 2000 | 18 | $138 \times 4 \%$ | 3.28 |
| C2565 | 2000 | 25 | $1^{3} 3^{\prime} \times 4^{1} 8^{\prime \prime}$ | 4.93 |
| C2566 | 1000 | 35 | $13 / 4 \times 4,8^{\prime \prime}$ | 3.28 |

Etched foil electrolytic capacitors that are widely employed in port able radio power rectifying circuits， electric fence devices，etc．In drawn sleeves．Center mounting strap． No．Mfd．Volts Sizo Each

## CORNELL－DUBILIER X＇mitting Micas <br> Type 4 Moulded in bakelite；mechanically strong： <br>  No magnetic material－reduces losses at all fre－ guencies．Short．heavy terminals－minimum Guencies．Short．heavy terminals－minimum

 gauged thickness．Used for grid and plate blocking purposes

Oil－Filled Condensers Designed to stand up
under conditions of severe transient volt ages and line surges and continuous duty opera tion．In cylindrical alu minum containers with 2 insulated terminal and universal mit bracket Maybe mount ed in any position．

|  | Mfd． | Wkg．V． |  |  |
| :---: | :---: | :---: | :---: | :---: |
| C2962 | 2 | 600 | 21／8x2 | \＄2．73 |
| C2963 | 4 | 600 | 28／4x2 | 3.69 |
| C2964 | ， | 1000 | $17 / 8 \times 2$ | 2.25 |
| C2965 | 2 | 1000 | $236 \times 2$ | 3.08 |
| C2966 | 4 | 1000 | $37 / 8 \times 2$ | 3.90 |
| C2967 | 1 | 1500 | $28 / 8 \times 2$ | 2.87 |
| C2968 | 2 | 1500 | $35 / 8 \times 2$ | 3.90 |
| C2969 | 1 | 2000 | $31 / 8 \times 2$ | 3.69 |
| C2970 | 2 | 2000 | $47 / 8 \times 2$ | 4.11 |
| C2971 | 4 | 2000 | $48 / 8 \times 3$ | 5.74 |
| C2972 | 1 | 3000 | 31／4x | 7.39 |
| C2973 | 2 | 3000 | $51 / 6 \times 3$ | 8.90 |

## ＂TJU＂DYKANOL＂A＂ <br> Oil－Filled Capacitors

 New universalmounting bracket makes these con－ densers a better buy than ever DYKANOL filled and impregnated． tension terminals．

| No． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No． | Mfd． | Wkg． | IIt． | Each |
| C2994 | 1 | 600 | 21／8＂ | \＄2．87 |
| C2995 | 2 | 600 | 27\％ | 3.49 |
| C2996 | 4 | 600 | $3^{1 / 8 \%}$ | 4.52 |
| C2957 | 8 | 600 | $3^{13} \mathrm{tc}^{\prime \prime}$ | 6.57 |
| C2997 | 1 | 1000 | $21 / 8^{\circ}$ | 3.08 |
| C2998 | 2 | 1000 | 4 | 4.11 |
| C3004 | 4 | 1000 | $45 / 8$ | 5.14 |
| C2958 | 8 | 1000 | 43 ＂ | 7.39 |
| C2959 | 10 | 1000 | $48 / 8{ }^{\circ}$ | 8.21 |
| C2999 | 1 | 1500 | 4 | 3.69 |
| C3000 | 2 | 1500 | $418{ }^{\circ}$ | 5.14 |
| C3005 | 4 | 1500 | $45 / 8$ | 6.84 |
| C2960 | 8 | 1500 | 48／4＇ | 10.27 |
| C3001 | 1 | 2000 | $3{ }^{7}{ }^{16}$ | 4.52 |
| C3003 | 2 | 2000 | 4＊＊ | 5.33 |
| C3021 | 4 | 2000 | $33 / 4$ | 7.39 |
| C3019 | 1 | 3000 | $33 / 4{ }^{3}$ | 9.92 |
| C3020 | 2 | 3000 | 41\％ | 12.32 |
| C3022 | 2 | 5000 | 6 | 26.35 |

## High Speed Photo－Flash

 DYKANOL Capacitor25 mid ．，rated for op－ D．C Twoormoreunits may be used to pro－ vide any desired mul－ tiple of this value in the construction of speed flash lamps for making strohoscopic pictures．Sealed met－ Type KGT 6250－1 25 Mfd .660 V C2581 Your Cost
$\$ 22.18$
Capacitor Bxidge
Measures
accurately
and quickly

## AIL-PUIRPOSE CONDENSERSO

 Extremely compact etched foil dry electrolytics with color coded leads. May be mounted in any position either above or below sub-panel. Seamlessdrawn metal can equipped nished with long insulated. color coded leads. Dual unting nut supplied.

Replace Wet Electrolytics
Dry electrolytic capacitors in round aluminum to replace wet electrolytic units. Can is negative, lug terminal. Rated at 4.50 types. The 10 mfd dry units will replacenwet elec 20 mfd . 16 to 20 mfd ., 30 mfd 20 to 30 mfd . 40 mid . 30 to 40



Dry Electrolytics electrolytics. Hermetically sealed in aluminum cans with terminal lugs on Can negative. Projecting Congues ror veriica bakelite mounting plate. Tongues have wire holes. Feature low leakage and power factor, dependable operation over wide temperature range.

| No. | Mfd. | VIts. | In. | Each |
| :---: | :---: | :---: | :---: | ---: |
| C1150 | 10 | 450 | $1 \times 2$ | $\$ 0.62$ |
| C1151 | 20 | 450 | $1 \times 2$ | .92 |
| C1152 | 40 | 450 | $1 \times 3$ | 1.33 |
| C1153 | $20-20$ | 150 | $1 \times 2$ | .81 |
| C1154 | $30-30$ | 150 | $1 \times 2$ | .92 |
| C1149 | $50-50$ | 150 | $1 \times 3$ | 1.10 |
| C1155 | $20-20$ | 250 | $1 \times 2$ | .92 |
| C1156 | $10-10$ | 450 | $1 \times 2$ | .99 |
| C1209 | $50-50 / 20$ | $150 / 25$ | $1 \times 3$ | 1.2 |
| C1160 | $10-1020$ | $450-350 / 25$ | $1 \times 2$ | .99 |

cans. Each.
"DA"/ Metal Cased Paper By-Pass Condensers
 Non-inductively wound. Wax and oil cooled. Lug terminals.
400 Volts D.C. Wkg.

| No. | Mid. | $\mathrm{L} \times \mathrm{W} \times \mathrm{T}$ | Each |
| :---: | :---: | :---: | :---: |
| C1277 | . 1 | $1^{15} 16 \times 1 \times 3 / 4$ | \$0.55 |
| C1278 | .23 |  | . 62 |
| C1279 | . 5 | $1^{13}{ }_{16} \mathrm{X} \times 1 \times 7 / 8$ | . 78 |
| C1342 | 1.0 |  | 1.02 |
| C1343 | 2.0 | $2 \times 2 \times 11 / 8$ | 1.30 |
| C1344 | . $1-.1$ | $1{ }^{13} 16 \times 1 \quad \pi$ | . 69 |
| C1345 | .25-. 25 | $2 \times 11 / \mathrm{x}$ 3/40000 | . 81 |
| C1346 | . $5-.5$ | $2 \mathrm{x} 13 / 4 \times 1^{3}$ | 1.02 |
| 600 Volts D.C. Wkg. |  |  |  |
| C1348 | . 5 | $2 \times 13 / 4 \times 186^{\circ}$ | . 99 |
| C1350 | 1.0 | $2 \mathrm{x} 211 / 8$ | 1.22 |

## "BLUE BEAVER"

## Type BR Dry Electrolytics

Extremely small and very handy to use. Feature: Electro-Chemical etching that eliminates corrosion; Hi-Formation Process that af fords higher voltage breakdown; Hi-Pressure Centrifuge that provides better impregnation and gives a lower power factor.

| No. | Mfu. | k. | In. | Each | No. | Mfd. | Wkg. VIts | In. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1090 | 10 | 25 | $5{ }^{511^{1}}$ | $50.3 \overline{4}$ | C1104 | 40 | 150 | ${ }^{1} \times 2$ | \$0.58 |
| C1091 | 20 | 25 | 5\%11 ${ }^{16}$ | 37 | C1105 |  | 250 | ${ }^{5} 8 \times 1{ }^{1}$ i6 | . 37 |
| C1092 | 25 | 25 | \% $8 \times 116$ | 40 | C1106 | 8 | 250 | \% $8 \times 1$ ? 16 | . 40 |
| C1093 | 50 | 25 | $3,8 \times 17 / 6$ | . 51 | C1107 | 12 | 250 | $5 / 8 \times 2$ | 55 |
| C1094 | 5 | 50 | $58 \times 1116$ | . 34 | C1108 | 16 | 250 | ${ }^{3} \times 11^{11} 16$ | . 62 |
| C1095 | 10 | 50 | $58 \times 11 / 16$ | . 37 | C1109 | 20 | 250 | $3{ }^{3} \times 11^{116}$ | . 69 |
| C1096 | 20 | 50 | $5 \times 1716$ | . 40 | C1110 | 40 | 250 | $7 \times 215$ | . 78 |
| C1097 | 25 | 50 | ${ }^{3} \times 1716$ | . 48 | C1111 | 4 | 450 | 5 何 $\times 17 / 16$ | . 48 |
| C1098 | 50 | 50 | 5:8 $\times 1{ }^{11}$ 16 | . 58 | C1112 | 8 | 450 | ${ }_{4} \times 2$ | 51 |
| C1099 | 4 | 150 | ${ }_{5}^{5} \times 11_{16}$ | . 34 | C1113 | 12 | 450 | $58 \times 2$ | . 62 |
| C1100 | 8 | 150 | ${ }_{5}^{5} \times 11{ }^{16}$ | . 37 | C1114 | 16 | 450 | $3 / 8 \times 21 / 2$ | 75 |
| C1101 | 12 | 150 | $58 \times 17{ }^{16}$ | . 40 | C1115 | 20 | 450 | $1 \times 21$ \% | . 81 |
| C1102 | 16 | 150 | $5 \times 1{ }^{5} 1{ }^{16}$ | . 48 | C1055 | 30 | 450 | $1 \times 3$ | . 99 |
| C1103 | 20 | 1.50 | $58 \times 1{ }^{11 / 16}$ | . 51 | C1116 | 8 | 500 | ${ }^{8} \times 1{ }^{11} 16$ | . 72 |
| C1054 | 30 | 1.50 | ${ }_{3}^{1} \times 2$ | . 55 | C1117 | 16 | 500 | $1{ }^{1} \times 22^{16}$ | 1.10 |
| "BRI" Dual Beavers (Com. Neg.) <br> Dual "Beavers" with common negative. Provided with sturdy center mounting strap; only one screw mounts to chassis. With long color-coded leads. |  |  |  |  |  |  |  |  |  |
| No. | M fu. Wkg. Vits. |  |  | Each | No. | M13.$20-90$ | Whg. VIts. In. |  | Each |
| $C 1118$ $C 1119$ | 10-10 | 25 |  | \$0.51 | C1124 |  | 150 | $7.8 \times 2 \frac{1}{2}$ | \$0.89 |
| C1120 | 5-5.5 | 50 | ${ }_{5}^{88 \times 1} 8$ | . 68 | C1125 | 8-16 | 250 | $78 \times 23$ ¢ | . 89 |
| C1121 | 10-10 | 50 | ${ }^{3} 8 \times 21 / 4$ | . 69 | C1126 | 16-16 | 250 | $1 \times 2{ }^{3}$ | 1.02 |
| C1122 | +-S | 150 | $3{ }^{3} \times 213$ | 69 | C1127 | 8-8 | 450 | $1 \mathrm{x}^{2}{ }^{3}$ | . 89 |
| C1123 | 8-16 | 150 | ${ }^{13} 1 \times \times 21$ | . 72 | C1128 | 8-16 | $450 \quad 1$ | $1^{1}$ 任 $\times 31 / 4$ | 1.13 |

Type BRS Dual Beavers (Common Positive)

| No. | Mfu | g. lits | In. | Each | No. |  | kg. 17 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1200 | 4.8 | 150 | $\left.{ }^{3} \times 1 \times 2\right]$ | \$0.78 | C120 | 16-16 | 150 |  | 1. |
| ${ }^{\text {C1201 }}$ | 8.8 | 150 | $13-12$ | . 81 | C120 | 20-20 | $1: 0$ |  | 1.13 |
| ${ }^{\text {C1202 }}$ | 4-12 | 150 | ${ }_{15}^{13} 1{ }_{16} \times$ | 81 | C1207 | $30-10$ | 150 |  | .13 |
| C1203 | 8-16 | 150 | ${ }_{15}^{16} \times 2$ | 92 | C1208 | 30-20 | 150 | 11120 |  |

General Electric Industrial Capacitors


| No. | Mfd. | IT. | Size In. | Each |
| :---: | :---: | :---: | :---: | :---: |
| C3768 | 1 | firo | $3^{1} \times 1 \times 1{ }^{1}{ }^{3}$ | \$2.58 |
| C3769 | 2 | fir) | $41 \times 1 \times 23$ | 3.1 |
| C3770 | 4 | 600 | $41^{17} \times 1^{3}{ }_{16} \times 31 / 2$ | 4.06 |
| C3753 | 1 | 1000 | $3^{17}{ }^{17} \mathrm{x} 1 \mathrm{x}^{1}{ }^{3}{ }_{4}^{4}$ | 2.7 |
| C375 | 2 | 1060 | $5{ }^{5} \times 1 \times{ }^{3}$ | 3.6 |
| C375 | 4 | 1000 |  | 4.62 |
| C3756 | 1 | 1500 | $55^{5} \times 2 \times 1 \times 2^{3}$ | 3.3 |
| C3757 | 2 | 1.500 |  | 4.62 |
| C3758 | 4 | 1500 | $5{ }^{7} \times 11_{1}^{1} \times 4^{3}$ | 6.31 |
| C3759 | 1 | 2000 | $4^{17}$ | 4.06 |
| C3760 | 2 | 2000 | $5^{5} \times 11^{1} \times 4^{3} \frac{1}{4}$ | 4.80 |
| C3654 | 4 | 2000 | $55^{5} \times 2{ }_{1} \times 5$ | 6.6 |
| C3651 |  | 3000 | $5{ }^{37}{ }^{2} \times 21_{2} \times 5$ | 8.87 |
| C3652 | 2 | 3000 | $66^{3} \times 2 \times 3{ }^{3} \times 5$ | 11.07 |
| C3653 | 4 | 300 | $6^{27} \times{ }^{4}{ }^{9} 16 \times 5$ | 16.36 |

Pyranol tilled high voltagecapacitors in hermetically sealed metal containers with pre-
Porcelain insulators.
'BRI' Dual Beavers (Com Neg) Dual "Beavers" with common negative. Proone screw mounts to chassis. With long color-coded leads.

For low and high power transmitters, power supplies, power amplifiers. etc. Employ the finest ruby mica dielectric. Completely cased in nolded bakelite housinus with tapped $6 \cdot 32$ screw terminals on each end. Size: $1^{3} 4^{\prime \prime}$ long. $1_{2}^{\prime \prime}$ thick and $1^{3}$ "t " wide (varies slightly with capacitance.)

|  | 600 Volts Wkg. |  | 1200 Volts Wkg. No. Each |  | 2500 Volts | Wkg. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mifd. | No. | Each |  |  | No. | Each |
| . 00005 | C3051 | 41c | C3771 | 47 c | C3085 | 59c |
| 0001 | C3053 | 41c | C3772 | 47 c | C3077 | 59 c |
| 00015 | C3054 | 41c | C3773 | 47 c | C3078 | 65 c |
| 00025 | C3056 | 41 c | C3775 | 47 c | C3079 | 68c |
| 0005 | C3060 | 41 c | C3776 | 47 c | C3076 | 82c |
| 001 | C3061 | 41c | C3777 | 59c | C3082 | 97 c |
| 002 | C3064 | 44 c | C3779 | 88 c | C3081 | \$1.47 |
| 005 | C3069 | 56c | C3782 | \$1.15 | C3763 | 2.15 |
| 006 | C3070 | 65c | C3783 | 1.15 | C3764 | 2.26 |
| 01 | C3073 | 91 c | C3784 | 1.82 | C3765 | 2.68 |
| . 02 | C3766 | \$1.21 | C3845 | 2.56 |  |  |



In DUSTRIAL NOTE In addition to the Cor-nell-Dubilier capacitors listed on these pages, we can supply all of the types manufactured by C-D for radio, electronic and industrial uses. Consult us if you have some special capacitor probem. Very often we are in position to recommend a more efficient and effec ive solution to your problem at considerable saving in time and money.
 laminat-
ed Kraft tissues, Wax impregnated tube, wax-potted ends, oil-cooled. Conser vative DC rating.


| No. | Mid. | Each | No. | Mid. Each |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| C1221 | .01 | 14 c | C1228 | 06 | $17 e$ |



| C1223 | .02 | 14 c | C 1230 | . | $20 c$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| C1224 | .025 | 14 c | $\mathrm{C1231}$ | .25 | 20 c |
| C1225 | .03 | 14 c | C 1232 | .5 | $30 c$ |


| C1226 | .04 | 14 c | C 1233 | 1.0 | 40 c |
| :--- | :--- | :--- | :--- | :--- | :--- |
| C 1227 | .05 | 14 c |  |  |  |


|  | 600 Volts D.C. Wkg. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C1234 | . 0001 | 14 c | 1247 | . 02 |  |
| C1235 | . 00025 | 14 c | C1249 | . 03 | 17 |
| C1237 | . 001 | 14 c | C1250 | . 04 |  |
| C1238 | . 002 | 14 c | C1251 | . 05 | 17 |
| C1240 | . 004 | 14. | C1252 | . 06 | 20 |
| C1241 | . 005 | 14. | C1253 | . 1 |  |
| C1242 | . 006 | 14 c | C1255 | . 25 |  |
| C1245 | . 01 | 14. | C1257 | 5 |  |

Oil impregnated units especially de$\begin{array}{llllll}\text { C1262 } & .005 & 30 \mathrm{c} & \mathrm{Cl} 269 & .03 & 30 \mathrm{c}\end{array}$ | C1262 | .005 | 30 c | Cl 269 | .03 | 30 c |
| :--- | :--- | :--- | :--- | :--- | :--- |
| C1264 | .007 | 30 c | C 1270 | .04 | 34 c |
| C1266 | .01 | 30 c | C 1271 | .05 | 37 c |
| C 1268 | .02 | 30 c |  |  |  | C1268 ${ }^{\prime \prime} z^{\prime \prime}$ Universal Mtg.

Dry Electrolytics Popular low cost re-
placements. Have fect placements. Have feet
to replace inverted can or spade lug types, or can be used bencath chassis by means of the center strap. Unused mountings can easily be ture-proof cardboard

$=\frac{8}{\frac{8}{4}}$Type A-2
 C1328 Dual Units, Common Neg. $\begin{array}{llllll}\text { C1215 } & 310-30 & 150 & 1 & \times 23 & 1.20 \\ C 1216 & 50-50 & 1.50 & 1 & \times 312 & 1.36 \\ \text { C1198 } & 8 & 850 & 450 & 1 & 312\end{array}$ $\begin{array}{llllll}\text { C1198 } & 8-8 & 450 & 1 & \times 3! \\ \text { Dual Units, Sep. Sections }\end{array}$
 $\begin{array}{lllll}C 1329 & 8-8 & 450 & 13 / 8 \times 3 & 1.13 \\ \text { C1330 } & 8-16 & 450 & 13,8 \times 3^{3} / & 1.36\end{array}$ C1331 $16-16 \quad 450{ }^{13}$ 13 sx $4^{3} 1.64$
 $\begin{array}{lllll}C 1332 & 30-10, & 20 & 150, & 25 \\ \text { C1 } & 1 & \times 3 & 1.20 \\ C 1259 & 40-00, & 1.20 & 150 & 25\end{array}$ $\begin{array}{ccccc}\text { C1259 } & 40-20,20 & 150,25 & 1,163 & 1.22 \\ \text { C133 } & 30-20,10 & 150 & 1,8 \times 2,3 & 1.22\end{array}$ $\begin{array}{lllll}\text { C1260 } & 40-20.20 & 150 & 11 / \text { s. } 3 & 1.36\end{array}$ $\begin{array}{lllll}\text { C1261 } & 15-10,20 & 350,25 & 118 \times 31 & 1.36 \\ \text { C1335 } & 20-10,25 & 400-350, & 1 ; 8 \times 3 / \frac{1}{2} & 1.54\end{array}$

## Triple Units, Sep. Sections*

| C1336 | $8-8$, | 20 | 250,25 | 13,63 | 1.26 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| C1337 | $16-16$, | 20 | 250, | 25 | $136 \times 3{ }^{3}$, | $\begin{array}{lllllll}C 1337 & 16-16,20 & 250, & 25 & 13,63^{3} & 1.64 \\ \text { C1272 } & 8-8, & 20 & 350, & 25 & 13,6 \times 3{ }^{3} & 1.72\end{array}$

 $\begin{array}{ccccc}C 1338 & 8-8,20 & 450,25 & 188 \times 3,4 & 1.36 \\ \text { C1339 } & 8-8-8 & 250 & 138 \times 3 & 1.36\end{array}$ | $C 1275$ | $8-8-8$ | 450 | 138 |
| :--- | :--- | :--- | :--- | :--- |
| $13 \times 33 / 4$ | 1.54 |  |  | Quadruple Unit, Common Neg.

$\begin{array}{llll}\text { C1341 } & 30-20, & 150,25 & 1316 \times 23 / 4 \\ 1.51\end{array}$

"TP" Paper Tubulars
 Oil treated non-inductive units, triple sealed. Not affected by humid climatic conditions. All have wire leads.

| No. | Mfd. | Volts | Each 14 |
| :---: | :---: | :---: | :---: |
| C3896 | . 01 | 400 |  |
| C3897 | 02 | 400 |  |
| C3898 | . 05 | 400 |  |
| C3899 | 1 | 400.. | 17c |
| C3818 | 2 | 4003 |  |
| C3900 | 25 | 400 | \% |
| C3901 | . 5 | 400. | 30c |
| C3819 | 1.0 | 400. | 40c |
| C3902 | . 0001 | 600 |  |
| C3903 | . 00025 | 600 |  |
| C3904 | . 0005 | 600 |  |
| C3905 | . 001 | 600 |  |
| C3906 | . 002 | 600 |  |
| C3907 | . 005 | 600 |  |
| C3908 | . 006 | 600 |  |
| C3909 | . 01 | 600 |  |
| C3910 | . 02 | 600 |  |
| C3820 | . 03 | 600 |  |
| C3821 | . 04 | 600 | \% |
| C3911 | . 05 | 600 |  |
| C3912 | . 06 | 6001 |  |
| C3913 | . 1 | 600 ) |  |
| C3914 | 25 | 600 | 30c |
| C3915 | . 5 | 600. | 40 c |
| C3823 | 1.0 | 600. | . . . 69c |

## Mallory Oil Impregnated

 Tubulars Compact oil impregnated paper dielecavailable in two types.
OW: oil impregnated and filled. Suitable for vibrators, etc. Paper working volts d.c. OT: oil impregnated and oil filled.
Metal tubes. 2000 wkg volts d.c. Metal tubes. 2000 wkg voits d.c.

Type OW ( 1600 V.D.C.)

| No. | Cap. Mfd. |  |
| :---: | :---: | :---: |
| C4011 | . 0005 |  |
| C 4012 | . 001 |  |
| C4013 | . 002 | YOUR |
| C4014 | . 003 | $\cos 7$ |
| C4015 | . 004 |  |
| C4060 | . 005 |  |
| C4016 | . 006 |  |
| C4017 | . 007 |  |
| C4018 | . 008 |  |
| C4062 | . 01 | EACH |
| C4063 | . 015 |  |
| C4064 | . 02 |  |
| C4065 | . 03 |  |
| C4066 | . 04. | 34c |
| C4067 | . 05. | 37c |
| Type | OT (2000 | V.D.C.) |
| No. | Cap. Mfd. | Your Cost |
| C4021 | . 0025. | 51 c |
| C4022 | . 005 | 55c |
| C4023 | . 0075 | 58c |
| C4024 | . 01 | 62c |
| C4026 | . 015 | 62c |
| C4027 | . 02 | 698 |
| C4028 | . 03 | 72c |
| C4029 | . 04 | 72c |
| C4030 | . 05 . . . | . . . . . . . 75 c |

## MYE Technical Manual



A practical. simply written book that bridges the gap between theory and practice. Designed for the Serviceman, Enor Experimenter who wants the latest technical information. Hard C19780-
Your Cost
52
$\$ 2.00$


## 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. | $\begin{aligned} & \text { Wkg. } \\ & \text { Volts Size } \end{aligned}$ | Your Cost | $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Cap Mfd. | Wkg. Volts | Size | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C3700 | 1000 | 15 1×3* | \$2.16 | C3699 | 30 | 350 | $1 \times 2$ * | \$0.89 |
| C3701 | 2000 | 15 1\% ${ }^{1 / 8}$ | 3.08 | C3707 | 50 | 350 | $1 \times 3$ " | 1.20 |
| C3702 | 100 | $251 \times 2$ " | . 89 | C3658 | 10 | 450 | $3_{4} \times 2$ " | . 62 |
| C3703 | 500 | $251 \times 3$ " | 1.84 | C3659 | 15 | 450 | $1 \times 2$ | . 81 |
| C3704 | 1000 | 25 12/6x ${ }^{\text {* }}$ | 2.87 | C3708 | 20 | 450 | $1 \times 2{ }^{\prime \prime}$ | . 92 |
| C3705 | 500 | $5017 / 8 \times{ }^{\prime \prime}$ | 3.04 | C3791 | 30 | 450 | $1 \times 3$ * | 1.13 |
| C3790 | 50 | $1501 \times 2$ | . 78 | C3709 | 40 | 450 | $1 \times 3$ * | 1.33 |
| c3706 | 100 | $1501 \times{ }^{\prime \prime}$ | 1.17 | C3681 | 80 | 450 | 13/8× ${ }^{\prime \prime}$ | 2.02 |
| DUAL CAPACITORS |  |  |  |  |  |  |  |  |
| C3662 | 30-30 | $1501 \times{ }^{\prime \prime}$ | 50.92 | C3664 | 10-10 | 450 | 1×2* | 50.99 |
| C3710 | 50-50 | $1501 \times 3$ - | 1.10 | C3665 | 20-20 | 450 | 1×3" | 1.36 |
| C3793 | 15-15 | $3501 \times 2$ * | . 92 | C3711 | 40-40 | 450 | $1^{8} 8 \times 3^{\prime \prime}$ | 2.19 |
| C3792 | 20-20 | 350 1×3* | 1.13 | C3712 | 80-10 | 150 | $138 \times 3$ " | 2.25 |
| MULTIPLE SECTION CAPACITORS |  |  |  |  |  |  |  |  |
| Stock No. |  | Cap. Mifd. |  | Wkg. Vo | lis | Size |  | Your Cost |
| C3713 |  | 20-20-20 |  | 150 |  | $1 \times 2$ |  | \$0.99 |
| C3795 |  | 10-10-10 |  | 150 |  | $1 \times 3$ " |  | 1.30 |
| C3714 |  | 10-10-10 |  | 350 |  | $1 \times 2$ " |  | 1.13 |
| C3670 |  | 10-10-10 |  | 150 |  | $1 \times 3$ " |  | 1.30 |
| C3798 |  | 15-15-10 |  | 450 |  | $1 \times 3$ " |  | 1.43 |
| C3715 |  | (40-20) (20) |  | (150) 25 ) |  | $1 \times 2$ " |  | . 99 |
| C3716 |  | $(50-30)(100)$ |  | (150)125) |  | $1 \times 3^{\prime \prime}$ |  | 1.40 |
| C3717 |  | (15-10) (20) |  | (350) (25) |  | $1 \times 2$ " |  | . 95 |
| C3718 |  | (30-10)(20) |  | (350) (250 |  | $1 \times 3$ |  | 1.30 |
| C3719 |  | (30-20) (20) |  | (350) (25) |  | $1 \times 3$ |  | 1.30 |
| C3658 |  | $(10-10)(20)$ |  | (150) (25) |  | $1 \times 2$ " |  | 1.10 |
| C3799 |  | $(20-20)(20)$ |  | (450)(25) |  | $1 \times 3{ }^{-}$ |  | 1.43 |
| C3720 |  | $(40-40)(20)$ |  | (450) (25) |  | $13 / 8 x$ |  | 2.25 |
| C3721 |  | (40-40-30) (20) |  | (150) (25) |  | 18 \% 18 |  | 1.36 |
| C3673 |  | 15-15-10)(20) |  | (450) (25) |  | 1388 |  | 1.57 |
| C3722 |  | (20-15) (20-20) |  | (450) (25) |  | 13 \%x |  | 1.51 |
| $\mathrm{C} 3723$ |  | (40-30-10) (20) |  | (450) (25) |  | $138 \times$ |  | 2.32 |
| C3724 |  | 10-10-10-10 |  | 450 |  | 13 \%x |  | 1.57 |

Mounting Plates For Above Condensers


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. Shpg. wt. 8 oz .

| Stock No. | Mallory Type | cap. Mid. | Wkg. Volts | Dimensions | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C3964 | RS213 | 8 | 450 | $1 \times 2{ }^{3}$ | \$0.89 |  |
| C4058 | HS693 | 8 | 600 | $12 / 8 \times 4{ }^{\prime \prime}$ | 2.16 |  |
| C3966 | 12S215 | 12 | 450 | $1 \times 23$ - | 1.17 |  |
| C3967 | RS216 | 16 | 450 | $1 \times 31{ }^{\prime \prime}$ | 1.30 |  |
| C3969 | RS219 | 20 | 450 | 13 ¢ ${ }^{\prime \prime}$ | 1.43 |  |
| C3970 | RS223 | 30 | 450 | $1^{3} 8 \times 3$ " | 1.64 | 0 |
| C3971 | RS22 | 40 | 450 | $13 \% 3^{\prime \prime}$ | 1.88 |  |
| C3972 | RM262 | 8.8 | 450 | $13.8 \times 3 \times{ }^{\text {\% }}$ | 1.33 | , |

Transmite Sections, insulated leads.

|  |  |  | TZ capa indus gener: broa TZ | are <br> nd lifier ose ind are | for low television applica units for ustrial an conserval Can | trans- <br> uits, as <br> Type mercial, levision rated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Mallory | Mfd. | Wkg. V |  | Size | EACH |
| C4004 | 382 | 2 | 600 | 138 | o.d.x 3 | \$2.25 |
| C4005 | 383 | 4 | 600 |  | o.d. $\mathrm{x}^{3}{ }^{3}$ | 3.08 |
| C4006 | 381 | 1 | 1000 | 138 | o.d.x $2^{3} 1$ | 2.05 |
| C4097 | 38. | 2 | 1000) | 138 | o.d.x ${ }^{1}$. | 2.67 |
| C4008 | 389 | 4 | 1000 | 2 | o.d.x $37 / 8$ | 3.90 |
| C4089 | 383 | . 5 | 1500 |  | o.d.x31'8 | 2.46 |
| C4010 | 387 | 1 | 1500 | 13.8 | o.d $\times 5$ ! | 2.67 |
| C4036 | 388 | 2 | 1500 | 2 | o.d.x $4^{3 /}$ | 3.90 |


|  | Type TX-Rectangular Can |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C3976 | 801 | 1 | (\%) | 2,18 | 0.d $\times 1^{-3} \times 1$ | \$2.87 |
| C3977 | 802 | 2 | 600 | 23. | o.d.x ${ }^{3}{ }_{4} \times 1$ | 3.49 |
| C3978 | 803 | 4 | 600 |  | o.d.x1 ${ }^{4} \times 1$ | 4.52 |
| C3979 | 823 | . 5 | $10 \mathrm{Cr})$ |  | o.d. $\times 1{ }^{3} \times 1$ | 2.46 |
| C3980 | 804 | 1 | 1000 | 25\% | o.d.x13 ${ }^{1} \times 1$ | 3.08 |
| C3981 | 80.5 | 2 | 1000 | 37/8 | o.d. $\times 1{ }^{13}{ }^{3} \times 1$ | 4.11 |
| C3382 | 8015 | 4 | 1000 | 4114 | o.d. $\times 21 / 2 \times 13 / 16$ | 5.14 |
| C3983 | 810 | 1 | 2000 |  | o.d. $1^{3}{ }^{3} \times 1$ | 4.52 |
| C3984 | 811 | 2 | 2000 | 411 | o.d. $\times 2{ }^{1}{ }_{2} \times 11^{3}{ }^{16}$ | 5.33 |
| C3985 | 823 | 4 | 2000 |  | o.d.x $3^{3} \times 1{ }^{3}{ }_{4}^{4}$ | 7.39 |

TC Dry Electrolytics


Small dependable hermetically sealed aluminum case type con densers. Supplied with leads and insulating tube. Ideal for under chassis mounting. Can be used under all climatic conditions. Averagediameter one inch. SINGLESECTION-TypeTC.

| Stock No. | Cap. Mfd. | Wkg. Volts | Your Cost |
| :---: | :---: | :---: | :---: |
| C829 | 1000 | 3 | \$1.20 |
| C830 | 500 | 6 | 1.02 |
| C831 | 1000 | 6 | 1.43 |
| C832 | 500 | 15 | 1.43 |
| C848 | 10 | 25 | . 34 |
| C875 | 25 | 25 | . 40 |
| C876 | 50 | 25 | . 51 |
| C833 | 100 | 25 | . 75 |
| C987 | 10 | 50 | . 37 |
| C897 | 25 | 50 | . 48 |
| C898 | 50 | 50 | . 59 |
| C834 | 5 | 150 | . 34 |
| C835 | 10 | 150 | . 40 |
| C836 | 15 | 150 | . 48 |
| C837 | 20 | 150 | . 51 |
| C882 | 30 | 150 | . 55 |
| C988 | 40 | 150 | . 58 |
| C838 | 50 | 150 | . 69 |
| C839 | 60 | 150 | . 88 |
| C840 | 10 | 250 | . 48 |
| C841 | 20 | 250 | . 75 |
| C842 | 10 | 350 | . 55 |
| C843 | 20 | 350 | . 69 |
| C844 | 5 | 450 | . 48 |
| C888 | 8 | 450 | . 51 |
| C889 | 10 | 450 | . 58 |
| C845 | 15 | 450 | . 75 |
| C846 | 20 | 450 | . 81 |
| C847 | 30 | 450 | . 99 |
| C849 | 40 | 450 | 1.20 |
| C850 | 10 | 500 | 1.54 |
| C851 | 10 | 600 | 1.68 |

Compact Type TCD and TCS Tubulars


Similar to the TC types, these units are extremely compact averaging only one inch in diameter. Wermetically sealed in aluminum casing. Capacitors are capable of withstanding moderately high humidity. Type TCD is the common negative type with insulating covering. Type TCS is the same but has two independent sections.

DUAL COMMON NEGA-
TIVE-TYPE TCD

| Stock <br> No. | Cap. <br> Mfd. | Wkg. <br> Volts | Your <br> Cost |
| :--- | :---: | :---: | ---: |
| C852 | $25-25$ | 25 | $\$ 0.72$ |
| C853 | $20-20$ | 150 | .89 |
| C854 | $30-30$ | 150 | .95 |
| C855 | $40-40$ | 150 | 1.10 |
| C856 | $10-10$ | 250 | .81 |
| C857 | $20-20$ | 250 | 1.17 |
| C858 | $10-10$ | 350 | .95 |
| C859 | $20-20$ | 350 | 1.30 |
| C860 | $8-8$ | 450 | .89 |
| $C 861$ | $10-10$ | 450 | .99 |
| $C 862$ | 15.15 | 450 | 1.30 |
| C863 | $20-20$ | 450 | 1.43 |

## OUAL SEPARATE SE TION一TYPE TCS

| $C 864$ | $15-15$ | 150 | $\$ 1.06$ |
| :--- | :---: | :---: | :---: |
| $C 865$ | $20-20$ | 150 | 1.13 |
| $C 866$ | $30-30$ | 150 | 1.22 |
| $C 867$ | $40-40$ | 150 | 1.36 |
| $C 868$ | $10-10$ | 250 | 1.17 |
| $C 869$ | $20-20$ | 250 | 1.51 |
| $C 870$ | $8-8$ | 350 | 1.06 |
| $C 871$ | $15-15$ | 350 | 1.51 |
| $C 872$ | $8-8$ | 450 | 1.22 |
| $C 873$ | $15-15$ | 450 | 1.68 |
| $C 874$ | $20-20$ | 450 | 1.80 |

# SPRAGUE CONDENSERS 

"600" Line-Type TC Paper Tubulars


Popular Compact tubular condensers. Non-inductively wound. Oilimpregnated. The Sprague slogan convincing proof of the efficiency of these condensers. Universal for a wide variety of replacements. Test voltage 1200 .
No. Mrd. Each No. Mfd. Each


 $\begin{array}{llll}\mathrm{C} 2630 & 0004 & \text { 4c } & \mathrm{C} 2638 \\ \mathrm{C} 2631\end{array}$ \begin{tabular}{lll|l|}
C2630 \& .0005 \& $14 e$ \& C2639 <br>
C2631 \& .001 \& $14 e$ \& C2640

 

C 2631 \& .001 \& $14 e$ \& C 2640 <br>
C 2632 \& .002 \& 14 e \& C 2641 <br>
\hline
\end{tabular} $\begin{array}{llllll}\mathrm{C} 2633 & .003 & 14 \mathrm{c} & \mathrm{C} 2642 & .25 & 30 \mathrm{c}\end{array}$ $\begin{array}{lllll}\text { C2634 } & .004 & 14 \mathrm{c} & \mathrm{C} 2643 & .5 \\ \mathrm{C} 2635 & 005 & 40 \mathrm{c}\end{array}$

## 400" Line-Type AA

 Slightly smaller than the above. 400 volts d.c. working VoltageNo. Mfd.
Each
No.
 $\begin{array}{lllllll}\mathrm{C} 2606 & .06 & 17 \mathrm{c} & \mathrm{C} 2612 & 1.0 & 40 \mathrm{c}\end{array}$ C2608

Type "TR"
Oil impregnated and wax filled. 1600 Volts Working

| $\begin{aligned} & \text { Stk. } \\ & \text { No. } \end{aligned}$ | Cap. Mfd. | Dimen.in | $\begin{array}{\|c} \text { Your } \\ \text { Cost } \\ \text { Ea. } \end{array}$ |
| :---: | :---: | :---: | :---: |
| C2690 | . 001 | 38 | 30 c 30 c |
| C2691 | n02 | ${ }^{3} 8 \mathrm{8x}$ |  |
| C2692 | . 005 | ${ }^{40} 10$ |  |
| ${ }_{C 2694}$ | . 01 |  | 30 c 30 c 30 |
| ${ }_{\text {C2695 }}$ | . 02 | ${ }_{15}^{146 \times 2}$ | 37c |
| Type UC Cased 'Mang- <br> Up" Paper Condensers |  |  |  |
|  |  |  |  |
| Oilimpregnated |  |  |  |
| Fully cased and Fully cased and vent melting of wax. ImperviIdeal for X'mitting and $P$. A. |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 400 VOLTS WORKING |  |  |  |
| Stock | Cap. |  |  |
| No. |  |  |  |
| C2779 | 123 | x15/8x |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| C2782 ${ }^{2} 31 / 5 \times 17 /{ }^{15}$ |  |  |  |
| 1000 VOLTS WORKING |  |  |  |
|  |  |  |  |
| 84 | 24 | 1 |  |

Special Value! High Voltage Aluminum Can Dry Electrolytics

Standard size, round aluminum can type for inverted hole-in-chassis mounting. Can is insusections. Has insulated eads and $8 /{ }^{n}$ mounting stud with palnut. Ideal condensers and for gen eral replacement pur poses. Shpg. wt., each Working, 600 Volts Peak $13 / 8$ Dia. x 4 High.

## No. Cap. Mfd

$C 2371 \quad 8$
C 2372
Each
$\$ 0.56$
$\begin{array}{ll}\mathrm{C} 2373 & 12 . \\ \mathrm{C} 2374 & 16 .\end{array}$
$C 2374$
C 2375
C2376 30
C 2378 8-8

## SPRAGUE "ATOMS" Ultra-Compact

 Dry ElectrolyticsUltra-compact capacitors sealed in tubes with outer insulating sleeve Protected against "Blow-ups.' All have $31 / 2^{\circ}$ bare wire leads riv eted to end caps.

| No. | Mfd. Wkg.V. D.-L. |  |  | Each |
| :---: | :---: | :---: | :---: | :---: |
| C769 | 10 | 25 | 9,6x ${ }^{15}$ | 34 c |
| C770 | 25 | 25 | 9, 3158 | 40 c |
| C2680 | 5 | 50 | 916 $\times 1$ 1/8 | 34 c |
| C2682 | 10 | 50 | 1416x $15 / 8$ | 37c |
| C771 | 25 | 50 | $5 / 8 \times 15$ | 48c |
| C2841 | 50 | 50 | $1718 \times 17 / 8$ | 58 c |
| C772 | 4 | 150 | $5 / 8 \times 15$ | 34 c |
| C773 | 8 | 150 | $5,8 \times 15$ | 37c |
| C774 | 12 | 150 | 5/8x15/8 | 40c |
| C775 | 16 | 150 | $1{ }_{1} 6 \times 15$ | 48 c |
| C776 | 20 | 150 | $3 / 815$ | 51c |
| C2840 | 30 | 150 | 13/16x $1^{7 / 8}$ | 55c |
| C777 | 40 | 150 | 7/8815/8 | 55c |
| C778 | 4 | 450 | $5,8 \times 15 / 8$ | 48 c |
| C779 | 8 | 450 | $34 \times 15$ | 51 c |
| C780 | 12 | 450 | $7 / 3 \times 15 / 8$ | 62 c |
| C781 | 16 | 450 | 19196x ${ }^{1 / 8}$ | 75 c |
| C782 | 20 | 450 | $7 / 8 \times 218$ | 81c |



$\qquad$ | C783 | $10-10 \dagger$ | 50 | $56 \mathbf{x}^{33}$ | 50.69 |
| :--- | :--- | :--- | :--- | :--- | :--- |


| C3164 | 8-8** | 150 | $588 \times 2.8$ | . 69 |
| :---: | :---: | :---: | :---: | :---: |
| C2842 | 12-20* | 150 | ${ }_{11}^{16} \times 22^{3}$ \% | 7 |
| C3165 | 20-20* | 150 | $3 / 4 \times 23 / 8$ | . 89 |


| C3165 | $20-20 *$ | 150 | $3 / 42238$ | .89 |
| :--- | :--- | :--- | :--- | :--- |
| C2683 | $20-20 \dagger$ | 150 | 1 | $x 27 / 8$ |


| $C 2843$ | $40-20 \dagger$ | 150 | 1 1 $16 \times 5^{23 / 8}$ | 1.17 |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Type "EL" Prong-Base Dry Electrolytics

 In uninsulated mounting feature; hack under chassis Lug terminals are coded. All are perfectly sealed and are impervious to moisture. Bakelite and metal mitg. plates

## Stock Cap.

 listed below at right
## Kik. Size Your

## "LM" Cardboard Tube Compact <br> Dry Electrolytics

All provided with universal mtg. lugs on top of chassis. anchored with screws or extended through holes in under All have sent under. All have separate negative and
positive leads. Lead ends are well sealed
 with high melting point compound; units are moisture proof.

## Stock

$\qquad$
$\begin{array}{ll}\mathrm{C} 2526 & 10-10 \\ \mathrm{C} 257 & 20\end{array}$

C2527 | $C 2528$ | $40-40$ |
| :--- | :--- |
| $C 2529$ | $20-20$ |

$\begin{array}{ll}\mathrm{C} 2529 & 20-20 \\ \mathrm{C} 2531 & 20-20 \\ \mathrm{C} 2532 & 30-50 \\ \mathrm{C} 2533 & 40-20\end{array}$ $\begin{array}{llllll}\text { C2534 } & 40-20 & 150 & 1 & x^{\prime \prime} & .92 \\ & 50-50 & 150 & 1 & x^{\prime \prime} & .110\end{array}$ C2541 $10-10 / 20 \quad 450 / 251 \quad$ x $3^{\prime \prime} 1.10$ $\begin{array}{lllll}\text { C2548 } & 20-20 / 20 & 400 / 25 & 1 & x{ }^{\prime \prime} \\ \text { C2550 } & 1.43 \\ \text { 10-10/20 } & 350 / 25 & x^{2} & 92\end{array}$ $\begin{array}{llllll}C 2552 & 20-20-20 & 150 & 1 & x^{2 \prime} & .99\end{array}$ $\begin{array}{llllll}C 2556 & 40-20-20 & 150 & 1 \times 22^{1} & 1.13\end{array}$ C2593 $40-10-40 \quad 150 \quad 1 \times 3^{-1} 1.30$

 C2658 Bakelite. For "cans C265 cans
C266
C266 2661

4


Oil Filled Capacitors

$\frac{1}{4 \rightarrow 2 a}$Type BA Bathtub type, oil filled. Hermetically sealed. Lugtype mtg. Non-induc Meet Army-Navy specs.
600 V .D.C. Working

 poads for each section
450 Volts Working 525 Surge Volts

| Stk. No. | Cap. <br> Mfd. | No. 0 Leads | Dimen. | Cost |
| :---: | :---: | :---: | :---: | :---: |
| C3535 | 8 | 2 | $13 / 8 \times 47 / 46$ | \$0.89 |
| C3536 | 12 | 2 | $13 / 8 \times 47 / 16$ | 1.17 |
| C3537 | 16 |  | $18.4 \times 47$ 价 | 1.3 |
| C3538 | 4-4 | 4 | $1388 \times 47 / 16$ | 1.10 |
| C3539 | 8-8 | 4 | $11 / 2 \times 47 / 16$ | 1.33 |
| C3540 | 16-16 | 4 | $11 / 2 \times 47 / 16$ | 1. |







| Stk. | $\begin{aligned} & \text { Cap. } \\ & \text { Mfd. } \end{aligned}$ | No. Lead | Dimen Dia.Lg. | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\overline{\mathrm{C} 2795}$ | 4 | 2 | $1 \times 23 / 4$ | \$0.72 |
| C2796 | 8 | 2 | 1 x3 | 89 |
| C2797 | 12 | 2 | x3 | 1.17 |
| C2798 | 16 | 2 | x3 | 1.30 |
| C2799 | 8-8 | 4 | $11 / 2 \times 3$ | 1.33 |
| C2800 | 8-8-8 | 6 | 132518\% | 1.91 |
| C2801 | 16-16 | 4 | $11 / 2 \times 48$ | 1.77 |

600 V. Peak Drys to Replace Wet Electrolytics Similar in appearance to units at left. Highly formed dry electrolytics guaranteed to carry the a.c. ripple.

| Stock No. | Cap. <br> Mfd. | Replaces Wet | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| C2515 | 8 | 4 to 8 mfd . | \$0.85 |
| C2516 | 16 | 12 to 18 mfd . | 1.17 |
| C2517 | $25 \quad 2$ | 20 to 40 mfd . | 1.36 |
| PTM TINY MIKES |  |  |  |
|  |  | $\begin{aligned} & 450 \\ & \text { Un } \\ & \text { for } \\ & \text { var } \\ & \text { re } \\ & \text { mo } \end{aligned}$ |  |

tively rated at 525 volts, but will volts. Special metal mtg. feet.


Type SA
Hermetically sealed case. Incco nated and filled
 High glaze porce
lain insulators. lain insulators. Conservatively rated-safe operation at $10 \%$ overload. Space Saver uni adjustment. Non-corrosive lead coated steel case
600 V.D.C. Working


1000 V.D.C. Workins
C3122 $1.0 \mid 27 / 3^{2} 13$, $16 \times 111^{*} \mid 2.56$



2000 V.D.C. Working
 $\overline{C 2795}$ $C 2796$

$C 2797$ C2798 C2799 | $C 2800$ | $8-8-8$ | 6 | 13 | 13 |
| :--- | :--- | :--- | :--- | :--- | :--- | Stock Cap.

our $\begin{array}{llll}\mathrm{C} 2516 & 16 & 12 \text { to } 18 \mathrm{mfd} . & 1.17\end{array}$

## PTM TINY MIKES

 450 W.V. for a widevariety of replaceConserva


## Reliance ${ }^{\text {Midget }}$ Cartridge Condensers



| Ideal for A.C.-D.C. sets or whereever space is a factor. Highest quality at lowest prices. Finest metal foil and linen paper. Hermetically sealed and impregnated Supplied in a wide variety of capacities and working voltages to meet practically every service requirement. All provided with long tinned wire leads; units can be made self-supporting. |  |  |  |
| :---: | :---: | :---: | :---: |
| Stock No. | Cap. Mfd | Work. Volts | Your Cost |
| C3179 | . 01 | 400 |  |
| C3180 | . 02 | 400 |  |
| C3181 | . 05 | 400 |  |
| C3182 | . 1 | 400 | 12c |
| C3183 | 25 | 400 | 14c |
| C3174 | . 5 | 400 | 20c |
| C3172 | 1.0 | 400 | 28 |
| C3184 | . 001 | 600 |  |
| C3185 | . 002 | 600 |  |
| C3186 | . 006 | 600 |  |
| C3187 C3188 | . 01 | 600 |  |
| C3188 C 3189 | . 02 | 600 |  |
| C3189 | . 05 | 600 | 12c |
| C3190 | .1 | 600 | 14 c |
| C3191 | . 25 | 600 | 20c |
| C3169 | . 5 | 600 |  |

"Mites" Ultra Compact
Dry Electrolytic Condensers

Cost Eact

## Cornell-Dubilier "Quietones"

Most satisfactory results are obtained when Quietones are installed at the source of the interference. Where source of interference cannot be located a Quietone onnected to the electric supply line of the radio tion. Each hes plug end and rully correct, the cond tion. Each has plug end and receptacle

IF-19-21
 For These
Adding Machines Addressing Machines Billing Machines Dental Machines Dictating Machines Drilling Machines Washing Machines Air Conditioners Auto Call Systems

| Use | For These |
| :--- | :--- |
| IF-18 | Cash Registers |
| IF-18 | Dishwashers |
| IF-18 | Floor Polishers |
| IF-19 | Food Mixers |
| IF-19 | Fans |
| IF-19 | Juice Extractors |
| IF-19 | Massagers |
| IF-18 | Radios |
| IF-18 | Refrigerators | 1F-21 Vacuum Cle F-21. All-Wave caracitive-inductive max. In Walnue capacitive-inductive filter. For 110 C12495-Your Cost Each

1F-19. Like above, but 5 amps .
C12494. All-Wg. Wt. 2 lbs. Your Cost Each 1F-18. All-Wave capacitive-inductive filter. For ilo vols Max. In Walnut bakelite case. Shpg. wt. 5 lbs. C12493-Your Cost Each
C12425-IF-6-Your Cost Each

## Special Type "Quietones"

 If-22A: For use with schick. Knapp Monarch, etc C12496-Your Cost Each IF-22B. Like above, but for Packard, Zephyr, C12497-Your Cost Each. P1 47位 max. Steel box; flexible leads. C12498-Shpg. wt. 5 lhs. Each[F-28. Same as above, but for equipment $5=5$ C12499-Your Cost Each
s.57

## Industrial "Quietone"

IF-7A capacitive-inductive type heavy duty filter
for eliminating noises caused by motors, oil burners for eliminating noises caused by motors, oil burners, box $6 \times 6 \times 4^{\prime \prime}$, with knock-outs for BX cable or conduit. For single phase $110-220$ volts 5 amps. Wc. 9 lbs. C12500-Each.

## \$6.15

## J. F. D. Noise Filter

Eliminate electrical noise from a fluorescent fixture by installing filter into offending fixture. The leads from is grounded. Cures the most obstinate cases. $41 / 4 \times 13 / 4 \times 11$ wt, 1 lb . C12520-Your Cost.
$75^{\circ}$

## MALLORY Interference Filters

 X-3 Plug-In Capacitive
type for use between set and outlet. Rated 5 amps . at 110 290 volts. For slight interference.
$13.6 \times 21 / 4^{\prime}$. C12510-Each 2-2. Capacitive-inductive. 3 amps. at $110-220 \mathrm{v} .18 / 8 \times 2 \frac{3}{4} .95 \mathrm{~F}$
C12511-Each

## W-7 Motor Type

 Dual capacity
unit. Use on motorbrushes or rings. Bracket for mty|. to
frame. For noderate interference. $110-220$ volts. $7 / 8 \times 1^{13} / 6_{6}^{\prime}$. S24 W-11. Like W-11. Like above, for severe in
terference. $13 / 63^{5}$. $\$ \frac{1}{2}$ C12513-Each ${ }^{\mathbf{s} 1.02}$

## Heavy Duty Filters



LC-5. Induct ance-capacity filter for severe interference
Rated $110-220$ V., 5 amps. Has cord, plug and receptacle. $27 / 8$ Wt. 8 lbs. C12514-Your Cost LC-10. Same as above $220 \mathrm{~V}, 10 \mathrm{amps}$
$\$ 4.11$ C12515-Each

DeLuxe "Plug-In" Z-6. Adual in-
ductance-capa-ductance-capacityfilter with turnlead to ground. Recommended for suppressing severe interference. Rated 110-220 volts, 3 amps. Use at radio or noise source. C12516-Each


## Heavy Duty Type LB Industrial Filters

 For use with equipment nently connected to the power line or which draws 10 Contains or more pacitors and pacitors and standard type metal cut-out boxes. Instal lation is made by cutting the power line as close as practical to the offending device, and inserting the proper LB filter in series with the line at this point. Instructions enclosed. For 110 or 220 voltsAC or DC- C12518 10 6x 6x ${ }^{-12}$ ibs. $\$ 9.86$ | C12518 | 20 | $10 \times 10 \times 6^{\prime \prime} 18$ lbs. | 23.00 |
| :--- | :--- | :--- | :--- |
| C12519 | 40 | $12 \times 10 \times 0^{n} 25$ ibs. | 28.74 |



## ICA "FILTERVOLTS"

All-Wave Model-Contains heavy duty R.F. chokes, large hiter capacitors and has Po fiter unit. Eliminates noses cuused toasters, vacuum cleaners, etc. Rated 250 watts, at 32 , 110 and 220 volts a.c. or d.c. For use with any allwave or broadcast receivers. Metal case $5 \times 4 \times 18 / 8$
Has cord, plug and receptacle. Wr. 5 lbs.
C12508-Each ...................................


## INTERMEDIATE MODEL

Eliminates extremely noisy radio reception due to power 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: $45 / 8 \times 35,8 \times 113 /{ }^{5}$,
Shpp. Wt. 2 lbs . C12507-Each.


# Peliance CARBON RESISTORS 

SERVIGEMENYS SPEGIAL!

## * $1 / 281$ Watt R.M.A. Carbon Resistors

Here's another CONCORD

## EXCLUSIVE serviceman's offer

that helps you to build profits.
Our 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 Ohms Ohms Ohms Ohms Ohms Ohms Ohms

 2-Watt Carbon Resistors


Heavy-duty carbon resistors, absolutely moisture proof. RMA color coded for easy identification; made of the finest material and workmanship. Guaranteed accuracy, $10 \%$ plus 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. Also for public address amplifiers or for test instrument replacement. Size $2^{\prime \prime}$ L. x $1 / 2^{\circ} \mathrm{O}$.D

| Ohms | Stock No. | Ohms | Stoc No | Ohms | Stock No. | Ohms | Stock No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 200 | C4450 | 2500 | C4460 | 10000 | C4469 | 70000 | C4479 |
| 400 | C4451 | 3000 | C4461 | 12000 | c4470 | 75000 | C4480 |
| 500 | C4452 | 3500 | C4462 | 15000 | C4471 | 100000 | C4481 |
| 600 | C4453 | 4000 | C4463 | 17000 | C4472 | 125000 | C4482 |
| 700 | C4454 | 5000 | C4464 | 20000 | C.4473 | 150000 | C4483 |
| 800 | C4455 | 6000 | C4465 | 25000 | C4474 | 200000 | C4484 |
| 1000 | C4456 | 7000 | c4466 | 30000 | C4475 | 250000 | C4485 |
| 1250 | C4457 | 7500 | C4467 | 40000 | C4476 | 300000 | C4486 |
| 1500 | C4458 | 8000 | C4468 | 50000 | C4477 | 0000 | C4487 |
| 2000 | C4459 |  |  | 60000 | C4478 |  |  |
| Your Cost Each. . . . . . . . . . <br> 10 For. ........................ 64 c 25 For. |  |  |  |  |  |  |  |

NOTE: Caliculator below supplied FREE with orders for plied FREE with orders for resistors.

olor Code Indicator Permits in-
stant calculastant calculavalue in ohms ofany R.M.A. color coded
resistor resistor. The
circular rule circular rule can be set in a moment-readings are accurate.
Full directions are printed on the Full direc indicator.

## Continental Carbon Multiplier Resistors

 Impregnated and hermetically sealed in unusually stable. For any 1 watt applica-tion but especially recommended for meter multipliers, photo-cell circuits, etc. Pigtail leads. Type A1. Accuracy $=5 \%$.

| No. | Ohms | Volts | No. | Ohms | Volts | No. | Ohms | Volts |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C12286 | 1450 | 1.5* | C12298 | 10000 | 10 | C12310 | 200000 | 200 |
| C12287 | 2950 | 3* | C12299 | 13500 | 13.5 | C12311 | 250000 | 250 |
| C12288 | 3500 | 3.5 | C12300 | 15000 | 15 | C12312 | 300000 | 300 |
| C12289 | 4450 | 4.5* | C12301 | 25000 | 25 | C12313 | 450000 | 450 |
| C12290 | 4950 | 5* | C12302 | 30000 | 30 | C12314 | 500000 | 500 |
| C12291 | 5000 | 5 | C12303 | 50000 | 50 | C12315 | 600000 | 600 |
| C12292 | 5500 | 5.5 | C12304 | 60000 | 60 | C12316 | 750000 | 750 |
| C12293 | 5950 | 6* | C12305 | 75000 | 75 | C12317 | 800000 | 800 |
| C12294 | 7450 | 7.5* | C12306 | 85000 | 85 | C12318 | 900000 | 900 |
| C12295 | 8500 | 8.5 | C12307 | 90000 | 90 | C12319 | 1 Meg . | 1000 |
| C12296 | 8950 | 9* | C12308 | 100000 | 100 |  |  |  |
| C12297 | 9950 | $10^{*}$ | C12309 | 150000 | 150 |  |  |  |
| *Allow | 50 \% | 1 me | resis | . | A |  |  |  |

Reliance $1 / 2$ and 1 Watt Resistors $\star$ 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-. $23^{\prime \prime}$ dia. by $580^{* \prime}$ length, meet JAN meet JAN RC-31 BF specifications. RMA preferred values only. meet
Guaranteed accuracy $\pm 10 \%$.

| Resis. Ohms | 1/2 Watt Stock No. | 1 Watt Stock No. | Resis. Ohms | $\begin{aligned} & 8 / 2 \text { Watt } \\ & \text { Stock No. } \end{aligned}$ | $\begin{aligned} & 1 \text { Watt } \\ & \text { Stock No. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 220 | C4250 | C4300 | 56,000 | C4278 | C438 |
| 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 | 330,000 | C4286 | C4336 |
| 1500 | C4258 | 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 | $\overline{\text { Megohms }}$ |  |  |
| 4700 | C4264 | C4314 | 1.0 | C4288 | C4338 |
| 5600 | 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 | C-4343 |
| 33,000 | C4275 | C4325 | 6.8 | C4294 | C4344 |
| 39,000 | C4276 | C4326 | 8.2 | C4295 | C4345 |
| 47,000 | C4277 | C4327 | 10 | C4297 | C4347 |

$1 / 2$-WAT'T SLZE
Your Cost
4

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

SPRAGUE "KOOLOHM" Resistors
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. Anit acts as overload indicator. turning brown at $25 \%$ or more overload and resuming its red color overload and resuming its red color when overload is removed. Ac-
curacy guaranteed $\pm 5 \%$. Non-inductive types show zero inductance up to 50 mc . and distributed
capacitance is only 2 mmfd .


# Reliance WireWound RESSISTORS 



| 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* |
| *Avail | e in 10 | vatt si | only. |  | 7000 | 17500 | 50000* |
| C4438-RELIANCE 5-Watt Resistors Your Cost Each, Any Size. |  |  |  |  |  |  |  |
| C4439-RELIANCE 10 -Walt Resistors Your Cost Each, Any Size. |  |  |  |  |  |  |  |

## 10-Watt Adjustable Wire Wound



C4446-Extra Slider for above. Each


Reliance Semi-Variable Wire-Wound Resistors
Vitreous enamel coated. Adjustabie lugs have small contact bultons
so that several taps can be used without shorting out much resistance. 13rackets and one slider furnished.


## Reliance

m-prous dissinate meat $10 \%$. All are positive lug contacts and do not change in value. Each marked for resistance

| No. | Ohms | No. | Ohins | No. | Ohms | No. | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C4850 | 1 | C4866 | - 100 | C4875 | 750 | C4886 | 10000 |
| C4854 | 5 | C4868 | 150 | C4876 | 1000 | C4888 | 15000 |
| C4856 | 10 | C4869 | 200 | C4879 | 2000 | C4889 | 20000 |
| C4861 | 30 | C4870 | 250 | C4880 | 2500 | C4890 | 25000 |
| C4863 | 40 | C4872 | -400 | C4881 | 3000 | C4893 | 30000 |
| C4864 | 50 | C4873 | -500 | C4883 | 5000 | C4895 | 50000 |
| Your <br> Any $S$ | Cost Eac |  |  |  |  |  | $\begin{aligned} & 5 \text { For } \\ & 82 c \end{aligned}$ |
|  |  | att R | Fating $1 / 2 \times 2$ |  |  | Watt | $3 \times 4{ }^{4}$ |
| No. | Ohms |  | No. Ohms | Each | No. | Ohms | Each |
| C4910 | 25 |  | C4936 2500) |  | C4958 | 100 |  |
| C4911 | 50 |  | C4938 3000 |  | C4959 | 250 |  |
| C4913 | 100 |  | C4940 4000 |  | C4960 | 500 |  |
| C4915 | 200 |  | C4942 5000 |  | C4963 | 1000 | $\theta$ |
| C4919 | 400 |  | C4943 6000 |  | C4970 | 50001 |  |
| C4920 | 500 |  | C4946 8000 |  | C4976 | 10000 |  |
| C4923 | 750 |  | C4947 10000 | 5 For | C4979 | 15000 |  |
| C4926 | 1000 |  | C4949 15000 | \$1.42 | C4981 | 20000 |  |
| C4930 | 1500 |  | C4950 25000 |  | C4982 | 25000 |  |
| C4933 | 2000 |  | C4952 50000) |  | C4983 | 30000 |  |
| C4934 | 2250 |  | C4892 100000.. | . 37 | C4985 | 50000 ) | - |

## OHMITE "Little Devil"Insulated Resistors

 $\ldots$ Ready for any job anywhere are these tiny completely sealed and insulated molded plastic constructed resistors moetinu all Joint Army Navy specif neeins all Join Army / avy specis Used in critical equipment and in the Used in critical equipment and in the nations foremost laboratories. Dissipate heat rapidly, have low noise level and low voltage coefficient. Tolerance$\qquad$ $\pm 10 \%$

| Standard RMA Code-Specify Resistance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ohms | Ohms | Ohms | Ohms | Megohms | Megohms | Megohms |
| 10 | 100 | 1,000 | 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 |  |
| 68 | 680 | 6,800 | 68,000 | 0.68 | 6.8 |  |
| 82 | 820 | 8,200 | 82,000 | 0.82 | 8.2 |  |
| Size $3_{8} \mathrm{x}^{3}{ }^{3}{ }^{\circ}$ Max. volts 500 . C7100 Each |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |



## LECTROHM Wire-Wound

 Fixed Resistors10 W units furnished with pig-tail leads, 20,50 and 100 W units have solder lug terminals. All types are coated with vitreous enamel and are space wound on low loss ceramic cores. $10 \%$ Tolerance.

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ohms | Ohms | Ohms | Ohms | Ohms Ohms | Ohms | Ohms |
| 1 |  |  |  | 17504500 |  |  |
|  | 25 | 300 | 800 | $2000 \quad 5000$ | 12000 | 25000 |
| 3 | 50 | 3.50 | 900 | $22.50 \quad 6000$ | 12500 | 30000 |
| 5 | 75 | 400 | 1000 | 25007000 | 15000 | 40000 |
| 7.5 | 100 | 500 | 1200 | 30007500 | 17500 | 45000 |
| 10 | 150 | 600 | 1250 | 35008000 | 18000 | 50000 |
| 15 | 200 | 700 | 1500 | 40008500 | 20000 |  |
| C7300-Sjuecify Resistance. Any above ype, Your Cost 20 Watt ( $12 \times 22^{\prime \prime}$ ) Mounting Centers 27/8" |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 5 | 50 | 200 | 600 | 2000 | 7000 | 25000 |
| 10 | 60 | 250 | 700 | 2500 | 7500 | 30000 |
| 15 | 75 | 300 | 750 | 3000 | 10000 | 35000 |
| 20 | 100 | 350 | 1000 | 4000 | 12.500 | 40000 |
| 25 | 125 | 400 | 1250 | 5000 | 15000 | 50000 |
| 40 | 150 | 500 | 1500 | 6000 | 20000 |  |

C7301-Specify Resistance. 5 to 5 M Ohms. Your Cost ${ }^{6}$....... $\$ 0.41$
C7302-Specify Resistance. 6M to 10 M Ohms. Your Cost.
C7303-Splecify Resistance. 12,500 to 15 M Ohms. Your Cost
C7304-Sipecify Resistance. 20M to 25M Ohms. Your Cost
C7305-Sinecify Resistance. 30N to 50 M Ohms. Your Cost..... 71
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 consists of 1 yard spiral wound resistance wire, 1 yard insulated braid and 24 spiral wire leads. Available in eight resistance values. Dissipation-all types; $1 / 2$ wate per inch. Instructions included.
Stk. Ohms Cap. in Your Stk. Ohms Cap. in Your

| Stk. | Ohms | Cap. in | Your | Stk. | Ohms | Cap. in |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C4407 | Per 1 m. | Amps <br> .707 <br> .05 |  | C4411 | Per 1 ln . | Amps. |  |
| C4408 | 5 | 315 | 444 | ${ }^{\text {c } 4412}$ | 100 | . 071 | 4.4 |
| C4409 | 10 | 223 | Any Type | C4413 | 250 | 0.44 |  |
| 10 | 25 | 141 | Any Type | C4414 | 500 | 031 | Any |

## IRC All-Metal Rheostats

All-metal units with die-cast aluminum case. Heat is uniformly distributed throughout the element repardless of percentage of element actually
used. Flat clockspring (Silent Spiral Connector) used. Flat clockspring (Silent Spiral Connector) gives positive contact between rotor arm and
center connector, 25 -Watt units $1 \% 1$ dia. 110 center connector, 25 -Watt units ${ }^{\prime \prime}$, dia.
hind panel shpg. wt. 2 lbs .

| No. | Ohms | Amps. | Each |
| :--- | ---: | ---: | ---: |
| C9150 | 6 | 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 | $.070 \ldots . . . .$. |  |

50-Watt Rheostals


## OHMMTE RESISTORS

## 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 possible size wire are used for each resistance. The vitreous enameled coating retains the uniform spacing of the turns, just as they were wound, which permits close spacing. Wire is mechanically locked and soldered to the terminal lugs. Tolerance $10 \%$.
 Wt. 3 oz.

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: |
| 0.4 | $125 \dagger$ | $1,850^{*}$ | $16,000 \dagger$ |
| $0.6^{*}$ | 150 | 2,000 | $17,500 \dagger$ |
| $0.8^{*}$ | 200 | 2,250 | $18,000 \dagger$ |
| $1 . \dagger$ | $225 \dagger$ | $2,400^{*}$ | 20,000 |
| $1.2 \dagger$ | 250 | 2,500 | $22,500 \dagger$ |
| $1.3 \dagger$ | 300 | $2,750^{*}$ | 25,000 |
| $1.5 \dagger$ | 350 | 3,000 | 30,000 |
| $2 \dagger$ | 400 | 3,500 | 35,000 |
| $3 \dagger$ | $450 \dagger$ | 4,000 | 40,000 |
| $4 \dagger$ | 500 | 4,500 | 45,000 |
| 5 | $600 \dagger$ | 5,000 | 50,000 |
| $7.5 \dagger$ | $6500^{*}$ | 6,000 | $55,000^{*}$ |
| 10 | 700 | 7,000 | $60,000^{*}$ |
| $12 \dagger$ | 750 | 7,500 | $65,000^{*}$ |
| $15 \dagger$ | 800 | 8,000 | $70,000^{*}$ |
| $20 \dagger$ | 850 | $8,500 \dagger$ | $75,000^{*}$ |
| 25 | $900 \dagger \dagger$ | 10,000 | $80,000^{*}$ |
| $30 \dagger$ | 1,000 | $11,000 \dagger$ | $85,000^{*}$ |
| $35 \dagger$ | $1,100 \dagger$ | $12,000 \dagger$ | $90,000^{*}$ |
| $40 \dagger$ | 1,200 | 12,500 | $95,000^{*}$ |
| 50 | 1,250 | $13,500 \dagger$ | $100,000^{*}$ |
| 75 | 1,500 | $14,300 \dagger$ |  |
| 100 | 1,750 | 15,000 |  |
|  |  |  |  |

Available in all sizes except those marked*
C7150-0.4 to 10M ohms. Specify sizes desired. Each............26c C7151- 11 M to 50 M ohms. Specfy sizes desired. Each.

20 Watt Resistors
Available in all sizes except those marked $\dagger$
$7152-0.4$ to 15 M ohms. Specify izes desired. Your Cost..... 41c y sizes desired Your cos. 50 c c7154 55M to 100M ..50c on 100 M ohms
ppecify sizes desired.
Your Cost

| 50 WATT |  |  |  |
| :---: | ---: | ---: | ---: |
| $\mathbf{1}$ | 150 | 3,000 | 35,000 |
| 2 | 200 | 4,000 | 50,000 |
| 3 | 250 | 5,000 | 75,000 |
| 4 | 500 | 7,500 | 100,000 |
| 5 | 750 | 8,000 | 125,000 |
| 10 | 800 | 10,000 | 150,000 |
| 25 | 1,000 | 12,000 | 175,000 |
| 50 | 1500 | 15,000 | 200,000 |
| 75 | 2,000 | 20,000 | 225,000 |
| 100 | 2,500 | 25,000 | 250,000 |


| C7132-1 to 5M |  |  |  |
| :---: | :---: | :---: | :---: |
| C7133-7.500 1025 M |  |  |  |
| C7134-35M to 100 M . . . . 94 |  |  |  |
| C7135-125M. |  |  |  |
| C7136-150M to 175M....1.47 |  |  |  |
| C7137-200M to 225M. 1.62 |  |  |  |
| C7138-250M . . . . . . . . . 1.76 |  |  |  |
| 200 WAT |  |  |  |
| 1 | 75 | 2,000 | 25.000 |
| 2 | 100 | 2,500 | 30,000 |
| 3 | 150 | 3,000 | 40,000 |
| 4 | 250 | 5,000 | 50,000 |
| 5 | 500 | 7,500 | 60,000 |
| 10 | 750 | 10,000 | 75,000 |
| 25 | 1,000 | 15,000 | 100,000 |
| 50 | 1,500 | 20,000 |  |
| c7144-1 ohm . . . . . . . . . $\mathbf{\$ 2 . 1 2}$ |  |  |  |
| C7145-2 ohm . . . . . . . . . 1.97 |  |  |  |
| C7146-3 ohm . . . . . . . . 1.82 |  |  |  |
| C7147-4 ohm . . . . . . . . 1.71 |  |  |  |
| C7148-5 ohm to 10M.... 1.62 |  |  |  |
| C7149-15M to 100 M ... |  |  |  |



Non-inductive, pie-wound units ideal for voltmeter multipliers, laboratory equipment, radio and electrical test sets, attenuation pads and other applications. Wound. on a porcelain bobbin with the highest quality enameled wire. Tolerance $1 \%$. Iligh dielectric strength. Sealed against moisture by vacuum impregna moisture by
tion. $9 / 6^{" x} 1 \% / 4 "$

| Ohms | Ohms | Ohms | Ohms |
| :---: | ---: | ---: | ---: |
| 0.1 | 500 | 12,500 | 75,000 |
| 0.5 | 1,000 | 15,000 | 100,000 |
| 1 | 1,250 | 17,500 | 125,000 |
| 10 | 1,500 | 20,000 | 150,000 |
| 25 | 2,000 | 22,500 | 175,000 |
| 50 | 2,500 | 25,000 | 200,000 |
| 100 | 4,000 | 30,000 | 225,000 |
| 200 | 5,000 | 40,000 | 250,000 |
| 250 | 7,500 | 50,000 | 300,000 |
| 300 | 10,000 | 60,000 | 400,000 |

Specify resistance when orderlng No. Ohms Each $\begin{array}{llll}C 7155 & 0.1 & \text { to } 2.000 \ldots 50.68 \\ C 7156 & 2,500 & \text { to } 10,000 \ldots & .73\end{array}$ $\begin{array}{lrrr}C 7156 & 2,500 \text { to } & 10,000 \ldots & .73 \\ \text { C7157 } & 12,500 \text { to } & 15,000 & .79\end{array}$ C7158 17,500 to 50,000.. $\quad .94$ $C 715960.000$ to 75,000 . 1.12 $C 7160$ 101,000
$\begin{array}{lll}C 7161 & 125,000 & 1.21\end{array}$ C7163 225,000 to 250,000 . 1.71 C7164 301.000 to 400,000 .. 1.85 $C 7165$ 500,000 C7166 600,000 C7167 750,000 $\begin{array}{ll}\text { C7168 } \\ \text { C7169 } \\ 1 & \text { Megohn }\end{array}$ C7169 1 Megohm.
C7170 1 12 Megohm C7171 2 Megohm.

OHMITE
Adjustable

"DIVIDOHMP"
Resistors

Wire-wound units that make ideal voltage dividers for original equipment and replacement in transmitters, rectifiers and other apparatus. Handy for obtaining odd resistance values, for adjusting circuits and use on equipment which must be set to meet various line voltages. ireous enameled on porcelain cores with a narrow strip of the turn of wire exposed to form a contact surface for embossed contact on th adiustable lug. (Every turn is securely held against shifting.) Slider and mounting bracket included

| 10 WATT $1^{3 / 1} x^{5}{ }_{16}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| 5 | 100 | 1,000 | 4,000 |
| 10 | 250 | 2,000 | 5,000 |
| 25 | 500 | 2,500 | 7,500 |
| 50 | 750 | 3,000 | 10,000 |
| $\mathrm{C} 7174$ <br> Your Cost |  |  |  |
| 50 WATT $4^{\prime \prime} \times{ }^{9} 16$ |  |  |  |
| 1 | 250 | 3,000 | 12,000 |
| 2 | 300 | 3,500 | 15,000 |
| 3 | 400 | 4,000 | 20,000 |
| 4 | 500 | 4,500 | 25,000 |
| 5 | 750 | 5,000 | 30,000 |
| 10 | 800 | 6,000 | 40,000 |
| 25 | 1,000 | 7,000 | 50,000 |
| 50 | 1,250 | 7,200 | 60,000 |
| 75 | 1,500 | 7,500 | 80,000 |
| 100 | 2,000 | 8,000 | 100,000 |
| 150 | 2,250 | 9,000 |  |
| 200 | 2,500 | 10.000 |  |
| c7178-1 ohm to 5M.....88c |  |  |  |
| C7179-6M to 25 M . . . . . 97e |  |  |  |
| C7180-30M to 50 M ..... $\$ 1.12$ |  |  |  |
| C7181-60M to $100 \mathrm{M} . . . .1 .29$ |  |  |  |


| 25 WATT 2**イ |  |  |  |
| :---: | :---: | :---: | :---: |
| 5 | 250 | 2,500 | 10,000 |
| 10 | 500 | 3,000 | 15,000 |
| 25 | 750 | 4,000 | 20,000 |
| 50 | 1,000 | 5,000 | 25,000 |
| 100 | 2,000 | 7.500 | Each |
| C7175-5 ohms to $5 \mathrm{M} \ldots . .56 \mathrm{c}$$\mathrm{C} 7176-7,500$ to $15 \mathrm{M} . . . .65 \mathrm{c}$$\mathrm{C} 7177-20 \mathrm{M}$ to $25 \mathrm{M} . . . . .71 \mathrm{c}$ |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 100 WATT $61,2^{\prime} x^{3}$ |  |  |  |
| 10 | 250 | 5,000 | 25,000 |
| 25 | 500 | 10,000 | 30,000 |
| 50 | 1,000 | 15,000 | 40,000 |
| 100 | 2,500 | 20,000 | 50,000 |
| C7182-10 ohms to 5M. . $\$ 1.29$ C7183-10M to 25M...... 1.47 <br> C7184-30M to $50 \mathrm{M} . . . . .1 .62$ |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 200 WATT $10,2^{\prime \prime} \times 18^{\prime \prime}$ |  |  |  |
| 5 | 250 | 5,000 | 25,000 |
| 10 | 500 | 10,000 | 30,000 |
| 25 | 1,000 | 15,000 | 40,000 |
| 50 | 2,500 | 20,000 | 50,000 |
| 100 |  |  | Each |
| C7185-5 ohms to 10M. . \$1.94 C7186-15M to 50 M ..... 2.26 |  |  |  |
|  |  |  |  |

Standard Adjustable Sliders

| Diam. Inches | SCREWDRIVER TYPE |  | BAKELITE KNOB TYPE |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Stock No. | Your Cost | Stock No. | Your Cost |
| 5 \% ${ }^{\text {if }}$ | C7193 | 6 c |  |  |
| 9 | C7194 | 6 c | $\mathrm{C7197}$ |  |
| $1{ }^{3 / 4}$ | C7195 | 9 c | $C 7198$ | 15 c |
| 118 | C7196 | 9 c | C7199 | 15 c |

## 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 por celain core. Each turn is locked against shifting by vitreous enamel, which also covers the core and base. Requires "Hole. Wt. 1 lb.

| Model "HP"-25W (19.16 dia.) |  |  |  | Model " J"-50 Watt (2/6\% dia.) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Total | Max. |  | No. | Ohms | Amps. | Each |
| No. | Ohms | Amps. | Each | C7200 | 0.5 | 10.000 |  |
| $\overline{C 8350}$ | 1 | 5.000 | \$2.65 | $C 7201$ | 1 | 7.070 | \$2.94 |
| 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 |  | C7205 | 12 | 2.040 |  |
| C8364 | 10 | 1.580 |  | C7206 | 16 | 1.760 |  |
| C8365 | 15 | 1.290 |  | C7207 | 22 | 1.500 |  |
| C8366 | 25 | 1.000 |  | C7208 | 35 | 1.190 |  |
| C8353 | 35 | . 845 |  | C7209 | 50 | 1.000 | S |
| C8367 | 50 | . 707 | 735 | $C 7210$ | 80 | . 790 |  |
| C8390 | 75 | . 575 | In | $C 7211$ | 125 | . 630 |  |
| C8368 | 100 | . 500 |  | C 7212 | 150 | . 575 |  |
| C8369 | 125 | . 445 |  | $\overline{C 7213}$ | 225 | . 470 |  |
| C8370 | 175 | . 375 |  | C7214 | 300 | . 408 |  |
| C8371 | 250 | . 316 |  | $C 7215$ | 500 | . 316 |  |
| C8391 | 350 | . 267 |  | C7216 | 800 | . 250 |  |
| $C 8372$ $C 8392$ | 500 | . 222 |  | Cr217 | 1,000 | . 224 | 97 |
| C8392 | 750 | . 182 |  | $C 7218$ | 1,600 | . 176 | ${ }^{4} 18$ |
| C8373 | 1,000 | . 155 |  | $C 7219$ | 2,500 | . 141 |  |
| C8374 | 1,500 | . 129 | \$2.65 | C7220 | 3,500 | . 119 |  |
| C8375 | 2,500 | . 100 |  | C7221 | 5,000 | .100 | 97 |
| C8376 | 3,500 | . 084 | 52.79 | c7222 | 8,000 | . 079 | 4-3 |
| C8377 | 5,000 | . 070 | ) $\$ 2.79$ | C7223 | 10,000 | . 070 | - |

MODEL "K"-100 WATT (31/8" DIA.)


## IACPRECISION RESISTORS

## IRC Insulated Resistors Type BT Metallized



Newly-designed compact size general purpose resistors with a metallized ele-
ment sheathed in an overall covering ment sheathed in an overall covering
of moisture proof phenolic compound. Meet rigid JAN-BF specifications Non-inductive. Have pig-tail wire leads. Tolerance $\pm 10 \%$. $5 \%$ a vailable BTS on special order at slightly higher


IRC Power Wire-Wound Variable Resistors
For all industrial and Radio uses. Dissipate heat rapidly, withstand heavy overloads, have great mechanical strength. All (except 10 watt units) are supplied with a NEW highly improved contact band that has a stainless steel spring spot-welded to it. varies-no torn resistance wire no corroded contacts. Band is threaded. Mounting brackets with all but the 10 -watt units.

## prices. Speciry resistance when ordering. <br> STANDARD RMA CODE-SPECIFY RESISTANCE

| (\%ums | Ohms | Ohms | Ohms | Ohms | Ohms | Meg. | Megs. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.47 | 4.7 | 47 | 470 | 4700 | 47000 | 0.47 | 4.7 |
| 0.56 | 5.6 | 56 | 560 | 5600 | 56000 | 0.56 | 5.6 |
| 0.88 | 6.8 | 68 | 680 | 6800 | 68000 | 0.68 | 6.8 |
| 0.82 | 8.2 | 82 | 820 | 8200 | 82000 | 0.82 | 8.2 |
| 1.0 | 10.0 | 100 | 1000 | 10000 | 100000 | 1.0 | 10.0 |
| 1.2 | 12.0 | 120 | 1200 | 12000 | 120000 | 1.2 | 12.0 |
| 1.5 | 15.0 | 150 | 1500 | 15000 | 150000 | 1.5 | 15.0 |
| 1.8 | 18.0 | 180 | 1800 | 18000 | 180000 | 1.8 | 18.0 |
| 2.2 | 22.0 | 220 | 2200 | 22000 | 220000 | 2.2 | 22.0 |
| 2.7 | 27.0 | 270 | 2700 | 27000 | 270000 | 2.7 |  |
| 3.3 | 33.0 | 330 | 3300 | 33000 | 330000 | 3.3 |  |
| 3.9 | 39.0 | 390 | 3900 | 39000 | 390000 | 3.9 |  |
|  |  |  |  |  |  |  |  |
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## "BW" Insulated Wire-Wound Resistors

Similar to the BT units listed above, but contain a wire wound element. completely encased in molded compound. Tolerance $\pm 10^{\circ}{ }_{c}$ Order sizes desired from tabulated listing above. Specify Resistance.
$1 / 2-$ Watt-BW- $1 / 2$ Size $5 / 8 x^{8 / 16}$ Range 0.47 to 820 ohms. C5298-
Each.
$9{ }^{\text {c }}$

2-Watt-BW-2 Size $13 / 4 x^{5} 15^{6}$ Range 1.0 to $6800^{15}$ ohms. C5299 Each.

15

## IRC Ultra-High Range Resistors

For all industrial and electronic uses. Stable, nonageing, moisture-proof resistors. FH-1 unit is a metallized unit housed in Isolantite. Non-inductive MG construction utilizes the insulating properties of glass. All units above 1,000 megohms specially impregnated for stability under high humidities and other abnormal atmospheric conditions.

| H-1 |  | Type MG-3 |  |
| :---: | :---: | :---: | :---: |
| C5116-100 Meg. | \$1.00 | C5108-100 Meg. . . . |  |
| C5117-250 Meg | 1.00 | C5109-250 Meg. | 1.1 |
| C5118-500 Meg. | 1.00 | C5110-500 Meg | 1.15 |
| C5119-1,000 Meg. | 1.50 | C5112-5.000 Meg. | 1.6 |
| C5120-5,000 Meg | 1.50 | C5113-10,000 Meg | 2. |
| C5121-10.000 Meg | 2.00 | C5114-20.000 Mer |  |

## IRC Wire Wound <br> Power Resistors <br> Machine wound on non-hygroscopic

 cores; cement coating.$41 / 2^{\circ}$ long. $3 / 4^{\circ}$ diam. Range up to 100,000 ohms. Only in sizes marked with ( 5 ) (see list).

C5248. From | C5248 |
| :--- |

To Each Stk. No. From
To Each
30,000 ohms and over are 5 watts. $18 / 4^{1}$ long, $5 / 16{ }^{7}$ diam. Range up to 25,000 ohms (see list)
C5210-Up to 10,000 ohms. . 26e Above 10,000 ohms. Each. . . . 29c Type "DG" 20-Watt Rating
2 long. 2 diam. Range up to 50.000 ohms (see list).
Stk. No. From To Each

Stk. No. From To Each Stk. No. From To Each |  | 41c | C5212 | 20.000 | 50,000 |
| :--- | :--- | :--- | :--- | :--- |

50c

## $615^{\circ}$ 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 | $\$ 0.97$ | C5235 | 75.000 ohms | $\$ 1.47$ |
| C5261 | 7,500 | 25,000 | 1.15 | C5236 | 100,000 ohms | 1.62 |
| C5234 | 50,000 ohms | 1.29 |  |  |  |  |

$\frac{\text { Type }{ }^{\text {"HO" 200-Watt (Max.) }}}{101 / 2 \text { " long, } 11 / 8 \text { diam. Range up to } 100,000 \text { ohms. Only in sizes marked }}$ with ( $\dagger$ ) (see list).
Stk. No. From To Each Stk. No. From To Each

Check sizes available in type desired before ordering, as all types ance value listed below

| 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

 $13 \mathrm{x}^{3} \mathrm{~K}_{6}^{\prime \prime}$. Range up to 10,000 ohnis. (See list above) C5262Your Cost Each
C5213-Extra slider for above
Type DHA- 25 Watts $21 / 2 x^{9}$. Range up to $25,000 \mathrm{ohms}$
(See list above). (See list above).
No. From No. From $\begin{array}{llr} & \text { C5275 } & 6.000 \quad 15,000\end{array}$ C5276 $20.000 \quad 25,000$

Type EPA 50 Watts $41 / 2 \times 3 / 4^{2}$. Available in sizes up to 100.000 ohms. See list above.
with brackets and one slider. with brackets and one slider.
No. From To

| No. | From | To |
| :--- | ---: | ---: |
| C5286 | 5 | 5,000 |
| C5287 | 6.000 | 25.000 |
| C5288 | 40.000 | 50.000 |
| C5289 | 75,000 | 100.000 |


| Each |
| :--- |
| $\$ 0.88$ |

$\begin{array}{lrr}\mathbf{C 5 2 8 8} & \mathbf{4 0 . 0 0 0}-25.000\end{array}$
1.29


Scientifically designed and constructed. Dependable precision meter multipliers and shunts. Guaranteed accuracy 1\%. Non-inductively wound. Winding is specially impregnated, which insures constant resistance at all frequencies to 50.000 cycles. WW-1- $218 \mathrm{x}^{9}, \mathrm{in}_{6}-W W-2$ $2^{15} / 6 \times 7 / 8^{\circ}$. Have ferrules with binding post terminals. WW-4 has lug type terminals.

| C5150 |  | Type | WW-1 |  |  | Type WW-2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1)$ |  | C5148 | 15000 | 79c | C5193750.0002.65 |  | $\mathrm{C}_{\mathrm{C} 5115}^{\mathrm{C} 511 / 2 \mathrm{Me}}$ |  |  |
| C5154 | 5 | 686 | C5171 | $20000]$ |  | C5194 | 1 Meg 3.09 | C5115 | 2 M | 5.88 |
| C5159 | 10 |  | C5149 | 22.00 |  |  |  |  |  |  |
| C5160 | 25 |  | C5172 | 2.5000 | C |  | Typ | WW |  |  |
| ${ }^{\text {C5161 }}$ | 50 | 686 | C5173 | 30000 |  |  |  |  |  |  |
| ${ }^{C 5162}$ | 100 | 68 | C5176 | 500100 |  | Stock <br> No. | Res. Your OhmsCost | Stock | Res. <br> Ohms | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| C5164 | 200) |  | C5177 | $60000\}$ | 12 | ${ }_{\text {No. }}$ |  | C5136 | 30000) |  |
| C5200 | 250 |  |  |  |  | ${ }^{\text {C5 }} 126$ | 300 50c | C5138 | 40000 |  |
| C5204 | 400 |  | C517 | 00000 |  | C5124 | 510 | C51 | 50000 ) |  |
| C5165 | 500 | C | C5181 | 150000 |  | C5127 | 1000753 | C5140 | 60000 | C |
| C5166 | 1000 |  | C5182 | 175000 |  | C5128 | 2500 ) | C5141 | 75000 |  |
| C5143 | 1.000 | 68 C | C5183 | 200000 |  | C5129 | 5000) | C5142 | 100000 | 1.09 |
| C5144 | $2000)$ |  | C5184 |  |  | C5130 | 7500 59C | C5099 | 150000 | 1.38 |
|  |  |  |  |  |  | C5131 | 10000 | C5100 | 20000 | 1.38 |
| C5145 | 30010 | 3c | C5190 | 275000 |  | C5132 | 12500 ¢5 | C5101 | 250100 | 1.53 |
| C5168 | 5000 |  | C5186 | 300000 | 85 | C5133 | 15000 ) | C5102 | 300000 | 1.68 |
| C5147 | 7.000 | 73 | C5187 | 400000 |  | C5134 | 2000077 | C5122 | 400000 | 1.76 |
| C5169 | 10000 |  | C5188 | 500000 | 2.15 | C5135 | $25000\}$ | C5123 | 500000 | 200 |

Type ESA-80 Watts Available in all sizes as isted at left (except 150, 1250 and 5,000 ohms). Each with brackets and one slider.

| No. | From | To | Each |
| ---: | ---: | ---: | ---: |
| C5196 | 5 | 5,000 | $\$ 1.15$ |
| C5197 | 6.000 | 25,000 | 1.29 |
| C5198 | 40.000 | 50,000 | 1.47 |
| C5199 | 100.000 | $\ldots \ldots$ | 1.62 |

Type HAA- 100 Watts
$61 / 2 \times 11 / 3^{*}$. Available in the following resistances.

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: |
| 100 | $2500^{*}$ | $10000^{*}$ | $500000^{*}$ |
| $500^{*}$ | $5000^{*}$ | $15000^{*}$ | $7500^{*}$ |
| $1000^{*}$ | 7500 | $25000^{*}$ | $100000^{*}$ |
| No. | From | To | Each |
| C5266 | 100 | 5.000 | $\$ 1.29$ |
| C5267 | 7,500 | 25,000 | 1.47 |
| C5268 | 50.000 | 100000 | 1.62 |
| C5269 | 75,000 | 100,000 | 1.76 |

## Type HOA-200 Watts

$101 / 2 \times 11 / 8$. In sizes marked by

| No. | From | To |
| :---: | :---: | :---: |
| C5270 | 500 | 10.000 | $\begin{array}{llll}\text { C5271 } & 25,000 & 100,000 & \mathbf{2 . 2 6}\end{array}$

## Extra Sliders

| Silver contact type to fit sizes listed. |  |  |  |
| :---: | :---: | :---: | :---: |
| Size | Silver | Each |  |
| $50-80 \mathrm{~W}$ | $\mathbf{C 5 2 1 7}$ | $\mathbf{1 2 c}$ |  |
| $100-200 \mathrm{~W}$ | $\mathbf{C 5 2 1 8}$ | $\mathbf{1 5 c}$ |  |



## Resisto-Cabinet

Free with any of the following resistor kits. Sturdy, 4 drawer ( 7 compartments in each) cabinets $11 \times 51 / 2 \times 51 / 2{ }^{\prime \prime}$. 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 10W. adjustable resistors. Total 59 resistors.
C5281-List value. . $\mathbf{\$ 1 5 . 0 3}$. Your Cost, Complete. s8.84
Kit No. 2: 100 , T Watt Resistors-
6 Type BW-1/2, 94 type BTS.
C5280-List value. $\$ 13.12$. Your Cost, Complete.
$\$ 7=71$
Kit No. 3: 831 watt resistors-
6 type BW-1, 77 type BTA
C5282-List value.. $\$ 14.11$. Your Cost, Complete

# (B) Volume Controlo 1 Qo 

## THE "CENTURY" LINE—100 ALL-PURPOSE VOLUME CONTROLS

## Universal Type D Controls

Compact all-purpose controls for miscellaneous service needs. Each D control accommodates any of the 7 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 $1 / r^{\prime \prime}$ or " ${ }^{\text {"/ }}{ }^{\prime \prime}$ flats and all set screw $11 / 8^{*}$ dia. $\mathrm{x}^{1 ?-0}$ thick

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Use | Ohms | $\begin{array}{\|l} \text { Stock } \\ \text { No. } \end{array}$ | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Use | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C7706 | D11-103 | A | 500 | C7728 | D14-123* | D | 50000 |
| C7707 | D11-108 | A | 1000 | c7729 | D13-125 | C | 75000 |
| C77728 | D11-110 | A | 2000 | C7730 | D14-125* | D | 75000 |
| ${ }_{C 77724}$ | D11-112 |  | 3000 | C7716 | D11-128¢ | A | 100000 |
| C7779 | ${ }_{\text {D } 11-113}$ | ${ }^{\text {A }}$ | 4000 | C7785 | D13-128¢ | C | 100000 |
| c7710 | D13-114 | $\stackrel{\text { c }}{\text { c }}$ | 5000 | C7717 | D11-1 | A | 200000 |
| C7850 | D14-114* | D | 5000 |  | D14-129* |  |  |
| C7725 | D11-115 | A | 7500 | C7786 | D13-130 | $\stackrel{\text { A }}{ }$ | 250000 |
| C7780 | D11-116* $\dagger$ | 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 |  |
| C7782 | D16-116* | F | 10000 | C7788 | D13-133 $\dagger$ | C | 500000 |
| ${ }^{C 77726}$ | D14-118* | D | 15000 | C7720 | D14-133 | D | 500000 |
| ${ }_{C 77783}$ | ${ }^{\text {D } 16-118 * *}$ | $\stackrel{\mathrm{F}}{\mathrm{F}}$ | 15000 | C7782 | D11-137 | A | 1.0 Meg . |
| C7713 | $\mathrm{D}_{11-120}$ | ${ }_{\text {A }}$ | 25000 | C77799 c7790 | D13-137 $\dagger$ | C | 1.0 Meg . |
| C7727 | D14-120* | D | 25000 | C7733 | ${ }^{\text {D } 13-140}$ | C | 2.0 Mes. |
| C7714 | D16-120 | F | 25000 | C7721 | D11-141 | A | 5.0 Meg . |
| C7715 | D11-123 $\dagger$ | A | 50000 |  | D11-14 |  | 10.0 Meg . |
| C7784 | D13-123 $\dagger$ | C | 50000 |  |  |  |  |
| Any Type Above, Your Cost Each........................ 599 |  |  |  |  |  |  |  |

TYPE "AA"SUP-
PLIED WITH PLIED WITH
"D"CONTROLS


No. Type Use
Not
C799 B
C7739 Bror Auto Radio Controls
C7737 C Knurled-For Push-on C7738 D Unobs
C738 Unknurled-For Push-on C7800 EOne Piece C7801 Fin ${ }^{3} 6^{\circ}$ Dia. Full Round $3^{4 \prime}$ C7802 $\mathrm{G}^{7 / 8^{\circ} \text { Lon }}$ $n$ Sloted with

## Type J Controls for <br> Special Applications

For a wide variety of sets with specific requirements, these controls
are extremely useful. Play safe stock at least one of each. Stock Type
No. No. Resistance
C7859 DJ $4 \quad$ R.0 Mes. 1.10 Mce Price

$\stackrel{C}{C}$

$\begin{array}{ll}\text { C7861 J-296 } & 225,000 / 5,000 \text { Ohms } \\ \text { C9460 J-777 } & 350,000 \text { Ohms }\end{array}$
 $\frac{C 7699 \mathrm{~J}-1002 \quad 2.0 \mathrm{Meg} \text {. } \quad .8}{\text { Type S Special Power }}$

## Controls

For power requirements of plate circuit tone controls. Used where audio output exceeds 2 watts. Use
Tap-in Shafts and No 20 series Tap-in Shafts and No 20 series switches. Dimensions: $11 / 4$
eter. Supplied less switch Stock Type
No. No. Ohms C7766 $\frac{\mathrm{N} 1 \mathrm{l}-128}{}$ Ohms $\quad$ Each

## 

## Taper Code

F-Ant. \& Grid Bias 1 or 2 Tubes
H-Audio Tapped for Bass Comp.
Sp-For Special Applications

Clutch Type DC Controls


Practical for auto radio use and other applications. Have friction clutch drive-arm equipped with a cither slotted or tongued type shaft required. Instructions tell how to cut shaft for either application. tion clutch controls. Dimensions:

| Stock | Type |  |  |
| :---: | :---: | :---: | :---: |
| No. | No. | Ohms | Price |
| C7757 | DC13-130 | 250,000) | Each |
| C7759 | DC13-133 | 500,000 | - |
| C7761 | DC13-137 | 1.0 Meg. |  |
| $C 7763$ | DC13-139 | 2.0 Meg.) |  |
|  | APPED | CONTRO |  |
| Stock | -. Type | Tap | Ohms |
| C7758 | DC18-13 | X 50 M | 250M |
| C7760 | DC13-133 | X $\dagger 125 \mathrm{M}$ | 500 M |
| C7762 | DC13-137 | X 250 M | 1.0 Meg |
| C7764 | DC13-139 | X 500M | 2.0 Meg . |
| Anyt each. | ype abov |  |  |

Dual Controls


Here is a carefully selected group of "duals" that will speed many an 20 series switches can be attached Dimensions: $11 / 4$ "x $11 / 4$ "

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Use | Ohms |
| :---: | :---: | :---: | :---: |
| C9138 | 35-1620 | C | * 10,000 |
|  |  | D | +25,000 |
| C9139 | 61-1623 | F | 10,000 |
|  |  | A | +50,000 |
| C9140 | 33-2828 | C | 0.1 Mega |
|  |  | C | †0.1 Meg: |
| C9141 | 33-3030 | C | *0.25 Meg. |
|  |  | C | 10.25 Meg. |
| C9142 | 33-3333 | C | *0.5 Meg. |
|  |  | C | 10.5 Meg. |
| C7851 | 33-3737 | C | 1.5 Meg |
|  |  | O | +1.0 Mega |
| C9143 | 33-3939 | C | 2.0 Meg: |
| * Panel Control |  |  | $\dagger 2.0 \mathrm{Meg} .$ |

Less switch, each.. \$1, 5 IRC SWITCHES
FOR USE WITH S AND DUAL CONTROLS

| DUAL CONTROLS |  |  |  |
| :--- | :---: | :---: | :---: |
| Stoek No. |  |  |  |
| C9133 | SPST | IRC No. | Price |
| C9135 | DPST | 21 | 29 c |
| C9134 | SPDT | 23 | $35 c$ |



## IRC Volume Control Guide

A large 136 page valuable replacement manual that includes original manufacturers' part numbers, Rider's schematic reference and special shaft requirements. vodels and chassis cross-indexed. Trade and brand names in alphabetical order. Pages lettered for quick reference. Most comprehensive handbook of control replacement ever attempted. Size $8 \frac{1}{2 \prime} \times 11^{\prime \prime}$. F purchase of IRC Cont
$\mathbf{C 1 9 7 9 2}$ - Your Cost.

Handy Control and Parts Cabinet


A sturdy, all-metal constructed, attractive 3 color finish. IRC Volume Control Cabinet is included FREE with a special assortment of popular sizes of Type D Controls, 5 Shafts and 6 Switches that will enable you to handle up to $80 \%$ of your Volume Control Replacements. Cabinet measures $141 / 2^{"} \times 73^{\prime \prime} \times 41 / 4^{\prime \prime}$. Accommodates 20 controls, has 3 handy drawers for switches, tap-in shafts and other type DC and 17 type D volume Controls. (Sizes indicated includes one above by t.) You pay only for Controls, Shafts and Switches-Cabinet C7739-Your Cost Complete
$\left.{ }^{514.67}\right|_{\text {cr834 }} ^{\text {sps. }}$
Switches for "W" Controls 29c|C7835-EAST

35c C7836-
SPDT
"W"r Wire Wound Controls Diameter $1^{1 / 4}$. Rated 2 watts. $3^{\prime \prime}$ shaft. Less switch, but switch covers listed below can be easily added. Uniform taper. Ideal for use where space is limi ted. Shield dust cover supplied.


| Stock No. | 1RC No. | Ohms | Stock No. | IRC No. | Ohms | Stoek No. | $\begin{aligned} & \text { IRC } \\ & \text { No. } \end{aligned}$ | Ohma |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C7810 | W-6 | 6 | C7818 | W-50 | 50 | C7826 | W-750 | 750 |
| C7811 | W-8 | 8 | C7819 | W-60 | t0 | 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 | C7832 | W-7500 | 7500 |
| C7817 | W-40 | 40 | C7825 | W-500 | 500 | C7833 | W-10000 | 10000 |

## Your Cost Each, <br> Any Above Type.

# Mallory voluwle covinios 

## UNIVERSAL VOLUME CONTROLS



The Mallory-Yaxley Volume Controls listed on these pages can be used to service over $90 \%$ of all the radio receivers 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; $3^{\prime}$ shafts that can be shortened by adjustment on all bias controls; $3^{\prime \prime}$ 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 be added 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):

| No. | Part | Typo | Ohms Taper | No. | Part | Type | , | aper |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C6660 | Q | WW | 24 | C6675 | $\mathrm{H}^{*}$ | WW | 15000 | , |
| C6661 | R | WW | 64 | C6713 | H7* | WW | 15000 | 7 |
| C6662 | S | WW | 104 | C6714 | H12* | Car | 15000 | 1 |
| C6663 | T | WW | 20 4 | C6741 | A20MP* | WW | 20000 | 4 |
| C6664 | U | WW | 304 | C6715 | I* | Car. | 20000 |  |
| C6665 | $V$ | WW | 60 4 | C6742 | Y25MP | Car. | 25000 | 4 |
| C6666 | W | WW | 1004 | C6676 | J* | Car. | 25000 |  |
| C6667 | X | WW | 2004 | C6743 | Y50MP | Car | 50000 | 4 |
| C6732 | A400P | WW | 4004 | C6677 | K* | Car | 50000 | 2 |
| C6668 | A | WW | 5001 | C6716 | K12 | Car. | 50000 | 1 |
| C6733 | A550P | WW | 5504 | C6717 | Z* | Car. | 75000 | 2 |
| C6734 | A1MP | WW | 1000 4 | C6718 | Z12 | Car. | 75000 |  |
| C6669 | B | WW | 10001 | C6744 | Y100MP | Car. | 100000 | 4 |
| C6719 | UC500 | WW | 10002 | C6678 | L | Car. | 100000 | 1 |
| C.6735 | A2MP* | WW | 20004 | C6729 | UC510* | Car. | 100000 | 2 |
| C6670 | C* | WW | 20002 | C6721 | UC502 | Car. | 150000 | 1 |
| C6704 | C12* | WW | 20001 | C6745 | Y200MP | Car. | 200000 | 4 |
| C6736 | A3MP | WW | 3000 | C6746 | Y250MP | Car. | 250000 | 4 |
| C6671 | $\mathrm{D}^{*}$ | WW | 30002 | C6679 | M | Car. | 250000 | 1 |
| C6705 | D7* | WW | 30007 | C6730 | UC511 $\dagger$ | Car. | 250000 | 1 |
| C6706 | D12* | WW | 3000 | C6728 | UC509* | Car. | 250000 | 2 |
| C6737 | A5MP* | WW | 5000 4 | C6747 | 1500MP | Car | 500000 | 4 |
| C6738 | Y5MP | Car. | 5000 4 | C6680 | N | Car. | 500000 | 1 |
| C6672 | E* | WW | 50002 | C6731 | UC512 $\dagger$ | Car. | 500000 | 1 |
| C6707 | E7* | WW | 50007 | C6793 | UC513 | Car | 500000 | 2 |
| C6708 | E12* | Car. | 5000 | C6722 | UC503 | Car. | 750000 | 1 |
| C6673 | F* | WW | $7500 \quad 2$ | C6748 | Y 1000 MP | Car. | 1 Mcg | . |
| C6709 | F7* | WW | 75007 | C6681 | 0 | Car. | 1 Meg | g. |
| C6710 | F12* | Car. | 7500 | C6794 | UC514 $\dagger$ | Car. | 1 Meg |  |
| C6739 | A10MP* | WW | 10000 | C6682 | P | Car. | 2 Meg |  |
| C6740 | Y10MP | Car. | 10000 | C6723 | UC504 | Car. | 3 Meg | . |
| C.6674 | $\mathrm{G}^{*}$ | WW | 100002 | C6724 | UC505 | Car. | 4 Meg |  |
| $C 6711$ | G7* | WW | 100007 | C6725 | UC506 | Car. | 5 Meg |  |
| C6712 | G12* | Car. | $10000 \quad 1$ | C6726 | UC507 | Car. | 5 Meg |  |
| C6720 | UC501 | Car. | 100002 | C6727 | UC508 | Car. | 9 Meg |  |
| Car.-Carbon element. WW-Wire wound. *-Has adjustable bias feature. Wire wound units have adjustable plate; carbon element |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| controls have external adjustable resistor. †-Has slotted shaft for auto sets. Supplied Less Switch. |  |  |  |  |  |  |  |  |
| Your Cost Each, |  |  |  |  |  |  |  |  |



Extension Shafts


Type A-Length 4 C65662-1/" diam., i/2" flat. C6562-1/4 diam., 3/2" flat. C6563-3/22

## Any Size,

Your Cost Each....... 8
Type $\mathrm{B}-2^{\prime \prime}$ long, $14^{\prime \prime}$ diameter with $3 / 22^{\circ}$ slo C655 ${ }^{\text {fitting }}$ tube.

Mounting Brackets


For use where control mounts off chassis. Plated metal. Adjustable mounting centers.
C6297-Type RB-248-Mounting centers $11 / 8^{\circ}$ to $2^{3}{ }^{3}$. C6298-Type RB-249
ing centers $23 / 8^{\circ}$ to $27 / 8^{\circ}$.
Your Cost Each,
Either Type
$12^{4}$
Control Hex Nuts
I For $\frac{8 / 3 "}{}{ }^{\circ}$ bushings. No. For Panels. Each

Volume Control Wrench

## 

For standard volume control nuts. C6387-No. 178
Your Cost Each

## Standard Universal Tapped Controls

Standard $11 / 2^{\prime \prime}$ diameter controls with tap for various applications. Furnished wich two nuts, washer, ground terminal and knob adapter.
*No provision for use with switch; if switch is *No provision for use with switch; if switch is desired use TRP624. tllas slotted shaft for auto sets. $\ddagger$ Special taper for fader service.
Others are taper 1. Less switches. Shpg. wt. 5 oz.


| Stock | Mfrs. | Ohms |  | Stock | Mrs. | Ohm |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Ohms | At Ohm |  |  |  | Ohms |
| 543 | TRP601 | 40000 | 800 | C65 | TRP615 | 3 Meg . | 900000 |
| C6544 | TRP602 | 60000 | 4000 | C658 | TRP616 | 500000 | 60.100 |
| 554 | TRP(6)3 | 250000 | 110000 | C659 | TRP61 | 6000 | 12000 |
| 6546 | TRP604 | 350000 | 20000 | C659 | TRP618 | 2 Meg | 250000 |
| C6547 | TRPti05 | 350000 | 70000 | C659 | TRP619 | 00000 | 100000 |
| C6577 | TRP606 | 500000 | 10000 |  |  |  | 250000 |
| C6578 | TRP907 | 500000 | 225000 | C65 | TRP620 | cg. | 900000 |
| C | TRP608 | 1 Meg . | 200040 | Coss | TRP821 | 4 Meg . | 250000 |
| C6580 | TRP609 $\ddagger$ | 1 Meg . | 500000 |  |  |  | 500000 |
| C6581 | TRP610 | 1 Meg | 30000 | C65 | P62 | 4400 | 7010 |
| 558 | TRP612 | 2 Meg | 15000 |  |  |  | 14000 |
| C6586 | TRP613 | 2 Meg . | 400000 | C65 | TRP623 | 250000 | 50000 |
| C6587 | TRP614 $\dagger$ | 350000 | 70000 | C6576 | 'RP624 | $1 / 4$ | 250000 |
| Your Cost Each, Any of the Above. |  |  |  |  |  |  |  |

## Standard Universal Dual Controls

Consists of two volume controls strapped toyether and driven by a single shaft. Units listed service practically all receivers.

| Stock | Mfrs. |  | Res. in Ohms |  | Taper |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Type | Front | Rear | Front |  |
| C6684 | CE | WW | 2000 | 5000 | I |  |
| C6658 | GE | WW | 10000 | 5000 | VII | IV |
| C6685 | GG | WW | 10000 | 10000 | VII | IV |
| C6686 | GK | Car. | 10000 | 50000 | 1 | IV |
| C6659 | LL | Car. | 100000 | 100000 | 1 | 1 |
| C6687 | LM | Car. | 100000 | 250000 | I | I |
| C6749 | MM | Car. | 250000 | 250000 | I | I |
| C6750 | MN | Car. | 250000 | 500000 | 1 | I |
| C6689 | NN | Car. | 500000 | 500000 | 1 | I |
| WW-Wire | Wound | nent. C | -Carbon | lement. |  |  |
| Your Cost Any Size. | Each, |  |  |  |  |  |

## Explanation Of Mallory Volume Control Tapers

No. (1) For audio or antenna shunt circuits.
No. (2) For series circuits such as cathode voltage controls
No. (3) For antenna shunt and "C" bias circuits
No. (4) Linear taper; for voltage divider circuits
No. (7) Wire wound element. For antenna and "C" bias.

## 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 listed in former MYE's plus an additional 4000 sets. A $25 \%$ increase in the number of new listings, makes it the largest publication ever printed containing complete, accurate replacement information on all major radio components. Incorporates all references up to and including Riders Volume XIV
\$1.25
COMPACT RHEOSTATS \& POTENTIOMETERS

## TYPE C-2 WATTS



Wire Wound. Controls ideal
for use where space is limited. Contact arm is grounded to the shaft. Diam. $1 / 0^{\text {" }}$ shaft

## RHEOSTATS

| No. | Ohms | No | Ohms |
| :---: | :---: | :---: | :---: |
| C6197 | 6 | C6201 | 30 |
| C6198 | 10 | C6202 | 40 |
| C6199 | 15 | C6203 | 50 |
| C6200 | 20 | C6204 | 100 |
| Your <br> Any 1 | E |  |  |

POTENTIOMETERS

| C6205 | 6 | $\mathbf{C 6 2 1 0}$ | 40 |
| :--- | ---: | :--- | ---: |
| C 6206 | 10 | $\mathbf{C 6 2 1 1}$ | 50 |
| C 6207 | 15 | $\mathbf{C 6 2 1 2}$ | 100 |
| $\mathbf{C 6 2 0 8}$ | 20 | $\mathbf{C 6 2 1 3}$ | 200 |
| $\mathbf{C 6 2 0 9}$ | 30 | $\mathbf{C 6 2 1 4}$ | 400 |

Your Cost Each,
Any of the Above. . . . 54
$\left.\begin{array}{l}\text { C6215-1000ohms } \\ \text { C6216-3000hms }\end{array}\right\}$ Ea. 10 \} C6217-5000ohms C6218- 60000 ohms ms $\left.\begin{array}{l}\text { C6219-10000 chms } \\ \text { C6220-15000ohms }\end{array}\right\}$ Ea. 5

cover. RHEOSTATS



## "UM"' and "TM" Junior Controls

Ultra-compact controls featuring noiseless composition elements: at tachable switches; plug-in type shafts. Both UM and TM types have slotted shafts which will take any one of the 28 different types of special shafts listed below. The TM types are similar to the UM but are provided with a tap as shown. TM type designed for use in tone compensating circuits. All are 1/:/2* thick, $11 / 6^{*}$ diameter. Complete with SSI shaft. "UM" TYPE JUNIOR CONTROLS

## Stock Type

 Stock| Tyre |Ohnis \& Stock TypeOhms \& No. Taper || No. No. Taper No. No. Taper
 C6928 UM119 10M (2) C6937 LM 135 50M(4) C6946 LM151 $350 \mathrm{M}(1)$ C6929 LM120 10M(4) C6938 ©M137 $75 \mathrm{M}(1) \quad$ C6947 $\mathrm{LM} 15450 \mathrm{M}(1)$
 C6930 UM121 $15 \mathrm{M}(1)$ C6931 M122 15M(2) 6932 CM124 $20 \mathrm{M}(1)$ C6939 UM138 C6940 UM 140 C6941 M141 $100 \mathrm{M}(2)$ C 6950 6933 LM128 25M(2) C6992 M142 100M(4) C6951 ['M163 2 Meg(1) C6934 ITM12.9 25M(4) C6943 CM144 150M(1) C6952 ['M 1653 Meg(1) Type UM Controls complete with SSI shaft.
Your Cost, Any Size
"TM" Type Tapped Controls

| No. | Type | Ohmis | Tappled | No. | Tipe | Ohris | Ta |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C6953 | TM220 | 250 M | 50M | ${ }^{\text {C6959 }}$ | TM210 | 1 Meg | 200 M |
| C6954 | TM221 |  |  |  | TM241 | g. |  |
| C7013* | TM222 | 25 | 110 M | ${ }^{C 7007}$ | TM242 | M |  |
| C7014* | TM223 | 50 | 60 M | C69 | TM 243 | Mc | 4,50 |
| C7015 | TM234 |  | 100 M | C70 | TM24 | 2 |  |
| C6955 | TM225 | 350 M | \%M | ${ }^{C 6961}$ | TM2t |  |  |
| C7016 | TM226 | 500 M | 15M | ${ }^{\text {C6962 }}$ | TM2 | 2 Me |  |
| C7017 | TM 227 |  | 100 M | ${ }^{\text {C.6963 }}$ | TM247 | ${ }^{2}$ Mcg. |  |
| C6956 | TM 228 | 500 M | 5M | ${ }^{\text {c6964 }}$ | TM218 | ${ }_{2} \mathrm{Mcg}$. |  |
| C69 | TM 230 | 500 M | 150M | ${ }^{\text {C6965 }}$ | TM 21 | ${ }_{2} \mathrm{M}$ |  |
| C6958 | TM 231 | 0M | 225M | ${ }^{\text {C7009 }}$ | TM2. | 2 M | 125 |
| C7018 | TM 232 | 500 M | 225 M | ${ }_{\text {C } 69666}$ | TM251 |  | 0 |
| ${ }_{\text {C77020 }}$ | TM 233 | 500 M | ${ }_{650}^{600}$ | ${ }_{\text {c }} \mathbf{C 7 0 1 0}{ }^{\text {c }}$ | TM252 | ${ }_{2} \mathrm{M}$ |  |
|  | TM | ${ }^{1} \mathrm{Meg}$ ( Meg. | ${ }^{65 \mathrm{M}}$ | ${ }_{C} \mathbf{C} 7011$ | TM ${ }^{\text {T }}$ |  |  |
| C7022 | TM 238 |  | 300 M | 70 | TM2 |  |  |
| C6864* | TM239 | 1 M | 300 M | Clut | Tıpe ${ }^{\text {c }}$ |  |  |
| Type TM Controls, complete with SSI shaft. <br> Any Type Above, Your Cost Each. |  |  |  |  |  |  |  |
| MALLORY Attachable Switche |  |  |  |  |  |  |  |
| Fit all "UM" "TM" \& "MR" Junior controls listed on this page. C6968-Single Pole Single Throw |  |  |  |  |  |  |  |
| Each |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| C6970- Single Pole, |  |  |  |  |  |  |  |



Type "MR" Junior Controls
Ulira compact controls are similar to the types UM and TM junior controls listed at left except that they feature standard shafts, $3^{\prime \prime}$ long, milled the entire length and furnished with knoh adapters (for spring type knobs). All knob adapters (for spring type knobs). All
are rated conservatively at $1 / \%$ watt. No. I Tyue $\mid$ Ohms | No. | Type | Ohins || No. | Tipe | Ohms

 | C6901 | MR18 | $10 \mathrm{M}(1)$ | C6910 | MR34 | $50 \mathrm{M}(2)$ | C 6919 | MR45 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| (550M (2) |  |  |  |  |  |  |  |




 \begin{tabular}{l|l|l}
C6905 \& MR22 \& $15 \mathrm{M}(2)$ <br>
C6906 \& MR24 \& $20 \mathrm{M}(1)$

 C6907 MR28 25 M (2) 

C6908 \& MR29 \& $25 \mathrm{M}(4)$ <br>
Type MR Controls, A
\end{tabular}

## Junior Controls With Fixed Knurled Shafts

 shaft for replacing original units of this type.| Stock |  | Ohrm | Stock |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No | Tap | No. |  |  |
| C6637 | MK400 | 250M (1) | C6639 | MK 102 | g. (1) |
| C6638 | MK 101 | $500 \mathrm{M}(1)$ | C6640 | MK 403 | 2 Meg ( 1 ) |
| Type MK Controls, Your Cost Each, Any Type. |  |  |  |  |  |

Your Cost Each, Any Type
$\square$

C6973-SS1. Replaces any $1 /{ }^{\circ}$ round shaft or ${ }^{\text {in }}$ " or ${ }^{3 / 3 z "}$ flattened
shaft up to $4^{"}$ long. Each $\ldots$ 15c shaft up to 1" long. Each ... 15c C6975-SS3. Replaces any slotted shaft up to $2^{\prime \prime}$ long . . 21 c C6977-SS5. Each.............15c C6978-SS6. RCA, Hudson C69 116.
$C 69$ C6982-SS10. Each C6983-SS11. Replaces any slotted shaft 2 to $4^{\prime \prime}$ long C6984-SS12. Each. C6986 SS 14 Each.......... 15c C6986-SSI. Replaces any $1 / 8^{\prime \prime}$
slotted shaft to $2^{\prime \prime}$ long. .... 21 c slotted shaft to $2^{\prime \prime}$ long. .... 24c
C6987-SS15. Replaces any ${ }^{3 / 52}$ slotted shaft 1 to 6 " long..... 21 c

## MALLORY

## Plug-In Shafts

Fit all UM and TM junior conrols. Adapt for use with most auto and home radios.
C6989-SS17. Replaces any slotted "Insacu!", shaft to 6" long 29e C6992-SS18. For Belmont. 15c C6993-SS19. Each.......... 29e C6994-SS20. Each C6995-SS21. Motorola model 171). Each. ............ 21c C6996-SS22. Each ... . . . . . 15 c C6997-SS23. Each........... 15c C6998-SS24. Each.............15c C6999-SS25. Replaces standard C6999-SS25. Replaces standard knurled shafts from ${ }^{3}$ to 4 long. Each
C6809-SS26. Zenith sets...15c C6810-SS27. Philco sets.... 15c
C6820-SS28. Motorola sets. 29c C6820-SS28. Motorola sets. 29 c C6821-SS29. Motorola sets. 15 c
C6822-SS30. Motorola sets. 15 c C6822-SS30. Motorola sets.15c
C6826-SS31. Philco sets. ...15c C6826-SS31. Philco sets.

## CENTRALAB FADERS

 Straight Fader
For use with For use with input devices, mikes, etc. Provide smooth quiet fading from one source to another. Each tapped at center Stock Resistance Your c9004

Each
500 M
1 Meg. $\$ 18$ C9005 1 Meg.
Gain Control
Like above but without center tap. C 9000 No. Resistance Each $\begin{array}{lll}\mathrm{C} 9000 & 250 \mathrm{M} & \$ 1 \\ \mathrm{C} 9001 & 500 \mathrm{M} & 1 / 4 \\ \mathrm{C} 9002 & 1 \mathrm{Meg} . & \end{array}$ c9003 2 Meg.

"Delta-T" Pad
Dual controt maintaining constant impedance to
both sides For sound amplifiers, recorders, etc Stock No. Imp. c9006 50 ohms c9007 200 ohms c9008 500 ohms

## SPST Tone

## Control Swifch

SPST Rotary tone switch, with rotor grounded to shaft. Stand" 8 bushing, less mig. nut. 1/4 flatted shaft to accommodate
standard knob. Shaft length:1 c12599
C12599-


IRC 21-Step Attenuators. Type A-21
Utilize a molded motor commutator switch with spring connectors. Exceptionally low noise level. At tenuation from zero to infinity in 21 steps. Has removabie cover and calibrated dial. Size: $2 \times 2^{\prime \prime}$; cen ters $11 / 2^{\prime \prime}$ apart. Available in poppular ladder or potentiometer network types. Supplied with black molded finger-grip knob.

| No. | Ohms | Network | Each | No. | Ohms | Network | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C7741 | 50 | Ladder | $\$ 6.86$ | C7744 | 500 | Ladder | $\$ 6.86$ |
| C7742 | 200 | Ladder | 6.86 | C7745 | 1/4 Meg. | Potent. | 6.62 |
| C7743 | 250 | Ladder | 6.86 |  |  |  |  |

## CLAROSTAT 10-Watt Output Attenuators

 Type CIB: Compact constant impedance attenuators that will dissipate 10 watts in any position. Ideal for individual speaker 30 db . Linal 30 db final step to infinity. Units are $2^{\prime \prime}$dia., $2^{3 / f^{7}}$ long. Mount in single hole. Bushing ${ }^{3}$ ": shaft 1 long. Supplied with dial plate and knob. Shpg. wt. 1 lb .

| No. | Ohms | No. | Ohms | No. | Ohms | Any Type, Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| c7837 | 8 | c7839 | 50 | c7841 | 250 | $\$ 6.37$ |
| c7838 | 15 | $\mathbf{c 7 8 4 0}$ | 200 | c7842 | 500 | $\$ .3$ |



For controlling level of low imp audio circuits, mikes or phono,
etc. With knob, dial and plate.



The open frame type mounts in a single ${ }^{7 / 6^{\prime \prime}}$ hole. Dim. 231 in" frame type, $1^{1 / 16^{\prime \prime}}$ diam. and $11 / 2^{\prime \prime}$ deep.


CRL Split Knurl Midget Radiohms

For 1938-39-40-41 radios using split-knurl shafts where the knobs will not fit any other type of shaft. Shafts $2 \%{ }^{\circ}$ long.
No. CRI, Ohms Each C8285 NK-139 250M C8287 NK-141 1 Meg C8288 NK-142 2 Meg. C8289 NK-143 500 M - 188 C8291 NK-144 1 Meg -Tapped controls.

## CENTRALAB Power

 RheostatsIdeal for use as notor speed ing rate resulat ing rate regulators, etc. All metal frame; core insulated with
treated asbesos.
 wound. All for single hole mount ing; knob supplied. Diameter $2^{\prime \prime}$, bushings $8 / x^{x} 1 /{ }^{\circ}$ long. Depth 50 watt units 16 watt units $3 / 4 /$, tinned solder lug terminals for easy connections. Shpg. w1. 1 lb.

| 25-Watts |  | 50-Watts |  |
| :---: | :---: | :---: | :---: |
| Stock | Res. | Stock | 12 |
| No. | Ohms | No. | Ohms |
| C8977 | 2 | C8962 |  |
| C8978 | 6 | C8985 |  |
| C8979 | 15 | C8987 |  |
| C8980 | 50 | C8988 |  |
| C8976 | 100 | C8986 | 10 |
| C8981 | 150 | C8989 | 15 |
| C8957 | 250 | C8994 |  |
| C8982 | 400 | C8990 | 50 |
| C8958 | 500 | C8991 | 100 |
| C8983 | 1000 | C8960 | 2500 |
| C8984 | 5000 | C8962 | 500 |
|  | $\begin{aligned} & \text { Cost } \\ & \text { ch } \end{aligned}$ | You | Cost |

## $\$ 1.18$ \$1.47

HARDWICK-HINDLE 25-Watt Rheostats


Each element wound on a puremica inarefractory base which is embedded in vitreous en amel. Each has a $3 / 8^{\circ}$ bushing and nut for single hole mounting; depth behind panel $138^{\prime \prime}$; base diameter $15 / 8^{\circ}$; $1 / 4^{\prime \prime}$ shaft; rotation 285 de grees. All rated 25 -watts max mum. Have screw terminals. Furnished with knob.

$\begin{array}{lll}\text { Stock Resis. Max. Your } \\ \text { No. Ohms Amps. } & \text { Cost }\end{array}$ No. Ohms Amps. Cost
 Potentiometer
with Switch


160 ohm 4 watt potentiometer with insulated rot or and t a per. $3 / 8^{*}$ threaded bush$\sqrt{18^{8}}$ from bushshaft extending $\frac{5 / 8}{8}$ from bush-
ing. Less Mtg. Nut.
C8142-Your Cost....

## (ARE M R Miget anc stancara SoLURE COILTOLS



## Standard Radiohms

 less life these famous con trolsemploy a patented con trolsemploy a patented nonmeari. 4 highly arrange ment. 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: Dimmeter-1; s; Depth if ; Shaft length- $21 / 2^{\circ}$; Diameter-1/4"; Bushing diameter-a/8". Flat milled shaft. Listing below includes new CRL rype numbers less switch. Order by these or by the old CRL numbers. With switch numbers are the same except for prefix letter which is "B" in place of 'A": "BI" in place of "AT" and "BF" in place of "AF". This will aid you in obtaining the exact control you need, as listed in the new CRL Guide. Tapers followU—Voltage Divider (uniform) A2-Ant. Sh. \& "C" Bias 2 Tubes
S-Antenna Shunt $\&$ " ${ }^{\prime}$ " Bias C-"C" Bias
A-Antenna Shunt \& "C", Bias $\quad$ T-Tone Control
A1-Antenna Shunt \& "C" Bias GT-Audio Grid or Tone Control for 1 Tube $\mathbf{P}$-Series in R.F. Plate

| 0. | CRh | Ohins | No. | CRL | Ohns | No. | CRL | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C8876 | A-100 | 500 L | C8873 | AF-112 | 15, (4)NA | C8880 | A-123 | 100,000GT |
| C8865 | A-101 | $1000{ }^{\text {c }}$ | C8931 | AF-113 | 15.000. ${ }^{\text {a }}$ | C8697 | A-124 | 150,001GT |
| C8859 | A-102 | $2000{ }^{-1}$ | C8877 | AF-114 | 20,000 A | C8878 | A-125 | $200,000 \mathrm{GT}$ |
| C8866 | A-103 | $3100 \mathrm{U}^{-}$ | C8869 | AF-115 | $25.000 t^{-}$ | C8694 | AF-126 | $200,000 \mathrm{C}$ |
| C8867 | A-104 | $4000{ }^{\text {U }}$ | C9032 | AF-116 | 25,000C | C8879 | A-127 | $250,000 \mathrm{GT}$ |
| C8868 | AF-105 | 5000 C | C8860 | AF-117 | 25,000S | C8854 | A-128 | $500,000 \mathrm{U}$ |
| C8842 | A-106 | 5000 S | C8881 | A-118 | 50.000 U | C8841 | A-129 | $500,000 \mathrm{P}$ |
| C8907 | AF-107 | 75000 | C8875 | A-119 | 50.000 T | C8863 | A-130 | 500,000GT |
| C8872 | AF-108 | 10.000. | C9033 | A-120 | 75.000T | C8908 | A-131 | 750.000 GT |
| C8871 | AF-109 | 10,000.A1 | C8840 | AF-121 | 75.000C | C8874 | A-132 | 1 Meg . GT |
| C8843 | AF-110 | 10,000 ${ }^{\text {2 }}$ | C8862 | A-122 | 104,001) C | C8890 | A-133 | $2 \mathrm{Mrg.GT}$ |
| C8858 | A-111 | 10,000S |  |  |  | C8696 | A-134 | 3 Mcg , GT |
| WIRE WOUND RADIOHMS |  |  |  |  |  |  |  |  |
| C8959 | -104 |  | C8683 | -123 | 200 | C8687 | VF-131 | 2000 |
| C8961 | -108 | 10 | C8684 | -126 | 4010 | C8765 | VF-133 | 3000 |
| C8681 | $\bigcirc-116$ | 50 | C8685 | -127 | 500 | C8804 | YF-135 | 3600 |
| C8682 | -121 |  | C8686 | 1F-129 | 1000 | C8766 | VF-137 | 10.000 |
| Your Cost Each ${ }^{\text {a }}$ ( |  |  |  |  |  |  |  |  |

TAPPED RADIOHMS (For Tone Compensation)
C8891-AT-135
(Composition Element)
C8881-AT-136
C8882-AT-137
250, 000 ohms GT
$501,(000$ ohms GT
C8909-AT-138
501 ), 000 ohms GT
Your Cost Each.

List
t Price $88^{4}$

## TWIN REPLACEMENT RADIOHMS

Most popular 2 win controls for general replacement
Stock No. CRL No. Front Ohms Rear Ohms
C8912 C-100 Front Ohms Rear Ohms


## CENTRALAB Midget Radiohms

Small diameter controls for use in auto radio sets or in midget radios. Molded bakelite cases. All potentiometer type, with insulated terminals pelth, less switch. ${ }^{23}$ ". $21 / 2^{\prime \prime}$ shaft milled entire taper symbols as shown with standard Radiohms taper symbols as shown with standard Radiohms
above. CRL type numbers given below are less switch

| No. | CRL | Ohn | No. | CRL | Ohris | No. | CRL | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C8187 | NP106 | $5000{ }^{\text {a }}$ | C8281 | NF112 | $20,000 \mathrm{~A}$ |  |  |  |
| C8190 | NF107 | 10.000 A | C8217 | NF113 | 25.000 U | C8192 | N102 | 250.000 GT |
| C8188 | - Fi06 | 10,000A1 | C8191 | NF101 | 2., 0000 A | C8273 | N118 | 500,000U |
| C8189 | NT108 | 10,000.12 | C8218 | N114 | 50.000 U | C8193 | N103 | 500, (\%)0GT |
| C8278 | N 109 | 10.000 S | C8219 | N115 | 50,000T | C8194 | N104 | 1 Meg . GT |
| C8279 | NF110 | 15,000. 11 | C8220 | $\times 116$ | 101,000U | C8169 | N155 | $2 \mathrm{Meg} . \mathrm{GT}$ |
| C8280 | NF111 | 15,000 A | C8272 | N117 | 100,000GT |  |  |  |

## Any Type Listed Above (Less Switch) Each

596
Tapped Midget Radiohms Tapped for tone compensation circuits. Less switch. Each C8274 NT119 250,000 C8275 NT120 500,000 C8276 NT121 1 Meg.

$88^{4}$ | Midget Switch Plates |
| :--- |
| Stock |
| No. Type |
| C8195 |
| S.P.S.T...........29c |
| C8196 |
| S.P.D.T. |
| C8197 |
| D.P.S.T. |
| C8198 |
| 4 Point. |
| * S.P.S.T. |
| With dummy lug. |

We can supply all Centralab products. Write for prices or order giving Centralab part number. Your inquiry or order will receive our usual prompt attention.

CLAROSTAT Wire
Wound Wound
Controls


Wirewound controls that alloy wire precisely wound on thin bakelice strip. Perfect sliding con tact. 1/4" shaft, $1^{1}{ }^{\prime}{ }^{2}$ " long. Units marked with asterisk (*) are
rheostat type; all others potentiometers. Tapers:
L-Untuned Antenna S-Standard Pot. (uniform) V- C" Bias Contro W-Screen Grid; Phono Control U-Antenna \& "C"'Bias (1 zube)

| Stock No. | Res. Ohms | Stock No. | Res. Ohms |
| :---: | :---: | :---: | :---: |
| C7048* | , | C7093 | 750 S |
| C7049* | 2 | C7092 | 10005 |
| C7050* | 3 | C7090 | 2000 S |
| C7051* | 4 | C7089 | 2000L |
| C7052* | 6 | C7088 | 2000 V |
| C7053* | 10 | C7087 | 30005 |
| C7054: | 15 | C7086 | 3000 U |
| C7055* | 20 | C7047 | 4 (\%)0S |
| C7056* | 25 | C7084 | 5000 S |
| C7057* | 30 | C7083 | 5000 U |
| C7058* | 40 | C7082 | 5010 V |
| C7099 | 50 S | C7080 | 7500 U |
| C7060* | 60 | C7079 | 7500 V |
| C7061* | 75 | C7078 | 10000S |
| C7098 | 100 S | C7075 | 10000 V |
| C7097 | 2005 | C7074 | 100\%W |
| C7096 | 3005 | C7073 | 15000 S |
| C7095 | 400S | C7072 | 15000 U |
| C7094 | 500 S | C7070 | 20000 S |
| Your Cos Any Abo C7068 | ost Eac ove Typ 25000 S | c $70.10{ }^{\text {c }}$ | 40000 S |
| C7067 | 300005 | C7065 | 50000 S |
| Your Cost Each, Any Above Type |  |  |  |
| C7064 | $\begin{array}{r} 750005 \\ 100000 \mathrm{~S} \end{array}$ |  |  |

## UTAF Wixe-Wound Midget Controls

Rheostats and potentiometers Mlount in 3 . hole and extend $33^{4}$ in back of
the panel. 14 the panel. 14 diam. shaft
tend $11 / 2^{\prime \prime}$.


3-Watt Potentiometers

| No. | Ohms | No. | Ohms |
| :--- | ---: | ---: | ---: |
| C6515 | 6 | C6520 | 400 |
| C6516 | 10 | C6521 | 500 |
| C6517 | 15 | C6522 | 1000 |
| C6518 | 20 | C6523 | 1500 |
| C6519 | 200 |  |  |
| C6524 | 3-Wtt Rheostats |  |  |
| C6525 | 3 | C6529 | 25 |
| C6526 | 60 | C6530 | 30 |
| C6527 | 0 | C6531 | 40 |
| C6528 | 20 | C6533 | 50 |
| Your Cost Each |  |  |  | Your Cost Each,

Any of the Above
Any of the Above
Types $28^{4}$
CENTRALAB
Submidget Radiohms Especially
adaptable to hearing aids and small portable equipment. Case $3^{3 / 4}$ " diam. switches are available for these C8221 CRI NS-13 25,000 ohms C8222 CRL NS-14 50,000 ohms C8224 CRL NS-16 250 M ohms C8225 CRL NS-17 500M ohms C8226 CRL NS-18 1 megohm
Your Cost Each, Any of the
Above Above
Types

# 8STANCOR TIRASFFORMERS 

 UNIVERSAL MOUNTING POWER TRANSFORMERS$\star$ Electrostatically Shielded $\star$ Primaries for 115 V. 50/60 Cycles<br>$\star 5$ Possible Mounting Positions


SPECIAL 6.3 V. TRANSFORMERS FOR SETS USING P.M. SPEAKERS
C1785
C1786
C1787
C171
C1743
C1744
C1745

| 6.3 | 2 |
| :---: | :---: |
| 6.3 | 2.7 |
| 6.3 | 3.5 |
| 6.3 | 2.8 |
| 6.3 | 4.5 |
| 6.3 | 5.5 |
| 6.3 | 7.0 |



Type "M" Mount


Vertical mount


Horizontal Mount


2 or $\mathbf{4}$ Hole Half Shell

| UNIVERSAL OUTPUT TRANSFORMERS <br> (All have secondaries adjustable from 1 to 30 ohms) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Primary Ohms | Mtg. | Ctrs. | Lbs. | Each |
| C1675 | A-3856 | All for Single | Q | $2^{\text {a }}$ | 1 | \$1.32 |
| C1637 | A-3823 | or P. P. plates. | Q | $2{ }^{5}$ | 1 | 1.32 |
| C1671 | A-3850 | 4000, 7000, 8000, | J | 2 | 1 | 1.32 |
| C1673 | A-3852 | 10M, 14M CT | , | $2^{3}{ }^{\text {m }}$ | 2 | 1.71 |
| C1678 | A-3890 |  | E | $2^{3}{ }^{\text {\% }}$ | 2 | 2.79 |
| C1670 | A-3849* | 1500, 2000, 4000 |  |  |  |  |
|  |  | 5000, 7000, 10,000 | Q | 2116 | 1 | 1.32 |
| C1666 | A-3830 $\ddagger$ | $\begin{array}{r} 3000,5000,6600 \\ 7000,8000,10,100 \mathrm{CT} \end{array}$ | J | $2^{11}$ ¢f" | 3 | 2.50 |



REPLACEMENT DRIVER TRANSFORMERS

| Stock | Type |  | pedance | Ratio | Mtg. | Mtg. | Wt. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Pri. | Sec. | $1 / 2 \mathrm{Sec}$. | Type | Ctrs. | Lus. | Cost |
| C1684 | A-4712* | 20M | 2.2 M | 3:1 | A | $2^{5} 16^{\prime \prime}$ | , | \$1.32 |
| C1685 | A-4713 | 10M | 2.5 M | 2:1 | A | $25_{16}{ }^{\prime \prime}$ | 1 | 1.32 |
| C1688 | A-4723 | 10M | 1.1M | 3:1 | A | $2{ }^{5} 16$ | 1 | 1.32 |
| C1687 | A-4722 | 10 M | 10M | 1:1 | E | $2^{3}$ | 2 | 2.15 |
| C1682 | A-4401 | 10 M | 1.4 M | 2.7:1 | J | $2^{3}{ }^{\text {a }}$ | , | 1.91 |
| C1689 | A-4734 | 10M | 1.6M | 2.5:1 | A | $2^{3}$ * | 2 | 1.56 |


| FILTER CHOKES |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Type | Hen- | Cur. | D.C. |  |
|  | No. | rys | M.A. | Ohms |  |
| C1698 | C-1706 | 4.5 | 50 | 300 |  |
| C1699 | C-1707 | 6 | 50 | 500 |  |
| C1700 | C-1708 | 13 | 65 | 460 |  |
| C1701 | C-1709 | 8 | 85 | 250 |  |
| C1702 | C-1710 | 7 | 150 | 200 |  |
| C1623 $\dagger$ | C-1003 | 16 | 50 | 550 |  |
| C1624 | C-1002 | 15 | 75 | 400 |  |
| C1625 | C-1001 | 10.5 | 110 | 200 |  |
| C1626* $\dagger$ | C-1034 | 8 | 30 | 1150 |  |
| C1583 | C-2303 | 2.5 | 130 | 100 | 2 |
| C1584 | C-2304 | 2.3 | 150 | 65 |  |
| C1585 | C-2305 | 4.8 | 100 | 275 |  |
| C1586 | C-2309 | 3.3 | 150 | 90 | 2 |

A.C.-D.C. CHOKES TYPE A

| C1703 | C-1723 | 5.5 | 50 | 330 | $1^{5} 10 \times 2^{3} \times 1^{1 / 16}$ | 1 | . 82 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1694 | C-1080 | 4.5 | 50 | 200 |  | 1 | . 85 |
| C1697 | C-1325 | 6.5 | 50 | 250 | $13 / 8 \times 2{ }^{1 / 1 / 6 \times 13 / 3}$ | 1 | . 85 |
| C1695 | C-1227 | 7 | 50 | 350 |  | 1 | . 85 |
| C1696 | C-1279 | 8.5 | 50 | 400 | $1358 \times 2{ }^{1316 \times 13^{13 / 3}}$ | 1 | . 85 |



| Stock | Type | Class |  | Impedan | nce in Ohms |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Oper. | Tubes | Prim. | Secondary | Wts. | No. | cost |
| $\overline{\text { C1663 }}$ | A-3822 | A | S | $7 \mathrm{M}, 10 \mathrm{M}$ | . 7 to 4 | 5 | $Q$ | \$1.03 |
| C1669 | A-3848 | A | S | 16,000 | 1,2,4 | 5 | Q | 1.09 |
| C1676 | A-3857 | A | S | 25,000 | + | 5 | A | 1.15 |
| C1677 | A-3865 | A | S | 1,500 | 2, 4, 6 | 5 | A | 1.09 |
| C1640 | A-3876 | A | S | 2,000 | , | 5 | A | . 82 |
| C1645 | A-3877 | A | S | 5,000 | 4 | 5 | A | . 82 |
| C1646 | A-3878 | A | S | 7,000 | 4 | 5 | A | . 82 |
| C1648 | A-3879 | A | S | 10,100 | 4 | 5 | A | . 85 |
| C1649 | A-3881 | A | $\mathrm{S}^{\text {S }}$ | 15,000 | 4 | 5 | A | . 85 |
| C1647 | A-2201 | A | S or PP | 8,000 | , | 10 | A | 1.59 |
| C1664 | A-3824 | B | S | 8,000 | 1,2,4 | 8 | Q | 1.71 |
| C1665 | A-3825 | A | S | 2,500 | 1, 2, 4 | 8 | Q | 1.41 |
| ${ }_{C} 1657$ | A-3831 | B | S or PP | 10M | 2,4,8 | 5 | A | 1.23 |
| C1656 | A-3303 | A \& B | S or PP | 14M | 4, 8, 15, 500 | 20 | C | 3.15 |
| ${ }_{C} 1657$ | A-3.304 | $A^{A} \& B$ | S or PP | 10M, 7M | 4, 8, 15, 500 | 25 |  | 3.44 |
| C1644 | A-3301 | $A$ \& $A B$ | Pp | 3,000 | 4. 8, 15, 500 | 30 | C | 3.56 |
| C1672 | A-3851* | B1 | PP | 4,400 | $4,8,15,250$ | 30 | C | 4.29 |
| C1590 | A-3855 |  | $S$ or PP | 7,000 | 10, 2000 | 5 | E | 2.41 |
| C1661 | A-3800 | $A \& A B$ | PP | 5,000 | $\{4,8,15$ | 30 | C | 4.03 |
| C1662 | A-3S01 | AB1 | PP | 6,600 | 250, 500 | 35 | C | 4.70 |

## UNIVERSAL INTERSTAGE TRANSFORNERS

Split secondaries. Primary center tapped. May be used plate to grid, p.p. input or p.p. interstage. Primary will pass 10 milliamperes DC. Shpg. wt. each, 2 lbs.

| No. | Type | Core | Mtg. | II. W. D. | Centers | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1630 | A-1773 | $3^{3} 1{ }^{10}$ | E | ${ }^{23} 1 \times 2 \times \times 21 / 8$ | $3^{3 / 8}$ | \$2.20 |
| C1631 | A-4774 | $3.61{ }^{\prime \prime}$ | S | $21 / 4 \times 2{ }^{7} 8 \times 21 /{ }^{-1}$ | $2{ }^{8}$ | 1.85 |
| C1634 | A-4775 | $7 / 8 \times 7 / 8{ }^{\prime \prime}$ | S | $27 / 8 \times 2{ }^{1} \times 23 / 8{ }^{\prime \prime}$ | 284* | 2.5 |



| Stock | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Turns Ratio | Dirnensions $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ | Mtg. Tupe | Mts. Ctrs. |  | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1651 | A-53C | 3:1 | $13 / 8 \times 2^{3} 8 \times 1 \frac{1}{2}$ | , | $2^{\prime \prime}$ | 1 | \$1.09 |
| C1690 | A-63C | 3:1 | $2 \times 2{ }^{3} 811$ | , | - | 1 | 1.26 |
| C1654 | A-73C | 3:1 | $2 \times 3{ }^{5} 16 \times 15 / 8^{*}$ | A |  |  | 1.59 |
| C1691 | A-4750 | 3:1 | $21 / 1827 / 8 \times 15 /{ }^{\prime \prime}$ |  |  |  | 1.59 |
| C1686 | A-4719 | 3:1 |  | E | 23 \% |  | 2.82 |
| C1587 | A-62C | 2:1 | $15 / 8 \times 2{ }^{15}{ }_{15} \times 11$ |  |  | 1 | 1.26 |
| C1588 $\dagger$ | A-4745 | 2:1 | $23 \% \times 25 \times 21$ \% | E |  | 2 | 2.56 |
| C1589* | A-4206 | 3:1 | $31 / 8 \times 25 \times 2 \times 28^{\prime \prime}$ | C |  |  | 3.73 |
| *Split Secondary. tHas static shield. |  |  |  |  |  |  |  |
| Push-Pull Interstage (2 PI. to 2 G.) |  |  |  |  |  |  |  |
| C1683 | A-4711 | 1:1 | $1-8 \times 2{ }^{15}{ }_{16} \times 1^{1} 2^{\prime \prime}$ | A | $25 / 6^{\circ}$ | 1 | \$1.59 |
| C1681* | A-4208 | 1.4:1 | $31 / 8 \times 25 / 8 \times 2$ S | C |  | 2.5 | 3.06 |
| *Has split secondary. |  |  |  |  |  |  |  |
| STANCOR TRANSFORMER CATALOG-FREE! <br> Contains complete and latest detailed information and specifications covering Stancor's entire line of transformers and chokes. |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

# UCHETH MEN TAANSEDLMUTS 

## VARITAP All-P 9 ,ower X'formers



Replacement power transformers featuring flexibility of application. Each unit can be used to replace several different types of transformers now in use, so that a minimum stock is required to cover all demands. thpe A units feature universil mounting. Leads are brought out flush or on one side, as desired; universal flanges supplied. Type $B$ units fare standard vertical shielded transformers with long insulated leads. are standard vertical shiclded transformers with long insulated leads.
Type C units are for flush mounting and have lug terminals with windings marked. All units are vacuum sealed against humidity with special impregnating materials to prevent corrosion and electrolysis. High black enamel finish
Fil. No. 1 and Fil. No. 2 provides either ONE of the voltages shown
Universal Mounting Transformers (type A)


N0TE: All high voltage and filament windings are centerDimensions and Shipping Weights of All Units

Type
$\mathrm{R}-1$
$\mathrm{R}-2$
$\mathrm{R}-3$
$\mathrm{R}-4$
$\mathrm{R}-5$
$\mathrm{R}-6$
$\mathrm{R}-7$


| Lhs | Type |
| :--- | :--- |
| $21 / 2$ | $\mathrm{R}-8$ |
| $31 / 2$ | $\mathrm{R}-9$ |
| $61 / 2$ | $\mathrm{R}-10$ |
| 612 | $\mathrm{R}-11$ |
| 812 | $\mathrm{R}-12$ |
| $21 / 2$ | $\mathrm{R}-13$ |
| 3 | $\mathrm{R}-54$ |

W.xD.xH.


## Tropic Sealed

## Channel Frame Audios

An excellently designed series of channel frame TROPICAL WETPROOF audios. In addition to good frequency response, coils are vacuum-pressure treated followed by the UT
C MOULD SEAL process of WET PROOF C MOULD SEAL process of WET PROOFING to prevent moisture ahsorption. All have black enamel finish, and have long insu-
lated leads. Average shpg. wt., each 2 lbs.


## Audio Transformers

| o. | Type | Descruplon of Unit | Size | Ea |
| :---: | :---: | :---: | :---: | :---: |
| C5514 | R-33 | 1 Plate to 1 Grid. Ratio 4:1 | B | \$1 |
| C5515 | R-3.4 | 1 Plate to 2 Grids. 1 | B | 1.26 |
| C5516 | R-35 | Mike to 1 Grid Ratio | B | 1.53 |
| C5517 | R-56 | 1 Plate to 2 Grids. R | D | 1.53 |
| C5518 | R-57 | 1 Plate to 2 Grids. High Fidelity. R | F | 2.39 |
| C5519 | R-36 | Driver (30,49, etc.) to Class B 19, 79 | 13 | 1.53 |
| 20 | R-37 | R.F. Output. Class B19, 49, 79, 89 plates to 3540 , and 5000 ohms. | $B$ | 1.59 |
| C5521 | R | 5-Watt Universal Output. Any single tube to any voice coil from .1 to 30 ohms | A |  |
| C | R-38A | 6-Watt Univ. Out. Any tubes to .1 to 30 ohms | A | 1.26 |
|  | R-59 | 10-Watt Univ. Out. Any tubes to. 1 to 30 ohms | I | 1.2 |
| C5524 | R-60 | 15-Watt Univ. Dut. Any tubes to 1 to 30 ohms | D | 1.53 |
| C5525 | R-39 | 10-Watt Line Matching: 250, 500,1500 ohms to $2,8,15 \mathrm{ohm}$ voice coil. |  |  |
| C5526 | R-40 | 25-Watt Line Matching: $250,500,1500$ ohms to $2,8,15 \mathrm{ohm}$ voice coil | C | 2.44 |

## Filter and Audio Chokes

| No. | Type | Henrys | Ma. | Ohms D.C. | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5527 | R-55 | 10 | 35 | 300 | A | 50.73 |
| C5528 | R-14 | 12 | . 10 | 250 | 13 | . 91 |
| C5529 | R-15 | 15 | 30 | 450 | 13 | . 91 |
| C5530 | R-16 | 20 | 30 | 600 | 13 | . 91 |
| C5531 | R-17 | 25 | 30 | 1000 | D | 1.21 |
| C5533 | R-18 | 10 | 75 | 250 | I | 1.21 |
| C5534 | R-19 | 15 | 100 | 450 | E | 1.71 |
| C5535 | R-20 | 8 | 110 | 100 | F | 1.85 |
| C5537 | R-21 | 525 | 160 | 100 | F | 1.85 |
| C5538 | R.22 | 500 | 5 | tion | D | 1.71 |

## VARITAP Universal Mount Transformers and Chokes

VARITAP audios represent the acme in replacement transformer development. The double Shelis and universal mounting brackets are finisher in high lustre black. All mounting positions incorporate long slots for maximum flexibility. All coils are well shielded, and have tropical wetproof impregnation. Shipping weight each, 3 ibs


## Thordarson Universal Replacement Power Transformers-"/13R"/ Series

To furnish plate and filament voltage requirements of amplifiers, receivers, and exciter stages of transmitters. The choice of servicemen in all parts of the world because of the universal adaptability to receiver replacement, hot helec-
trically and mechanically. Ad ustable mounting brackets pernit flush, vertical or horizontal mounting ill trically and mechanically. Adjustable mounting brackets, pernit flush, vertical or horizontal mount ing. All primary
windings are for 115 Volt $50 / 60$ cycle operation. Illu trations 3.1 . Approx. Prices subject O.P.A. approval.

| StockNo. | TypeNo. | Your* <br> Cost | Plate |  | Rec. Ifil. |  | Fil. No. 1 |  | Fil. No. 2 |  | Mtic. Ctrs. |  | ${ }_{\substack{\text { Wt. } \\ \text { lbs. }}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | V. | M | V. | A. | V. | A. | V. | 1. | Wide | Deep |  |
| C590 | T-13R19 | \$2.54 | - | ${ }^{40}$ |  | 2 | 6.3 | $2 \mathrm{C} . \mathrm{T}$. |  |  |  |  |  |
| C591 |  | 2.75 <br> 3.18 |  |  |  | 3 3 3 | 6.3 6.3 | ${ }_{2.5}^{2} \mathbf{C}$ C.T. |  |  |  |  |  |
| $\stackrel{C}{C 5}$ | T-13R | 3.18 3.82 | 350.0 | ${ }^{70}$ |  | 3 3 3 | 6.3 6.3 | ${ }_{3.5}^{2.5} \mathrm{C} . \mathrm{T}$. |  |  | 31 |  |  |
| C5 | T-13R | 4.24 | 350 0-35 | 120 | 5 | 4 | 6.3 |  |  |  |  | $21 / 2$ |  |
| C595 | T-13R15 | 4.87 | 375-0-37 | 150 | 5 | 4 | 6.3 | 5 |  |  | 33/4 |  | 61/2 |
| ${ }_{C} \mathbf{C 5 9 6}$ | T-13R1 | 5.51 2.96 | $4000-400$ <br> $325-0.325$ | ${ }^{200}$ | 5 | ${ }_{3}^{4}$ | ${ }_{2}^{6.3}$ | 5. |  |  | $3^{3}$ |  |  |
| C581 | $\begin{aligned} & \mathrm{T}-13 \mathrm{R} 0 \\ & \text { 2 } \end{aligned}$ | 2.96 <br> 3.18 | ${ }^{325-0.325}$ | 40 |  | 3 | 2.5 | 7.25 C.T. |  |  | $21 / 2$ |  |  |
| C583 | T-13R0 | 3.60 | 350.0.350 | 70 |  | 3 | 2. |  |  |  |  |  |  |
| C558 | T | 4.24 | 35 | 70 | 5 | 3 |  |  | 2.5 |  | 18 |  |  |
| C586 | T | 4.87 | 350-0-3 | 120 | 5 |  |  | . C | 2.5 | 3.5 C.T. | $3{ }^{3}$ |  |  |
| amplifier, Transmitter and replacement-Half Shell or Flush Mounting Lugs are brought out through solder terminals facilitating circuit changes for the serviceman or experimenter. Illustration 21I. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C580 | T-70R20 | 2.75 | 300-0-300 | 80 |  | ${ }_{2}^{2}$ |  | 2 C .T. |  |  |  |  |  |



2B Leads, 2E Lugs

Plate-to-Grid Transformers
27. $55,85,77$, etc.) to a single match a 10,000 ohm plate ( $56,76,37$ 15 watts.

| Stock No. | Thord. No. | Turns Ratio | Dimensions W. D. H. | Mtg. <br> Type | Wt. Lbs. | Your * Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C599 | T-13.134 | $3: 1$ | $2{ }^{21} 16 \times 15 / 8 \times 15 / 8$ | 3B |  |  |
| C265 | T-29499 | $3: 1$ | $278 \times 2 \times 238$ | 2 B | 11/4 | $\$ 1.13$ 1.69 |
| C266 | T-57d 36 | 3:1 | 27 \% $21 / 8 \times 23 / 8$ | ${ }_{2}{ }^{\text {F }}$ | $11 / 2$ | 1.69 1.91 |
| C213 | T-47A25 | 3:1 | $21 / 8 \times 21 / 823 / 8$ | 2 C |  | 1.91 |
| C268 | T-57A38 | $3: 1$ $2: 1$ | $338 \times 212 \times 3$ | 2 F | 21/6 | 2.56 |
| - Itas static shield between primary and secondary. 2 |  |  |  |  |  |  |
| Push-Pull Input Transformers <br> Single plate ( 10,000 ohms) to push pull grids. Stock No. C301 may also be used as a tapped PP grid impedance with ratios of $1: 1,1: 2$, or $1: 4$. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Thord. No. | Turns Ratio | Dimensions W. D. II. | $\begin{aligned} & \text { Mrg. } \\ & \text { Type } \end{aligned}$ | Wt. Lbs. | Your* <br> Cost |
| C532 | T-14.A92 | 3:1 | $2^{3} \cdot 8 \times 1^{5} 8 \times 1^{3} 8$ |  |  |  |
| C600 | T-13A35 | 3:1 | $2^{13} 8 \times 15 \times 18 \times 158$ | 38 | \% 3 | \$1.13 |
| C281 | T-33A91 | 3:1 | $27{ }_{8} \times 22^{16} \times 2^{3}{ }_{8}^{8}$ | 2 B | $11 / 4$ | 1.69 |
| C237 | T-86A03 | 3:1 | 33,16 $\times 2{ }^{16}{ }_{16}^{16} 2^{8}$ | 3 B | 116 | 1.91 |
| $\mathrm{C}_{2} 16$ | T-14A29 | 3:1 | $2 \times 1{ }^{156} \times 238$ | 2 C | $11 / 4$ | 2.11 |
| ${ }_{C 283}$ | T-57. ${ }_{\text {T }}$ | 3:1 |  | 2 F | 11/2 | 2.11 |
| C284 | T-57A+1 | $3: 1$ $3: 1$ |  | 2 F - | 2 | 2.75 |
| C301 | T-74 A 31 | 1:1 | 33/8 ${ }_{3}^{3} 8 \times 215 \times 3$ | ${ }_{2}{ }_{2}$ | $21 / 1$ | 2.96 |
| C601* | T-13. 36 | 1:1 | 31, $16 \times 11^{3}$ | 3F | $1_{1}^{1 / 4}$ | 296 -1.69 |
| C272* | T-58.170 | 1.5:1 | $3{ }^{3} 8 \times 218 \times 3$ | ${ }_{2}{ }^{\text {F }}$ | 21/4 | 1.69 3.18 |


|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Output Transformers |  |  |  |  |  |  |
| $\begin{aligned} & \text { Stock } \\ & \text { No. } \\ & \hline \end{aligned}$ | Thord. | Class Oper. $\S$ | Ohims Impedance | $\begin{aligned} & \text { Max. } \\ & \text { Watts } \end{aligned}$ | $\begin{aligned} & \hline \text { Mtg. } \\ & \text { Fig. } \\ & \hline \end{aligned}$ | Your Cost |
|  |  |  |  |  |  |  |
| ${ }^{\text {C455 }}$ | T-14S81 | S or P-P; A | $70.0 \mathrm{Ct}-3$ to 6 | 5 | 3 B | \$1.06 |
| C537 | T-14S84 | ${ }_{\text {S }}$; A | $25,000 \mathrm{Ct}-3$ to 6 | 5 | 3B | 1.06 |
| C 602 | T-13S37 | ${ }_{\text {S; }}$; A | $8000-3$ to 6 | 5 | 3 B | 1.06 |
| C376 | T-13S39 | S; A | $4000-1-2$ | 5 | ${ }_{3 \mathrm{E}}^{3 \mathrm{E}}$ | 1.06 |
| C276 | T-33S99 | P.P.; A | 8000 Ct . -6 t | 10 | ${ }_{2 B}^{3 E}$ | 1.06 |
| C386 | T-13S40 | P.P.; A | 14,000 Ct.-1-24 | 10 | ${ }^{2 B}$ | 1.27 |
| C387 | T-81501 | P.P.; B | 10,000 Ct.-2-4-8 | $\begin{array}{r}10 \\ 8 \\ \hline\end{array}$ | ${ }_{28}^{38}$ | 1.27 |
| C388 | T-17S10 | S; A | 2500-2-4-8-500 | 8 | ${ }_{2 \mathrm{~F}}^{2 \mathrm{~F}}$ | 1.27 <br> 2.56 |
| $\begin{aligned} & \hline \text { C390 } \\ & \text { C391 } \end{aligned}$ | $\begin{aligned} & \mathrm{T}-17 \mathrm{~S} 11 \\ & \mathrm{~T}-17 \mathrm{~S} 12 \end{aligned}$ | $\begin{aligned} & \text { P.P. } A \bar{B}_{1} \\ & \text { P.P.; } A B_{1} \end{aligned}$ | $\begin{aligned} & 8000 *-8-15-250-500 \\ & 4300 *-8-15-250-500 \end{aligned}$ |  |  |  |
|  |  |  |  | ${ }_{25}^{15}$ | ${ }_{2}^{2 F}$ | 3.82 <br> 3.82 |
| $\begin{aligned} & \text { C392 } \\ & \text { C393 } \\ & \text { C } 471 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{T}-17 \mathrm{~S} 13 \\ & \mathrm{~T}-17 \mathrm{~S} 14 \\ & \mathrm{~T}-17 \mathrm{~S} 15 \end{aligned}$ | $\begin{aligned} & \text { P.P.; AB } B_{1} \\ & \text { P.P. } A B_{2} \\ & \text { P.P.P.; AB } \end{aligned}$ | $\begin{aligned} & 6600^{*}-4-8-25-250-500 \\ & 5500^{*}=4-8-15-2501-500 \\ & 3300^{*}=4-8-15-250-500 \end{aligned}$ |  |  |  |
|  |  |  |  | 34 40 | ${ }_{2}^{2 G}$ | 5.08 |
|  |  |  |  | 60 | ${ }_{2 \mathrm{G}}$ | 5.08 5.51 |
| $\begin{aligned} & \text { C327 } \\ & \text { C329 } \\ & \text { C273 } \\ & \text { C326 } \\ & \text { C331 } \end{aligned}$ | $\mathrm{T}-67 \mathrm{~S} 51$$\mathrm{~T}-67 \mathrm{~S} 48$$\mathrm{~T}-58 \mathrm{~S} 72$$\mathrm{~T}-67 \mathrm{~S} 54$$\mathrm{~T}-67 \mathrm{~S} 92$ | P.P.; A <br> P.P.; A\&B <br> P.P.; A\&AB <br> P.P.; A\&AB <br> P.P. Par. <br> $A$ and $A B$ | $14,000-1-8-15-500$$8000-4-8-15-500$$3000-4-8-15-500$$5000=4-8-15-500$$1500-4-8-15-500$ |  |  |  |
|  |  |  |  | 25 | ${ }_{2}{ }^{\text {F }}$ | 2.96 |
|  |  |  |  | 30 | 2 F | 3.18 |
|  |  |  |  | 30 | ${ }_{2}{ }^{\text {F }}$ | 3.38 |
|  |  |  |  | 40 | ${ }_{2}^{2 F}$ | 3.38 3.38 |
| $\begin{aligned} & \text { C328 } \\ & \text { C330 } \end{aligned}$ | $\begin{aligned} & \text { T-65S94 } \\ & \text { T-75S75 } \end{aligned}$ |  | $\begin{aligned} & 8000-1-8-15-500 \\ & 10,000-4-8-15-500 \end{aligned}$ |  |  |  |
|  |  |  |  |  | $2 F$ | 3.3 |
|  |  |  |  | 40 | 2 F | 3.38 |
| $\begin{aligned} & \mathrm{C} 507 \\ & \mathrm{C} 364 \end{aligned}$ | $\begin{gathered} \text { T-84S58 } \\ \text { T-84S75 } \end{gathered}$ | $\begin{aligned} & \text { P.P.; } A B_{2} \\ & \text { P.P.i } A B_{1} \end{aligned}$ | $\begin{aligned} & 3800-4-8-15-500 \\ & 6600-4-15-500 \end{aligned}$ |  |  |  |
|  |  |  |  | 60 40 | ${ }_{2}^{2 \mathrm{~F}}$ | 5.08 3.38 |

- $10 \%$ feedback winding. §-Singlc, Push-Pull or P.P. Parallel specified as "ell as Class of Operation.


## Filtering Chokes

For receivers, amplifiers and transmitters application. All inductance ratings shown are with full rated current flowing through the winding.

| Stock No. | Thord. No. | Mount. Type | Induct. H'ys. | Rated Ma. | Res. Ohms | Wt. Lbs. | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C604 | T-13C26 | 3B | 8 |  |  |  |  |
| C605 | T-13C27 | 3 B | 10 | 40 | 530 475 | 3? | $\begin{array}{r} \$ 0.78 \\ .91 \end{array}$ |
| C606 | T-13C28 | 3B | 10 | 65 | 460 |  | 1.91 |
| C241 | T-43C02 | ${ }^{2}$ | 10 | 75 | 260 | 11/4 | 1.42 |
| C252 | T-47C07 | 313 | 12 | 75 | 410 | 11/4 | 1.42 |
| C284 | T-44C02 | ${ }_{2}{ }^{3} \mathrm{~B}$ | 12 | 80 | 405 | 114 | 1.27 |
| C607 | T-13C29 | ${ }_{3 B}$ | 9 | 80 85 | 138 | 11/4 | 1.27 |
| C334 | T-68C07 | 2 B | 15 | 85 | 250 | ${ }_{2}^{1 / 2}$ | 1.34 |
| C289 | T-57C53 | 2 B | 10 | 110 | ${ }_{200}^{30}$ |  | 1.69 1.69 |
| C290 | T-57C54 | 2 F | 10 | 110 | 200 | $21 / 4$ | 1.69 |
| ${ }_{C}^{C 3} 235$ | T-75C49 T-17C00-B | 3 F | 8 | 120 | 290 | 11/2 | 1.27 |
| C269 $C 608$ | T-17C00-B | ${ }_{2}^{2 F}$ | 12 | 150 | 231 | 33.4 | 2.33 |
| C336 | T-74C29 | ${ }_{2 G}^{2 B}$ | 8 | 150 | 200 | $21 / 3$ | 1.69 |
| C310 | T-6iC49 | ${ }_{2}{ }^{\text {F }}$ | 15 5 | 150 200 | 200 80 | ${ }_{3}^{51}$ | 3.38 |
| C366 | T-55C51 | 2 G | 13 | 250 | 121 | $3^{33}$ | 2.33 4.24 |

## AC-DC Filter Chokes

Small but highly efficient filtering chokes for AC-DC receivers, inter communicators, etc. All are $2^{13} / 16 \times 15 / 8 \times 15 / 8^{\circ}$ high


| Universal Output Transformers |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C603 | T-13S38 | $\stackrel{\operatorname{Sin}}{\operatorname{or} P . P ;}$ CI. A | $\begin{aligned} & 4000 / 7000 \\ & 8000,10,000 \\ & 14,000 \mathrm{Ct} . \end{aligned}$ | $\begin{aligned} & \text {.Adjust. } \\ & .1 \text { to } \\ & 129 \end{aligned}$ | 8 | $\begin{aligned} & 3 \mathrm{E} \\ & 2 \mathrm{E} \\ & 2 \mathrm{~B} \\ & 2 \mathrm{C} \end{aligned}$ | $\begin{array}{r} \$ 1.27 \\ 1.69 \\ 1.69 \\ 1.91 \\ \hline \end{array}$ |
| C474 | T-57S02 |  |  |  |  |  |  |
| C275 | T-17S57 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| C354 | T-13S42 | S; A | $\begin{aligned} & 1500 / 2000 \\ & 4000 / 5000 \\ & 3000 \end{aligned}$ | $\left\{\begin{array}{l} \text { Adjust. } \\ . \text { t to } \end{array}\right.$ | 10 | 3E | 1.27 |
| C355 | T-13S41 | P.P.; A | $\begin{aligned} & \hline 3000 / 5000 \\ & 6600 / 7000 \\ & 800 \mathrm{~m} / 10,000 \\ & \hline \end{aligned}$ | $\left\{\begin{array}{c} \text { Adjust. } \\ .1 \text { to } \\ 29 \end{array}\right.$ | 20 | 2E | 2.33 |
| Universal Tube To Line |  |  |  |  |  |  |  |
| C297 | T-61S25 | Univ. <br> Single; A Univ. <br> P.P.; A | $2500 / 4000$ 500 <br> $5000 / 16000 / 7000$  <br> $8000 / 10,000$ 500 <br> $12,0001,14,000$ c.t. |  | 1010 | $\begin{aligned} & 2 \mathrm{E} \\ & 2 \mathrm{E} \end{aligned}$ | $\begin{array}{r} \$ 2.75 \\ 2.96 \end{array}$ |
| C298 | T-61S26 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Universal Line To Speaker |  |  |  |  |  |  |  |
| C299 | T-53, 81 | L. to V.C. | 500/250 | 4-8-15 | 35 | 2D | \$4.02 |
| C506 | T-60S48 | $\begin{gathered} 1 \text { 1to6 } \\ \text { V.'s to } \\ 500 \text { ohm L. } \end{gathered}$ | $500 / 1000$$1500 / 2000$ Pri. as 500$2500 / 3000$ ohn . 06 to $8 ;$pri. as 1000ohm-. 12 to 16 |  | 10 | 2E | 2.56 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| C453 | T-14880 | L. to V.C. | $500-2-4-6-8$ |  |  |  |  |
| C454 | T-76S74 | L. to Multiple spkrs. | $\begin{aligned} & 500-2-1-6-8 \\ & 500-250 / 166 \end{aligned}$ 100/84 (auto | $125$ | 12 | 3 EE | 1.69 3.18 |

## Audio Reactors

| $\begin{gathered} \text { Stock } \\ \text { No. } \end{gathered}$ | Thord, No. | Induct. H'ys. | $\begin{aligned} & \text { Max. } \\ & \mathrm{Ma} . \end{aligned}$ | $\begin{aligned} & \overline{\text { D.C. }} \\ & \text { Ohms } \end{aligned}$ | Mtg. Type | Shpg. Wt. Lhs. | $\begin{aligned} & \text { Your* } \\ & \text { Cost } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\text { C317 }}{ }$ | T-67C46** | 300 | 5 | 6470 | 2B | W. Lis. | Cost |
| ${ }_{C}^{C 5197}$ | T-29C27* | 500 | . 5 | 6150 | 2 B | 1 | 1.48 |
| C318 | T-81C15t | . 72 | $\begin{array}{r}35 \\ \hline\end{array}$ | 405 | 3 B | 2 | 1.27 |
| C320 | T-93C20才 | 250 | . 5 | 30 6400 | 2 B | 1 | 1.69 |
| C332 | T-74C30¢ | 42 | 15 | 2100 | 2B | 2 | 2.33 |
| C302 | T-14C70 | 22 | 1 | 220 | 38 $\dagger$ | 1 | 1.27 2.11 |

- Indicates Plate Impedance. $\ddagger$-Indicates Tuned Audio Cirevit, to aceentuate a pre-determined band of frequencies. $\dagger \dagger$-Round can, $21 / 4 \circ$ h., $112^{\circ}$ o.d.

Driver Transformers

| No. | Type |  |  |
| :---: | :---: | :---: | :---: |
|  | type | Mtg. | Input Tubes |
| C308 | T-67D78 | 2 F | 1-16, 59. 6F6, 42, |
| C338 | T-74D32 | 2 F | 2.15 Triode 2-6C5, 76, 56 |
| C316 | T-78D46 | 2B | 1-30 |
| C322 | T-54D63 | 2 F | 1-30, 1-49, 1-6C5 |
| C340 | T-81D42 | 2 F | 1-6F6, 42, 2A5 |
| C508 | T-84D59 | 2 F | ${ }_{2-6 \mathrm{C} 5,6 \mathrm{c} 7}$ |
|  |  |  | 2-6.16, 53 |
| C457 | T-17D01 | 3 B | $6 \mathrm{FG}, 42,2 \mathrm{~A} 5 \mathrm{Tr}$. |
| C458 | T-14D93 | 3 B | 1-76 Triode |

RADIO PARTS AND ELECTROMC ENII

#  <br>  <br> <br> THORDARSON <br> <br> THORDARSON <br> <br> PLATE TRANSFORMERS <br> <br> PLATE TRANSFORMERS <br> <br> 5 <br> <br> 5 <br> <br> R <br> <br> R <br> <br> 图 <br> <br> 图 <br> <br> 居 <br> <br> 居 <br> <br> STANCOR <br> <br> STANCOR <br> <br> PLATE TRANSFORMERS 

 <br> <br> PLATE TRANSFORMERS}

All primaries for $115 \mathrm{~V} .50 / 60$ cycles a．c．Specified secondary A．C volage indict transfrmed secondary．D．C．voltage out of 2 －section filter（choke input）approx． 20 \％less than A．C．rating．Electro－ static shields between primary and secondary．

| Stock No． | Thord No． | Sec． A.C. | $\begin{aligned} & \text { D.C. } \\ & \text { Ma. } \end{aligned}$ | $\begin{aligned} & \text { Mtg. } \\ & \text { Type } \end{aligned}$ | Size，Inches H．W．D． | Wt． Lbs． | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C560 | T19P54 | 560 | 150 | 3 | $47 / 8 \times 33 / 4 \times 3 \frac{3}{3}$ | 7 | \＄5．08 |
| C642 | ＊T19P55 | 6601 | 250 | 3 | 47／8x ${ }^{3 / 4} \times 41 / 6$ | 8 |  |
| 43 | T19P56 | 560 | 225 | 3 | $47 / 8 \times 33 / 4 \times 41 / 6$ | 10 | 5.93 |
|  |  | 800 |  |  |  | 11 | 7.20 |
| C644 | $\dagger$ T19P57 | $\left\{\begin{array}{r}1075 \\ 500\end{array}\right\}$ | $\left.\begin{array}{l} 125 \\ 150 \end{array}\right\}$ | 3 | $47 / 8 \times 3 \times 4 \times 4 / 2$ | 11 |  |
| C645 | T19P59 | 1560 | 300 | $5 \ddagger$ | $6 \times 57 / 8 \times 75 / 8$ | 261／2 | 14.82 |
| C648 | T19P63 | 1560 | 500 | 5 $\ddagger$ | 63／4x $\times 1 / 4 \times 8$ \％ 8 | 38 | 21.80 |
| C649 | T19P67 | 2450 | 500 | $5 \ddagger$ | 93／4x $7^{1 / 2 \times 61 / 4}$ | 51 | 42.34 |

＊Indicates bias tap at 30 volts．$\ddagger$－Have insulated bushings
$\dagger$－Designed for double rectifiers．Will deliver both ratings simultaneously．
FILAMENT TRANSFORMERS
Primaries for 115 volts，50／60 cycles except those marked（＊）which have primary taps at $105,110,115$ volts．A
The essential of improved voltage regulation and minimum heat The essen rise have been gatings given are for continuous operation at full load．

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \text { Thord. } \\ \text { No. } \end{gathered}$ | Windings |  | Insul． Volts | $\begin{array}{\|c\|} \hline \text { Mtg. } \\ \text { Type } \end{array}$ | $\begin{aligned} & \text { Size-Ins. } \\ & \text { WxDxH } \end{aligned}$ | $\begin{aligned} & \text { We. } \\ & \text { Ihbs. } \end{aligned}$ | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C517 | T50F61 | 2.5 | 3.5 | 1600 | 6 | $2^{7}{ }^{7} \times 8^{1{ }^{3} 4 \times 2^{3} 8}$ | 1 | \＄1．48 |
| C304 | T19F88 | 2.5 | 5.25 | 1600 | 6 | $27.8 \times 2, \frac{1}{4} \times 23 / 8$ | 1 | 1.69 |
| C305 | T19F8． | 2.5 | 10 | 1600 | 6 | $3{ }^{3} \times 2 \times 2$ \％${ }^{3}$ | 2 | 1.91 |
| C306 | T19F90 | 2.5 | 10 | 7500 | 1 | $25 / 8 \times 2,4 \times 31 / 4$ | 2 | 2.54 |
| C450 | T64F33＊ | 2.5 | 10 | 7500 | 8 | $3^{3} \times{ }^{1}$ 1 ${ }^{1} \times 4$ | 5 | 5.08 |
| C500 | T19F82 | 2.5 | 15 | 10000 | 1 | $33, \mathrm{x} 2 \mathrm{~h} 16 \times 4$ | 4 | 4.24 |
| C452 | T63F99 | 5 | 4 | 1600 | 8 | ${ }^{2716 \times 3} \times 1318$ | 2 | 2.75 |
| C501 | T19F83 | 5 | 5 | 1600 | 6 | $3^{3}$ 8x ${ }^{\text {2 }}$ ， $8 \times 3$ | 2 | 1.91 |
| C515 | T19F84 | 5 | 8 | 1600 | 1 | $296 \times 21 \times 31 / 4$ | 3 | 2.33 |
| C519 | T19F85 | 5 | 13 | 1600 | 1 | $3{ }^{3} \times 2$ 2 $16 \times 4$ | 4 | 3.38 |
| C520 | T19F86 | 5 | 21 | 1600 | 1 | $3^{3} \frac{1}{4} 2^{15} 56 \times 4$ | 5 | 4.66 |
| C467 | T74F23 | 5 | 13 | 1600 | 8 | $3^{3}{ }^{3} \times 3 \times 4 \times 4$ | 5 | 4.24 |
| C468 | T74F24 | 5 | 21 | 1600 | 8 |  | 6 | 7.20 |
| C307 | T19F91 | 5.25 | 4 | 1600 | 1 | $25,8 \times 21 / 4 \times 31 / 4$ | 2 | 2.11 |
| C309 | T19F92 | 5.25 | 13 | 1600 | 1 | $3{ }^{3} \times 21 / 2 \times 4$ | 4 | 2.96 |
| C549 | T19F80 | 6.3 | 1 | 1600 | 6 | 31／4×15／8×2 | 1 | 1.13 |
| C550 | T19F81 | 6.3 | 2 | 1600 | 6 | $27 / 6 \times 18 / 4 \times 23 / 8$ | 1 | 1.27 |
| C311 | T19F97 | 6.3 | 3 | 1600 | 6 | $27.8 \times 2 \times 23 / 8$ | 2 | 1.48 |
| C303 | T61F85 $\dagger$ |  | 2.5 | 1600 | 2 | $35 / 8 \times 23 / 8 \times 2 / 4$ | 2 | 1.91 |
|  |  | 5， 2.5 |  |  |  |  |  |  |
| C373 | T73F60＊ | 6.3 | 5 | 1600 | 8 | 27\％8x278．83 | 4 | 3.38 |
| C312 | T19F98 | 6.3 | 6 | 1000 | 1 | $25,6 \times 23 \times 8 \times 31 / 4$ | 3 | 2.33 |
| C313 | T19F99 | 6.3 | 10 | 1600 | 1 | $3{ }^{3} \times 2 \times 2 \times 4$ | 4 | 2.96 |
| C314 | T19F43 | 7.5 | 4 | 1600 | 1 | $25 / 8 \times 2 \times 4 \times 31 / 4$ | 2 | 2.11 |
| C315 | T19F94 | 7.5 | 8 | 1600 | 1 | $3 \times 278833 / 4$ | 4 | 2.54 |
| C374 | T 92 F 20 | 7.5 | 8 | 1000 | 8 |  | 5 | 4.44 |
| C533 | T19F95 | 10 | 4 | 1600 | 1 | 2316x21，$\times 31 / 4$ | 3 | 2.33 |
| C499 | T19F96 | 10 | 8 | 1600 | 1 |  | 4 | 2.96 |
| C442 | T64F14＊ | 10 | 8 | 1600 | 8 | $3^{3} 1^{3} 3^{3}, x^{4}$ | 5 | 4.24 |
| C497 | T19F87 | 10 | 12 | 160 | 1 | $3{ }^{3}{ }_{4}^{1} \times 3 \times 3{ }^{3} 16 \times 4$ | 7 | 5.29 |

## INPUT（SWINGING）CHOKES

| No． | Thord | Ilenries | Ma． | Ohms | Insul． | Type | Each＊ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C551 | T19C39 | 5－20 | 150 | 215 | 3000 | 8 | \＄2．75 |
| C634 | T19C35 | 5－20 | 200 | 130 | 3000 | 8 | 3.38 |
| C635 | T19C36 | 5－20 | 300 | 105 | 5000 | 8 | 5.93 |
| C637 | T19C38 | 5－20 | 500 | 75 | 5000 | 7 | 12.70 |

## SMOOTHING CHOKES

| C552 | T19C46 | 12 | 1200 | 215 | 3000 | 3 | $\$ 2.75$ |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| C638 | T19C42 | 12 | 200 | 130 | 3000 | 8 | 3.38 |
| C639 | T19C43 | 12 | 300 | 105 | 5000 | 8 | $5 \mathbf{5 3}$ |
| C641 | T19C45 | 12 | 500 | 75 | 5000 | 7 | $\mathbf{1 2 . 7 0}$ |

## UNIVERSAL MODULATION TRANSFORMERS

Ideal for amateurs and experimenters．The tapped coils used in this series designed for wide range applications．Type 1 mounting

[^1]| Stock No． | $\left\|\begin{array}{c} \text { Stancor } \\ \text { Type } \end{array}\right\|$ | D．C．＊ | M．A． | Mtg．Dimen． H．W．D． | Mtg． | Lbs． | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1860 | P8042 | 600 | 300 | $45 / 8 \times 3 \frac{1}{8} \times 6 \frac{1}{2} 2^{\prime \prime}$ | 3 | 16 | \＄12．88 |
| C1861 | P8043 | 750 | 300 | $71 / 2 \times 6 \frac{1}{4} \times 8$ | 5 | 27 | 19.32 |
| C1862 | P8026 | 1250 | 300 | $75.5 \times 738 \times 8{ }^{3 / 4}$ | 5 | 36 | 24.34 |
| C1863 | P8028 | 1500 | 300 | $7 \%$ \％$\times 3 / 8 \times 9$ | 5 | 38 | 26.84 |
| C1864 | P8032 | 2000 | 300 | $75 / 8 \times 73 / 8 \times 93 / 4{ }^{\circ}$ | 5 | 45 | 30.78 |

D．C．Voltage After Filter．
SWINGING CHOKES

| No． | Type | Hys． | Ma | 0 | HxWxD | M | Wt．Lb | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | C1400 | 4－9 | 175 | 100 |  | 3 | 3 | \＄2．70 |
| 66 | C1702 | 4－7 | 250 | 60 | $31 \leq 22^{13}$ 价 | 6 | 4 | 3.56 |
| 829 | C1402 | 4－6 | 250 | 60 | 3 | 3 | 5 | 3.94 |
|  |  |  |  |  |  |  |  |  |

## FILTER CHOKES

| C1830 | C1410 | 4.5 | 175 | 100 | 31／8×21／2x21／2 | 3 | 3 | \＄2．56 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1831 | C1411 | 5.5 | 200 | 80 | $358 \times 2{ }^{13} 16 \times 31{ }^{10}$ | 3 | 4 | 3.35 |
| C1832 | C1646 | 6 | 200 | 70 | 37／8x ${ }^{1 / 4 \times 33 / 8}$ | 3 | 5 | 3.73 |
| C1767 | C1703 | 3.5 | 250 | 60 | $31 / 2 \times 3 \times 312^{\prime \prime}$ | 6 | 4 | 3.56 |
| C1833 | C1413 | 6.2 | 300 | 80 | $48 / 8 \times 37 / 8 \times 37 / 8{ }^{\circ}$ | 8 | 9 | 6.17 |

FILAMENT TRANSFORMERS

| No． | Type | Sec．V | Amps． | HxWxD | Mtg | Lbs． | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1774 | P3060 | 2.5 | 10 | $31 / 2 \times 23 / 4 \times 21 / 2^{\prime \prime}$ | 6 | 3 | \＄2．91 |
| C1790 | P4088 | 5.0 |  | 315 $\times 21 / 2 \times 218^{\prime \prime}$ |  | 2 | 2.00 |
| $C 1779$ | P5014 | 6.3 | 3 | $31,8 \times 21 / 2 \times 21 /{ }^{\prime}$ | 6 | 2 | 2.08 |
| C1775 | P3064 | 6.3 | 6 | 31／6x ${ }^{1 / 2 \times 21 / 2}$ | 6 | 3 | 2.50 |
| C1780 | P5015 | 7.5 | 4 |  | 6 | 3 | 2.15 |
| C1782 | P6138 | 7.5 | 8 | 37／8x31／4x31／2． | 6 | 4 | 3.38 |
| C1781 | P5016 | 10.0 | 4 | 31／2x3 $\times 21^{\prime \prime}$ | 6 | 3 | 2.70 |
| C1791 | P4096 | 10.0 | 5 | 31／8x ${ }^{1 / 4 \times 31 / 4}$ | 3 | 5 | 4.03 |

All secondaries C．T．－All primaries 115 V .60 cycles

## DRIVER TRANSFORMERS

Driver tubes listed in order of preference with best listed first

| No． | Type | From | To | Class | Mtg． | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{C 1692}$ | A4752 | 1－6G6G，6F6， 42，2A5 as TRIODES | GRIDS |  |  |  |
|  |  |  | $\begin{aligned} & 6 \mathrm{V6}, 6 \mathrm{Y} 6, \\ & 6 \mathrm{~F} 6,6 \mathrm{~L} .6,67 \end{aligned}$ | AB | 6 | \＄1．79 |
| C1897 | A4702 | 1－2A3，45，46， 89，2A5，6F6． 42 | PP 6L6，6V6， | AB2 |  |  |
|  |  |  | $\begin{aligned} & \text { 6F6, 45, } \\ & \text { Par. 6L6 } \end{aligned}$ | AB1 | 3 | 2.97 |

POLY－PEDANCE DRIVER TRANSFORMERS
Tapped to give usable ratios in Class B Drivers．Cap．of C1616 and C1617， 15 watts；primary per side， 60 ma．Cap．C1618， 30 watts primary 120 ma ．per side．All type 1 mtg ．Wt． 4 lbs

| Stock No． | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Ratio Primary to $1 / 2$ Secondary | Dimen． <br> IIxWxD | Each |
| :---: | :---: | :---: | :---: | :---: |
| $\underline{C 1616}$ | A－4761 | $\begin{gathered} 1.25: 1,1.4: 1,1.6: 1,1.8: 1, \\ 2: 1,2.2: 1,2.4: 1 \end{gathered}$ | $31 / 8 \times 25 / 8 \times 3 / 4{ }^{\prime \prime}$ | \＄5．82 |
| C1617 | A－4762 | $\begin{array}{r} 2.6: 1, \\ 4: 1, \\ 4.5: 1,5: 1, \end{array}, 3.4: 1$ | $31 / 8 \times 25 / 8 \times 316^{\prime \prime}$ | 5.82 |
| C1618 | A－4763 | $\begin{aligned} & 1.25: 1,1.5: 1,1.75: 1,2: 1 \\ & 2.25: 1,3.2: 1 \end{aligned}$ | $31 / 2 \times 3$ x ${ }^{\prime \prime}$ | 7.14 |

## PLATE MODULATION TRANSFORMERS

| No． | Type | Tubes | Sec．Imp． | Audio | Mtg | Lbs | ch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{C 1748}$ | A3845 | $\begin{aligned} & 1-6 A 6.6 N 7,53, \\ & 79,6 Y^{7} 7 \end{aligned}$ | $\begin{aligned} & 3000,5000 \\ & 6500,8000 \end{aligned}$ | 2 J W． | 3 | 4 | \＄2．91 |
| C1751 | A3808 | PP 6L6， 807. <br> HY61，RK41． <br> PP P＇ar．6L6 | $\left(\begin{array}{l} 4000,5000 \\ 7500,100000 \end{array}\right.$ | 60 W. | 8 | 8 | 6.59 |
| C1757 | A2907 | PP 10，T20，TZ－ <br> 20，II＇25， 35 ， <br> 16，801， 809 | $\begin{aligned} & 3300,5000, \\ & 6800,9000, \\ & 12,500 \end{aligned}$ | 90 W. | 8 | 10 | 8.56 |
| C1758 | A2908 | $\begin{aligned} & \text { P' RK } 18, \text { T20, } \\ & \text { TZ20, } 11 \text { Y25, } \\ & \text { RK31, } 357,50 \mathrm{~T} \end{aligned}$ | $\begin{aligned} & 3000,4500 \\ & 5350,6250 \end{aligned}$ | 120 W | 8 | 11 | 9.03 |
| C1759 | A3829 | $\begin{aligned} & \text { PP RK } 12,57, \\ & \text { HYZ } 2, \text { IOZ, T40, } \\ & 8091001 \mathrm{TL} \end{aligned}$ | $\begin{aligned} & 3300,4000 \\ & 5000,6250 \end{aligned}$ | 175 W． | 8 | 12 | 9.7 |

POLY－PEDANCE MODULATION TRANSFORMERS
 type load．Impedance chart and instructions with each unit．

| Stock No． | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Max． Audio | $\|$P＇ri． Ma． <br> 1＇er Side | Sec．Ma． Ser．Par． | Dimen． HxWxD | $\begin{aligned} & \text { Type } \\ & \text { Mtg. } \\ & \hline \end{aligned}$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1621 | A－ | 30W | 80 | 80 160 | 37／8×31／4x4380 | 1 | 6.09 |
| C1622 | A－3893 | 60W | 125 | $125 \mid 250$ | 37／8x3154478． | 1 | 7.14 |
| C1627 | A－3894 | 125W | 150 | $150 \mid 300$ | $4^{5} \times 8 \times 3 \frac{18}{} \times 512^{\prime \prime}$ | 1 | ． 4. |

# emmin <br> Ulc TRANSMITTMUILIANSFORMERS 

Case Dimensions Type Height Width Depth

| G-1 | $17 / 8^{\prime \prime}$ | $2^{\prime \prime}$ | $13 / 4^{\prime \prime}$ |
| :--- | :--- | :--- | :--- |
| G-2 | $251 / 6^{\prime \prime}$ | $23 / 8^{\prime \prime}$ | $115 / 16^{\prime \prime}$ |
| G-3 | $21 / 2^{\prime \prime}$ | $23 / 4^{\prime \prime}$ | $21 / 8^{\prime \prime}$ |
| G-4 | $21516^{\prime \prime}$ | $318^{\prime \prime}$ | $25 / 16^{\prime \prime}$ |
| G-5 | $35 / 8^{\prime \prime}$ | $318^{\prime \prime}$ | $49916^{\prime \prime}$ |
| G-6 | $45 / 8^{\prime \prime}$ | $33 / 4^{\prime \prime}$ | $51 / 2^{\prime \prime}$ |



G5 TO GII

Case Dimensions Type Height Width Depth $\begin{array}{llll}\text { G-7 } & 53 / 8^{\prime \prime} & 49 / 16^{\prime \prime} & 59 / 16^{\prime \prime}\end{array}$ G-8 $\quad 53 / 8^{\prime \prime} \quad 51 / 2^{\prime \prime} \quad 51 / 2^{\prime \prime}$
 $\begin{array}{llll}\text { G-10 } & 61 / 8^{\prime \prime} & 63 / 16^{\prime \prime} & 611 / 16^{\prime \prime}\end{array}$ G-11 $\quad 71 / 8^{\prime \prime} \quad 69 / 6^{\prime \prime} 73 / 8^{\prime \prime}$

## Class A Input Transformer

| \%. | Type | Application | Ratio | Case | Wt. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5802 | S-2 | 1 | 2:1 | G-2 | 2 lbs . | \$2. |
| C5804 | S-4 | 1 plate* to 2 grids, wide range response. | 1:1 | G-3 | 3 |  |
| C5805 | S-5 | Single or double button mike or line to 1 grid; hum bucking type | 16: | G | 2 |  |
| C5806 | S-6 | Single or double button mike or line to 1 grid, compact type. | 16:1 | G-1 | 2 |  |

*Will match tubes like 6C5,56,6C6 triode, 77 triode, etc. Can be used with high mu triodes with loss in low frequencies.
Universal Output To Iine and Voice Coil All secondaries designed to match 2,8 and 15 ohm voice coils and 500 ohm line. Average shipg. wt., each 6 lbs .

| No. | Type | Primary Ohms |  | Watts | Case | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5814 | S-14 | 2500, 4000, 7000 |  | 10 | G-2 | \$3.23 |
| C5815 | S-15 | 4000, 5000, 10,010 |  | 12 | G-2 | 3.38 |
| C5816 | S-16 | $3 \mathrm{3}(0), 6000-6600,10.000$ |  | 30 | G-4 | 4.41 |

## Universal Output Transformers

Designed to match any modulator tubes to any RF load. Secondary will carry DC.

| No. | Type | Watts | Case | Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | ---: |
|  | C5818 | $\mathrm{S}-18$ | 12 | $\mathrm{G}-3$ | 3 |
| C5819 | $\mathrm{S}-19$ | 30 | $\mathrm{G}-4$ | 4 | $\mathbf{S 3 . 5 8}$ |
| C5820 | S 20 | 55 | G |  | 5.44 |
| C5821 | $\mathrm{S}-21$ | 110 | $\mathrm{G}-7$ | 11 | 7.84 |
| C5822 | $\mathrm{S}-22$ | 250 | $\mathrm{G}-9$ | 18 | 10.93 |

Matching Transformer Shipping weight 4 Its.


| Stock <br> No. | Type <br> No. | Application | Pri. <br> Ohms | Sec. <br> Ohm | Case | Your <br> Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5811 | S-11 | Single 56, 6C6 triode, 6C5 <br> or similar tube to line. . | 10,000 | 200, <br> 500 | C;-2 | $\$ 3.04$ |


| Universal Driver Transformer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Application |  | Case | Lbs. |
| C5809 | S-9 | E.ph |  |  |  |

Multiple Secondary Filament Windings
Primaries tapped 105, 115 volts, $50 / 60$ cycles AC. All secondaries center tapped. Shpg. wt., each, 8 lbs.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Fil. No. 1 <br> Volts Amps. |  | Fil. No. 2 Volts Amps. |  | Fil. No. 3 Volts Amps. |  | Case | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C | S-65 | 2.5 |  | 5 | 4 | 6.3 | 3 |  | \$4.07 |
| C5868 | S-68 | 5 | 3 | 6.3 | 4 | 7.5 | 5 | G-5 | 4.41 |
| C5870 | S-70 | 6.3 | 5 | 6.3 | 5 |  |  | G-5 | 4.41 |

All 3000 volt insulation.

## Standard VARITRAN

## Voltage Controls

## The VARITRAN is an ideal voltage controt

unit of the type employing a sliding contact.
riding over the transformer turns. They pro-
vide continuously variable output voltages
FROM OTO 130 VOLTS; without interrup-
tion of the circuit. Used extensively to
control lights, line voltage, rectifiers, motors,
completely shielded and includes cord, plug, and
switch. Other units are completely shielded and units shown below for $\mathbf{1 1 5}$ volt input.

| No. | Type | Watts | Amps. | Size | Wt. | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5733 | V-0 | 230 | 2 | $4 \times 6 \times 4{ }^{3}{ }^{\text {a }}$ | 10 lbs. | \$ 9.65 |
| C5771 | V-1 | 570 | 5 | $5 \times 81 / 2 \times 31{ }^{1}$. | 14 lbs. | 13.62 |
| C5716 | *V1-M | 570 | 5 | $5 \times 101 / 2 \times 31$ | 14 libs. | 22.74 |
| C5772 | V-2 | 570 | 5 | $5 \times 7 \times 41{ }^{\circ}{ }^{\circ}$ | 13 lbs. | 11.37 |
| C5773 | V-3 | 850 | 7.5 | $5 \times 7 \times 518^{\circ}$ | 19 lbs . | 17.05 |
| C5774 | V-4 | 1250 | 11 | 68/8× $98 / 4 \times 6{ }^{\circ}$ | 37 lbs. | 24.99 |

[^2]Filter, Swinging and Audio Chokes

| No. | Type | Service | Hy. | Ma. | Ohms | Case | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5823 | *S-23 | Audio | 500 | 5 | 6000 | G-2 | \$2.35 |
| C5827 | *S-27 | Filter | 30 | 75 | 350 | G-4 | 2.69 |
| C5828 | *S-28 | Filter | 20 | 100 | 350 | G-4 | 2.69 |
| C5829 | *S-29 | Filter | 10 | 175 | 95 | G-4 | 2.69 |
| C5830 | *S-30 | Swing. | 5/25 | 175 | 95 | G-4 | 2.69 |
| C5831 | +S-31 | Filter | 20 | 225 | 120 | G-5 | 3.58 |
| C5832 | tS.32 | Swing. | 5/25 | 225 | 120 | G-5 | 3.58 |
| C5833 | +S-33 | Filter | 20 | 300 | 90 | G-7 | 5.19 |
| C5834 | +S-34 | Swing. | 5/25 | 300 | 90 | G-7 | 5.10 |
| C5837 | $\ddagger$-37 | Filter | 20 | 550 | 60 | G-9 | 10.24 |

## Plate Transformers

Primaries for 115 v., $50 / 60$ cycles a.c. For duplex rectifiers, the high and low voltage output of any of the units listed below can be used smultaneously. The rated d.c. current can be divided as required between both voltage outputs.

| No. | Type | High Voltage | Ma. | Case | Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C5844 | S-44 | 575-525-0-525-575 | 500 | G-9 | 22 | \$10.58 |
| C5845 | S-45 | 900-750-0-750-9 | 200 | G-8 | 14 | 8.18 |
| C5846 | S-46 | 1000-750-0-750-1000 | 300 | G-9 | 19 | 10.24 |
| C5847 | S-47 | $1500-1250-1000-0-1000-$ |  |  |  |  |
| C5848 | S-48 | 1500-1250-1000-0-1000. |  |  | 30 | 13.28 |
|  |  | 1250-1500. | 500 | G-11 | 32 | 19.11 |
| C5850 | S-50 | 3000-2500-0-2.500-3000 | 300 | G-11 | 50 | 25.58 |

## Plate and Eilament Transformers

All primaries for 115 volts, $50 / 60$ cycles a.c
High volt. $490-400-0-400-490$ at 175 ma .; 5 v . at 3 a . (rect.); 2.5 v c.t. at 6 a.; 6.3 v. c.t. at 4 a. G-6. Wt. 9 lbs.
C5839-S-39. Your Cost. . . . . . . . . . .

C5839-S-39. Your Cost.
High volt. 525-425-0-425-525 at 250 ma ; 5 v . at 3 a . (rect. at 3 a.; 6.3 v.c.t. at 3 a. G-7. Wt. 12 bs. C5840-S-40. Your Cost.
Hirh volt 600-0-600 at 200 6.3 v at 3 a.; 6.3 v . c.t. at ma.; 5 v . at 3 a . (rect.); 7.5 v . tapped at C5841-S-41. Your Cost. 2 a. G-7. Wt. 11 lbs . C5841-S-41. Your Cost
$\$ 6.12$ High volt. 600-525-0-525-600 at 300 ma ; 5 v at 3 a . (rect.); 7.5 v .


Single Secondary Filament Transformers Primaries tapped 105,115 volts, $50 / 60$ cycles a.c.


## Ultra-Compact Line Matching Transformers

Compact high fidelity units having a frequency range from 30 to 20,000 c.p.s. Only $1 \times 1 \times 1$; threaded inserts for mounting. Match $50,125,200,250,500$ ohm lines. Net wt. 6 oz.; shpg. wt. each 1 lb .
C5394-A-10. Line to 1 grid. 50,000 ohms.
C5397-A-24. 1 Triode plate $8000 / 15000$ ohms to line. Your Cost Each,

Multiple Alloy Shield Type: Frequency range from 50 to 10,000 c.p.s. and has multiple alloy shield for extremely low hum pick up.
Matches 50,200 or 500 ohms to 1 or 2 grids.

Matches 50,200 or 500 ohms to 1 or 2 grids.
C5726-Type A-11. Your Cost Each
$\$ 8,77$

## RADIO ESSENTIALS

MUELLER Clips and Plastic Insulators

Spring actuated clips for lab., test and battery uses. Type 27 and 27C 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

| CLIPS |  |  |  |  | INSULATORS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Size | Each | 10 For | No. | Type' | Each | 10 For |
| C16029* | 45 | 11/2" | 4c | \$0.32 | C16031 | 47 | 8c | \$0.55 |
| C16030 $\dagger$ | 45C | 11/20' | 6 C | . 54 | C16031 | 47 | 8 c | . 55 |
| C16032* | 48B | 2 | 4 c | . 34 | C16033 | 49 | 9 c | . 59 |
| C16034 | 24A | 3 ' | 8 c | . 68 | C16035 | 26 | 19c | 1.27 |
| C16026* | 27 | 21/" | 8 c | . 68 | C16028 | 29 | 12c | . 82 |
| C16027 $\dagger$ | 27C | 21/3* | 13 c | 1.17 | C16028 | 29 | 12c | . 82 |
| C16018 $\dagger$ | 21A | 4 | 13 c | 1.17 | C16019 | 23 | 33c | 2.25 |

*Cadmium plated steel. $\ddagger 1$ ead coated steel. †Solid copper
No. 85T Mueller Crocodile Tip Clip
For connecting Bridges, Voltmeters, etc., or
anything having binding posts with non-removable heads. Fine for test prods. C16023-Y our Cost Each No. 85. As above, less phone tip. C16020- Your Cost Each Plastic insulator for either
C16021-Your Cost Each
MUELLER Wee-Pee-Wee Clip
Non-Ferrous R.F. Clip. Will not heat in coils. Length 111 Completely insulated (specify color desired. No. 88-93) Cl6022-Your Cost Each

## FAHNESTOCK Clips

 TypType C, Screw Mount, Single Clip.
Stock Type Lgth. Per 50
 C1482 C14825

Steel Screws \& Washers Prl $10 / 32$ oval head screws. The cup
washer. also
$10 / 32$ is d e
signed to match the screw head in appearance
Stock No. Length 12 For C14775 C14776 C14777-Cup washer c14803-10/32 12. above screw Emvelop
Per 100

## Thyeaded Rods



Brass threaded rod for making your own logg screws. Easily cut to any leneth. In $12^{\prime \prime}$ length C.14913-6-32 size. Per Lgth. 18 c C.14914-8-32 size. Per L. ${ }^{\text {th }}$. 18 c C14918-10-32 size. Per Lgth 24c


Angle Brackets With Tapped Holes Heavy gauge stee hole, one tapped Stock No. Size 10 For Each C 14909 3/2x $1 / 2^{0}-27 \mathrm{c} \quad 3 \mathrm{c}$ C149

## BELDEN <br> Terminal <br> Assortment

Contains 100 most popular solder terminals. For all servicing and set building requirements C14790 Your Cost

## Onataz RADIO HARDWARE



Stock No. Length Doz. Gross


Hex Nuts, Knurled Nuts,
 Sizes C14804-6-32x $1 /{ }^{\prime \prime}$ hex. nuts $\$$ Envelope of 20; Net Per 100. C14805-8-32xi/hex nuts 19 Envelope of 20 ; Net. ...... Per 100
c14806-6-32x ${ }^{5}$ hex. nuts ${ }^{2}$ Envelope of 15 ; Net.
Per 100.
Envelope of 15 ; Net
Per 100.
C14803-10-32x ${ }^{3}$ nuts. Envelope of 20 ; Net ] Per 100.
 ed Nuts. Env. of 6; Net Ly Per 100.

14809 -No. 6 washers
C14810-No. 8 washers
Either Env, of 25; Net.. के Above Per 100

Locking Washers C14758-6 Lockwashers C14759-48 Lockwasher Either type
Envelopes of 25... © 100 For.


Knob Set Screws
These headless set screws are case hardened. For radio knobs, couplings, etc.

$1_{4} \times 6$-32 $1 / 4$ "x8-32
Any Size Above,
$1 / 4 \times 882$
10 For
50 For
Snap-in Trimounts

f1)Used to fasten dial scales, loop antennas and backs on plastic
cabinets, etc. 30
(1) cabinets, etc.
C14839
our Cost
Self-Tapping Screw Assortment Forty of the most commonly used sizes in
modern receivers. Use no nuts, merely start hole and drive through. Used in many standard receivers. C14687-Box of 40 . Your Cost.

## SERVICE SHOP ESSENTIALS

RADIO HARDWARE IN JARS
The most convenient, neatest
 way to keep your small hard-ware-in glass jars with screw Your caps. Any Jar. 5 Jars for c14675-Jar only.
$38^{\text {c }}$
P-K Tap Screws (C)

| ${ }_{14665}^{\text {No. }}$ | 50 | No. |
| :---: | :---: | :---: |
| c1 | 50 | No. $6 \times$ |
| ${ }_{6} 14666$ | 40 | No. $7 \times$ |
| ${ }_{\text {c14669 }}$ | 35 45 | No. $10 \times 3$ |

Round Head Machine Screws (A)

|  | Quantity | Size |
| :---: | :---: | :---: |
| C14650 | 100 | 4-3 |
| C14651 | 100 | $4-36 \times 1 / 2$ long |
| C14652 | 75 | 4-36x $8 /$ " long |
| C1465 | 90 | 6-32x $11 /{ }^{\text {c long }}$ |
| C146 | 80 | $6.32 \times 1 / 2^{\prime}$ long |
| 46 | 70 | $6-32 \times 8 /{ }^{\prime \prime}$ long |
| C14656 | 75 | 8-32x ${ }^{8 / 8}$ ' long |
| C14657 | 70 | 8-32x ${ }^{1 / 2}{ }^{\prime \prime}$ long |
| C14658 | 65 | 8-32x ${ }^{\text {3/ }}$, long |
| C14659 | 60 | 10-32x 1/2'long |
| C14660 | 50 | 10-32x $3 / 4$ ' long |

## Hexagon Nuts (B)

| No. | Quantity | Size |
| :---: | :---: | :---: |
| ${ }_{C 14661}$ |  |  |
| ${ }^{\text {C14 }} 14662$ | 110 | 6-32x ${ }^{\text {\% }}$ |
| C14663 | 90 90 | $\begin{aligned} & 6-32 \times 5, \\ & 8-32 x^{5}, \end{aligned}$ |
| Washers (D) |  |  |
| ${ }^{2} 14671$ | 150 No. |  |
| C14672 | 150 No. 8 |  |
| C14673 | 100 No. 6 | hake |
| C14674 | 100 No. 8 | hakeproof |

## Hardware Assortment

Over 1000 pieces of hardware items. Contains Rivets, set screws, eyelets machine screws, lugs, etc. Packed in convenient metal box, $31 / 2 \times 38 \times 258$
Weighs over 2 lbs. A bargain assortment unequalled any
lbs

## ${ }^{\text {cincesen3}}$ - Your Cost only

79


DeLuxe Hardware Assortment
Our most popular hardware assortment conveniently boxed. Contains over 1000 pieces of the most frequently used hardware, including assorted machine screws-woodscrews-nuts-bolts-rivets-eyelets-lugs-lock washers-fibre washers-rubber grommets, etc. Finest
quality hardware. Shpg. wt. 4 lbs. C14831-Your Cost, per Box.
$\$ 1.34$

Rivet and Eyelet Asst.


Special assortment
of 55 popular of 55 popular size
rivets and eyelets to fasten sockets, etc. C14880-55 Asst 244

## Escutcheon Pins

$\qquad$ Antique finish-5/6" nameplates types of escutcheons or C14811-Per 100
 Your Cost.


(1)

## Soldering Lugs

 0 ( $\$ 2.25$ 0) sand C14812-No. 1. C14813-No. 2. C14814-No. 3, solderless type C14816-No. 4, $5 / 8$ " long C14818-No. $5,5 / 8$ long Your Cost per 100, Your Cost perAny Type Lug
$25^{\circ}$

## Tapered Lugs

 Fits over all screws up to 0 No. 10; shank fits banana Cut for easy soldering. C12954 -Per Dozen $\qquad$
Heavy Duty
Spade Lugs For battery terminals, etc., 10 . C14912-Your Cost $10 . . . . . . . . . . . . .$.

## Colored <br> Grommets

Hard insulating composition; with knurled For instrumen black
Red Black Hole Diam. L. C14688 C14689 1/8 Your Cost Per Doz.
Either Color Your Cost Per Doz. $\$ 1$
Either Color...... C14692 C14693 C14694 C14695

Rubber Grommets
Insulate holes in ${ }^{1 / 5}{ }^{\circ}$ metal panels, appliances, etc

| Stock | Fits | Inside | Per Per |
| :---: | :---: | :---: | :---: |
| No. | Hole | Diam. | Doz. 100 |
| C14765 | $1 /$ | 1/8 ${ }^{\circ}$ | 10c 66c |
| C14766 | 516 | $316{ }^{\circ}$ | 18c 71c |
| C14768 | $716{ }^{\circ}$ | $5 / 16{ }^{\prime \prime}$ | 23c 77c |
| C14769 | $12^{\prime \prime}$ | $3 / 8{ }^{\circ}$ | 24c 82c |

Rubber Grommet Kits (20en $\begin{aligned} & \text { Available in } \\ & \text { two assort } \\ & \text { ments contains } \\ & \text { grommetsed }\end{aligned}$ $3 / 2^{\prime}$. Kit "B' contains 30 assort ed grommets in 4 standard sizes C14794-Assort. "A" Your Cost.


C14795-Assort. "B"' $\mathbf{Y}$ Cour

Assorted Brackets
Box of 28 of the
most popular
ang ies and
bracketsused in
C14838-

##  <br> Alligator Clips <br> Test Prods

## EBY Binding Posts



Non-Removable Tops
Specially designed for use on metal chassis. or phone tip.
C13082-Junior Post Has 6-32 stud, $1 / 2{ }^{\circ}$ long. Your Cost

## Each

 Cost C13083-Ensign Post C13084-Commander P Has 8-32 stud, 7/8 long.264

## EBY Twin Post Units

## Two pos

lite base. As rour cost 44 C13063-Your Cost...... 65 c
Insulated Posts Red or black composition HiNM topecify color. 10 for $\$ 1.08$, C13163
Your Cost

## Beryllium Banana Plugs <br> 

Signal
Corps approved. all gov ernment equipment. Made of Beryilium copper. Rivet shank of golug can he turned over without splitting. Shank 14 ong, diam. C13183-Overall size ${ }^{13} 166^{\prime \prime}$ Cour C13184 - Overall C13184-Overall size $11 /{ }^{\circ}$. Same as above but with
gtud ${ }^{3}$ long.
Mour Cost Each.........

## Insulated Banana Jacks and Plugs



Plug has set screw for solderless wire connection. Jack fits $1 /{ }^{\prime \prime}$ hole and panels up to \% $^{\prime}$ ' thick. Red or Gack insulation on both. Specify color desired
C12915-Plug 10 For 100 For Each... 12c $\$ 1.08 \quad \$ 10.29$ C12916-Jack 10 For 100 For Each... 10c 89c $\$ 8.43$

## Phone Tip and Lug

 Adapters For Prods

Handy for use with any banana plug, or test prod fitted with banana plug end. Fits either tip yacks or binding posts. Red or Sack-Specify color
c12913-Phone tip end C12914-Spade lug end
Each, Either Type
$12^{¢}$
10 For
Jones Series

## 101 Piugs and Sockets

$$
\text { art }-\infty
$$

Completely shielded single contact plugs and sockets. Ceramic insulation used on plug, and XX with $1 / 4^{\prime \prime}$ or $3 / 8^{\prime \prime}$ cables. Ideal for antenna or microphone connectors
C12445-Jones Pl01 $1 / 6$ plug E124.
C12446-Jones Siol $1 / 6$ socket. Each
C12447-Jones Pioi $3 / 8$ plug. Each ....................32c C12448-Jones Sioi $8 / 8$ socket Each.

Powerful grip.


High grade insulated prods, available with three different types of able. Type A is standard solderless phone tip with knurled collar: Type $\mathbf{B}$ has chuck and nut to hold plain phono needle; Type C has banana plug to fit standard banana jack. Red or Blackspecify color.

| SOL | LESS PROD | (A) |
| :---: | :---: | :---: |
| No. | Length | Each |
| C12881 | 51/' | 29c |
| C12884 | 63/4* | 351 |
| PHONO | NEEDLE TIP | (B) |
| C12868 | 43/4* | 29 c |
| C12869 | 51/8* | 35 c |
| BANANA | PLUG TIP | (C) |
| C12912 | 21/4* | 26 c |
| C12910 | 35\% ${ }^{\circ}$ | 35 c |

## Phono Needle Plug

Constructed so that the insulated sleeve will take a barana plug, and the prod itself will make positive contact with the banana plug. Tip holds phono needle (needies easily replaceable). Overall length $11 /{ }^{*}$. Red or
black; specify color For 99 c
C12917-Each
${ }^{114}$

Plug is $11 / 8{ }^{*}$. long. Jack is $5 / 8^{*}$ long and fits $1 / 4$ hole in panels up to C12919-Plug. Each. 10 For..... 68 c 100 For C12923-Jack
Each.
S9c 100 F.... ${ }^{7}$
Split Type Banana Plug Insulated. Fit
$\qquad$ standard banana jacks. Set for solderless connection. Positive spring action. Plug $1 / 1^{\circ}$ long; overall ${ }^{11} \mathrm{f}^{\circ}$. Red or black; specify. C12902-
Each.
124
10 For ...................... . . 51.07
AMPHENOL Phone Tip Jacks
Bakelite body. Takes standard plain or solderiess phonetips. Mounts securely by means of snap ring. Requires hole.
Red or Black speciRed or Black speci-
fy color desired. fy color desired. Amphenol type 78-1P
Each.
54

## 13000 High Voltage Jack

13000 . Tip Jack. As above Red or Black. Specify color. C12766-Type 78-IPI
Your Cost Each......
1/2


## UHE Tip Jack

Takes standard phone tips, but contact may body used as an UIIF well. Mounts in $3 / 6^{\circ}$ dia hole. Retainer ring included. C12767 164 Your Cost each.

## Right Angle Tip Plugs

Streamlined plugs
with set screw for with set screw or
solderless connections. tions.
C12937-( $\Lambda$ ) Specify red or black.
Your Cost Each Your Cost Each.
C12984-(B) Red.
C12985-(B) Blach

Alligator clip fitted with standard phone tip jack. Fits test prods equipped with phone tip, ends. Red or black specify C12880-10 For
$25^{\circ}$


Plain Tip Jacks
For test equipment:
mounting hole.
C1291.8-
Your Cost Eash. 74 12. For $\qquad$

## Insulated Tip Jacks


which provide sure grip contact. Mounts in ${ }^{3} 16^{\circ}$ hole. In red or black. Specify color- 10 \& 12 For.

Molded Bakelite Insulated Tip Jacks Large diameter molded Bakelite heads take all phone tips. Phosphor bronze springs. With insulating C12877-Red - Cloch C12878—Black $\}$ 12

## All Insulated Tip Jack

 Countersunk $1 / 2^{\prime \prime} \mathrm{d}$, head. Bronze spring. Each C12934-Red $\} 104$ 10 Fo

Combination Jack
Newtype, takes both phono $\frac{1}{\square}$ tipsand bananaplugs. Fully washer. In red or black Specify color desired C12925
Your
12 For


Tip Jacks Mounted on Cont a ct cord tips securely C13037-Double jack ck. Ea. 10 Fo
C13036-Triple jack
Your
10 For


## Plain Solderless

Phone Tip Plugs


All metal tip
plug for tip
jack use.
Solderless connection. $15 / 8$ long.
C12943-12 for 71c
C12943-12 for 71c $\quad 7$
As above but $11 \mathrm{~s}^{\circ}$ long.
C12944-12 for 71c
Your Cost Each
74
Solderless Insulated
Phone Tip Plugs Solde rless
type: fitr all
standard tip
sacks. Used on test leads. In red
or blach; specify color.
 or black; specify color. C12973-2" long.

114 Per
.$\$ 1.18$
ICA Phone Tip Plug
and Jack


Single prong shielderl plug used extensively for mike or phono pickup and other connections. The phono jack mounts in rear of panel through $8 / 8^{\prime \prime}$ hole and is 11 panetween centers. c11773-Plug, Each... T4
10 For ................
C11774-Jack, Each.

# PIUESJJACKS GCONNECTORS 

U. S. Army and Navy
Specification Plugs


Manufactured to meet the very exacting requirements of the U.S. Army Signal Corps and U.S Navy Specifications. Will fit all tandard jacks.
C14965-PL54. Short 2-way Plug.
Your Cost each. . . . . . . . . . . 79c C14966-PL55 Long2-way Plug Your Cost each C14967-PL683-way Mike Plug Your Costeach. Midget Jacks Midget jacks of compactsize, high quality, and low price. Fine grade bakelite insulation and tempered nickel silver springs. Mounts in thick. With mounting nut and washer
c6548-Closed circuit jack
C6549-Open circuit jack
Your Cost
each
$16^{\text {c }}$
New Imp. Short Jack. Fits standard 3-circuit mike plug. 21 \&

## Popular Phone Plugs

 For 1 or or speaker cords. Molded bakelite shell. $23 / 4^{\circ}$ long $x$ C14974-Black
C14971-Red. Each.
$3^{\text {c }}$
10 For Metal Shell Type Same with nickeled brass shell $38 / 8^{\prime \prime} x^{3} / 4^{\prime \prime} .10$ For $\$ 4.75$
614970 Each ....... 5 ? "Stubby" Metal Shell As above but withshort metal shell. $21 /{ }^{\circ}$ overall. 10 For $\$ 3.75$,

Midget Bakelite Plug Bakelite shell. $21 / 4^{\prime \prime}$ overall $x 9 / 16^{\circ}$ diameter. Solder lug connections. C14960-Black C14963-Red Your Cost 10 For $\$ 2.85$ \& Each.. Midget Metal Shell Same with metal shell. $21 /{ }^{\circ}$. C14958-Your cost.

## 0 O O <br> Single Conductor

## UC Pin Connectors

Metal shells are heavily plated. Bakelite elements. Screw type coupling rings lock male and female connectors. Shells may be utilized for second conductor. For cable up to $1 /{ }^{\prime \prime}$ dia.
C13286-Male (B) ! ? \& C13288-Female chassis connec tor. Mounts in a single $\sqrt[5]{3}$ hole (C). C12574-Female chassis C12574-Female chassis connechole mtg. (D).
Your Cost Each
324
Two-Conductor
Liketheabove, but for 2-conductor cables and twisted pairs. Have two C13289-Female

1
524 Ea C13290-FMale C13290-Male C13292-Female chassi
tor. Mounts in a single tor. Mount

## Each.

 -Female chassi hole mtgYour Cost Each

## MALLORY PRODUCTS

Signal Corps Type Jacks Phone Jack: ${ }^{\text {Like }}$ Sife $\mathrm{J}_{\mathrm{K}}$ Cor Open circuit
Takes Mallory 75
W. E. 47A, 47B; Sig. Corps No. PL-47, PL-48, PL-55, PL-148. PL-155.
C6300-Each
Mike Jack: Three circuit. Like Sig. Corps No. JK-33A. Takes W. E. 109; Sig. Corps No. PL-46.
PL-68, PL-168. C6301-Each

## Grounding Jack

No. GJ-1-For grounding airplanes while re-fueling. Similar in construction to midget jack No. A-1, except for insulation. 25
C6339-Your Cost. C6339-Your Cost. ....

## MALLORY

## Plugs \& Jacks

## -xiver $-\infty$

No. 75. Two way. Bakelite shell. Tie cord anchor
C6295-Each
No. 75N. As above, but nickel shell. Tie cord anchor. 5 : 4 C6233-Each.
No. 75A. As above, with built-in cable clamp.

364 C6346-Each
No. 100. 2-Way Extension jack. Fibre shell.
C6348-Each
No 100N As above but . 77 c nickel shell.
C6342-Each
with
No. 100A. As above, with .96c shell, cable clamp.
C6349-Each
. $\$ 1.34$
Microphone Plugs \& Jacks No. 76. 3-way mike plug. Bakelite shell
C6296-Each.
No 76A Same but with ...58c No.
shell
C6347-Each
. $\$ 1.16$

## aMPHENOS Connectors and Plurs



## Single Contact <br> \section*{Mike Connectors}

Pressure type compact connec tors for use with single conductor microphone cable-utilize shell for second contact. Contact is made when center soldered connections are pressed together by tightening coupling
ing. Plated metal shells. Insulation is special tissue base laminated bakelite. Cable shield easily grounded through stell by soldering to cable protector. Accomnodate cables up to $1 / 6^{\circ}$ in diameter. Type MC1F-Female cord con-| Type MC1M-Male nector. (A).
Type PC1M-Male chassis connector. Same as MC1M, but for chassis mtg. (C) C13361-Each.

194
Type MC1F-A-Right angle female cord connector with spring cord protector. Use with PClM, SP-PC1M or CL-PC1M.
C1327 - (E)-Each...

## nector. (B).

TypeSP-PC1M-Same as PC1M but with center contact floating on a heavy coil spring. (D). $\mathbf{C 1 3 3 8 5 - E a c h . . . . . . . . ~}$
Type CL-PC1M-Closed circuit chassis connector. Closes circuit automatically when mike is disautomatically when mike ( D .

## Phone Plug Adapter



Makes a standard phone plug out of the MC1F cable connector. No soldering or wiring required C13388-MC1P
Your Cost.

## Microphone Switch



Attaches between male and female of any of the above connectors. Push-to-talk or slide switch for permanent connection
C13357-MC1S
Your Cost.


Clat Plug Utra-compact type, for use where sace is limited. Molded bakelite body 1
C14964-Each.

ICA Shielded 3 Way Microphone Plug

## 

Barrel made of nickel plated brass. Fuly insulated bushing. 9 \& As above but with bakelite barrel. C13521-5 For $\$ 2.93$
Your Cost
ICA Shielded 3 Way Jack


Phosphor bronze spring jack. Nick. eled brass shell.
c13520-Your Cost . . $8: 9$ C13522-Jack, less shell. 4,4

High Volt. Plugs \& Jacks


Heavy duty type, in medium and Heavy duty type, in medium and 10 amps. For use with high R.F. currents, diathermy work, x'mitcurrents, diathermy work, $x$ mitters, etc. Insulated threaded heads
and handles. Hardware furnished with jacks. Medium jacks for panels up to ${ }^{5} / 6_{6}{ }^{\text {E }}$ thick; giant jacks for panels up to $8 / 8{ }^{\circ}$ thick.

Medium Plugs- $2 \times 1 / 2 \times 35 / 8^{\prime \prime}$
$\underset{\text { C12870-Black } \& \text { Red }}{\text { C12871-Black }}\}$
Medium Jacks- $2 \times 2 / 8$
$\underset{\text { C12872-Black \& Red }}{\text { C1287-Black }}\} \leqslant$ Fea. $^{\text {ent }}$
Giant Plugs- $2 \times 1 / 2 \times 33 / 4$
$\left.\begin{array}{l}\text { C12785-Black \& Red } \\ \text { C12786-Black }\end{array}\right\}: 1$ F $_{\text {ea }}$
Glant Jacks-2 $1 / x^{2} / 8^{\circ}$
$\left.\begin{array}{l}\text { C12787-Black \& Red } \\ \text { C12788-Black }\end{array}\right\} 8$ \&
Shielded Locking Type Microphone Connectors


MC series. With polarized shells. Can be used on $5 / 8^{\circ}-27$ stands. Locking ring on male, and cable clamps on both, with spring cord protector. Interchangeable bakeite elements. Coupled, $23 / x^{7 / 8}$.

3-Contact Connectors C13489-Male(A) $\}=\boldsymbol{c}^{\mathrm{E}}$ C13396 Female chassis tyme C13396-Female chassis type (C). For ${ }^{13}{ }^{2}{ }^{2}$ hole.
Your Cost Each
4-Contact Connectors
C13488-Male (A) C13499-Female $(\mathrm{B})\}$ / 4 C13397-Female chassis For ${ }^{13}$, in hole.
Your Cost Each.
35 Female for panels up to $3 / 4^{4}$. Male. with ring, for panels up to $8 / 8^{\circ}$ thick Recessed contact $\left.\begin{array}{l}\text { C13307-3pr.Fernale) } \\ \text { C13308-3pr.Male }\end{array}\right\}$ C13308-3pr.Male $\left.\begin{array}{l}\text { C13309-4pr.Female } \\ \text { C13310-4pr.Male }\end{array}\right\}$ Ea.

# CRPHTOPUUSSAndCONNECTORS <br> \section*{AMPHENOL 83 Series UHF Connectors} <br> Cable Connectors 

Miniature Connectors


Molded bakelite connectors in cadmium plated brass shells. Only ${ }^{33}$, 16 " long, ${ }^{11}, 16{ }^{\prime \prime}$ diameter. Bakelite element held in place by set screw. When used with shielded cable shield can be soldered to shell Accommodates cables up to $1 / 4^{\prime \prime}$.

| Male | Female | Cont. Each |
| :---: | :---: | :---: |
| C13335 | C13337 | 3 |
| C13336 | C13 |  |
| C13339 | 4 | 22 c |
| C13338 | C13334 | 5 |
| C13340 | $\mathbf{2 4 c}$ | 24 c |

## Miniature Sockets

 and Plugs These are inconnectors with the connectors listed above. The sockets are equipped with push-on mounting rings and can be used with above listed male plugs as well as the plain plug isted here. Similarly the plugs listed below can be used with the female connectors listed above.Sockets Plugs Cont. Each

| C 11599 | C 12708 | 3 | 9 c |
| ---: | ---: | ---: | ---: |
| C 12701 | C 12709 | 4 | 9 c |
| C 12702 | C 12710 | 5 | 11c |
| C 11542 | C 12711 | 6 | 11 c |



Shielded Sockets Similar to sockets listed above but with shield. ed male connector listed at top of page a completely shieldmounted No. Type C12705-4-contact. C12706-5-contact c12707-6-contact

## Standard Speaker

 Plugs$\left(\begin{array}{c}8,8 \\ 4, y\}\end{array}\right.$
1-piece molded bakelite. Solid construction; fo wired

| No. Type | Each |
| :---: | :---: |
| C11512-4 prong |  |
| C11513-5 prong | 74 |
| C11514-6 prong |  |
| c11515-7 prong |  |
| C11516-8 prong. |  |


B3.1H B3.15P

83.1AP


83-1.

Standard tube-base size connectors caps Rubber
caps. Rubl cable opening at end for protection against abrasion for protection against abrasion.

| Female | Male |
| :---: | :---: | :---: |
| C11475 | Contacts Each |
| C11471 |  | $\begin{array}{ll}\mathbf{C 1 1 4 7 5} & \mathbf{C 1 1 4 7 2}\end{array}$ C11476 C11472 C11477 C11473 $\begin{array}{llll}C 11478 & C 11474 & 75 & 16 c\end{array}$ C11491 C11490 8Oct. 16c C11508 C11506 C11509 C11507 9

## Side Opening



## Clamp Type

above, but
has positive


时是 gripping cable clamp. Clamp accepts Takes up cable pull and relieves aldered connections of strain.

| Female | Male | Contac | Each |
| :---: | :---: | :---: | :---: |
| C11684 | C11692 | 4 |  |
| C11685 | C11693 | 5 | 19c |
| C11686 | C11694 | 6 | 19 c |
| C11687 | C11695 | 7 S | 22c |
| C11688 | C11696 | 7L | 22c |
| C11689 | C11697 | 80 |  |
| C11690 | C11698 | 9 | 22 c |
| C11691 | C11699 | 11 | 26 |

## Locking <br> Covers <br>  <br> For above connec

C11479-Per Pair . . . . . . . . . $16 \mathbf{c}$

## CAAAAA NOTE AAAAA <br> FFor Amphenol type RG coaxial cable, see page 76. We can supply the comAlete line of amphenol $\$$ your order or write for $\langle$ free catalog.

Molded black bakelite insulation 2 -pole receptacles have one elongated hole and can be used with both the standard type of plug and the polar ized tipe having one 11 and one ; blade. 3-pole receptacles are use with 3 pole plugs. Underwriters ratings: $15 \mathrm{~A}-125 \mathrm{~V}$. or $10 \mathrm{~A}-250 \mathrm{~V}$ Dimensions: (A) hole- $1.172^{\circ}$. (B) Mtg. ctrs.- $11 / 2$ to $176^{\prime \prime}$ (C) hole $13 / 8^{*}$, Mtg. Ctrs.
PLAIN (A) No. Poles Type C11502-2 Receptacle C11503-2 Standard Plug
C11625-3
C11626-3 Receptacle
3 $\quad 230$
WITH PLATE (B)

C11637-2 Receptacle
C11638-2 Standard Plug
C11639 2 Polarized Plus
SHIELDED 2 POLE PLUGS and RECEPTACLES (E)



Jones" $300^{\prime \prime} \&{ }^{11} 400^{\prime \prime}$ SeriesPlugs \& Sockets Multiple contact plugs and sockets in both " 400 " series heavy duty, ( 25 ampere) and " 300 " series standard duty ( 5 ampere) sizes. Cable type plugs and sockets have cable clamps. Chassis type have brackets-heavy duty
type at ends-standard duty type at sides.

TYPEA PLUGS
Standard Duty Heavy
Stock Your Con- Stock Stock Your Con- Stock You No. Cost tacts No. Cost $\begin{array}{lllll}C 12460 & 22 c & 2 & C 12400 & 42 c\end{array}$ $\begin{array}{lllll}\text { C12461 } & 25 c & 4 & \text { C12401 } & \text { 51c } \\ \text { C12462 } & 29 \mathrm{c} & 6 & \text { C12402 } & \text { 60c }\end{array}$ $\begin{array}{llllll}\text { C12462 } & \text { 29c } & 6 & \text { C12402 } & \text { 60c } \\ \text { C12463 } & 32 c & 8 & \text { C12403 } & \text { 69c }\end{array}$ $\begin{array}{llrll}\text { C12463 } & \text { 32c } & 8 & \text { C12403 } & \text { 69c } \\ \text { C12464 } & 36 c & 10 & \mathbf{C 1 2 4 0 4} & 78 \mathrm{c}\end{array}$ $\begin{array}{lllll}\text { C12464 } & \text { 36c } & 10 & \text { C12404 } & \text { 88c } \\ \text { C12465 } & 40 c & 12 & \text { C12405 } & 87 c\end{array}$
Chassis Type Plug (C) $C 12472$ 10c 2 C12426 27c $\begin{array}{lllll}C 12473 & 13 c & 4 & \text { C12427 } & 33 c \\ \text { C12474 } & 16 c & 6 & C 12428 & 39 c\end{array}$ $\begin{array}{lllll}C 12474 & 16 c & 6 & C 12428 & 33 c \\ C 12475 & 19 c & 8 & \text { C12429 } & 45 c\end{array}$ $\begin{array}{llll}C 12476 & 22 c & 10 & C 12430 \quad 51 c\end{array}$


B
TYPE SOCKETS
SOA Standard Duty Heavy Duty Stock YourCon-Stock Your ${ }^{\text {No. }}$ C12466 ${ }_{22}$ c tacts No. Cost $\begin{array}{lllll}C 12466 & \text { 22c } & 2 & \text { C12412 } & \text { 45c } \\ \text { C12467 } & \text { 26c } & 4 & \text { C12413 } & 57 \mathrm{c}\end{array}$ $\begin{array}{lllll}C 12467 & 26 c & 4 & C 12413 & 57 c \\ C 12468 & 31 c & 6 & C 12414 & 59 c\end{array}$ $\begin{array}{lllll}C 12468 & 31 c & 6 & \text { C12414 } \\ \text { C12469 } & 35 c & 8 & \text { C12415 } \\ \text { 81 }\end{array}$ $\begin{array}{lllll}\text { C12469 } & 35 \mathrm{c} & 8 & \text { C12415 } & \text { 81c } \\ \mathrm{C} 12470 & 40 \mathrm{c} & 10 & \mathrm{C} 12416 & 93 \mathrm{c}\end{array}$ $\begin{array}{llllll}\mathbf{C 1 2 4 7 1} & 45 \mathrm{c} & 12 & \mathbf{C 1 2 4 1 7} & \$ 1.05\end{array}$ Chassis Type Socket (D) C12478 10c 2 C12406 30c $\begin{array}{lllll}C 12479 & 14 c & 4 & C 12407 & 39 c\end{array}$ $\begin{array}{llllll}C 12480 & 18 c & 6 & C 12408 & 48 \mathrm{c}\end{array}$ $\begin{array}{llllll}\text { C12481 } & 22 c & 8 & \mathbf{C 1 2 4 0 9} & 57 c \\ \mathbf{C 1 2 4 8 2} & 26 c & 10 & \mathbf{C 1 2 4 1 0} & 66 \mathrm{c}\end{array}$ $\begin{array}{llllll}C 12483 & \text { 31c } & 12 & \text { C12411 } & 75 c\end{array}$
( (C) Molded

Of bakelite for op or sub-panel mtg Positive contacts. ${ }^{11}{ }^{16} \mathrm{mtg}$. centers.

C13090 4 Each 10 For $\left.\begin{array}{l}\text { C13091 } 5 \\ \text { C13092 } 6\end{array}\right\} \geq 4$ \& $\$ 216$ C13093 7 $\left.\begin{array}{r}L \& \\ 13080 \\ 8\end{array}\right\} 254 \$ 225$
Combination Sockets C13095-4, 5, 6 prong C13095-4, 5, 6 prong
10 for $\$ 2.25$, 25 $\frac{\text { Each, Either Type .... }}{\text { New Wafer Loktal }}$
11. Mig. Centers. Each 10 For C13075-8 prong. $6 \mathrm{c} \quad 55 \mathrm{c}$ "Míniature" Wafer For the ultra-compact all glass For the ultra-compact all glas tubes
C13097
10 For


Wafer Sockets
Sturdily con-
structed of aminated Bakelite plated, selfligning loating one-piece contacts. Midgets have $11 / /^{\prime \prime}$ centers; standard

| Standard Size |  |
| :---: | :---: |
| Stock No. Prongs | Your Cost |
| C13070 Four | Each |
| C13078 Five | 1 |
| C13071 Six |  |
| C13069 7. small | 10 For . . 49c |
| C13074 7, large |  |
| Midget Size |  |
| Stock No. Prongs |  |
| C13114 Four |  |
| C13115 Five |  |
| C13122 7, small |  |
| C13125 7, large |  |
| C13127 8, octal | 10 For...49c |

# e <br> ALL AMPR Strongest Socket Socket" Migh-dielectric high-dielectric <br> hite, with molded-in plate for $11 / 2^{\circ}$ mounting centers. Cannot come loose or rattle. Strong, dependable. <br> <div class="inline-tabular"><table id="tabular" data-type="subtable">
<tbody>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: left; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom: none !important; border-top: none !important; border-top-style: solid !important; border-top-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; " colspan="3">Stock No. Prongs Your Cost, Ea.</td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">${ }_{C 13164}$</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">5</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; " class="_empty"></td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">${ }_{C 13166}$</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">5</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; " class="_empty"></td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">C13167</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">7, small</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; " class="_empty"></td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">C13168</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">7, large</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">84</td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">C13169</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">8, octal</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; " class="_empty"></td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">$\mathrm{C13223}^{\text {c1324 }}$</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; " class="_empty"></td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; " class="_empty"></td>
</tr>
</tbody>
</table>
<table-markdown style="display: none">| Stock No. Prongs Your Cost, Ea. |  |  |
| :---: | :---: | :---: |
| ${ }_{C 13164}$ | 5 |  |
| ${ }_{C 13166}$ | 5 |  |
| C13167 | 7, small |  |
| C13168 | 7, large | 84 |
| C13169 | 8, octal |  |
| $\mathrm{C13223}^{\text {c1324 }}$ |  |  |</table-markdown></div>  

## Midget "MIP' Octal

 Smaller, more compact than above Has $1{ }^{516}$ mitg. centers. Octal, 8pronk, only.
c1325-Yur C13243-"MIP" Loktal Type. C13243-"M Each.

114
C-R Tube Socket


Magnol type C-R socket with 11 sil-ver-plated contacts. between each contact increase the ing in less loss, thus reducing possible voltage breakdown. Complete with retainer ring for direct chassis mounting
C13185
Your Cost, Each
$65^{4}$
National Isolantite

Low loss isolantite sockets can be locked in metal flange. Ideal for h.f. receivers and x'mitters. \begin{tabular}{cc|cc}
No. \& Prongs \& No. \& Prones <br>
c14534 \& 4 \& C14537 \& 7 small

 

C14535 \& 5 \& C14538 \& 7 large <br>
C14536 \& 6 \& C14539 \& 8 <br>
Octal
\end{tabular} Any Type, Your Cost .....27c

## MILLEN Sockets

Much higher
Steatite body Steatite body
used to provide used to providation. Barriers separate all con tacts, permitting use of higher than ordinarily used voltages. Stk. No. Mirs. No. Prongs Each ${ }_{C 8045} \quad 33004$
$\left.\begin{array}{lll}\mathbf{C 8 0 4 5} & 33004 & 4 \\ \mathbf{C 8 0 4 6} & 33005 & 5 \\ \mathbf{C 8 0 4 7} & 33006 & 6\end{array}\right\} 24$ 4 $\left.\begin{array}{ccc}C 8047 & 33006 & 6 \\ \text { C8049 } & 333008 & \text { Octal }\end{array}\right\}$


## Steatite Wafer Socket

Excellent for use at high and u.h.f. Contacts reinforced with cadmium plated steel springs. Mounts on metal panel without shorting. 7 prongs. For 829 and 832 tubes. C13187-Your Cost.

954

## Magic Eye Assembly



For installation in any set having AVC. 6 -prong type requires 6E5 or 6G5 tube for 6.3 V . sets; 2 E 5 for 2.5 V . sets. 8-prong type requires a 6AD6G or 6AF6G. Easily in stalled-complete instructions. C11480-6-prong c12645-8-prong Either Type

AMPHENOL Standard Tube Sockets
Type "A" is designed for gen-
eral replacement work and has eral replacement work and has a steel adapter plate to fit mounting centers from $11 / 2$ "
to $17 / 8^{\prime}$. Type " $\mathrm{B}^{\prime}$ " is for new work and requires only a single 13 /i6 hole, being held in place with a retainer ring, unusually easy to mount. Both types available in Bakelite. 9 and


11 prong sockets are for Amphenol connectors. 7C sockets fit small and large base tube


Bakelite "A"
Each $\qquad$ Bake
ack No. Ctock No. C13208 $C 13208$
$C 13210$

Each $C 13211$
$C 13237$
$C 13212$
$C 13213$ $7 c$

Same general con-
struction as Junior struction as Jun
types. Mount in ${ }^{2}{ }^{6}{ }^{\prime \prime}$ hole. Includic black knob and C


Contact members are heavily silver Contact shoe, of the self-cleaning type, is of silver alloy. All switches are provided with one permanent stop and one adjustable stop. Bushings $8 / 8$ and ex tend $8 / 8^{\circ}$. Pointer type, Bakelite knob supplied.


C6247 No. Turpe
C6248 1216L
C6248 12111.
C6250 1213I,
C6251 1212L

Nonsh
Nonnhorting Total No.

single gang switches

C6256 1222L
C6263 1316L 1 Circuits $\quad$ Points 1 to 6 pour Cost
$\begin{array}{lllll}\mathbf{C 6 2 6 3} & 1316 \mathrm{~L} & 1 \text { Circuit } & 1 \text { to } 6 \text { jrints } & \mathbf{\$ 0 . 7 7} \\ \text { C6264 } & 1311 \mathrm{~L} & 1 \text { Circuit } & 1 \text { to } 11 \text { points } & \mathbf{9 0}\end{array}$
C6265 1315L 2 Circuit 1 to 5 points each 96
$\begin{array}{lllll}66266 & 1313 L & 3 \text { Circuit } & 1 \text { to } 3 \text { points each } & 1.0 \\ \text { C6267 } & 1312 L & 4 \text { Circuit } & 1 \text { to } 2 \text { points each } & 1.1\end{array}$
TWO GANG SWITCHES
Furnished with black nob; on Mountsin

Panels up to 1 " thick. $11 / 4$ deep

| No. Two | Part | $n$ Swit Type |  | -625 | 1230] | T | THREE GA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C6470 | 720 | S.P.S.T. | \$0.25 | C6257 | 1236L | C6273 | 1336I, |
| C6471 | 730 | S.P.D.T | . 67 | C6258 | 1231L | C6274* | 1331L |
| C6472 | 710 | D.P.S.T | . 73 | C6259 | 1235L | C6275 | 1335L |
| C6473 | 745 | 5-Spring | . 86 |  |  |  | FOUR GAN |
| C6474 | 760 | D.P.D. | . 96 | C6260 | 1246L | C6276 | 1346 I , |
| C6475 | 733 | 3-P.S.T. | . 96 | C6261 | 1241L | C6277 | 1341L |
| C6469 | 744 | 4-P.S.T. | 1.25 | C6262 | 1245L | C6278 | 1345L |
| Thr (C | Posi nter | ion Swit osition |  |  | 1261L | C6283 | SIX GAN 1361 L |
| C6440 | 732 | S.P.D.T | . 67 | C6286 | 1266L | C6287 | 1366L |
| C6441 | 762 | D.P.D.T | . 93 |  | 1260L | C628 | 1360 |
| C6442 | 763 | 3-P.D.T. | 1.22 |  |  |  |  |
| C6443 | 764 | 4-P.D.' | 1.51 |  |  |  |  |
|  | MA | ORY | - |  |  |  |  |

## Etched Plates

Hard alu. minum with numbers
etched in etched in
white. Fit $3 / 8^{\circ}$
bushings
Plates with
tion for use
with switches. $30^{\circ}$ spacing for all switch types $1200 \mathrm{~L}, 1300 \mathrm{~L}$, and $111^{\circ}$ base 31001 and $32000^{\circ}$ spacing for all type $3100 \mathrm{~J}, 3200 \mathrm{~J}$ spacing for all type 3100 .
switches with $11 / 20^{\circ}$ base. $30^{\circ}$ Spacing $20^{\circ}$ Spacing
Marking Stk. No. Stk. No.

| 1 to 2 | C6224 |  |
| :---: | :---: | :---: |
| 1 to 3 | C6225 | C6303 |
| 1 to 4 | C6226 | C6304 |
| 1 to 5 | C6227 | C6305 |
| 1 to 6 | C6228 | C6306 |
| 1 to 7 | C6229 | C6307 |
| 1 to 8 | C6230 | C6308 |
| 1 to 9 | C6231 | C6309 |
| 1 to 10 | C6232 | C6310 |
| 1 to 11 | C6233 | C6311 |
| 1 to 12 | C6234 | C6312 |
| 1 to 15 |  | C6243 |
| Volume | C6244 |  |
| Off-1 to 3 | C6235 | C6313 |
| Off -1 to 4 | C6236 | C6314 |
| Off-1 to 5 | C6237 | C6315 |
| Off - 1 to 6 | C6238 | C6316 |
| Off - 1 to 7 | C6239 | C6317 |
| Off-1 to 8 | C6240 | C6318 |
| Off -1 to 9 | C6241 | C6319 |
| Off-1 to 10 | C6242 | C6320 |
| Any Type- |  |  |
| Your Cost |  |  |
| C6223 Marke | -100" | h 16 |



No. $1400 \mathrm{~L}-12$ positlons; opens one line at a time while maintaining circuit through others. 13/4x $21 / 2$ wide. 8 bushing. 2 notched shaft. With knob and dial plate.
C6370-Your cost $\$ 5,48$ 1 and $11 / 2$ volt types.
For biasing high-gain armplitiers. C6419-1 volt.
Your Cost C6424-11/ volt

85
80
80

## BLAS CELIS

,
Holders Omy for Above
C6420-For 1 Cell.
C6421-For 2 Cells
C6422-For 3 Cells.
C 6423 -For 4 Cells.
C6423-For 4 C.elis. . . . . . 26c


For many light duty applications such as meter insertion, test equipment, etc. Rated 1 amp. at 110 v . $8 / 8{ }^{2}$. bushing, $3 / 8$ " long. Button extends $1 \frac{1}{2}$ from end of bushing. Available with contacts normally closed or ojen.
C12867-Normally open C12862-Normally closed Either Type,
Your Cost, Each . . . . . 28






## Ceramic Switches

No. Type Gangs Circuits Each C6642 161C $1 \quad 1 \quad \$ 1.31$ $\begin{array}{llll}\text { C6642 161C } & 1 & 1 & \$ 1.31 \\ \text { C6643 162C } & 2 & 2 & 2.09 \\ \text { C6644 163C } & 3 & 3 & 3.02 \\ \text { C6645 164C } & 4 & 4 & 3.80 \\ \text { C } 6646 & 165 \mathrm{C} & 5 & 5\end{array}$ C6647-Special dial plate for above. Numbered from 1 to 4 .






Suitable for use in many types of test circuits. $2^{\prime \prime}$ notched shafts, $1 / 4^{\prime \prime}$ diam. With black bar knob and mounting nut. fis bushings. Same features as gang switches


| Shorting Stock No. | - |  | sted a | - | Have adjustable stop. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-Shorting |  | No. of | Contacts Per | Basc | Your |
|  | Type | Stock No. | True | Circuits | Circuit | Diam. | Cost |
| C6878 | 31155 | C6888 | 3215 J | One | 5 | 11" | \$0.58 |
| C6879 | 31112 J | C6889 | 32112 J | One | 12 | 114 | . 58 |
| C6990 | 3122.$]$ | C6890 | 3222 J | Two | 2 | $11 \%$ | . 58 |
| C6991 | 3123 J | C6891 | 3223 J | Two | 3 | 1\%" | . 58 |
| C6880 | 3126 J | C6892 | 3226 J | Two | 6 | 11\% | 58 |
| C6881 | $3134 J$ | C6893 | 32345 | Three | 4 | 11\% | 71 |
| C6882 | $3142 J$ | C6894 | 3212 J | Four | 2 | 14 | . 67 |
| C6883 | 3143 J | C6895 | 32435 | Four | 3 | 110 | . 71 |
| C6884* | 31117 J | C6896 ${ }^{\text {* }}$ | $32117 J$ | One | 17 | 11/6" | 1.06 |
| C6885* | 3129 J | C6897* | 3220 J | Two | 9 | $11 /{ }^{11}{ }^{\circ}$ | 1.06 |
| C6886* | 3136 J | C6898* | 3236.J | Threo | 6 | 1190 | 1.16 |
| C6887* | $3163 . \mathrm{J}$ | C6899* | 3263 J | Six | 9 | $1^{11} 1{ }^{15}$ | 1.16 |



## CENTRALAB

 Each switch supplied with knob. mounting singly or in groups up to five. Shorting Type Non-Shorting Type $\begin{array}{lllll}\text { No. } & \text { Poles } & \text { Pos. } & \text { Action } & \text { No. } \\ \text { C12825 } & 2 & 3 & \text { Positive } & \text { C12799 } \\ \text { C12826 } & 2 & 3 & \text { Spring } & \text { C12800 } \\ \text { C1280 }\end{array}$ $\begin{array}{lllll}\text { C12826 } & 2 & 3 & \text { Spring } & \text { C12800 } \\ \text { C12801 } & 4 & 2 & \text { Spring } & \text { C12802 } \\ \text { C12804 } & 4 & 2 & \text { Pring } & \text { C12803 }\end{array}$ C12804 $4 \quad 2$ Positive C12803 Anso5 2 Pos. \& Spr. C12806 Any Type Above,

## Each.

Mounting Plates
Black crackle finished steel
No. Gangs Dimen. Each
C12795
C12795
C12797
C 12797
C 12798

## FEDERAL Anti-Capacity Switches



Springs are phosphor bronze silverplated, actuated by a cam roller. Minimum capacity. Stock No. Type Your Cost $\left.\begin{array}{cc}\text { C12852 } & \text { D.P.S.T. } \\ \text { C12851 } & \text { D.P.D.T. }\end{array}\right\}$ C12850 4-P.D.T

## Amphenol Tap Switch

 Fully shielded. Side set screw locks switch-arm in position, preventing accidental tap changes. Tap designation visible through window in bevel of cap. Compact, mounted height $78^{\prime \prime}$. overall dia. mounted height ${ }^{15}$, overal position Single Pole. $18 /{ }^{\prime \prime}, 8$ position, Single Pole.c12669-Type $36-1$. Your Cost Your Cost.

# AADOOANPOWWER SWIICHES 

Tork Electric
Time

## Switches

Self-starting,
for automatic ontrol of solenoid valves, signs. stokers, cover off For 110 volts 60 5 $1 / 2 \times 33 / 4^{\prime \prime}$. Shpg
 C15600-No. 191 B. 8 libs. capacity. For general 20 amps Pole on-off switch. $\$ Q$ Your Cost Each. C15601-No. 962B, Double Pole 20 amps. per pole Your Cost
Each
$\$ 10,50$
Poultry House Lighting Timer For morning and evening operation. Bright light circuit 2001 watts, Dimmer circuit 800 watts. C15602-No. 5191BP.
Your Cost
Each
\$12.95

## Standard MU-Switch

 Light pres-sure, quick sure, quick sion units Require only oz. pressure and .001 " of movement to operate. Underwriters approved. Rated 15 amps. at 125 volts a.c.; $1 / 2$ H.P. inductive loads at $125-460$ v. a.c. Bakelite case ${ }^{115} \mathrm{X}^{11} 11 \mathrm{X}^{13}$
Screw terminals with lugs. Used for sorters, counters, float controls, etc. No. Type Normal Each $\left.\begin{array}{l}\text { C12725 S.P.S.T. Closed } \\ \text { C12726 S.P.T. Open }\end{array}\right\} \$ 0 ¢$
C12727 S.P.D.T


MU-Switch For automatic control or temperature in electribrooders and in brooders and inwherever an automatic electric heat control is desired. Maximum efficiency between $80^{\circ}$
and $120^{\circ} \mathrm{F}$. Has double ether-filled wafer and adjusting screw. Rated; 15 amps, 125 v.; 5 amps, 250 v . C12753-

## Your Cost

$\$ 1.35$

NOTE: In addition to the above Mu-Switches we can supply their entire line of Basic Aircraft and many other types for spe-
cialized uses. Write for MuSwitch catalog and price list.

## JONES Terminal Strips

No. $140-7 / 8^{\prime \prime}$ wide by ${ }^{13} / 52^{\prime \prime}$ high. Terminals are mounted on $2 / 8^{\prime \prime}$ centers. $1 / 4^{\prime \prime}$ metal to metal spacing
 No. 141-11/8" wide by $3 / 2^{\prime \prime}$ high. Terminals mounted on $7 \mathbf{1 8}^{\prime \prime}$ centers. 8 metal to metal spacing over bakelite. Screws are $6 / 32 \times 1 / 3^{\prime \prime}$

| No. 140 |  | No. 141 |
| :---: | :---: | :---: |
| Stock Cost | Term- | Stock Cost |
| No. Ea. | inals | No. Ea. |
| C12527-11c | ? | C12539-14c |
| C12528-16c | 3 | C12540-20c |
| C12529-20c | 4 | C12541-25c |
| C12530-24c | 5 | C12542-30c |
| C12531-27c | 6 | C12543-35c |
| C12532-31c | 7 | C12544-40c |
| C12533-35c | 8 | C12545-46c |
| C12534 40c | 9 | C12546-51c |
| C12535-44c | 10 | C12547-56c |
| C12536-48c | 11 | C12548-62c |
| C12537-52c | 12 | C12549-67c |

## CNILE- HAMASB Swifches

Cutler-Hammer Switches are approved by the Underwriters.


Toggle Switches Approved type with nickel plated meta parts. All rated at 3 amperes at 250 volts except C12834 (3 amps, at 125 v .)

## Single Pole-Single Throw

 C12836-1/2. Stem Your Cost, Each 10 forC12835-1 Stem 10 for c12834-1/ Stem Your Cost Each 10 for
 12833 B" Stoub Your Cost, Each..... $\leq \leq \boldsymbol{4}$ 10 for
Double Pole-Single Throw C12817-1 ${ }^{2}$ " Stem Your

## C-H Power Switrhes Heavy duty iypes. Rated at 250 volts A.C. or D.C. Wiping $\begin{aligned} & \text { contacts. } 15 / 33^{\circ} \text { bush }\end{aligned}$ ings. <br> No. Type Amps. Ea. 10 for C12814 S.P.S.T. $\quad 645 \mathrm{c}$ (\$4.05 C12815 S.P.S.T. $\quad 549 \mathrm{C} \quad 4.41$ $\begin{array}{llll}\text { C12816 D.P.S.T. } & 1083 \mathrm{c} & 7.47\end{array}$

##  <br> nife Switches Panel mounting. Have black Bakelite bases, plated metal parts. Single pole types $11 / 2$ double pole $11 / 2$ long, 1 " wide. With | ntg. nuts. | Your Cost |  |
| :--- | :--- | ---: |
| No. | Type | Each |
| C16842 | S.P.S.T. | 19c |
| C16843 | S.P.D.T. | 32c |
| C16845 | D.P.S.T. | 38c |
| C16844 | D.P.D.T. | 40c |

Porcelain Base Knife



Canopy Switch Rotary type, composition leads. Rated amp. at 125 volts.
$\underset{\text { Each... }}{\text { C13342 }}$

## Bakelite <br> Knife

Switches


Heavily plated metal parts, bakelite fase. Single pole types $11 / 2^{\circ}$ long; double pole $212^{\prime \prime}$

| Stock No. | Type | Your Cost |
| :--- | :--- | ---: |
| C16830 | S.P.S.T. | 45c |
| C16831 | S.P.D.T. | 53c |
| C16832 | D.P.S.T. | 61c |
| C16833 | D.P.D.T. | 71 c |
| C16834 | 3-P.S.T. | 99 c |
| C16835 | 3-P.D.T. | \$1.06 |
| C16836 | 4-P.S.T. | 1.32 |
| C16837 | 4-P.D.T. | 1.58 |

Terminal Strips

Hi-quality bakelite terminal strips, 1/6" thick. Plain, no markings.

| 1 16* thick. Plain, no mark |  |  |  | ed on $1 / 8$ bakelite strips, $/ 8$ wide. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Terminals | Ea. | 10 For | No. | Terminals | Ea. | 10 For |
| 13145 | 2 | 9 c | 81c | C13140 | 2 | 10 c | 89 c |
| C13123 | 3 | 11c | 99c | C13141 | 3 | 13 c | \$1.15 |
| C13112 | 4 | 15 c | \$1.35 | C13142 | 4 | 18 c | 1.60 |
| C13213 | 6 | 21c | 1.89 | C13143 | 5 | 21c | 1.85 |
| BAKELITE MOUNTING |  |  |  | C13144 | 6 | 24c | 2.15 |
|  |  |  |  | C13230 | 7 | 29c | 2.60 |
|  | For mounting parts |  |  | C13231 |  | 35 c | 3.15 |
|  |  |  |  | C13232 <br> C13233 | 9 10 | 46 c | 3.55 4.00 |
|  | which are to be in- |  |  | C13233 | 10 | 46 c | 0 |
|  | sulated from chassis. Tinned. |  |  | Switch Plate |  |  |  |
| Stock No | Lugs | Each | 10 For |  | "Off | O | itch |
| C13124 | 2 | $2 c$ $3 c$ | 14 c 18 c |  | plate num |  | $\begin{aligned} & \text { alumi- } \\ & \text { C. } 1110{ }^{10} \end{aligned}$ |
| C13133 | 2 | 3 c | 18 c $\mathbf{2 0}$ |  | $\text { num } \times 1_{116}$ |  |  |
| C13134 | 4 | 4 c | 33c | cs | or 65c |  |  |
| C13137 | 6 | 4 c | 36c | Your | Each |  |  |

## Slide Switches



Compact slide switches in cadmium plated steel housings. All con tacts and termi nals are siverswitches have nu merous uses in radio, phonograph, instrument and utome applications All rated at 125 V . AC-DC. $11 / 8^{\circ} \mathrm{mtg}$. ctrs. Stock Type Amps. min

| Stock | Type | Amps. min- |  |  |
| :--- | :---: | :---: | :---: | :---: |
| No. | nals | Each |  |  |
| C12842 | SPST | .75 | 2 | 13c |
| C12843 SPDT | .75 | 3 | 16 c |  |
| C12844 | DPST | .50 | 4 | 19 c |
| C12840 | DPDT | .50 | 6 | 23 c |

## H \& H Two Circuit Push Switches



In normal position, with plunger out, one circuit is on," and the other "off." When plunger is depressed, circuits are reversed. Slow make, quick break momentary contacts. Rated 6 amps. at 125 v . a.c.


METAL PLUNGER (A)
Used on Supreme instruments and other popular makes
C12774-35\& 10 For

> BAKELITE TIP (A)

C12777-Red Ea. 17 C 10 For C12778-Black 5 Y $\$ 3.33$

BAKELITE BUTTON (B) c12775-Red LEa. 1 \& 10 For c12776-Black $\}$

## H. \& H. Rotary Panel

 SwitchesSwitches
Rated 3amps, 125 volts.
Approved type. With
locknuts, Shaft ex-

| No. | Type | Ea | 10 For |
| :---: | :---: | :---: | :---: |
| C12779 | S.P.S.T. | 22c | \$1.98 |
| C12693 | S.P.D.T | $26 c$ | 2.34 |
| C12780 | S.P.S.T ${ }^{*}$ | 29 c | 2.61 |
| C12781 | D.P.S.T. | 42c | 3.78 |
| C12782 | D.P.S.T.* | 47c | 4.23 |
| C12783 | D.P.D.T | 45c | 4.05 |
| C12784 | D.P.D.T | 49 c | 4.41 |
| *Bushing extends $1^{\prime}$. Others, $3 / 8{ }^{*}$. |  |  |  |

\section*{CLAROSTAT Rotary

\section*{Switches

## Switches <br> Compact, posi-

 tive contact Un-derwriter's Ap-
proved Switches. Bakelite molded construction. Rated 1 amp., 250 construction. Rated 1 amp., 250
volts; 3 amps., $125^{2}$ volts. $1^{3} \sqrt{2}$ volts; 3 amps., 125 volts. $1^{3} \times 2^{\prime \prime}$
diam., ${ }^{\prime \prime}$ " body depth; bushings are ${ }^{3} \mathbf{3}^{\prime \prime}$ diam. $11 / 2^{\prime \prime}$ shaft.

| Stock No. | Description | Your Cost Each |
| :---: | :---: | :---: |
| C12845 | S.P.-S. ${ }^{\text {P }}$. | 29 c |
| C12846 | D.P.-S.T. | 35 c |
| C12847 | S.P-D.T | 35 c |
| C12848 | 4-Wire, S.T. | 35 C |
| Rotary Switch Plate |  |  |
| (0) P ${ }^{\text {a }}$ "Off-On" switch plate. |  |  |
|  |  |  |
|  | black. Size Clean cut le | $1: \times 12$ |
| C9857-10 for 65c |  |  |
|  |  |  |




## eliance" "UNIVERSAL TYPE" AUTO RADIO ANTENNAS



Mounts securely on all car cowls, reTriple Chrome fin ish, sturdy rattle proof construction. Equipped with 36inch moistureproof
lead-in and bayonet adapter. This antenna is easy to
install and will provide perfect no
free reception.
C22003-
Your Cost

Cowl or Fender Mount Adjustenna
3 section, 65
inch. A truly
. inch. A truly universal type install. Heavy Chrome finish sturdy rust proof construcproor construc-
tion. Has wonderful piekup with minimum noise. Equipped with $36-i n c h$
moisture-proof lead-in and bayonet adapter for lead. Ideal item to sell for use on any type car and to conform to any body design.
C22002
\$2.62

3-Section, 66-inch Side Cowl Mount
2 stanchion universal mounting. Has rustproof triple chrome plated finish sturdy rattle-proof construction, and streamlined insulators. Equipped with $36^{\prime \prime}$ moisture-proof lead-in. Also includes conversion kit for streamlined bodies and bayonet adapter for lead. A real
c22000-
Your Cost Each
\$2.13
100 Inch Side Cowl Mount
Same as above but 100 inch, 4 section.

C22001- Cost Each

## Generator Condensers



High 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 Plug C5247 B Compact Spark Plug Type for Ford V8 C5253 C Cable Type for Buick ${ }_{55285}^{\mathrm{C}} \mathrm{E}$ Elbow Cable Type ${ }^{c} 5293$ F Distributor Type for C5277 F Ford 1936 and earlier
 C5256 * Eiloow Type for 1938

Your Cost Each
Per 10 Assorted
121.08

Wire Wound Units (G)
Most efficient type Do not
im pair motor efficiency. Low d.c. resistance, high inductance. Acts as 7 . choke. Extra rugge C5297-Distributor Type
Either Type, Each $35{ }^{6}$ 10 (Assorted) For 53.15

Master Distributor Unit Hermetically and heat. Eliminates need for moisture and heat. Eliminates
other suppressors. D.
re sistance is 10,000 ohms.
C5284 C5284 Each $\qquad$ Per 10 Assorted. ector. 5 For $\$ 1.85$


## MALLORY REPLACEMENT VIBRATORS

Mallory precision-made Vibrators are noted for their long life and trouble free service. Refer to diagram below and order by stock number, or state make and model number of set and type number of original vibrator. All rated at 6 volts except types W245A and W2 16,4 volt. Average Shpg. wt. 2 lbs. Ask for -FREE copy C19993 Mallory Vibrator Guide

| No. | Type | Dia. Each |  |  | Type | Dis. Each |  | No. Ty'pe <br> C7292 839 |  | Dia. Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C6114 | 222 | 1 | \$4.50 |  | 292 | 11 | \$2.82 |  |  | 14 | \$2.82 |
| C6096 | 245 | 2 | 4.06 | C6136 | 294 | 12 | 2.41 | C6084 | 852 | 18 | 241 |
| C7278 | 245A | 2 | 4.06 | C6137 | 296 | 13 | 2.41 | C6085 | 853 | 12 | 2.41 |
| C6088 | 245 C | 3 | 4.06 | C6093 | 505P | 14 | 203 | C6086 | 854 | 19 | 241 |
| C7280 | W245A | 2 | 4.06 | C7285 | 506P | 15 | 3.23 | C7276 | 859 | 14 | 2.41 |
| C6097 | 246 | 4 | 4.06 | C6071 | 507P | 12 | 2.03 | C6076 | 860 | 18 | 2.41 |
| C7281 | 246 A | 4 | 4.06 | C6073 | 514 | 16 | 4.06 | C7293 | 870 | 18 | 241 |
| C7283 | W246 | 4 | 4.06 | C6074 | 716 | 16. | 4.06 | C7296 | 901 M | 14 | 2.03 |
| C6169 | 247 | 5 | 4.06 | C6062 | 725 C | 17 | 4.50 | C6079 | 952W | 20 | 4.06 |
| C6098 | 248 | 6 | 4.06 | c6107 | 742 | 17 | 4.06 | C6080 | 953W | 20 | 4.06 |
| C6171 | 249 |  | 4.06 | C7289 | 743 | 4 | 4.06 | C6081 | 954 | 21 | 4.06 |
| C6127 | 271 | 8 | 4.88 | C7277 | 748 | 6 | 4.06 | C7275 |  | 14 | 2.41 |
| C6130 | 273C |  | 4.50 | C6063 | 825 C | 14 | 3.67 |  | ibrator |  |  |
| C6167 | 273D | 10 | 4.5 | 6108 | 826 C | 14 | 3.23 |  | grams |  |  |



Standard
auto radio
designed to eliminate generator
 noise. Fully
shieided. Dirt and oil proof.
No. Mfd

| No. | Mfd. | Each | 10 |
| :---: | :---: | :---: | :---: |
| C14220 | .25 | 19c | \$1.71 |
| C14215 | . 5 | 22c | 1.98 |
| C14216 | 1.0 | 28 c | 2.52 |
| C14198- | Simila | ab | but |
| Dual; 2 | . 5 mfd | ds |  |
| Your Cos |  |  | - 4 |

## FORD V8 Condensers



Tailor made for Ford V8's. C14219-Type A. For V8 models 4 p to 1936
C14199-Type B. For '37 to ' 41 .
10 For $\$ 2.05$.
Your Cost Each,
Either Type......

## MOTOROLA 65 and 20 <br> Condenser

High voltage
condenser.
Consists of two
.0008 mfd . 1000 volt units in a single housing. Four leads. Made by Sprague.
C14207-Your Cost
Each
5 For
$\$ 1.44$

## Dome Light Filter <br> Eliminates the <br> noise in dome <br> light wiring <br> choke. <br> Choke. 14208 For $\$ 2.43$ Your Cost Each......



# PHOOKUPEMAGNET WIRE <br> Metal Shielded Wire (omazGacehwina <br> Colored Rubber Wire 

Shielded with a seamless copper tube. Absolutely moisture-proof and remarkably strong. No. 22 conductor. Hi-voltage insulation. In 5-foot lengths only.
C16183-One wire.
C16184-Two wire.
.75 c
.95 c
$\$ 1.05$

## No. 14 Tinned Solid Copper Push-Back Wire

Designed for heavy-duty work in power amplifiers, transmitters, etc. Cotton wrapper with heavy lacquer insulating material and final layer of impregnated cotton
braid. High breakdown voltage. 25-Foot Coils
C16341-Black C16339-Red Your Cost,
Per Coil.............. 100-Foot Coils C16348-Black C16346_Red
Your Cost, Per Coil.
\$1.55

## Solid Tinned

 Copper Core Type No stripping is necessary. Just push back the double cotton-covered moistureprooted braid. No. 20 wire. Four colors. $\begin{aligned} & \text { for cir- } \\ & \text { cuit identification. Weight }\end{aligned}$ 2 lbs . per 100 feet.

25-Foot Coils
C16350-Red C16352-Black C16351-Green C16353-Yellow Your Cost ( 10 For
$\$ 1.55$ ), Per Coil. ......
50-Foot Coils
C16358-Red C16360-Black C16359-Green C16361-Yellow Your Cost (10 For 3.
$\$ 2.75)$, Per Coill........

100-Foot Coils
C16366-Red C16368-Black C16367-Green C16369-Yellow Your Cost (10 For
$\$ 5.55)$, Per Coll........ 1000-Foo
C16374-Red C16376-Black C16375-Green C16377-Yellow



## RESISTANCE WIRE

 ON HANDY SIZE SPOOLSHigh grade resistance wire in small quantities for use in
highly sensitive instruments where accurately determined highly sensitive instruments where accurately determined
resistance values, secured through the employment of a resistance values, secur
alloy wure, are necessary.
high grade alloy wure, are necessar

Standard Tinned Copper Core Type Very flexible wire of multistrand tinned copper; equivalent to No. 20. Cotton braid pushes back easily. Available in 4 colors. Weight, 2 lbs. per 100 feet.
25-Foot Coils
C16354-Red C16356—Black
C16355-Gireen C16357-Yew C16355-(ireen C16357-Yellow Your Cost (10 For \$1.70), ©
50-Foot Coils
C16362-Red C16364-Black
C16363-Gren C16365-Yell C16363-Green C16365-Yellow Your Cost ( 10 For 3.25 , Per Coil.......

## 100-Foot Coils

C16370-Red C16372-Black C16371-Green C16373-Yellow Your cost (10 For Ye? Your Cost (10 For 72
$\$ 6.45)$, Per Coil........ 1000-Foot Spools
C16378-Red C16380-Black C16379-Green C16381-Yellow

Stranded and tinned covered with a live covered with a live rubber compound to strip. Solders into strip. Solders in-
stantly. Available in stantly. Avain
three colors.


25-Foot Coils C16272-Red Your Cost Each $\left.\begin{array}{l}\text { C16273-Black } \\ \text { C16274-Green }\end{array}\right\}$ © ${ }_{85}^{5}$ For 1000-Foot Spools
C16108-Red |Your Cost Each $\left.\begin{array}{l}\text { C16108-Red } \\ \text { C16110-Glack_Green }\end{array}\right\} \begin{gathered}\text { Cost }\end{gathered}$

## No. 16 RUBBER COVERED C16280-Black C16281—Red ${ }_{50 \mathrm{Ft} .100 \mathrm{Ft} .500 \mathrm{Ft} \text {. }}^{\text {Black }}$

 Your Cost 62c $\$ 1.18 \quad \$ 5.29$Stranded No. 14 Gauge C16121-Black C16120-Red

25 Ft .50 Ft .100 Ft .
Your Cost $45 \mathrm{c} \quad \mathbf{8 5 c} \quad \$ 1.55$
Stranded No. 12 Gauge C16122-Black C16123-Red


Extruded Plastic Tubing
$10,000 \mathrm{~V}$. di-electric strength. Will not support combustion. Resistant to petroleum solvents, acid, alkalis and soldering temperatures. May be bent over A.S.T.M. specification mandrel after heatspecification mandrel after heatare 3 -foot lengths.
 C16187-Yellow ${ }^{\text {Sla }}$ Ic Ea
Slize No. 12
C16188-Black $71 / 2 \mathrm{c}$ ea. 10 For $\left.\begin{array}{l}\text { C16189-Red } \\ \text { C16190-Yellow } \\ \text { C1 } 6191 \text {-Green }\end{array}\right\} \begin{aligned} 71 / 2 \mathrm{cea.} 10 \text { For } \\ 87 \mathrm{c}\end{aligned}$ Size No. 8
C16192-Black C16193-Yellow $\}$ 19c ea. $\$ 1.70$

8-YardSpools ofSpaghetti High grade varing. 5000 V . di-elecyard lengths on
fibre spools. Takesa No. 12 wire. C15951-Red C15952-Green C15954-Yellow C15955-Black Takes a No. 14 wire.
C15750-Red C15752-Green C15751-Yellow C15753-Black Any Above Sizes
Per 8-Yard Spool
Takes a No. 18 wire- 12 yard spool only.
C15754—Black
Per 12-Yard Spo

## FINHST GRADम MAGNBT WIRD



Highest quality copper wire.
Excellent for rewinding power transformers and chokes, winding coils or any other radio and electrical purpose. Ideal for use in shops, schools, labora-

## PLAIN ENAMELED

| Stock | Size | Ft. | Your | Cost |
| :---: | :---: | :---: | :---: | :---: |
| No. | B\&S | Per Lb. | Lb. | $1 / 2 \mathrm{Lb}$. |
| C20950 | 16 | 125 | \$0.16 | \$0.29 |
| C20951 | 18 | 202 | . 16 | . 29 |
| C20952 | 20 | 319 | . 17 | . 31 |
| C20953 | 22 | 506 | . 17 | . 31 |
| C20954 | 24 | 804 | . 18 | . 32 |
| C20955 | 26 | 1280 | . 20 | . 36 |
| C20956 | 28 | 2030 | . 22 | . 38 |
| C20957 | 30 | 3220 | 24 | . 43 |
| C20958 | 32 | 5100 | 26 | . 47 |
| C20959 | 34 | 8080 | . 30 | . 55 |
| C20960 | 36 | 12800 | . 39 | . 71 |
| C20961 | 38 | 20300 | . 49 | . 88 |

## Spaghetti Tubing

 $\left.\begin{array}{l}\text { Highest } \\ \text { grade } \\ \text { cambric } \\ \text { aran } \\ \square\end{array}\right]$ tubing.Red, yellow, green and black. \#12. C15960-Specify Color
Per 30-Inch Length.

# Belden:BADIOEFLECTRICAL WIRE 

BELDEN Shielded
Rubber Mike Cable


20 Gauge tinned stranded conduc tors cabled. cotton wrapped shielded cotton wrap over shield overall rubber sheath.
$\begin{array}{rccrr}\text { No. } & \text { Cond. } & \text { O.D. } & \text { Ft. } & 100 \mathrm{Ft} . \\ \text { C20876 } & 2 & .280^{\prime} & 6 \mathrm{c} & \$ 4.68 \\ \mathrm{C} 20845 & 3 & .280^{\circ} & 7 \mathrm{c} & 5.45\end{array}$

| $\mathbf{C 2 0 8 4 5}$ | 3 | $.280^{\circ}$ | 7 c | 5.45 |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{C 2 0 8 7 7}$ | 4 | $325^{\circ}$ | 9 c | 6.68 |

Unshielded Cable
Like above, but No. 18 gauge, no shicld.

| $\mathbf{C 2 0 9 1 0}$ | 2 | $.245^{\circ}$ | 3 c | $\$ 2.66$ |
| :--- | :--- | :--- | :--- | ---: |
| $\mathbf{C 2 0 8 8 0}$ | 3 | $.265^{\circ}$ | 4 c | 3.32 |
| $\mathbf{C 2 0 8 8 1}$ | 4 | $.260^{\circ}$ | $51 / 2 \mathrm{c}$ | 4.26 |

## Shielded Primary Wires



No. 12 gauge ( $19 \times 25$ tinned) with colored cellophane serve. 031 rubber wall, glazed cotton braid lac quer shield. $W_{t} 6 \mathrm{lbs}$ per 100 ft C16223-100 Ft. for $\$ 3.83-4$ Your Cost per Foot.
No. 14 gauge. . $027^{*}$ rubber wall $(19 \times 27) .100 \mathrm{Ft}$. for $\$ 3.09$
C 16218 -Your Cost per Ft. No. 16 gauge. . $022^{\prime}$ rubber wall. ( $19 \times 29$ ). 100 Ft . for $\$ 2.54$ C16219 Your Cost per Ft

## Rayon Push-Back

 No. 20 tinned copper, heavy wrap, cellulose acetate, "basket-weave" abrasion-proof lacquered rayon braid. Colors: green blue, red, yellow, black. Specify color. C16066-25-ft. spool ${ }^{\text {* }}$ C16068-25-ft. spool $\dagger$. C16080-100-ft. spool* C16081-100-ft. spool $\dagger$ C16067-1000-ft. spool*19c C16069-1000-ft. spoolt . $\$ 6.00$ Following in red or black only. Similar to above; No. 14 gauge. C16158-25-ft. spool $\dagger$. . . . . . 32c C16082-100-ft. spool

\$1.12 *Solid. †Stranded.

## Test Prod Lead Wire

 Flexible No. 18 wire ( $65 \times 36$ ) tinned copper. Cotton wrap. rat rubber wall. Two 7 ft . lengths red and black (14-ft. total) paralle! wound. c16336-I wo 7 -ft. lengths. Your Cost c16337-Red or Biack (S: Your Cost per 100 Feet. . $\$ 1.29$
## TRANSMISSION LINE CABLE

## 

Shielded Twisted Pair 18 stranded, rubber and paper wrap, tinned copper shield ove twisted pair-weatherproof over-
all White braid. Ideal where inall White braid.
terference is great. 500 Foot Spool C16162

Commercial 22 ( $7 \times 30$ tinned) paper wrap $022^{*}$ rubber. Weatherproof overall Black braid. For commercial broadcast receivers.
C16171-500-ft. spool

Heavy Rubber Cord


Hi-Volt

## Push-Back

## Latest type insu

 lation with a high puncture voltage volts), yet insulation slips very volts), yet insulation slips very easily. No. 20 inned copper, cotton wrap, .010 rubber wall "basketweave" lacquered rayon braid over
all. Colors: green, blue, red, yellow, all. Colors:green, blue,
black. Specify color. C16258-25-ft. Solid. c16261-25-ft. Stranded c16259-100-ft. Solid C16262- $100-\mathrm{ft}$. Stranded.
$.22 c$
$.23 c$

## R-F Hook-Up Wire

100 Foot Spools. Insulation resistance is 49.000 megohms. Tinned copper with two specially treated cellulose acetate braids Colors: green, blue, black, red and yellow. Specify color.
C16247-No. 20 Solid...... $781 / \mathrm{m} \mathrm{c}$ C16248-No. 20 Stranded.... 85c C16204-No. 18 Solid..... $861 / 2 \mathrm{c}$ C16205-No. 18 Stranded.. $961 / 2 \mathrm{c}$
Shielded Hook-Up Wire
No. 20 hook-up wire with closely woven tinned copper shielding over a $1 / 4^{\circ}$ rubber wall with rayon braid under shield. O.D. C16294
Per Ft.
Per 100 F
Per

Impedance Matching Cable No. 18 stranded, rubber covered cotton, twisted pair, weatherproof coton, twisted pair, weatherproor all-wave jobs. 72 ohm impedance matching half-wave dipole aerials. ${ }_{616174}^{500 \text { Foot Spool }} \$ \mathbf{S} \mathbf{5}$

## "EO-1" Type Cable

12 solid cidophane wrap. $035^{\circ}$ rubber, twisted pair, weatherproof to 2000 watts. braid Carries up
w 100 Ft


The thick belt of flexible rubber that covers the conductor is made of smooth oil-resisting, abrasion proof high quality "Jacket."

 $\begin{array}{llll}\text { C20947 } & 14-2 \text {-wire } & 101 / 2 \mathrm{c} & 9.45 \\ \mathbf{C} 20948 & 18-2 \text {-wire } & 4 \mathrm{c}\end{array}$

## 72 Ohm Coaxial Cable



Will meet the requirement for all frequencies in the audio to and including the television or f.m. range. For use as antenna receiving or transmitting cables; also for photoelectric or other circuits where characteristics fit the application. DB loss per 100 - ft .: .031 at $10 \mathrm{Mc} . ; 2.24$ at 40 Mc .; 3.78 at 100 Mc. Capacity between conductors per ft. ; 26.3 mmf . at
$10000 \mathrm{kc} ; 25.9 \mathrm{mmf}$ at 40000 kc . 25.5 mmf . at 100000 kc . No. 14 stranded ( $19 \times 28$ ) tinned, low loss rubber compound tinned copper shield, tough vulcanized rubber sheath, $460^{\circ}$ O.D
C20936-Per Ft.
13 ¢ Per 250 Ft
.$\$ 28.75$

## All-Rubber Lead-In Wire

Easy stripping-easy soldering. All made of 7 strands tinned copper wire with extra thick rubber sheath $.040^{\circ}$ in diameter
Shpg. wt. 3 lbs . per 100 ft.
Stock Belden|Wire ILgth. Your
No. No. Gauge Feet Cost

| C16227A |  | 8200 | 18 | 100 | $\$ .451 / 2$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| C16227B | 8200 | 18 | 1000 | 3.70 |  |

## BELDEN Flexible

Crystal Mike Cable

Suitable for tough jobs because of its high insulation resistance under moisture conditions, and resist ance to bending and fexing 8401-For microphones or low imp. trans. lines. 8411-For lape mikes. 8431 -For phono pickups Stock Type Out. Cap. Per 100



## Shielded Auto-Radio Lead-In Wire

No. 20 stranded conductor ( $10 \times 30$ tinned) with special low capacity tinned) with special low capacily Max. cap. bet ween conductor and shield 33 mmfd . Overall dia. . 230 C20883-100-ft. For $\$ 3.61 / 1 / 24$ Per Foot
As above, but with rubber sheath overall. $290^{\circ}$ O.D
C20884-100-ft. For $\$ 4.79$
Per Foot. . . . . . . . . . . . . 48
Shielded Pair \&
For inside use. Twisted pair of No. 19 solid, double enameled, cotton wrap, color coded braid waxed overall bare copper shield. Two conductors. $145^{\circ}$ O.D. Shpg, wt 31 lss . per 100 ft .
c20911-Per Foo
$100 \mathrm{Ft} . \$ 2.18 \quad 500 \mathrm{Ft} . . . \mathrm{i} \$ 10.23$

## Belden No. 8888 Plastic <br> Insulated Parallel Lamp Cord

POSN 64 style, 18 gauge. Une bare and one tinned copper conductor, flexible stranding; parallel conductors with synthetic plastic insulation and sheath inplastic insulation and sheath integral. Especially adaptable for small appiances and devices such sets, etc. Available in black only C20938.
Your Cost per Foot.... 21/24 100 feet. . $\$ 2.25 \quad 250$ feet. $\$ 5.35$

## We can supply all Belden

 Products. Write for prices or send us your order giving Belden part number and complete description for prompt attention.Parallel All Rubber Lamp Cord

Both conductors sheathed coating of tough live rubber Ridge between conductors allows easy sejaration without fear of ruining insulation. In Black and Brown. Specify color desired Shpg. wt. per $100 \mathrm{ft} ., 3 \mathrm{lbs}$. C20920-18 Gauge-Your Cost: Per Ft. 100 Ft


## Telephone Wire

For general use and inter-com munication phones. 2-Conductor No. 19 Gauge. 1 R.C. C20895- 100 Ft .500 Ft .1000 Ft Your Cost $\$ 2.50 \quad \$ 11.87 \quad \$ 22.50$ C20896-3-Conductor No. 19 Your Cost $\$ 3.70 \quad \$ 17.57 \quad \$ 33.30$

## Single Conductor

 Crystal Mike Cable

Flexible stranded tinned copper single conductor: tinned copper braid shicld; cotton wrap and lac quered braid, nibber overall. Out side diameter . $280^{\circ}$ 20842 - Per Foo C16333-50-Foot Roll $-4$ C16334-100-Foot Roll
$\$ 2.35$

Low Impedance Crystal And Velocity Mike Cable


Consists of two conductors, color-coded in a closely woven inned copper shielding with outer covering of rubber. Abrasion proof
C16079-Per Foot . . . .
C16201-50-Foot Roll.

## 3 and 5 Conductor

 Shielded CableP
Three color-corled stranded conductors in tightly woven tinned copper shield. $1 / 8^{\prime \prime}$ outer covering C16145
Per Foot
C16206- 50 -Foot Roll
. $\$ 3.09$ C16207-100-Foot Roll . . . 5.95 C16100-100-Feet $\$ 9$-conductor. Your Cost per Foot .... 0 Y

## Parallel Rayon Cord

Popular type for connecting radio receivers, lamps, etc. Overall cov ering of rayon braid

18 Gauge-1 ${ }^{\circ}$ Wall
C20836-Maroon C20838-Brown C20837-Old Gold
Your Cost, Per Foot..... Your Cost, Per Foot.
$100 \mathrm{Ft} . . . \mathrm{\$ 1.85} 500 \mathrm{Ft}$

## Ultra Low Loss Coaxial Cable

For use in high frequency transmission lines, photo-electric work. or wherever coaxial cable is required. The dielectric is solid fexible low loss Polyethylene thermoplastic. $.185^{\circ}$ in diameter with a voven copper shield braid and hovy vinyl outer covering Jnner conductor is 7 strands of
No. 26 copper wire. Impedance 58 No. 26 copper wire. Impedance 58 ohms. Canacitance per foot 27 foot lengths only.
C17127
Per 75 Ft. Length. $\$$ 5. 5

## Cotton Twisted Pair

18 Gauge, $1 /{ }^{0}$ R.C. wire with a cotton covering. Yellow and green mixture
C20s02-Your Cost $21 / 2$ 个 Per Foot
Per 250 Ft Your Cost

# TEST PROD S.eAIIGNNGGTOOIS <br> ICA 5-IN-1 Aligner Kit <br> <br> ICA Aligning Kit <br> <br> ICA Aligning Kit <br> ICADualAlignmentTool 

Combines in a foun-
nut wrenches, miniatur screwdriver for all aliature blade full-size insulated anging and a 3 piece set C15082-Your Cost
$\because:+6$
ICA Aligning Tool Set

Two tools, one fits within other One is $6^{\circ}$ long, $8 / 8^{\prime}$ diameter with fitted brass wrenches for $1 / 4$ and fitted wex nuts. Other is $7 / 2$ rod C15083 -
Your Cost


Double Shank Trimmers

For Philco, RCA, etc. Screwdriver shank is ${ }^{\prime} / 20$ diameter-fits into takes $5 / 1 \mathrm{~s}^{\text {u }}$ hex. nut. ; other end c15105-6" long. C15106-10 10 long. Each

## ICA Low "C" Aligner

A low capacity screwdriver for aligning superhets. $1 /{ }^{\prime \prime}$ bone fibre, with 2 driver nibs. One extends 1/2, for padding condensers. Other hasrecessed screwdriver for perme-C15145-Your Cost.

## Hex Socket Alignex

$6^{\prime \prime}$ long with brass $1 / 4^{\prime \prime}$ socket -0 ther end has hardened screwdriver bit. Shaft diameter $1 / / 2^{\circ}$ Your Cost.

## FIBRITE Screw Driver

both ends for all rimmer condensers.
c15150-7/32 diameter
$29 c$
$47 c$

## Pencil Prod Kit



Spring prongs
prods allow changing from spade lugs to
phone tips or to spring clips;
Handles are 6 long. ${ }^{1 / 2}$ diam eter. Five foot red and black
Complete with two alligator point phone tips and two tapered lugs. $\qquad$ \$1.47
Similar to above, but fixed ends With Spring Clip Ends.
C12882-Per Set......
With Phone Tip Ends
$73^{\text { }}$
ICA Laboratory Prods Heavy duty. Bronze tip with needle pointand heavy body Double purpose -needle prod prod. Heavy $5^{\circ}$ long handles Five foot red and black kinkless leads.
C12978-Spade tips.
C12979-Phone tips.
$\qquad$
${ }_{7}^{\text {Each }}$

14 tools telescope into six units: a flexible screwdriver, "magic" alignment tool, alligator side wrench, $6^{\circ}$ insulated driver-metal nib, $5 / 16^{\circ}$ and $1 / /^{\prime \prime}$ nut wrench, $1 / /^{\prime \prime}$ insulated square
nut wrench. $14^{4}$ hex metal side nut wrench, $1 / 4$ hex metal side
wrench, $21 / 2$ metal nib, $1 / 4^{\prime}$ hex slotted insulated wrench driver, 5 fi" "hex insulated nut c15088 Kit.
Like above, but less driver and "magic" aligning tool. C15089-Your Cost......... $\mathbf{\$ 3 . 8 2}$

## Aligning Wrench

For adjusting air trimmers on RCA and Philco 1936-'37 and '38 sets $8 / 8^{\circ}$ Fenoline, $81 / 2^{\prime \prime}$ lon Your Cost. $88^{\text {c }}$
Trimmer Screwdriver

For slotted trimmers. Has recessed blade in metal nib. Shank diameter $7 /$ " $^{\prime \prime}$, small enough to go Black
Black
15074-Your Cost
824

## ICA Aligning Tool



## Needle and Solderless

 Tip Prods

Chucks and nuts hold plain phonograph needles (Type A). Fibre handles $4^{*}$ long, $8 / 8$ diam., in red and black, colored kinkless
wire. Type B is solderless tip with long point. Leads $50^{*}$ long.

## NEEDLE TIP PRODS (A)

 No. Wire Ends Palr C12975-Shane Tips $\}$ Spade 5 C12977-Aligator.........65cSOLDERLESS TIP PLUGS (B) $\left.\begin{array}{l}\text { C12968-Phone Tips } \\ \text { C12969-Spade Lugs }\end{array}\right\} 596$ C12970-Alligator

## Alligator Clip Test <br> Leads



Designed especially for the laboratory or neers. Has $6^{\prime}$ red and black handles and a removable phononeedle chuck.


ICA Adjustable Balancer
Bone fibre-no metal part Screwdriver slides inside aligning wrench; other end has hex socket. C15192-Extends
${ }^{\circ} 5^{15}$
Your Cost Each.
C15193-10 to $18^{\prime}$

## Neutralizing "Driver"

or alismin
 AMPHENOL

## U.H.F. Aligning Tool

Moded of pure Polystyrene no capacity effect on critical | circcints. |
| :--- |
| C15075-Each | $15{ }^{4}$

Handy Neon Circuit Tester
Shows open circuits, polarity, continuity, etc. Checks fuses in circuit. Tiny neon lamp glows on only 1 ma. Coded leads have phone tips. $90-550 \mathrm{v}$. C11310- or DC. Each.


One side has $13 / 4^{\prime \prime}$ screwdriver blade, opposite side has socket screwdriver for adjusting iron core tuning circuits. Handle $21 / 2^{\circ}$ black bone flbre. Overall $6^{\circ}$ C15114
Your Cost
ICA Push-Button Tumer Aligning Tool

Special for aligning variable permeability push-bution cuning units. Bone fibre handle s/i" dia., 17/8 long; shank $41 / 2^{\prime}$ long. Socket driver nib.
c15115-Your cost.. 4,4

## Flexible Tuning Wand

For determining correct alignment. A $6^{\circ}$ flexible rod; ore end brass loaded-the other, core steel. Placing either end in magnetic field of coil will show condition C14978-Your Cost

594

## Solid Tuning Wand

Similar to above, except that the body is solid insulation. 55 4

## 4-1 Neutralizing Tool


$\qquad$
Has pen clip for pocket. $1_{4}{ }^{\circ}$ nut wrench with key slot, and aligning screwdriver. Bakelite.
C14915-Your Cost..

## Insulated Hex Wrench

Hexed entire length; cut worn end and have a new wrench. Hex $1 / 4^{\prime \prime}$. Stock No. Length Your Cost C15148
C15149 $\qquad$

## SPECIAL VALUE

## All Purpose Neon Electrical Tester

For indicating voltages from
60 V . to 500 V . A.C. or D.C. 60 V . to 500 V . A.C. or D.C.
The neon lamp at the top gows in varying intensities indicating different conditions in the circuit, and does lamp lights dead lines. The as one microampere. Immeas one microampere. immegiven of circuit continuity, kind of current, approximate
voltage, electrical discharges, etc. It traces grounded lines, open circuits, short circuits and a multi-
tude of other conditions. tude of other conditions. 294
C12958-Your Cost.....29

## ICA Test Lead Kit

Leatherette pocket
case. Insulated fittings are protype of testing. test leads having $60^{\circ}$ of red and black kinkless wire; one end has
 insulated phone
tips, the other ins tips, the other insulated removable banana plugs. Also includes: one pair each; insulated alligator clips; insulated spade plugs; in-
sulated needle points (all 1-red 1-black). Each.... $\$ 2.03$
c12861-E

10,000 Volt Test Leads


Safely test up to 10,000 volts. Necessary for
television work. Large diameter bakelite prods, 6" long, have phone tips. $2^{\prime \prime}$ bakelite phone tips prods $.50^{\circ}$ heavy duty cables of 18 gauge stranded tinned copper wire-low voltage drop. One red, C12885.
ICA "No Break'/ Prods ! nickeled and cov-
ered with shockless live rubber-1 red, 1 black; sharp point ed tips. Other end of $50^{\circ}$ kinkless rubber wires have solderless insulated phone tips.

## Weston Type Test Leads


ha handles of
red and black Whenolic. ber, kink-

## Molded finger grip

screws. $65^{\circ}$ overall. $\$ 105$
C12988-Your Cost $\$ 1$

## IOOLS Ffor EVERY PURPOSE <br> \section*{Kraeuter Pliers} <br> <br> Amber Handle Screwdrivers

 <br> <br> Amber Handle Screwdrivers}

Tue line of tools listed below are from the Kraeuter "Standard' series, and are not to be confused with the lower priced "K" series All are drop forged from extra high grade steel, and have the famou "blue temper" finish. Stand up under severe service.

Diagonal Cutting Pliers A-Cutting jaws meet perfectly No. Length Your Cost C14944

Long Nose Pliers
B-For the hard to get at places Side cutting blade will stay sharp No. Length Your Cost $\mathbf{C 1 4 9 4 5} 6^{\circ} \quad 1.28$

Electrician's Cutters (C) Modified electrician's pliers with fitted lap joint, hardened cutters. No. Length Your Cost $\begin{array}{llr}\text { C14935 } & 61 / 2^{\prime \prime} & \$ 1.20 \\ \mathbf{C 1 4 9 3 6} & 8^{\circ} & 1.43\end{array}$

## Genuine KLEIN Pliers



Finest alloy tool steel. Individually tempered to assure long-life cutting edges.
C15223-(A) Oblique Cutting Pliers with Wire Stripping Notch. Lap joint; narrow head. $5^{\circ}$ long Shpg. wt. 3 Ibs. \$2 50 50
C15221-(B) Long Nose Side Cutting Pliers. Pointed slender nosesharp cutters. $6^{\circ}$ long.
C15224-(C) Long Curved Nose Pliers. Very useful in close quarters. $6^{\prime \prime}$ long.
Either Above type.\$2 7 S

## Wood Chisels




Phillips screwdrivers used for recessed head screws. Rustproof tool steel blade. Unbreakable, shockproof handies provide a good grip. C15502 (A) - "Stubby" $11 / 2$ ". Extra short for close-up work. For No 5 to 9 screws. Your Cost, Each
C15501 (B) $21 / 2^{*}$ blade length. For No. 4 and smaller screws. Your Cost, Each
 C15503 (C) $51 / 2^{\prime \prime}$ blade length $5 / 6^{\circ}$ D. For No. 10 to 16 screws. Your Cost, Each

## Regular Type Screwdrivers

Powerful, rustproof screwdrivers with tool-steel blades accurately ground to fit screw slot. Unbreakable transparent amber handles. C15507 (G)-"Stubby"' $11 / 2^{\prime}$ Blade, $3 / 4$ " handle diam. Each....... 15c C15508 (G)—Heavy duty "Stubby" 11/2" Blade. 1" handle. Each. . 38c C15511 (F)-Handy pocket size with clip. 21/' Blade. Each. C15509 (E)-31/2" Blade. 3/10" Diam, Your Cost, Each. C15510 (D)-31/2. Blade. $1 / 1^{\circ}$ Diam. (not shown). Your Cost. C15512 (D) - $41 / 2^{*}$ Blade. $1 /{ }^{*}$ Diam. Your Cost, Each. C15506 (D)-5" Blade $1 / 4$ Diam. Your Cost, Each C15504 (D) - $6^{\prime}$ Blade $1 / /^{\circ}$ Diam. Your Cost, Each

STEVENS WALDEN "SPINTITES"


The original Spintite. A handy wrench that works like a screw driver. Indispensable for radio and electrical servicemen and small parts manufacturers. Made of selected steel, cadmium plated with hardwood handle.
Stock Part Size Lgt. $\begin{array}{cccc}\text { No. No. Hex Nut Wrench } \\ \text { C15556 } 3406 & 6^{\prime \prime}\end{array}$ C15562 3406 C15562 3407 C15563 3408 C15564 3409 C15557 3410 C15558 3411 $-155593412$ Any Type Above Your Cost Each. ..... 5 な $\begin{array}{lllr}\text { C15560 } & 3414 & 7 / 6^{\prime \prime} & 71 / 8^{\prime \prime} \\ \text { C15561 } & 3416 & 1 /{ }^{\prime \prime} & 71 / 8^{\prime \prime} \\ \text { Any Type Above } & & \text { F }\end{array}$ Any Type Above
Your Cost Each...... $\boldsymbol{T}$ (

Chuck Type Spintite Kit


Deluxe kit consisting of chuck type handle adaptable for use with the wrench shanks, screw drivers and reamer. Includes ${ }^{3}$ ic ;
 wrench shanks; $1 / 8,3,316$, and $1 / 4$, by 4 screw drivers; $1 / 16^{\circ}$ to $8 / 6^{\circ}$ Reamawl; one $7^{\prime \prime}$ long nose and one $5^{\prime \prime}$ diagonal cutting pliers and one neutralizing and alignment wrench. All in leatherette roll. C15572-Type T52 $\underset{\text { Your Cost....... } \$ 7,54, ~}{\text { Comple Kit }}$ Similar to above but less pliers and neutralizing too C15571-Type T51 Your Cost
$\$ 456$

## Spintite Wrench Set

 Set of 7 popular size SPINTITES in a convenient holder for bench or tool rack. Includes $3 / 16^{\prime \prime}, 3 / 4$ ", C15570-YourCost Complete .. $\$ \$ 0$


## MIDGET WRENCH SETS

Designed for accurate work on meters, radios and small appliances. Consists of 8 midget hex sockets ${ }^{3} 16^{* \prime}$ to ${ }^{7} 15^{\prime \prime}$; 3 double square sockets $1 / 4^{\prime}, 5^{\prime \prime}{ }^{*}$ and $3 / 8^{\prime \prime}$; ratchet, hinge, and spintite handles; 6 extension and sliding tee handle. All in metal box C15573-Deluxe Set Type 3100
$\$ 7-24$
Similar to above but less ratchet, sliding tee handles and extension. C15574-Standard Set. Type 3100A

## Amber Face Hammers



Amber face fitted to metal shank on hickory liandle.
C15541- $1^{\prime \prime}$ amber face. Ea. $\$ 0.63$
C15542-1 ${ }^{\prime}$ / $^{\prime}$ amber face. Ea.. 81
C15542-1 ${ }^{\prime \prime}$ amber face. Ea.. 81

Tomahawk Wrench Set
GABE $\begin{gathered}\text { sucket } \\ \text { srench }\end{gathered}$ wrench
setconsisting of $31 / 2^{\prime \prime} \mathrm{L}$ handle and 6 hexagon sockets-sizes ${ }^{8}$ /6, 14, plated. Shpg. Wt. ill $\rightarrow 5$ \& c15589-Per set.

Neon-Light Screw

## $=$

 $5=0$ Drivexs$\qquad$
Quality screw drivers with neon lamp built into amber Pyroxilin handle. For R.F. and spark plugs. C15348- $41 /{ }^{\prime \prime}$ long. Each..... 24c
C15349- $7^{\prime \prime}$ long. Each. ..... 59c
TCA Flexible Screwdriver


Strong, unbreakable, flexible shaft and insulated movable screw locater finds slots of screws, $884^{\prime}$. C15062-
Your Cost.
Your Cost.
"RHINO" Screwdrivers with Amberlite Mandles

Finestscrewdrivers, forelectricia use. Special analysis steel blade over half-way into Shock-proof Amberlite handle
C15345-3x 3 /10 blade. Each. . 28c C15346-6x ${ }^{3}$, $0^{\circ}$ blade. Each...40c C15347-8 $x^{3}{ }^{1} 1^{\prime \prime}$ " blade. Each... 45 c

## VACO "Amberyl"

Radio Screwdrivers

Transparent amber colored plastic handles. Oil tempered tool steel blades. Rust-proof, unbreakable, shock-proof. Blade diameter small enough for radio set screws. Elach
Stock No. Ble
Ele

| Stock No. | Blade | Each |
| :--- | :--- | ---: |
| C15324 | $1 / 84^{\circ}$ | 35 c |
| C15325 | $1 / 86^{\circ}$ | 35 c |
| C15326 | $1 / 8 \times 8^{\circ}$ | 39 c |

## VACO "Amberyl" <br> Pocket Screwdrivers

Transparent amber colored plastic handles. Tool steel blades; shockproof construction. $3^{\circ}$ long with pocket clip.
C15323-Each
$15^{4}$


Gripper holds screw and slides up out of the way when not in use. Instant releaseafter screw is driven. Fine for tight places. Tempered steel blades. Amber plastic insulated handles.

| No. | Blades | Each |
| :---: | :---: | :---: |
| C14710 | $2 x^{3 / 4}$ | 23 c |
| C14721 | 4x5/ | 43 c |
| C14722 | 10x $5 / 3{ }^{\prime \prime}$ | 46 c |

## Phillips Recessed

## Head Screw-

 driversMany sets now use this type of screw requiring this new model driver. Sturdy sure-grip wood handles. Shpg. wt. 1 lb .

| Stock | Size | Length | Your |
| :---: | :---: | :---: | :---: |
| No. | No. |  | Cost |
| C15251 | up to 4 | 6\%" | 24 c |
| C15252 | 5 to 9 | 83* | 27 c |
| C15253 | 10 to 16 | $111 /{ }^{\prime \prime}$ | 31 |

## Phillips

Offset Screwdriver


A very handy alloy steel of fset screw-
driver. One end for Phillips No. 1 size; other end fo C15255-
Each

# ETOOLS Gnd BENCHES 

SPEEDEX Wire Stripper
 Sensational all types of wire instanty! Just press the handles and the job is done. Pocket size, ast (up to 1000 wires per hour). positive acting. Works on wire ends or any place along wire. Clean working, without damage to any kind of wire, stranded or solid. Shpg. wt. 2 lbs.

## Standard Models

C15538-For sizes 14 to 24 wire C15537-For sizes 12 to 20 wire Your Cost, $\$ 3=53$ Each

## Automatic Models

With "stay open feature" for stripping fine stranded wires. C15565-For sizes 14 to 24 wire C15567-For sizes 10 to 18 wire Your Cost, $\$ 470$ Each
-3.
Also available for $8-10$ wire and for aviation wires.

## WALSCO Staple Driver



For neater, faster jobs on all wire and cable installations. Reaches places inaccessible with hammer and ordinary staples. Attaches staples to any surface. Light weight. rustproof construction. Staples wires up to $1 / 4^{\prime \prime}$ diam. Single stroke with palm of hand drives staple home. Fully automatic. Magazine holds 24 staples when loaded. C15091-Staple-Driver, with one box of 250 staples. W Your
\$3.63

## Rubber Cap

Covers plunger head and makes it easier on the hand to drive staples into hard surfaces. C15090-Each

19 ${ }^{\circ}$
WALSCO Steel Staples


Made of carbon tool steel. In strips especially made for the Walsco Staple Driver. Inside coated with special clear insulating acquer. Brown color C15099-Box 1000
$28^{4}$ $\$ 1.08$ Featherweight Tacker and Stapling Machine


A quick, nandy tacker that is exceptionally convenient for tacking on grille cloth, attaching light wire or spaghetti, labels, etc. In addition to its use as a tacker it can also be used as a regular office or home staping machine for clipping papers, receipts, checks, etc. Precision built, of steel with fine black finish. With 100 staples
M5280-Your Cost. . C15281-Box of 1000 Staples. 35c PER 10,000.

## GENERAL PURPOSE CIRCLE CUTTERS



Provides an easy, accurate method for cutting clean circular holes in brass, aluminum, steel, wood, Bakelite, etc. Of fine heat-treated steel. Used with ordinary hand brace or slow speed ill press. All American-made.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Cuts Hole | Shank Style <br> Style | Type Work | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C14720 | JR | $5 / 8$ to $21 \frac{1}{2 \prime}$ | Round | Light | 50.78 |
| C14711 | 4 | $7 / 8$ to $4^{\prime \prime}$ | Round | Medium | 1.30 |
| C14713 | 5 | 1 to $51 /{ }^{\prime \prime}$ | Round | Heavy | 1.88 |
| C14715 | 5 | 1 to $51 / 2^{\circ}$ | Square | Heavy | 1.88 |
| C14717 | $1 \dagger$ | 7/8 $104^{\circ}$ | Round | Medium | 1.88 |
| C15069 | 1 | 11/4 to $8^{\prime \prime}$ | Square | Ex. Heavy | 3.88 |

$\dagger$ Has extra beading cutter

## Replacement Drills and Blades

C15068-Drill for use with C15069. Your Cost
C14716-Blade for use with all above except C15069 and C14720. Your Cost
C15070-Blade for use with C15069. Your Cost
27c
"RAPID" Electroplaters

Small portable electroplating out fits for home or workshop. Easy to use. For replating jewelry, utensils, radio parts, etc. Each kit contains: $1-\mathrm{oz}$. of plating compound; l-oz. of metal polish: 1 anode brush; battery wires with clips attached; full instructions. Requires two No. 6 cells (not supplied). Wt. $11 / 2$ ibs.

C15359-Nickel Plating Outfit. C15360-Copper Plating Outfit C15370-Cadmium Plating Out-
fit. Your CostAny type.
-10 C15371-S
${ }^{4} 1.47$ Each
hassis Cradle


Made of cadmium plated steel and white metal. Consists of the sup-
porting legs and locking clamps that hold the like grip, leaving both hands entirely free to work. Adjusts to any position by fingertip control and is equipped with sturdy construction assures years of trouble-free service Efects mportant conomiss in time material and man in time, plete with Standard Clamp C15085- With Standard Clamps.
Your Cost
Straight Clamps-For subpanels and other flat pieces. These clamps will also enable you to


Extra Compound
Additional 1-oz. bottles of compound (plate $125-175$ sq. 615373 Nickel Compound C15374-Cadmium Compound Your Cost Each $\qquad$ C15375-S Each.
il

## Industrial Kit

For industrial use. Comprises 8 -oz. Electrolyte, Sterling Silver Applicator,
Shpg. wt. ibs. metal cleaner.
C15376-Your Cost $\$ 7$

Flexible Hack Saw Blades


Extra hard. Extra fiexible. Ionger life. Scientifically heat treated for hardness and flexibility. For all hardness and flexibility. or all standard frames. Shpg. wt. approx.
1 lb . per doz. All are $3 / 2^{\prime \prime}$ wide and 1 lb . per doz
Stock
No. Length Teeth* Each Doz. $C 1727310^{\circ} \quad 18 \quad 6 \mathrm{c} \quad 60 \mathrm{c}$ $C 172740^{\prime \prime} \quad 246 c \quad 60 c$ $\begin{array}{lllll}C 17275 & 12 & 18 & 7 c & 72 c\end{array}$ $\begin{array}{lllll} & C 17276 & 12^{\prime} & 24 & 7 c \\ 72 c\end{array}$
*Number of teeth per inch.

LYON Industrial Benches and Stands


A definite advancement in steel bench design and construction. Heavy gauge steel lers formed to a $\mathrm{T}-25{ }^{\circ}$ wide and $2^{2}$ deep assure rigidity and unusual strength. Floor plates 6 " $\times 2$ ", attached with four heavy rirets. Legs attached to bench top through special wood attachment blocks which reduce noise. Finished in green baked enamel, $34^{*}$ hight $60^{\circ}$ long and $34^{*}$ deep. With $12^{\circ} \times 22^{\circ} \times 5^{\prime \prime}$ and ${ }^{\text {amawer, }}$ deep. wt. 206 lbs .
C22412-
Your Cost
Without drawe., shpy 56 libs. c 22.413 Each... \$18, 4

## Lyon Arc Welding Bench



Bench tons are 10 pauge steel. Shelf dividers form four compartments $3^{\circ}$ wide for welding rods. Front of shelf for welding blocks. Legs and end cross-members are welded into a single unit for easy erection and positive rigidity. Shield $35^{\circ}$ high sets inside flange and bolts securely. Finished in green baked enarnel. $37^{\circ} \mathrm{W} \times 28^{\circ} \mathrm{D} \times 66^{\circ}{ }^{\circ} \mathrm{H}$ Shipped knocked down. Shis 11 . 98 Ibs. knocked down. Shpg. wit.
C22411 Your Cost $\$ 18$

## LYON Tool Cabinet

 Convenient for
locking up valuable tools, dies, precision instruments and drawings. 3 stationary shelves in addition to top and bottom trays. Holds tools than tool stands and Tisters and has more enplete with lock and key. Finished
 up. Shpg. wt. 75 lbs.
c22410--
Your Cost.. . . . \$12.

## MISENER Rotary Hack <br> Saw

The ideal hole cutfer for wood, metal, kakelite, etc. With Many other sizes available. Stk No. Hole Size Cost Ea.

| Stk No. | Hole Size | Cost Ea. |
| :---: | :---: | :---: |
| C17250 | 34. | \$1.62 |
| C17251 | 7/8' | 1.67 |
| C17252 | $1{ }^{\prime}$ | 1.71 |
| C17253 | 11/8" | 1.71 |
| C17254 | 11/4" |  |
| C17255 | 1368 | 1.81 |
| C17256 | $11 / 2^{\prime \prime}$ |  |

Combination Tool cuts holes from $3 / 4^{\circ}$ to $21 / 4^{\prime \prime}$ in eleven $1 / 4^{\prime \prime}$ steps. $1 / 6^{\circ}$ rourd shiank. Hole Size Cost Ea.
 017267 Extra Shanks


Shank for Hand Brace
C17269

# WOHKSHOP Pand FACTOMYS <br> \section*{Swivel Mead Mand Drill} 

Vernier Sliding Caliper 5"Rule With Depth Gauge
 Precision made of fine tool steel. Highly acrule graduated in 16ths and 32 nds. $5^{\circ}$ depth gauge. Vernier caliper has lock nut. Has sharp pointed projections for accurate dividing, scribing, etc. A highly 1 ib .
C15027-Your Cost, Each... 98c Slide Caliper Rule
p inches, in $1 / 6$ and $16^{\circ}$. Knurled ocknut. Wt. 8 oz.
c14891-Your Cost. . . .

## Handy Steel Rule

0 and

## Depth Gauge

A handy, accurate pocket rule for quick measurement. Made of steel, with pocket clip for depth meas urements. 6 inches long, graduated in quick reading 64ths

Steel 6" Rule With B \& S Wire Gauge

Front graduated in quick reading 32 nds and 64ths; also has American or B\&S wire gauge for sizes from No. 8 to No. 20. Back has B\&S wire gauge decimal equivalents.
C15007-Each
$.25 c$
Same as above, c14982-Each.

Drill and Wire Gauge Highly accurate-of hardened and tempered steel. Clear, easy-to-read numerals. Drill, tap size and decimal equivalents of each. Pocket C14997
$95^{4}$ Elach.


## Multi-Use Rule and Gauge



Four inch quick-reading 32nd and 64th inch scale, drill point gauge, quare, bevel protractor, center finder, circle divider, tapdrill table Tempered steel.
C14998
DIETZGEN Slide Rules
 10* National Slide Rule (Maniphase Type) Graduations on high quality white surface, with mouided one-piece unbreakable indicator. Reverse side of rule has inch scale on one edge and millimeter onother edge. Back of rule has special conversion tables and decimal equivalent chart With imitation leather case and instructions. :89 case and instruct
$10^{\circ}$ Reliance Slide Rule Same as above, but with adjustable "A" Scale. C14887-Each

## DeLuxe RANDEE Grinder

Will drill, grind, polish, cut, carve,
 saw and engrave on all materials. Fits the hand, yet incorporates a powerful highspeed motor ( 25,000 RPM) which is practically struction with packed-in lubricastruction with packed-in bubrica-
tion, enclosed motor, built-in tion, enclosed motor, 120 volts $25-60$ cycles AC or DC. Supplied with $1 / 8^{\circ}$ spring collet chuck DeLuxe HANDEE outfit, complete with 27 fine accessories and contained in a steel carrying case. Accessories include: rubber polishing wheel with mandrel; saw with mandrel; slitting saw; two steel cutters; three drills; push-pin mandrel; steel wire cavity brush; briste brush, mandrel; rubber polishing point with mandrel; felt polishing wheel; drum sander and three bands; disc cleaning brush; mounted wheels (six); wheel dressing stone; vial of speed oil; dozen assorted sandpaper discs. Shpg. wt. 8 lbs
discs. Shpg. Wt. 8 lbs.
C15264-No. 3011. Same as the above, but with 26 assorted Mounted Wheels for industrial application only.
Your Cost
C15354-De Lux HANDEE, complete with 7 $1 / 8^{\circ}$ Collet; 5 Wheels; 1 Rubber Polishing Wheel; 1 Wheel Dressing Stone. Speed 25,000 r.p.m. No. 3008. Each.

## HANDEE Industrial Hi-Power Grinder

This fast, powerful and sturdy grinder is built to work all day long, and yet it is so compact and convenient that it may be used on scores of applications. The tool is $10^{\circ}$ overall, including chuck, with a total weight of 3 lbs . Speed is $17,000 \mathrm{RPM}$, with ample power to drive $232^{\prime \prime}$ diameter wheel. Precision ground bearings are grease-sealed, packed to last the life of bearing. Interchangeable spring collet type chuck has capacity of $1 / 0^{\prime \prime}$ and $1 / 8^{\circ}$. Sturdy cast housing is completely insulated, with cushion grip to eliminate vibration and to avoid fatigue. Comes with wooden carrying case, 3 mounted wheels, $1 \times 1$ " drum sander with two extra bands, wheel dressing stone, and chuck wrenches. For operation on 110-120 volts, $25-60$ cycle AC or DC. Shpg. wt. $41 / 2 \mathrm{lbs}$.
$\$ 32-72$
Black \& Decker $1 / 4^{\text {p/ }}$ Ball Bearing Drill
A streamlined, pistol-grip drill with special ball spindle bearing, splined spindle gear mountings, ball bearings, 12 -tooth pinion gear and screened air vents. Has 3 jaw Jacobs threaded chuck and key, which will handle drills up to $1 / 1^{\prime \prime}$. Capacity in steel, up to $1 /{ }^{\prime \prime}$ thick; in hardwood up to $3 / 2$ thick. Universal AC-DC
 RPM, full-load speed of $900 \mathrm{RPM}, 2$-pole automatic-release trigger switch mounted as a unit with cord protector. Has three wire cable and plug. Ideal for regular $1 /{ }^{\prime \prime}$ production drilling. Operates on 110 volts AC or DC. Overall length $63 / 4^{\circ}$. Spindle offset $8 / 4^{\circ}$. S AC or DC
C14707-
Your Cost Each, $\$ 32.50$ Less $\mathbf{2 \%}$
$\$ 31.85$


## I20

## BURGESS Vibro-Tool

 structed tool, built by the makers of he famous Burgess batteries, uses vibration principle, delivering 120 vertical strokes per second, to file, chisel, hammer, or groove soft metals, for cutting wood, cardboard and textile patterns, and for marking lines on glass, drilling glass, etc. Even hard tool steel may be easily marked by using tungsten needle. Indispensable for cleaning metal moulds and forgings. Supplied complete with one standard needle for glass, engraving, stencil work, and heavy lines in hard material. For oYour Cost, Each

## $\$ 7.50$

## BURGESS VIBRO-TOOL ACCESSORIES

Vibro-Tool Converter. Provides Vibro-Tool at higher or lower speeds and allows variety of interspeeds and allows variety of inter-
esting techniques and results not esting techniques and results not
possible with the Vibro-Tool alone possible with the 60 cycle operation only. Wt. 3 lbs.
59.95

Mnife Attachments for cutting into thin wood, cardboard, etc. C15626-Straight knife, cuts up to $3 / 2_{2}{ }^{2}$ thickness. Pkg. of C15627-Curved knife, cuts up to ${ }_{3}^{3} /{ }^{6}{ }^{6}$ thickness. Pkg. of 3. Pkg. of 5 blunt hammering tips for leather or thin metals.
C15628-Your Cost

Vibro-Tool Etcher Attachment. For etching on tools and hard metals. Use with Vibro-Tool listed above. Will not operate in any other manner. For 117 volt 60 cycle operation only. Shpg. wt
2 Ibs.
C1562-Your Cost. $\$=45$

Extra Needles. Standard needle for metal, plastics or any soft to medium hard materials.
C15629-Your Cost.
15c
Tungsten Point for hardened tood steel, and continuous work on all metals without resharpening $\$ 2.00$


A hand drill that works around corners! Chuck head adjusts and ocks to seven different positions, handle adjusts and locks anywhere along $180^{\circ}$ arc. Drills true, because flat hub base always remains paralel to the drill bit. Chuck size, ${ }^{\circ}{ }^{\circ}$ Overall length, $83 / 2^{\prime \prime}$. Shpg. wt. 2 lbs.

| Cli42 |
| :--- |

## Standard Hand Drill

Well balanced hand drill with $1 / 6^{\circ}$ hardened chuck jaws. Accurately hardened chuck jaws. Accuratery meshed gears. Polished hollow han-
dle for storing drills. Handle top die for storing drills. Handle top
threads on to body. High speed gears. Shpg. wt. 3 lbs. \$1

9 Assorted Steel Drills

ground. Will hold Correctly sizes for radio work. In hard wood box. Drill Case
Compact metal drill case with handy tap from index numbered from 1 to 60 . Lifting cover automatically brings up drills for easy selection.
C14702
$\$ 2.45$
$\frac{\text { Your Cost Each.... } 2 \mathrm{c}=0}{\text { Tap, Drill and Die Set }}$


Contains three $1^{10}$ diameter dies (4-36, 6-32, 8-32) with die stock; three taps ( $4-36,6-32,832$ ) and 3 matching tap drills for these taps.
Tap holder also included.- All Tap holder also included. Ail housed in natural mahogany case.
Shpg. wt. 3 lbs.
C 7494 -Your cost..

Tool Steel Reamers


Futomatic Center Punch An automatic
nonadjustable
 precision center punch for accurate marks of fixed depth. Points may be removed for grinding or replacement. Plastic shaped hande allows long periods of use without hand
irritation.
C14993............. 81

CAN/T-ROLI Center Punch

Tempered steel with large head and knurled grip. Square head will not roll. Length $41 / 66^{\prime \prime}$, diameter $325^{\circ}$ Chp9. Wt. 1 lb. 104
Expansion Bits


Fine quality
C15116-5/8
Each.......... $11 / 2^{\prime \prime} . \$ 1, ? 5$
C15117-7/8 to $3^{i}$
$\$ 1.43$
"AMERICAN BEAUTY" Irons

## 

## 100-Watt, Model 3138

America's most famous iron. Made for those who want the very best. Metal parts are heavily plated and highly polished. Length 127/8: With $8 / 8^{\circ}$ tip and 6 ft . cord. Stand supplied. . wt .2 lbs .
C15171-Your Cost
\$5.29
15170-Extra tip for above. Each.
37c
50-Watt, Model 576
A smaller "American Beauty" for soldering in corners and tight places. ${ }^{3} 6_{6}$ tip. With stand. Shpg. wt. 2 lbs.

C15173-Extra tip for above. Each
MAMERICAN BEAUTY'I Stand ThermoControl
For regulation of tempera ture of soldering irons. Thermostat is adjustable. Body of stand of molded plastic, with cord, plug and receptacle to connect iron. For 110 volts A.C. Shpg. wt. 31 lbs .
C15169-Stand only. Each.
$\$ 3.64$

## KWIKHEAT 225W Soldering Iron



A Quick heating iron with built-in thermostat that provides maximum efficiency, prevents overheating, and increases life of iron and tip. Cool plastic handle. Weight only 14 ounces. U.L. approved.

C15121-With cord, plug, and $\$$ Lots of 6 -Each
8.25

## INTERCHANGEABLE TIPS

Stock No. Type Each/Stock No. Type Each

C15128-Set of 5 tips $(0,2,3,4,5)$.
$\$ 3.75$

## LENK Alcohol and Gasoline Torches



Type A-Gasoline torch. Has flame control shut off valve. $71 / 2^{\prime \prime} \mathrm{H} \times 3^{\prime}$ base Diam. Polished Brass. Cap. $3 / 4$ pint. Wt. 2 lbs. $\$ 17$ C14855-Your Cost

Each = C14856-Same but for alcohol. Each. . $\$ 1.96$ Type B-Double burner torch-provides either broad or needle point flame. Cleansing pin in handle. $7 \times 43 \times 21 / 2^{2}$. Wt. 3 lbs.

Type C-Compact, leak-proof torch forser man and home mechanic Size: $6 \times 2 \times 1110$ C14868-Wt. 1 lb . Alcohol torch. \$1, 4

## LENK Torch Fuel

No sediment in fuel prevents carbon deposit on wick. Eliminates corrosion. C14890 -
Quart can. Each
Shipped by Express Only.
Snap-On Iron Holder
Fits al makes and size Irons. Snaps on barrel of iron, raises
it $2^{\prime \prime}$ from bench. Can be left on constantly.
Prevents fire damage. Crevents fire damage
C15276-Your Cost

# DRAKE Industrial Irons 

Underwriter's Approved 200 Watt

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. Shpg. wt. 3 lbs.
C15550-5/8" tip. Complete with stand Your
s6.00

## 100 Watt

No. 600 Suggested for switchboards. radio and other light manufacturing uses. Complete with 6-ft. cord and "Magic Cup" stand Shpg. wt. 2 lbs. ${ }^{\prime \prime}$ " tip.
$\$ 450$
Similiar to above but only $10^{\circ}$ long and with heat baffles. Ideal for close quarters. Complete with $6^{\circ}$ cord and stand. $1 / 8^{\circ}$ tip. Shpg. wt 2 lbs.
C15164 - Your Cost
\$4.88

## DRAKE DeLuxe Irons 100 Watt

## $=0=000$ mis

No. 325. Recommended for general radio work. Highest quality Nichrome wire wound on amber mica. Complete with 6 ft . heater cord rubber plug and "Magic Cup" Stand. Nickel plated. Shpg. wt. $11 / 2$ lbs. $3 / 8^{\prime \prime}$ tip C15162-
Your Cost
s2.44

## 125 Watz



Extra hot. Highest quality Nichrome wire wound on amber mica. Complete with $3 / 8$. tip, 6 ft . heater cord, rubber plug, and No. 10 C15163.
Your Cost.
\$2.94

## 200 Watt

## 

No. 425. For all medium heavy work. Highest quality Nichrome wire wound on amber mica. Ideal for auto work, lamp wiring, home repairs, etc. 6-ft. cord and stand. Nicke plated. $5 / 8$ tip. Wt. 2 lbs .
$\$ 4.85$

## DRAKE Compact Iron

Smallest indus-
 trial iron, for $=0 \longrightarrow 0$
tight corners and delicate instrument wiring. Measures $9^{*}$ and weighs only 9 oz .60 watts with $1 / 4^{\prime \prime}$ tip. With 6-ft. cord and Magic Cup stand. Underwriter's Approved. Wt. 1 lb. \$2. 85

## DRAKE "Special" Irons



Sturdily constructed. Resistance wire elements wound on porcelain tubes. 60 -wattiron furnished with one $3 / 8^{\prime \prime}$ screw-on tip; 100 -watt iron with $3 / 8{ }^{\prime \prime}$ screw-on tip $2^{\prime \prime}$ long. $6-\mathrm{ft}$. cord. C14892-60-Watt Iron
C14893-100-Watt Iron
78 c
150

## Soldering Iron Tips

Replacement plunger type
tips of quality copper. tips of quality copper
C15167
$\begin{array}{ll}C 15167 & 25-40 \mathrm{w} \\ \mathrm{C} 15166 & 60-75 \mathrm{w}\end{array}$
C14903
C15168
$85-100 \mathrm{w}$
$115-150 \mathrm{w}$
115-150 w.
Size Your Cost

C15168

# CRADO SEFVIC ENCCOSSSIIIES 

## Air Drying Finishes



Now you can get professional appearing finishes in either crystal, rinkle or chrome with these new ir-drying finishes. Simply apply and let it dry for durable and lasting finish. Air-dry or bake on metal o ood. In $2-\mathrm{oz}$. and $8-\mathrm{oz}$. sizes. Wrinkle Lacquer (Crystal)

$$
20 z
$$

$$
20 z
$$

No. Each Color No. Each C15259 24c Black C15309 73c C15319 24c Gray C15387 73c C15380 27c Bed C15388 73c Wrinkle (Varnish) Finish C15381 27c Black C15390 73c C15382 27c Red C15391 73c C15383 27c Gray C15392 73c Telephone (Smooth) Finish C15384 21c Black C1539362c Thinner For Above Finishes C15396 21c Thinner C15397 44c

## Color Coding Enamel



For color
coding minals,
Green
blue, red, yellow and a bottle of thinner. Two brushes are included. Have your own system of color C15258-
Your Cost
$29{ }^{9}$

## WALSCO Contact

 Cleaning Fluid Prepared to clean tuning condenser springs, volume controls, band switches, etc. Prevents future corrosion o contacts. oz. bottle.c15377-Each
$21^{\text {c }}$

## WALSCOLUB B'

## Iubricant

是 New chemical that elimicontrols, and other air exposed contacts Superior to graphite. In a dispenser
tabe.
Your Cost
Power Sprayer


Operate: from the
spark plug of any auto mobile. Will spray paint. any free flowing liqplete with sprayer, pint jar, spark plug air check valve, compression tank, set of whapters and 6 lbs. $\$ 3.95$
hose.
c14704-Your Cost.

## Touch-Up Sprayer

Designed to operate perifectly with very low pressure from spare tire or
any other air container. Air-tight brass valve, adjustable brass spray tip, rubber hose and two $4-\mathrm{oz}$
 jars. Very handy for touching up marred panels, cabinets and chassis Shpg. wt. 3 lbs. C14705-Your

## KESTER Solder



Will not spatter. Preferred by servicemen and other large users. Flux in core. The regular rosin and acid core solder is $3=$ diameter. Rosin filled thin-core is approx. $1 / 6^{\circ}$ diameter.


|  | Rosin |  | Core | Acid |  | Core |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
| Per Tin | C14857 | $\mathbf{\$ 0 . 1 7}$ | C14878 | $\mathbf{5 0 . 1 7}$ |  |  |
| 1 Ib. Spool | C14858 | .64 | C14877 | .64 |  |  |
| 5 lb. Spool | C14859 | 3.00 | C14879 | $\mathbf{3 . 0 0}$ |  |  |

1 lb . Sin


## SOLDERING PASTE and FLUX

 NOKORODE Paste (top): Non-corrosive paste. Fluxes all metals except aluminum without corroding or discoloring. Insures perfect soldered joint. Very economical to use.Your Cost


KESTER Paste Flux (center): Non-corrosive. For clean, solid connections. In handy two-ounce can. Your Cost Each. RUBYFLUID LIQUID FLUX. Produces strong joints with thin film of solder on brass, tin,copper, etc. C15279--3 oz. Can Rubyfluid.
$15^{\text {¢ }}$

## NOKORODE Core Solder

Made of $30 \%$ tin and $70 \%$ lead. Superior paste used for flux. No. 10 gauge. Approximately $11 / 2$ ounces


## AMPHENOL

"Liquid-912"
Polystyrene base.
$\square$ synthetic resin that is non-hygroscopic and murn
has no loss factor. Ideal for high frequency coils. C15362
2 oz. bottle. $\qquad$ C15363-4 oz. bottle..... 38c With brush. With brush. oz. bottle 154 All-Purpose Cement For speaker cones, bakelite, metal
hard-rubber, e C15310 -


2 oz. size....
C15311-8 oz. size

## C15312-1 pt. 51.32

## DUCO Cement

 Excellent for repairing speaker cones, cement ing grille cloths, etc. Lots of 12 Elach. $21^{4}$
## Radio Service Cement

Suitable for cementing replacement cones and repairing torn cones. Used on glass, to hold wires in place, etc. Vibra-
tion-Proof, tion-Proof, Water
proof, Fast-Drying. proof. Fast-Drying. tached 2 oz. botte, brush at C15315-4 cap. Each C15316-8 oz. bottle C15317-1 pt. bottle. .94 c
.$\$ 1.76$

## cभN भR:

Radio Chemical Kit A complete kit of 8 chemical necessities in a neat leatherette pocket case. A handy kit for serviceman.
Consists of the following neces-
Service Cement. Rubber Drive Cement, Carbon-X, Grafoline, Scratch Polish, Non Slip Compound, Dial Oil, and Contact Cleaner An applicator is attached to the cap of each container to make it easy to use.
C15529-Your Cost
Felt-Koat
"Flock Fin-
 ish Kit'f Complete Flock Finish Kit for alsplying soft felt-phono-turn tables, cabinets, testers, panels, displays, tool chests. compartments, lamp bases, wire mesh on ments, lamp bases, wire mesh on
speakers, and microphone griHs, speakers, and microphone grihs, etc. Produces heavy soft velvet-
like coat that prevents scratching. Easy to apply. DeLuxe Kit con taining Brown flock, special applicator, undercoat, thinner and brush.
C15528-Your Cost......... . $\$ 1.18$

## CARBON-X

## For Noisy Carbon

 Controls"A practical method to touch up worn and noisy spots on carbon controls. Just apply Carbon-X over the bad spots. Ideal for servicemen. Also an electrical conductor
C15531-1 oz. bottle
C15532-2 oz. bottle.
C15532 oz. botle


## LUBE-REX

A contact cleaner that is ideal for attenuators, push button switches, etc.
Cleans contacts and pre Cleans contacts and pre-
corrosion. Moisture repelvents corrosion. Moisture repel-
lent, rust preventing and clings to metal. Excellent for Philco Mystery controls.
C15533-2 oz.
$.29 c$

Scratch Remover Kit
Combination
kit of 6 colors,
phop u ar r
shade of wood
Scratch-Stik
fillers and 2


Shellac Patch Sticks
 For repairing
cabinets. All are 7 long; in various shades.
C15523 Light Walnut
C15524-Dark Walnut
C15525-Black. C15526-Maple. Your Cost

## Each.

## Plastic Cabinet Cement

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

## Grafoline

Made for noisy controls, switches and wire wound switches and wire noises. C15535-2 oz

## Coil Dope Kit

Hasa polystyrenebase oss is power factor if used for high frequency work. Will bottlesscratch
C)5530-Your Cost
render articles mois-
render articles moisture proof. May also be used for cementing parts made of polystyrene. Kit contains 2 oz. bottle of coil dope, 1 oz. bottle of special thinner and two brushes. Shpg. wt. 1 lb.
C15313-
Your Cost.


## MODEL 125A

Welds materials up to $1 / /^{\prime \prime}$ thick, and as light as 20 gauge. Handles $1 / 6^{\prime \prime}$ to $5 / 2_{2}{ }^{\prime \prime}$ welding rods. Vernier Type Arc Control has 16 heat stages ranging from 10 to 125 amps. maximum, 110 amps. continuous. Fully equipped with headshield, electrode holder, welding, ground and power cables, "C", clamp, welding rods and simplified
 C25630-For 110 V. 50 -60 cycles A.C. C 25631 -For $220 \mathrm{~V} .50-60$ cycles A.C. C25631-For 220 V. $50-60$ cycles A.C.
Either Model
Above, Your Cost. $\$ 5$ C25632-110-220 V.A $\$ 66.64$

Mod MODEL 260A For heavy work: high speed industrial welding in tank and job welding shelding in metal shops, iding shops, sheet foundries, factories works, milis, for continuous operation. 36 heat ranges from 20 to 260 amps. Handles $1 / 16$ " to $1 / 4^{\prime \prime}$ weiding rods. Ready for immediate use. Fully equipped with headshield, electrode holder, welding and ground cable, "C" clamp, welding rods and detailed welding and operatinginstructions. Shpg wt 295 lbe For 220 V.A.C. $38^{\circ}$ H.x 2 C25633-

Ideal for industrial plant maintenance work, for garages, agricultural machinery repairs, machine shops, etc. Can be operated by anyone following simple instructions supplied. Further technical data and information on priority requirements supplied on request.


YR

## TRINDL Arc Torch

Works with any AC or DC arc welder Anyone can produce strong, sound welds on aluminum, bronze, iron, steel, etc. Complete with 12 ft. cables, four $6{ }^{\text {" }}$, 6 mm . carbons, 2 jack plugs and 2 adjustable adaptor heads for $3 / 16$ to $1 / 4$-inch carbons. C25635-Shpg. wt. 3 lbs. Your Cost
\$6.66

## TRINDL Speedweld Mild Steel Welding Rods

 High grade, deep penetrating, mild steel general purpose shielded arc welding electrode. Light tan flux coating. For use on A.C. transformer or straight polarity D.C. Arc welders

Guards against burglars, prowlers, and trespassers, indoors or outside, in light plants, oil refineries, oil or gas storage plants, airports, railroads, etc. Provides visible or audible alarm or both in case of tres nassing. Equipment comprises robot and light source (infra-red, invisible light). When invisible light bearn is interrupted alarm is operated either at plant or at local law enforcement office. Any maintenance or electrical employee can install and maintain system, following instructions supplied. Light source and robot in identical weatherproof steel cases, $7 \times 53 / 4 \times 10^{3 / 4}$, provided with floor flanges for $11 / 2^{*}$ pipe for mounting at desired height. For use on 115 volts, 60 cycles AC. Complete with all tubes and instructions.
C15650-Model 2250-250 ft. range. Your Cost
$\$ 124.95$
C15651-Model 2500-500 ft. range.
$\$ 194.77$

## WORNER Burglar Alarm System

Similar in appearance to the Industrial Units listed at the right. Light source projects beam of invisible infra-red light into condensing lens of receiver. Interruption 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 simultaneously. Can be operated with light beam lengths of up to 100 feet. For 110 volts 60 cycle AC only. Shpg. wt. $10 \mathrm{lbs} . \$ 5$ C15659-Model 501 System. Your Cost

For high speed, heavy duty, mair tenance, construction and production on structural steel frames, castings, etc. Will burn $3 / 8$ rod. 36 heat ranges, 20 to 360 amps. Heavy steel red crackle cabinet on casters. "Lift top"; sloping control panel. With headshield, electrode holder, welding and ground cables, "C"' clamp, welding rods and detailed welding and operating instructions. 360 amps. continuous duty For 220 volt a.c. operation $40^{\circ}$ H.x $25^{\circ} \mathrm{W} . \mathrm{x}$ $19^{\circ} \mathrm{D}$. Shpg. wt. 345 lbs.
C25634-
Your Cos
$\$ 240.10$
TRINDL Electrode Holders Unique design Unique design
allows rods to be allows rods to be positions. Strong, high conductivity bronze jaws make this holder extremely durable. Shpg. wt. 2 lbs . C25640-150 Amps.
Each.................
C25641-300 Amps. Each
... $\$ 4.90$

## Welding Cable

最

A two unit system for use in counting, grading, sorting and speed control in conveyor bel set-ups, to operate automatic doors, and as safety device on heavy machinery. Relay in receiver unit operates up to 500 times per minute.

Model 2801R Receiver (Right) Comprises light cell, amplifier, sensitivity control, and relay. Sensiunity control may be set so that artificial light. Grey wrinkle finish w6 $4 \times 41 /$ Less counter. Shpg. $^{\text {. }}$.

## Cetron Phototubes

The finest phototubes for use in Worner equipment listed on this page.
Type CE-23-C-C.
100 microamps-Gas. ensitivity per average Your Cost
Cost cri- ${ }^{5} 57$ ype CE-1-D-Gas. 100 vivity promen. $\$ 2.94$

Concord and Worner engiConcord and Worner engiin helping you to choose the proper equipmentfor your pho to-electric job. In addition to the units listed herein, many others are available. Write for free bulletins.


## Welding Gauntlet

Preferred by welders be cause of their low cost, ligh weight. softness and flexi bility. Highest quality spe cially tanned horsehide suede with four inch gaunt let. Thumb and forefingers bility and added life
C25642 Per Pair.

## Audel's Welders Cuide

422 pages of fundamental xylding operations, as well as sprecialized techniques of hand and machine welding. Handy reference index gives you immediate solutiom to all
welding problems. Size: $5 x x_{0}=0$ welding problems. Size: $5 \times x+8$ C20296-Postpaid Your Cost

## WORNER Industrial Photo-electric Units

 Low wattage bulb with approximately 2000 hours life; throws concentrated beam. Grey wrinkle finished housing, $6 \times 7 \times 41 / 8^{\circ}$. Shpg wt. 5 lbs
C15653

## Selenium <br> Photo-Cell

## These cells are of the

 barrier layer, selfgenerating type. Light striking upon cell generates current sufficient to operate re-lays directly without
the use of auxiliary power. The lifetime of the cell is unlimited for practical purposes. Delivers 400 microamperes output ( 46 micro watts) at 100 foot candles, $2^{\prime \prime}$ diam eter, mounted in plastic housing.
C10576-Photo Cell, in plastic
housing.
Your Cost.
$\$ 3.98$

# 4ulumescen 

## Fluorescent Kitchen Unit

With this unit fluorescent lighting can be installed instantly in any incandesly in any incandes-
cent type of tixture employing a globe with a 4 diameter holder. This parholder. This par-
ticular Kitchen unit ticular Kitchen unit
is complete with 4' 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 materials have been used throughout. Finished in baked on white plastic "glazenamel." Wired for $110-125$ volts, 60 cycles alternating current only. For use with two 20 -watt, $24^{\circ}$ fluorescent lamps. Shpg. Wt. 7 lbs.

## C25551-Your Cost

$\$ 5.37$

## Executive Style <br> Desk Lamp

## *Morocco Brown Finish

 $\star$ U.L. Approved Materials $\star$ Convenient Pen Trough$\star$ Uses $\mathbf{1 5} \mathbf{W}$. T-8 Lamp
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 shade and base of one piece pressed
steel construction. Gives a miraculously high lighting performance. Parabolic shaped reflecting surface in baked-on white plastic "glazenamel" concentrates light forward to provide an even and useful light amer concentrates light forward to provide an even and useluproght over an entire desk area. Wired exclusively with Underwrrers approved $1-15$ watt. $18^{\circ}$ type lamp. Shpg. Wt. 8 lbs. C25550-Your Cost.


## GE Mazda Fluorescent Lamps

"White" lamps provide a quality of light approximating that of the ordinary incandescent lamp. "Daylight" lamps approximate that of ordinary daylight. All supply several times the usable light output of ordinary incandescent lamps. Rated life better than 2500 hrs .

> Prices Below Include Federal Excise Tax

| White | Daylight | GE | Dimen. |  |  | Lots |  | Lots |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Stk. No. | No. | Lx D | Watts | Ea |  | Ea. |  | Ea. |
| C25533 | C25534 | T5 | $9 \times 5 / 8{ }^{\prime \prime}$ | 6 | \$0.75 | 8 | \$0.61 | 24 | \$0.58 |
| C25527 | C25528 | T5 | 12x $4 / 8^{\prime \prime}$ | 8 | . 86 | 7 | . 70 | 24 | . 66 |
| C25496 | C25497 | T8 | $18 \times 1{ }^{\prime \prime}$ | 15 | . 61 | 9 | . 50 | 24 | . 47 |
| C25525 | C25526 | T12 | 18×11/2' | 15 | . 75 | 8 | . 61 | 24 | . 58 |
| C25529 | C25530 | T12 | $15 \times 13$ | 14 | . 75 | 8 | . 61 | 24 | . 58 |
| C25535 | C25536 | T12 | $21 \times 1 /{ }^{\prime \prime}$ | 20 | . 75 | 8 | . 61 | 24 | . 58 |
| C25537 | C25538 | T8 | 36x1 | 30 | . 75 | 8 | . 61 | 24 | . 58 |
| C25539 | C25540 | T12 | $48 \times 1$ 1/2" | 40 | 1.02 | 6 | . 83 | 24 | . 78 |
| C25531 | C25532 | T17* | 60x2\% ${ }^{\prime \prime}$ | 100 | 2.31 |  | 1.88 | 12 | 1.77 | *lo0-watt lamps have mogul 2-pin base; all others have standard 2 pin base. Approx. shipping weights: 6 and 8 -watt- $13 / 2 \mathrm{lbs}$.; 14, $15,20-$ watts- 2 lbs .; 30 and 40 watt- $31 / 2 \mathrm{lbs}$.; 100 -watt- 8 lbs .

NOTE: When purchasing lamps with any fuorescent fixture listed use 1st "Lots of" price instead of single price.

## Fluorescent Sockets <br> 

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
C13804-Comb white C13805-Plain black. C13806-Plain white. C13807-Starter only. C13807-Starter only. C13801-Comb. White. Cor T-1 7 lamps. Per Pair C13808-Plain Black


Fluorescent Starter Switches C13802-FS-5. For 6" 4-W.; ${ }^{\prime \prime}$ 6-W.and $12^{\prime \prime} 8$-W. lamps. 2 \&
Your Cost.
C13810-FS-2. For $18^{\prime} 15-W .: 24^{\prime \prime}$
20-W lamps.
C13811-FS-4. For $36^{\prime \prime} 30-\mathrm{W} . ; 48^{\prime \prime}$ 40.W. lamps. For $36^{\circ} 30-$ W.; 48
 C13820
lamps
C13813-FS-6. For $60^{\circ} 100$-W lamps. Above, Each. ... 4,

## No-Blink Instant Start

 A fluorescent starter that acts in one second or less. Eliminates blinking. Two styles: FS-2NA for $18^{\prime \prime} 15 \mathrm{~W}$. or $24^{\prime \prime} 20 \mathrm{~W}$ lamps. FS. 4NA for $36^{\circ} 30$lamps.
C13825-FS-2NA
C13825-FS-2NA
C1382G-FS-4NA
C13826-FS-4NA
Your Cost, either type. 39

## Bed and Utility Lamp

Here is a real fluorescent bed lamp. Soft, coollight that is easy-on-the-eyes. Beautiful Hammerloid brown finish trimmed brown finish trimmed
with stainless steel. The universal type of mounting brackets at the rear of this lamp enables this unit to be fastened wherever desirable. May be easily hooked into the headrest of your bed. Its attractive lines make it suitable for many other applications too, such as: over pictures, bullet in boards, music stands, cashier cages, etc. Has a high efficiency white enameled refiector that gets every bit of light out of the fifteen watt 18 tuorescent lamp. This fixture is ready for installation on 110-125 volts, 60 cycle alternating current only. Shpg. Wt. 4 lbs. $\$ 5$.

All-Steel Industrialite
For high intensity, localized lighting of production, assembly, and inspection lines, over benches,
machines
tables. Underwriters approved or stem mounting and has double knockouts at each end for switches or for end to end continuous row mounting. Knockouts along top for stem mounting. Maximum lighting efficiency assured by the use of a stem mounting. Maximum lighting efficiency assured by the use of a
pressed steel reflector of "glazenamel." Ballast fully enclosed, and pressed steel relector of glazename. Ballast fully enclosed, and 110 volt, 60 cycle AC only. Uses two 40 watt, 48 lamps. High power factor corrected. Reflector can be easily removed for cleaning without disturbing the wiring.
C25565-Y our Cost...
s11.97

## INDUSTRIALITE ACCESSORIES

## C25690-U/L Approved Cord and Plug Set. 61/2인 . . <br> $60^{4}$ C25691-Levolier Switch with pull chain................ $\mathbf{\$ 1 . 0 2}$ <br> C25692-6 Electro Galvanized Tenso Chains with S Hooks. <br> 454 <br> Your Cost per Pair



## CLAROSTAT <br> Fluorescent AC to DC Conversion Ballasts

Fluorescent desk lamps designed for operation on AC may be used on DC of equivalent voltage by using one of these ballasts. Ballast has a receptacle at one end and a standard two-prong plug at the other. Ballast is first plugged into the power line outlet and the lamp plug is Ballast is first plugged into the power line outlet and the lamp plug is
then inserted into the ballast. Employs a glass-insulated resistor. $35 / 8{ }^{\circ} \times 13 / 2^{\prime}$. Wt. 2 lbs .
C13818-195 ohms for use with 15 -watt lamps on 120 V . DC.
C13819-144 ohms for 20 -watt lamps on 120 V. DC.
Either Type, Your Cost
$98^{4}$
Cube Tap
Bakelite. Three out-
lets from 1 plug.
C13282-
Your
$6^{1 / 2}{ }^{4}$


## Current Tap

Straight socket combined ${ }^{\text {with }}$
C13278 ${ }^{-}$. 24

## Handle Plug

 Handle plug made ofsoft rubber. For all apsoft rubb

## pliances.

Your Cos

(1)
Bakelite Plug Standard plug. Well made with sturdy prongs. ${ }^{\text {c } 13306-~ E a c h ~} 3$ f

## Power Cord and Plug



Attractive high quality 6 foot cord with sturdy plug. For replacement on sets, appliances, etc
C13285-Cost

Midget Cord Connector
Flat 2-piece type, 4 Underwriter's
Unded listed. Each. $16^{\circ}$
Cord Switch
C13275-. 194


Insulated Staples
For holding inside leadin and ground wires in place. No. 5, Size $1 / 4 \times$ $5 / 8$ long.
C15950
100 For .


## WoodHeadTacks

Standard upholstery
C15957-Whitel/ 7 \&
 and converters. 136 pages, $5 \frac{1}{12} \times 8^{\prime \prime}$ C19745 Each.
A.C. Calculation Charts
By R. Lorenzen. 146 charts $7^{\prime \prime} x$ $11^{\prime \prime}$ printed in two colors, covering all alternating current calculations in series circuits, parallel circuits, series-parallel and mesh circuits, at frequencies from 10 cycles to 1,000 megacycles. A tremendous time-saver for engineers and others who work on

- lectrical communication and - lectrical communication book contains a tra. sparent straight edge.
C20267-Each.


## Automatic Record Changers 8. Recorders

 All the informacion you need to repair these highly complicated mechanical marvels.You'll be surYou'll be sur-
prised at how prised understand them when you look them up in this new Rider manual. Sharp, clear pictures illus-
trate every phase of operation. rate every phase of operation.
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\section*{1946 "Little Giant'"

## 1946 "Little Giant'" AC-DC Super



Using but four tubes this remark able receiver functions like a receiver using many more tubes. Three tubes used in this fullfledged superheterodyne are of the dual-purpose type and they actually give efficient performance equal to that of a seven tube set. The tone quality is excellent. Construction is simple. Tubes used consist of a 12 SA 7 mixer; 12K7 IF amplifier; 125 SQ 7 2ND detector amplifier; 12 st audio tube; 70 L 7 GT beam 1st audio tube; ${ }^{70 L}$ power amplifier. Includes five inch Power amplifier Includes five inch changes the 6 series tubes such as the 6SA7, $6 \mathrm{~K} 7,6 \mathrm{SQ} 7$, and a 32 L 7 may be substituted. Kit complete, with speaker ready for wiring, but less tubes and cabinet. Shpg. wt liss. Popular Mechanics R342.
C24513
Your Cost......

Two Crystal Sets for Beginners


For beginners these two crystal receivers are of the simplest design, but their performance is outstandcrystal detector of highest sensilivity in conjunction with a coilcondenser circuit of exceptional performance. Kit No. 2 utilizes the same parts, but in addition one type same parts, but in addition one type
70 L 7 GT audio amplifier tube. The crystal detector circuit is coupled crystal detector circuit is coupled audio tube which in turn may be used to excite a pair of earphones or a small magnetic speaker. Shpg. wt. 7 lbs. each. Popular Mechanics R311 canco soit No. 1. $\$ 1.98$ Coultas cose ino. 2 L and earphones.

LAR MECHANICS Kits. Because of popular demand these 20 easy-toconstruct kits of various types now are available for immediate de livery. Highest quality components are used throughout. They are especially Hell suited not only for home use but for use in class rooms for demon well suited stration purposes, for training and experimental work of all types, etc. These units have been pre-tested by thousands of Popular Mechanics readers who purchased and constructed them. Large, clearly defned blue prints are supplied. All necessary hardware including hookup wire, solder, screws, lugs, etc. are all furnished as well as instructional sheets. Whether you are a beginner or advanced in radio or electrical work you will find construction of these kits very fascinating. Blue prints may be obtained separately if desired-Sce list below. If you wish any additional information on any of these kits, we have available parts lists and sheets on all Popular Mechanics Kits listed on this page. We will gladly send parts lists free of charge. When requesting these, kindly specify projects that you are interested in


## Ten-Watt Amplifier

Wherever a good ten watt audio amplifier with negligible distortion is desired this conservatively rated unit "Gills the bill." An exceptional bass reproduction method is employed which climinates the booming unnatural tones so often heard in audio amplifiers. The output stage is re
sistance coupled with a pair of either 2A3 or 6A3 type tubes in push-pul being used. Circuit includes a phase inverter and a simple form of feedback that prevents distortion and reduces hum level to an absolute minimum value. Tubes employed: 6C5, 6N7, 6A3, 5U4G. Kit complete less 10 inch PM speaker and tubes. Shpg. wt. 24 lbs. less R R331
C24512-Your Cost
\$17.39
Inter-Room Communicator System


Consists of a master station and a sub-station as a basic system to which 2 more sub-stations may be added at any time. Simplified
switching at stations switch the speakers from the output of the amplifier to the input in such a manner that they also serve as microphones. For calling purposes there is a signal tone provided for calling from either end of the circalit. The master station includes cuit. The master station includes
a $12 \mathrm{~J} 7 \mathrm{GT}, 50 \mathrm{~L}, \mathrm{G}^{\prime} \mathrm{T}$ and a 457 , a $12 \mathrm{~J} 7 \mathrm{GT}, 50 \mathrm{~L}, \mathrm{GT}$ and a 457 ,
5 GT . Operates from 115 Volt SGT. Operates from 115
AC or DC line. Wt 9 lbs. Master \& One sub-station C24508 Les
Tubes. Your Cost ${ }^{\text {PTF }}$ T 5 C24522-Wt. $5 \mathrm{lbs} . \$ 4$
Your Cost

Portable Phono-Attachment and "Mystery" Player


May be coupled directly to any radio or may be used as a wire less oscillator type phonograph, thus eliminating the necessity of wiring it to your radio. It is merely necessary to plug into any nearby electric outlet. Oscillator consists of a 6A7 and one type 6C6 rectifier. Shpg. wt. 19 lbs. Popular Mechanics R323.
C24509-Less Tubes and Carry
ing Case.
$\$ 13.25 \left\lvert\, \begin{gathered}\text { Cour cost } \\ \text { Yotsin }\end{gathered}\right.$

1 and 2 Tube Kits


These kits are extremely simple in construction and operation. Both employ a 1Q5GT detector tube. The two tuber has another 1Q5GT audio amplifier which boosts the output on standard or short-wave stations. Complete broadcast and short-wave reception. Either set may be operated from batteries or a combination of batteries and B-battery eliminator. Less tubes, earphone and batteries. Shpg. wt. 1 -tube kit approx. 3 lbs., 2 -tube kit 4 lbs
C24500-1-Tube Kit.
Popular Mechanics R305
Your
C24501-2-Tube
$\$ 2.83$ Popular Mech. R307 \$6.55 Dual Phono Unit Has Self Contained Amplifier and Electronic Mixing


Twin-turntable record player and amplifier especially designed for home movie makers who desire an appropriate musical background for their pictures, and also a means of describing the scenes being presented by interpolating operators running commentary by microphone. Independent controls on each unit are used to provide fading or dubbing in sound effects. When assembled these units fold together in one compact unit. Includes a high-gain excellent quality push-pull amplifier with 8 watts of push-puli ampliner with 8 watts of 6P5G 6Y7G 6AD7G 2-6F6GT 5Y3G Ten-inch PM speaker and its connecting cable fit into another its connecting cable fit into another
case. By proper manipulation of controls sound effects can be super imposed on recordings. Less tubes, speaker \& cases. Shpg. wt. 27 lbs Popular Mechanics R327.
$\$ 47.11$

## TWENTY POPULAR MECHANICS KITS AND BLUE PRINTS

Blue tPopular
Print Mech.

## Name of

stock No. No.
C20300. R305 Beginners "Spec" 1 tube battery kit C20306 R306 Inter-room Communicator System C20301 R307 Beginners "Spec" 2-tube kit
C20302
R310 Four Watt AC-DC Amplifier $\begin{array}{lll}\text { C20302 } & \text { R310 Four Watt AC-DC Amplifier } \\ \text { C20303 } & \text { R311 } & \text { Two Modern Crystal Receivers for }\end{array}$ C20303 R311 Beginners
C20304 R313 Safety Code-Practice Oscillator and C20304 R313 Short-Wave Receiver for Students C20305 R317 Emergency " B " Power Unit C20307 R323 Portable Phono and Mystery Player C20308 R327 Dual Phono Unit and Amplifier Player
 C20309 R328 Desk Lamp "DX"-"ER" for Boys Room C20310 R331 High Quality Ten Watt Amplifier C20311 R342 1946 "Little Giant" AC-DC Super C20312 R335 Two Low Cost Receivers for $\begin{array}{cccc}\text { C20312 } & \text { R335 } & \text { Experimenters } \\ \text { C20313 } & \text { R337 } & \text { Two Tube Pockette Portable }\end{array}$ $\begin{array}{lll}\text { C20313 } & \text { R337 } & \text { Two Tube Pockette Portable } \\ \text { C20314 } & \text { R338 } & \text { Three Tube } 8 \text { Watt Cake Pan Amplifier }\end{array}$ $\begin{array}{lll}\text { C20314 } & \text { R338 } & \text { Three Tube } 8 \text { Watt Cake Pan } \\ \text { C20315 } & \text { R339 } & \text { Electronic Photo Print Timer }\end{array}$ C20316 R341 Three Tube Short-Wave Superhet

## Radio Beginners Crystal Detector Kit



Something new and different in crystal detector sets is this rady-for-assembly kit designed especially for radio beginners. This outstanding little crystal detector type of radio is different from the average because of selectivity. In order to assemble this kit it is only necessary to have a screwdriver. NO SOLDER is required. Fahnestock clips are provided and it is only necessary to clip wire from one point to the other. lncludes all parts as well as an extra sensitive silicon crystal detector unit. Shpg. wt. complete kit, 6 lbs. C24519 . Crystal Detector Kit $\& \mathbb{Z}$
only................................. C16480-Antenna Kit for C16480
above.


## 5-TUBE AC-DC DEMONSTRATOR

An excellent demonstration unit designed principally to simplify instruction in the theory of radio circuit design and operation, circuit analysis and trouble shooting, and proper use of test equipment in repair work. Multiple snap connecto are used on each tube element for signal and voltage measurement; also at circuit junctions so that each coil, condenser or resistor may be opened, or, where it will not damage the unit. shorted out to simulate actual conditions in defective receivers. Circuit diagnosis by use of test equipment can be practised without receivers. Circuit diagnosis by use of test equipment can
necessify of wiring in parts which are actually defective.
All trimmers are easily accessible from the front of the panel for demonstration of alignment procedure.
Consists of a 5 tube AC-DC superheterodyne, covering a frequency range of 540 to 1600 KC , with the following tube line-up: 12SA7 1st detector and oscillator: 12SK7 intermediate frequency amplifier; 12SQ7 2nd detector and 1st audio: 50 L 6 beam power output; 35 Z 5 rectifier.
For operation from any 110-120 volt. AC or DC, 50-60 cycle power source. Available in kit form, with erery necessary part supplied, and with four-color panel completely finished and drilled. Shpg. wt. 39 lbs.


COMPLETE TRANSMITTER TRAINING KIT


This excellent training kit consists of a 6L6G Hartley type oscillator, a 6L6G neutralized amplifier, a 6L6G modulator and $5 Z 3$ rectifier. All coils are ready-wound on porcelain forms. With the exception of meter and microphone every necessary part is supplied, including a neon bulb for meter-less tuning and a Mazda bulb for dummy loading. An antenna tuning circuit is provided, which works'into low impedance antenna or a dummy load. Cathode circuit of the modulator tube provides button current for any single button carbon mike.
Oscillator tuning control calibrated throughout range of transmitter, 3.1 to 6.5 Mc . Oscillator circuit may be keyed for CW. Metering jacks provided in oscillator, amplifier and modulator cathode circuits.
Parts list, chassis layout and oversize schematic diagram supplied with each kit. Shpg. wt. 20 lbs.
CRC-150R-Your Cost less tubes
$\$ 27.53$

## 7-TUBE TRF DEMONSTRATOR KIT



Comprises many progressive project possibilities in one unit. Can first be assembled lo operate as a batter y-powered detector. Rectifier can then be wired in for A.C. operation. This can be followed by a single r.f. stage, then a single a.f. stage. Later another stage of r.f. can be wired, to be completed by the final push-pull power output stage. Tip jacks and jumpers are provided as a means of operating each stage separately or in conjunction with other stages after assembling. Chassis of ample size so that voltage output and other measurements can be made conveniently from the top of chassis. Frequency coverage from made convenient
550 to 1700 Ke .
Tubes used: $2-6 S K 7$ r.f. amplifier stages; 1-6C5 detector; 1-6L5 Tubes used: $2-6 \mathrm{GK}$ 7 r.f. amplifier stages; $1-6 \mathrm{C}$ a detector; $1-6 \mathrm{~L} .50$ 1st a.f. and
rectifier. Operates from 117 volt A.C. $50-60$ cycle source; battery supply plug provided for use in primary stages until power supply section is completed.
Chassis has corner posts to support assembly on bench. Chassis size: $3 \times 13 \times 17^{*}$. Complete with all parts, speaker, but less batteries and tubes. Shpg. wt. 20 lbs.
CRE. W0R-Your Cost
$\$ 26.73$


## One and Two Tube Kits

Ineal for use in elementary radio training, for instruction in detector operation, regeneration. and simple alignment procedure. Both kits use a 6J5GT regenerative detector, and the two tube kut has a 6SK7GT RF stage in addition. Identical chassis and panels are used in both kits, sco that the one tube kit may be easily converted to a two tube with an RF stage with a minimum of additional parts. Frequency range 550 to 1700 KC . Operates from either CRC-20R or CRC-30R power supplies. Chassis and panel completely formed and punched. Panel size, $51 / 2^{\prime \prime} \times 7^{\prime \prime}$; Chassis $7^{\prime \prime} \times 41 / 2^{\prime \prime} \times 134^{\circ}$. Complete but less tubes, headphones and power supply. Shpg, wt. 3 lbs.
CRC-10AR-One tube kit.
Your Cost.
$\$ 4.41$
CRC-10BR-Two tube kit. Your Cost $\mathbf{\$ 5 . 5 0}$ CRC-10CR-Parts to convert 1 tube
into 2 tube. Your Cost
.$\$ 1.22$


## Audio Amplifier Kit

A high gain two stage resistance coupled ampli fier, utilizing a 6SJ7 input stage, and 6F6 output stage. Has sufficient gain to operate with high impedance microphones or phono pickups. Because of its excellent response characteristics and simplicity it is ideal for use in plotting response curves and in teaching basic audio theory. Fully shielded output transformer with 4-8-16-500 ohm output impedances. Can be used to amplify the CRC-10R or CRC-10BR kits. One CRC-20R supply will operate the extremely heavy duty output transformerinsures very good quality. Complete with input and output connectors and all other necessary parts. May be used with any good PM speaker. (Not supplied.) Chassis: $5 \times 91 / 2 \times 11 / 2^{\prime \prime}$. Shpg. wt. 8 lbs.
CRC-40R-
Your Cost less tubes
\$7.40


Power Supply Kits
Companion units to operate CONCORD kiis requiring external power source. Tapped variable 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 chokes. In addition to their use as power source for the CONCORD kits described, these units may also be used as a hum-free supply for other receivers, amplifiers, and small transmitters. Complete with all parts except 80 type rectifier tube. Ready all parts except 80 type rectifier tube. Ready to assemble and wire. Chassis size: $5^{\prime \prime}$
$112^{*}$. For 117 volts $50-60$ cycles AC. $11 /{ }^{\prime \prime}$. For 117 volts $50-60$ cycles AC.
CRC-20R- 350 V . at 70 Ma and an CRC-20R-350 V. at 70 Ma and and 6.3 V . at 3A. Shpg. wt. 12 lbs .
Your Cost.
CRC-30R- 350 V. at 140 Ma and 6 . 3A. Shpg. wt. 15 lbs .
Your Cost. . . . .
$\$ 13.42$

# REPAACFMENT COIIS SWCHOHES 

 "Universal-Adjustable" IronCoreAnt., R.F. and Osc. Coils Will replace broadcast band coils in practically any receiver. Will acother coils in the recelver when properly adjusted. Exact inductance of burned out coil easily matched With screw driver adjustment of the iron core. Will improve gain and selectivity. Osciliator coil can and used with either cut plate or padding condenser circuits. Stock No. Type Eails c10007-Antenna C10008-RF C10009-Oscillator Shielded Coils As above but with Black crackle cans $18 / 4$ square, by $21 / 2$ high C10121-RFC10123-RF
IF Transformer


For the new ultra high F.M. frequen cies. Permeability
tuned to 10.7 meg tuned to 10.7 megin rectangular shield can measuring 17 in ${ }^{\prime \prime}$ $\times^{7 / 8^{\prime \prime}} \times 1^{29 / 32 " ~ w i t h ~}$
screw type mounting lugs.
c10329-Mei
Your Cost
$\$ 2.20$
Fiscriminator X'former Permeability tuned to 10.7 meg acycles. This discriminator is de signed for use on the new FM range Same size as above. Your Cost Each.
$\$ 2.94$
Ne can supply any Meissne or Carron merchandise that you mayrequire. Merely order, giving manufacturer's part number, or write us for complete details. See the complete Carron cone listing on page 33.

## CARRON Standard

I. F. Transformers


Built to highly exacting standards, these double will assure excellent re-
 In $18 / 4 \times 13 / 8 \times 31 / 2^{\circ}$ shield can. Spaced leads eliminate "flutter" under vibration. Frequency 456

C10147-Input
C10148-Output
Either Above, Ea
\$1.09

## CARRON Midget

 Iron Core \& Standard1. F. $X^{\prime}$ formers
-esigned for use with with Litz wire. Ceramic base trimmer: polystyrene impregnated
winding forms double tuned. Leads from trimmer spaced away from windings. For use in one Only $21 / 2$ inches high, 1

## Iron Core 456 Kc.

C10204-Input
C10205-Output $\$ 1,20$
EitherAbove, Ea.. Standard 456 Kc .
C10206-Input
C10207-Output
Either Above, Each.... $\$ 1$

## Whismer colls

MEISSNER "Plastic" I.F. Coils

## Stable-Compact-Wide Range

A new transformer in which the trimmer base and the coil form (dowel) are moulded in one piece. The use of a special plastic material permits holding dimensions to special plastic material permits holding dimensions to
within .0005 ". Trimmers "foated" away from the base with an air-gap between the bottom plate and plastic base. Wide range. Compact in size; $11 / / /^{\circ}$ square by $21 / 2^{\prime \prime}$ high. Specially-served Litz wire. Double tuned. Metal shield can. Unaffected by temperature or humidity. Suitable for Input and Output.

Deluxe Air-Tuned Iron Core I.F. X'formers High gain Ferrocart F. transformers tuned with Align-Aire air-
tuned trimmers. Exceltuned trimmers. Excel-
lent for communications and other receivers. Non-microphonic. Air trimmers permit $3600^{\circ}$ of micrometer tuning. Double
 tuned. Black crackle finished cans $2 \times 2 \times 48 \%$. Set at 456 KC Freq. range 415 to 540 KC . c10264-Input $\left.\begin{array}{l}\text { C10265-Interstage } \\ \text { C10266-Output }\end{array}\right\}$

Ferrocart (Iron Core) IF Transformers, Double-tuned I.F. with low-loss trimmers. Accurately made of the est materials and oscil and selectivity. Mounted in $18^{\circ}$ square by 31/2 high black crackle-
finished cans. Leads are RMA-color-coded.


Input Output KC at Range $\mathbf{C 9 6 8 9}$ C9687 $\quad 456 \quad 360-600$ Your Cost Each. $\qquad$

## Special Oscillator Coil

 For Type 6SA7For electron coupled oscillator circuits. Unshielded, 456 KC IF. Requires 350 mmfd . padder cond. 365 mmfd. tuning condenser C10332-Meissner 14-1033 Your Cost
Each
824

## MEISSNER Manual

A handy "How to Build" instruetion manual giving instructional data on building Meissner kits from 1 tube through FM and Television, including amateur sets and adapter kits. Also a complete outline of Frequency Modulation
C19978 Your Cost

## Unshielded Universal Adjustable Coils

Exact inductance of eplaced coil covering $550-1715 \mathrm{KL}$ matched eas coly. Osable from 175 ta 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,
Your Cost, Each.
$73^{4}$
CARRON R. F. Chokes
All purpose r.f. chokes
wound on steatite dowels. Both winding and dowel impreg nated, sealed perma-
nently against humion "L" bracket, placing lugsin easy connecting position. Excellent replacements.

| Stock No. | Inductance in MH . | Your Cost ea. |
| :---: | :---: | :---: |
| C10208 | 2.5) |  |
| C10209 | 5.5 |  |
| C10210 | 7.5 |  |
| C10211 | 10.0 . | 35 e |
| C10212 | 30.0. | 44 c |
| C10213 | 60.0 . | 51 c |




Midget Receiving Condensers


National Miniature Condensers each end makes this lowloss midget condenser especially handy where gang ing is required. Steatite base. Conducting parts silver plated.


#### Abstract

mounting: ${ }^{1}$ " shafts, $1 / 2$ long; overall size


 " wide, 23 " high (except TCN
## Letter D after type denotes split stator.

 Stock Nat'l No. \& No. Peak YourNo. Cap.Mmfd. Plates Volts Cost C14592 TMC-50 C14593 TMC-100 $\begin{array}{lllll} & & 13 & 3000 & 3.00 \\ \text { C14594 } & \text { TMC-150 } & 21 & 3000 & 3.45\end{array}$ $\begin{array}{lllll}\text { C14596 TMC-300 } & 39 & 3000 & 3.45 \\ & \text { TM } & 3000 & 4.35\end{array}$ $\begin{array}{lllll}\text { C14595 TMC-100D } & 13-13 & 3000 & 4.95\end{array}$ *For neutralizing 203A, 852, 204A, etc

\section*{Ultra Midgets "UM" Condensers Especially designed for ul-tra-high frequency circuits. Mounted on isolantite base $1 \times 2^{3}$ in"; can be mounted in shield can. Shafts extend for ganging. stators and a single rotor. <br> | No. | Type | Mmfd. | Gap | Each |
| :---: | :---: | :---: | :---: | ---: |
| C14336 | UM-15 | 15 | $.017^{*}$ | $\$ 0.84$ |
| C14337 | UM-35 | 35 | $.017^{\prime \prime}$ | .99 |
| C14338 | UM-50 | 50 | $.017^{\prime \prime}$ | 1.05 |
| C14339 | UM-75 | 75 | .017 | 1.14 |
| C14319 | UM-100 | 100 | $.017^{*}$ | 1.26 |
| C14340 | UMA-25 | 25 | .012 | 1.20 |
| C14341 | UMB-25 | $25-25$ | $.017^{*}$ | 1.20 |}

"NC-600" Neutralizing
Condenser


Small neutralizing condenser for use with 6L6's and similar beam power output tubes. Capacity
humb screw from .5 to 4 mm m. I Isolantite
insulation. Shpg. wt. 6 oz.
304

Shaft Couplings and Bushings
Well made brass bushings that have many applications.


Your
10 For
Type C. bor increasing shaft diam. from $1 / 4^{\prime \prime}$ to $8 / 8^{\prime \prime}$. Brass, $7 / 16^{\circ}$ long. 10 For.
Brass and Fibre
Shaftings
Fine for extensions. $1 / 4$ Fine for extension C15011-6 $6^{\circ}$ Fibre Your Cost.
C15012-12 Brass
C15013-12" Fibre
Your Cost.
Flexible $1 / 4^{\prime \prime}$ Shaft Coupler For use in coupling
two 1 shafts or for two $1 /{ }^{\prime \prime}$ shafts or for
extending a shaft at an offset angle. Insulated.
C9751-Bakelite.
C9750-Ceramic.
Each. 294

## NATIONAL

 Shaft CouplingsAll take $1 / 4$ shafts.
TX-8: Isolantite ins. C8461- 51
Each
TX-9: Steatite insulation. $\mathbf{C 8 4 7 0 - E a . ~} 7$
TX-10: Phenolic insulation.
C8471-Each


Shpg. wt. each, 8 oz.
C14530-TX-12. 45 C14529-TX-13 $718^{\circ}$ 844 Your Cost Each 994 C14531-TX-11. Withou tite insulation. $45 / 8^{\circ}$ Your Cos

## isolantite.

 C14502-TX C14502-TXPanel Beaxing Assembly Use with rigid or flexible coupling when mounting. For $\mathrm{up}_{\text {Size }}$ to $5 / 16^{\circ}$ panels.

## DEFIANCE Gang Condensers

All feature aluminum plates, ball bearing rotors and ceramic insulation. Two and three gang units supplied with trimmers on the botton. Shafts and rear the long. Three mounting holes front $113 / 6^{\circ}$ wide. Shpg. wt. 1 lb . All 365 mmfd . per

|  |  |  |  |  | 456 Kc | uper |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Each | Gangs | Lensth | Rotation | No. | Each |
| C9780 | \$1.10 | 1 | 17/6. | counter-clock |  |  |
| C9781 | 1.39 | 2 | $2^{3} / 6^{\circ}$ | counter-clock | C9798 | \$1.39 |
| C9782 | 2.05 | 3 | $3{ }^{16}$ | counter-clock | C9799 | 2.05 |
| C9783 | 1.10 | 1 | 17\%* | clockwise |  |  |
| C9784 | 1.39 | 2 | $23 \%{ }^{\circ}$ | clockwise | C9796 | 1.39 |
| C9785 | 2.05 | 3 | 3\%16 | clockwise | C9797 | 2.05 |



## Midget Condensers

For communications receivers and transmitters. Compact, rugged and highly efficient. Ceramic insulation, sturdy lug terminals, single hole mount ing feature, etc. $1 / 4^{n}$ shaft plated to resist corrosion With mounting nut. Shpg. wt. 1 lb .
C9728-Capacity 3.5 to 25 mmfd 4 plates. Each
C9731-Capacity 6 to 80 mmfd . 11 plated. Each
C9727-Capacity 6 to 100 mmfd . 14 plates. Each
c9714-Capacity 7 to 140 mmfd. 19 plates. Each

## CRO-BAND Dial

Escutcheon opening meas-
with Croslas
crystal and antique bronze finish. For bronze finish. For
use with $3 \leqslant{ }^{*}$ or $1 / 4^{n}$ Shafts. Pilot light sockets fur nished.
C9814-For clockwise.
C9815-For counter clockwise.

## SLIDE RUET DIAES

In both $1 / 4^{\circ}$ and $3 / 8^{\prime \prime}$ shafts. For close right or close left condensers
Panel opening re
quired: $19 / 1$ " $^{\prime x} 51 / 8^{\prime \prime}$. Universal scale
for broadcast and short-wave.
c9812-Counter-clockwis
C9811-Clockwise. \$1 71 Similar to above but smaller.
Requires $15 / 8^{" x} \times 3 / 4^{7}$ opening.
c9817-Counter clockwise.
C9816-Clockwise. $\$ 1,93$
Either type.....

# BUD HAMMMRRLUIDTVasialleCONDFNSERS 

Double-Spaced X'mitting Midgets
 Hard drawn brass plates and rods elec-tro-soldered and heav-
ily cadmium plated. Alsimag 196 insulation. Double spring rotor contacts Wide plate spacing. Double bear ings on single and 2 gang units.


2-Gang Double-Spaced X'mitting Midgets Heavy ceramic base permits mounting these double-spaced | condensers directly to the chassis. |
| :--- |
| $\mathbf{C 1 0 8 3 2}$ | C 10832

C 10833

\section*{Per section. <br> Receiving Midgets} Semi-circular plate type. Have single bearing (except 2-gang has two bearings) and spacing suitable for receivers and x'mtrs. | No. | Mmfds. | Gap | Plates | Each |
| :--- | :--- | :--- | :--- | :--- |
| C10835 | $4-15$ | $.024^{*}$ | $\frac{3}{3}$ | $\frac{\$ 0.65}{}$ |
| C10836 | $5-35$ | $.024^{*}$ | 5 | .71 |
| C10837 | $6-50$ | $.024^{*}$ | 7 | .76 |
| C10838 | $7-100$ | $.024^{*}$ | 14 | .94 |
| C10839 | $7-140$ | $.024^{*}$ | 19 | 1.03 |
| Cl0834 | $7-100^{*}$ | $.024^{*}$ | $14^{*}$ | 2.44 |

*-2-Gang ratings per section.

## MICA TRIMMER

Mica dielectric,
1solantite base.
Range 2 to 36
mmid. $5 / 8^{\prime \prime} x^{3} 4^{\prime \prime}$
C9747-Ea. 15 c

## HAMMARLUND

 "MCD" Split-Stator condenser built on ${ }^{\text {n }}$ a
strong Isolanbase. Shield plate between stators. Capacities are for each All $38 / 8^{\prime \prime}$ behind panel.

 | C8520* | MCD 100 MI | 100 | 3.48 |
| :--- | ---: | ---: | ---: |
| C8521* | MCD 50 MI | 50 | 3.21 |

Double-Spaced Split-Stator Have wide (. $0715^{\prime \prime}$ ) spacing of

plates. Other specs. as above. |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| plates. Other specs. as above. |  |  |  |  |  |
| C8490* MCD35MIX | 31 | $\$ 3.33$ |  |  |  |

 *Midline. $\ddagger$ Semi-Circular plates.

## "HF" Micro Condensers

$\begin{aligned} & \text { Cadmium- } \\ & \text { plated sol- }\end{aligned} \quad-$ momind dered brass plates; Isolan
tite insulation; single-hole mounting or base mounting.

| No. | NImfd. | Plates | Each |
| :---: | :---: | :---: | :---: |
| $\mathbf{C 8 7 0 0}$ | 17.5 | 5 | $\mathbf{S 0 . 9 6}$ |
| C8701 | 35 | 10 | 1.11 |
| C8702 | 50 | 14 | 1.17 |
| C8703 | 100 | 27 | 1.47 |
| C8704 | 140 | 37 | 1.68 |
| C8705* | 30 | 20 | 1.32 |


| "HFD" Dual Units |  |  |  |  |
| :--- | :--- | :--- | ---: | :---: |
| Specs. are given per section. |  |  |  |  |
| C8706 | 50 | 14 | $\$ 2.49$ |  |
| C8707 | 100 | 27 | 2.85 |  |
| C8708 | 140 | 37 | 3.12 |  |
| C8699* | 16 | 11 | 2.37 |  |
| C8709* | 28.5 | 19 | 2.64 |  |

## U.H.F. Transmitting Condensers



These condensers are excellenly suited for low and medium powered transmitters, and they feature electro-soldered plate assemblies, assuring correct plate spacing, overal rijidity, and iight weight. plates are rounded, and the assemblies are cadmium plated. Steatite insulation is used throughoui. Panel mtg. plus brackets for chassis mtg. Especially suitable for multi-band applications.

## Single Section Condensers

| Stock No. | Bud <br> Type <br> No. | Max. Cap. MMFD | $\begin{gathered} \text { Min. } \\ \text { Capid. } \end{gathered}$ | $\begin{aligned} & \text { Air } \\ & \text { Gal. } \\ & \text { In. } \end{aligned}$ | $\begin{aligned} & \text { Depth } \\ & \text { ln. } \end{aligned}$ | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C10621 | JC-1525 | 50 | 4 | . 051 | 2 | \$2.15 |
| C10622 | JC-1526 | 100 | 7 | . 051 | $2^{17} 6$ | 2.32 |
| C10623 | JC-1527 | 145 | 9 | . 051 | $2^{31}$ | 2.73 |
| C10624 | JC-1528 | 250 | 12 | . 051 | 416 | 3.38 |
| C10625 | JC-1530 | 25 | 4 | . 078 |  | 2.11 |
| C10626 | JC-1532 | 55 | 8 | . 078 | $25 / 8$ | 2.47 |
| C10627 | JC-1534 | 110 | 10 | . 078 | $3^{111} 16$ | 3.00 |
| C10628 | JC-1538 | 20 | 5 | . 144 | 25/8 | 2.32 |
| C10629 | JC-1540 | 55 | 10 | . 144 | 45 | 3.00 |
| C10630 | JC-1542 | 105 | 15 | . 144 |  | 4.00 |
| C10631 | JC-1543 | 18 | 6 | . 175 | $2^{13} / 16$ | 2.59 |
| C10632 | JC-1545 | 55 | 13 | . 175 | $5^{3}{ }^{3} 5^{16}$ | 3.85 |
| C10633 | JC-1547 | 100 | 18 | 175 | $8^{3.5}$ | 5.11 |

4 而
 Tie rods are insulated at both ends with Steatite.
All other constructional features and materials are All other constructional features and mater ials are
the same as used on he single section condensers
listed above. Capacities are per section.

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

Tiny-Mite Condensers
Designed for u.h.f. circuits. Extremely compact. Have
rigid construction close fittine bearings excellent rigid construction, close fitting bearings, excellent
Alsimag 196 insulation. Soldered brass plates are Alsimag 196 insulation. Soldered brass, plates are bright cadmium plated. 3 -way mounting. Shaft arrangement on single units permits ganging. Panel space


| No. | Mimid. | Plates | Each |
| :---: | :---: | :---: | :---: |
| C9539 | 3-15 | 5 | \$0.82 |
| C9540 | 4-25 | 9 | . 88 |
| C9541 | 5-35 | 13 | . 94 |
| C9542 | 6-50 | 19 | 1.00 |
| C9543 | 9-100 | 37 | 1.23 |
| C9545* | 4-10 | 7 | . 91 |
| C9546* | 5-15 | 11 | 1.00 |
| C9547* | 5.5-25 | 17 | 1.18 |
| C9548* | 6-35 | 21 | 1.29 |

2-Gang Condensers
Capacities are per section.

| No. | Mmfd. | Plates | Each |
| :---: | :---: | :---: | :---: |
| C9512 | 3-15 | 5 | \$1.85 |
| C9513 |  |  | 2.03 |
| C9514 | 6-50 | 19 | 2.12 |
| C9515 | 9-100 | 37 | 2.41 |
| C9516* | 4-10 | 7 | 1.76 |
| C9517* | 5-15 | 11 | 1.94 |
| C9518* | 5.5-25 |  | 2.09 2.26 |
| C9519** | 6-35 | 21 | 2.26 |

## HAMMARLUND

## Type "HFA" Condensers



Construction features all parts of cadmium plated brass, $1^{13,15}$ " square isolantite end plates, $1 / 4$ shafts, and $100 \%$ soldered construction which elininates losses due to high resistance contacts. All plates extends $3,16^{\circ}$. All rear bearings are single ball thrust. Mounting brackets as shown.

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \text { Hamml'd } \\ \text { No. } \end{gathered}$ | $\begin{aligned} & \text { Per } \\ & \text { Mmfd. } \end{aligned}$ | Section <br> No. Plates | Air | Length Ins. | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C7233 | HFA100A | 100 | 19 | .020" | $1^{136}$ | \$1.80 |
| C7234 | IIFA1.10A | 1.40 | 27 | . $020^{\circ}$ | 13 | 2.10 |
| C7235 | HFA10B | 10 | 3 | .030** | 254/2 | 1.38 |
| C7236 | HFA15B | 15 | 5 | . $030^{\prime \prime}$ | 7/8 | 1.47 |
| C7237 | HFA25B | 25 | 7 | . $0330^{\prime \prime}$ | 31,6 | 1.53 |
| C7238 | IFA50B | 50 | 14 | . $030^{\prime \prime}$ | 13/8 | 1.68 |
| C7239 | HFA15E | 15 | 9 | .070 ${ }^{\prime \prime}$ | 13\% | 1.53 |

## Type APC Air-Padding Condensers

 Insolannite tasesol-
dered birs dered brass plates; $0.15^{\prime \prime}$ air-gap; only
$1 / 4 x^{15} / 4 \times 11 / 2$ high. $11 / x^{13}$ fix $x 13 /{ }^{\prime \prime}$ high.
Screw-driver adjustment; maintain constant capacity
under all conditions.

| No. | Cap. Minid | Each |  |  |
| :---: | :--- | :--- | :--- | :--- |
| C8623 | 3 | to | 25 | $\$ 0.90$ |
| C8624 | 3.9 to | 50 | 1.05 |  |
| C8625 | 4.5 to | 75 | 1.17 |  |
| C8626 | 5.5 to | 100 | 1.32 |  |
| C8743 | 6.5 to 140 | 1.56 |  |  |

## Single Bearing Midgets

 For portable and mobile use. Single spaced. Has rotorlocking-nut and
removable rotor shaft extension. When rotor shaft extension is removed, adjustment is made by means of a screw driver slot. Air gap . 030

| Stock | Cap. | Depth | Your |
| :---: | :---: | :---: | :---: |
| No. | Mmid. |  | Cost |
| C8394 | 4-15 | $9{ }^{\circ}$ | \$1.00 |
| C8395 | 6-35 | $48^{\circ}$ | 1.09 |
| C8396 | 7-50 | $13{ }^{\circ}$ | 1.21 |
| C8397 | 8-75 | $13{ }^{\circ}$ | 1.35 |
| C8398 | 9-100 | 1\%* | 1.31 |
| C8399 | 10-150 | $23{ }^{\circ}$ | 1.62 |

## BUD TINY-MITE

Air Padder Condensers Ideal for circuits requiring a constant capacity under all conditions, such as oscillator padding
circuits, I.F transformers, fixed-
tuned circuits, etc. Fit standard $132^{\prime \prime}$ dia. forms. Screwdriver or hex wrench adjustment.
Stock Mmfd. Depth Your

| Stock No. | Mmfd. <br> Range | Depth | Your |
| :---: | :---: | :---: | :---: |
| C10088 | 3-15 | 7/80 | \$0.76 |
| C10089 | 4-25 | 11,16 | . 76 |
| C10090 | 6-50 | 13/80 | . 88 |
| C10091 | 9-100 | 17/8* | 1.12 |

## 646 Neutralizing Condenser <br> Range 1 to 9 mmid . For tubes like 6L6, 6V6, 807, RK49, RK39, etc. Shpg. <br> C9569 <br> Your Cost 97

HAMMARLUND
Type "MC" Midget
Units


Cadmium-plated soldered brass plates; Isolantite insulation; heavy aluminum ends; single-hole gap; $0225^{\circ}$ plates; ${ }^{1}$ "shaft, can be ganced; silver plated Beryllium wiper; 500 -volt a.c test.

| No. | Plates | Cap.Mmfd | Each |
| :---: | :---: | :---: | :---: |
| C8503* | 3 | 5.5-20 | \$1.53 |
| C8504* | 5 | 6-35 | 1.59 |
| C8505* | 7 | 6.5-50 | 1.68 |
| C8506 $\dagger$ | 11 | 8-80 | 1.80 |
| C8507* | 11 | 7.3-80 | 1.80 |
| C8508* | 14 | 8.3-100 | 1.95 |
| C8509 ${ }^{\text {+ }}$ | 14 | 7.5-100 | 1.95 |
| C8510t | 19 | 9-140 | 2.10 |
| C8514* | 19 | 10-140 | 2.10 |
| C8511 $\dagger$ | 27 | 10.3-200 | 2.28 |
| C8512 + | 34 | 12-260 | 2.49 |
| C8513 + | 43 | 13.5-320 | 2.79 |

## Dual-Spaced Midgets

$0175^{\prime \prime}$ air gap; Isolantite insulation; single-hole mount; compact.

| No. | Type | Mmfd | Each |
| :---: | :---: | :---: | :---: |
| C8527 | MC20MIX | 20 | $\mathbf{S 1 . 6 8}$ |
| C8468+ | MC20SX | 20 | 1.68 |
| C8488+ | MC35MX | 32 | 1.80 |
| C8889+ | MC50MX | 50 | 1.95 |
| C8502 | MC100SX | 100 | 2.43 |

$\dagger$ Straight Line.

## Wקनק NOTइマ $\begin{aligned} & \text { We can supply any Bud }\end{aligned}$ <br> We can supply any Bud not listed here at usual discount. Specify manufacturers' part number when ordering.




# ORANSMITTING DIAISTMNOOBS 

GORDON Hand Wheels
 Bakelite Wheel
with pointer. Fits with pointer. Fits all $1 /{ }^{\circ}$ shafts. that will add to the appearance of X -mitung and electronic equipment. Wt. 8 oz . C14641-3 $1^{\prime \prime}$ " Wheel and Pointer with $180^{\circ}$ scale. Each...
C14642-
$1 / 6^{\prime}$. Wheel and Pointer with $180^{\circ}$ scale. Each.... $\$ 1.06$ C14643-15/8" Wheel and Pointer With $180^{\circ}$ scale. Each. C14644-11/8" Wheel and Pointer with $180^{\circ}$ scale. Each. C14645-11/8" Wheel and Pointer Your $270^{\circ}$ scale for gain control Your Cost Each
HAND WHEELS with pointer only, less scale
C14646-31/ Your Cost....94c C14647-21/2 Your Cost C14648-15/8 Your Cost C14649

## JOHNSON Shaft

 Couplings (A) \& (B) Ultrasteatite
insulated units. Flexiinsulated units. Flexi-
bility is obtained by cadmium plated phosphor bronze spring. (C) A
solid insulated Ultrasteatite unit. Long leakage path and accuate alignment. (D)
Cadmium plated brass compression unit.
Stk. No.
C14314*
C14314**
14316**
C14318 $\ddagger$
*A \& B type. $\dagger^{1 / 4}$ type. $\stackrel{1 / 2}{\ddagger} \mathrm{D}$ type.

## JOHNSON Handle



## Indicators

Etched scales, zero
on left) to 100 . Bakeon left) to 10 No. 204. C13015-Each $\begin{aligned} \text { scale } \\ 59 \mathrm{c} \\ \text { 20 }\end{aligned}$ No. ${ }^{206}$ C13016-EACh.

ICA Miniature Dials
 Chrome Silver dials with black etched numerals. Equipped with finger grip black knob. Only $15 / 8^{\prime \prime}$ Diameter. Fit $1 / 4$ shafts. Ranges from 1-10 over 180 and also 270 degrees. Ideal for matching dials on instruments, amplifiers,
C14234-0-10.180 ${ }^{\circ}$. Your Cost 50 c C14235-0-10.270 ${ }^{\circ}$. Your Cost 50 c (50c

## MIIIEN Worm_Drive

Right-angle
worm drive
assembly for
variable con-
dersers, variable con
densers, etc May be panel or
base mounted. base mounted. Ratio 16 to 1
Frame of cast
 ploys spring
gears which eliminate back lash. gears which eliminate back lash. $1 /:$ dia. couples to condenser by meansor flexible coupling (notsupplied). Excellent for transmitters and receivers. Shpg. wt. 2 los. Your Cost Each.


## MILLEN Dial

 0 to 100 Counterclockwise, heavy gauge nickel silverdial. Metal scale is insulated from the shaft by a large black bakelite hub. Easy-to-grip type knob. C8078-Your Cost

## MILLEN Dial Lock

$\Rightarrow$ Rotation of knob deRotation of knob dely clamps dial without imparting any rotary motion. Nickeled brass. C8079-

454

## Drecision Vexniex

 Have etched calibrations graduated from zero to 100 Large flanged knob has bushing for $1 /{ }^{\prime \prime}$ knob shafts. Shpg. wt. 1 lb No. Dia, Rotation Each| C14236 | $4^{\prime \prime}$ | $325^{\circ}$ | Each |
| :--- | :--- | :--- | :--- |
| C14237 | $23.3^{\circ}$ | $325^{\circ}$ | 1.62 |
| C14238 | $4 *$ | $180^{\circ}$ | 1.62 |
| C14239 | $23 / 4^{\circ}$ | $180^{\circ}$ | 1.23 |

"B/" Type Vermier Dial Ratio variable
from 6:1 to $20: 1$. from 6:1 to 20:1. shell. $4^{\circ}$ diam C14367-Cloc
${ }^{200-0}$ in $360^{\circ}$. $0 ; 180^{\circ}$.

## $\$ 1.80$

C14352-Dial illuminator....33c
TYPE "BM"-Similar to above but without variable ratio. $3^{\prime \prime}$ dia C14371-0-100-0; 180 C14372-Clockwise, 200-0; 360 ${ }^{\circ}$ Your Cost Each
$\$ 1.80$
Type "N"
Precision Dial
Engine divided Reads to $1 / 10$ of a division. Planet arydrive ratios:1. lite knob.
C14363-Counter-clock. 0-100, $180^{\circ}$
C14364-Clockwise 100-0, $180^{\circ}$ C14365-Clockwise $150-0,270^{\circ}$ C14366-Clockwise 200-0, 360 Your Cost
Each
Millen Flexible Coupling For angle drive up to $45^{\circ}$. Steatite InsuC8039
Your Cost 364
|NATIONAL Type "ACN"|


5-Range scale for hand receiver tion, with $0-100$ linear scale as guide. 2 extra scales furnished. Lucite dial and pointer. 5:1 Vernier. Frame $5 \times 76^{\circ}$. For $1 / 4$ C14474-Wt. 2 lbs. Each. . $\$ 3.00$

NATIONAL R \& O Dials


Type R-15/8" Dial. Etched nickel silver, used on many receivers. 180 degrees. Marked 0 10. For $1 /=$ Shalt. Shpg. Wt 8 oz C14568-Your Cost

Type 0-31/2" Dial. Nickel silver Marked 0-100. 180 ${ }^{\circ}$ counter-clock wise. Large easy-to-grip knob For 1 " shaft Shpg. C14567-Your Cost

## ICA Chrome Silver Dial Plates

Attractive grain back Etcho- EnGraving on Chrome
Plates. Finished in 3 different sizes. With various markings. Calibrations: 0-100.
Stock De- Dia, of Your N14184 $C 14191$ C14192 C14193 C14194

| De- | Dia. of | Your |
| :---: | :---: | :---: |
| grees | Dial | Cost |
| 180 | $2^{\prime \prime}$ | 43 c |
| 325 | $2^{\prime \prime}$ | 43 |
| 180 | $31 /{ }^{\circ}$ | 67 |
| 325 | 31/ | 67 |
| 180 | 4 | 76 |
| 325 | 4 |  |

## Pointer and Lever Knobs



For $3 / 4$
Black bakelite (except *
black lacquered wood).

| No. | Type | Size | Each | 10 For |
| :---: | :---: | :---: | :---: | :---: |
| C13022 | A | 11.2 | 29 c | \$2.61 |
| C13018 | A* | $15 / 8{ }^{\text {m }} \mathrm{d}$. | 12c | 1.08 |
| C13064 | A | $13,4{ }^{\prime \prime} \mathrm{d}$ d. | 32 c | 2.88 |
| C13011 | A | $23^{\prime \prime} 1_{6 \prime \prime}^{\prime \prime} \mathrm{d}$. | 41c | 3.69 |
| C13010 | A | $3^{* \prime} \mathrm{~d}$. | 53 c | 4.77 |
| C9896 | B | $11 /{ }^{\text {r }}$ d. | 18c | 1.62 |
| C13014 | C | 1)1/8' d, | 21c | 1.89 |
| C13005 | C | $13 \%{ }^{\prime \prime \prime}$ d. | 24 c | 2.16 |
| C13013 | C | $15 / 8^{\prime \prime} \mathrm{d}$. | 32 c | 2.88 |
| C13012 | C | 23 \% ${ }^{\prime \prime}$ d. | 35 c | 3.15 |
| C9885 | D | 11/s' ${ }^{\prime \prime}$ d. | 9 c | . 81 |
| C9886 | D | $112^{\prime \prime} \mathrm{d}$. | 12 c | 1.08 |
| C13007 | E | $11 / 8^{\prime \prime} \mathrm{d}$. | 34c | 3.06 |
| C13008 | E | $15 / 8{ }^{\prime \prime} \mathrm{d}$. | 46 c | 4.37 |
| C13009 | E | $23 / 8^{\prime \prime} \mathrm{d}$. | 54 c | 5.13 |

AAAムBAAM

## In addition to the knobs

 listed on this page, we can supply any knobs of standard manufacture. Write us about your requirements. $\nabla$
## X'MITTER Knobs



Polished Black bakelite. All have fidged pointers except
rop). For $1 /{ }^{v}$ shafts.

| No.C13027 | Lgth. | Ht. Type Each |  |  |  | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 11/4" |  | (1) | 8 c | 72 c |  |
| C13028 |  |  | (B) | 7 c |  | 63c |
| C13029 | $3^{1}{ }^{\prime \prime}$ | 5 |  | 10 c7 c |  | 90c |
| C13055 |  | 5\% | (C) |  |  | 65c |
| C13052 21 |  |  | $5 / 8{ }^{\prime \prime}$ ( ${ }^{(C)}$ | 8 c |  |  |
| C13053 11/4 |  | ?,16" (C) |  | 6 |  | c |
| C13024 |  | 916" ( ${ }^{\text {c }}$ ( $)$ |  | 7 c |  | 65 c |
| C9650 |  | 19/2" | (D) | $7 c$$8 c$ |  | $65 c$75c |
| C9651 |  |  |  |  |  |  |
| *Red Bakelite. |  |  |  |  |  |  |
| NATIONAL HRK |  |  |  |  |  |  |
| Bakelite Knob Black bakelite for receiv- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| (1as $3^{3}$ ers and X'trs. $2^{8 / 8} 8^{\prime \prime}$ diam. |  |  |  |  |  |  |
| C14564- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |


| Midget Knobs |  |  |  |
| :---: | :---: | :---: | :---: |
| Bakelite knobs for small sets, 11 diam. Set screw |  |  |  |
|  |  |  |  |
| $\begin{aligned} & 1 / 4 \text { shait. Ty } \\ & \text { out pointer. } \end{aligned}$ |  |  |  |
|  | pe A |  |  |
| ck | No. C | Stk. No | Eac |
| C9676 | Walnut | C9680 | 6 c |
| C9677 | Ivory | C9681 | 7 c |
| C9678 | Red | C9682 | 6 |
| C9679 | Black | C9683 | Cc |



Molded and polished walnut bakeset screw type except those marked with * which are push-button knob

| Typ | No. | Dia. Each | 10 F |
| :---: | :---: | :---: | :---: |
| C | ${ }_{C 9} \mathbf{C 9 7 3 6}$ | 84" ${ }^{\text {c }}$ ¢ |  |
| D | C9737 |  |  |
| E | C9657 |  |  |
| F | C9655 | 8 c | c |
|  |  |  |  |
| H* | C969 | ${ }^{1} 1$ |  |

## NEW! G.C. Knob Puller

K nobs that are
hard to grip can
be easily removed be easily removed with this knob
puller, Simplv stap the G-C puller behind the knob and pull it off. Saves time, the cabshop and in your tool kit! 5 f

## Etched Metal Plates

## Raised letters on a black etched background. SPEAKER

 wide by ${ }^{8 / 2}$ " high With following markings: $\begin{array}{ll}\text { A.C. Input } & \text { Modulator Grid } \\ \text { Amp. Grid Curr. } & \text { Modulator Plato }\end{array}$ Amp. Screen Curr Modulator Plate Amp. Screen Curr. Monitor Buffer Plate Curr. 1st Buffer Grid Osc. Plate 1st Buffer Grid Output 1st Buffer Plate $\quad 50 \mathrm{Ohm}$ Output Filament Voltage 125 Ohm Output Fil. 1st ON; 2nd OFF 200 Ohm Output Gain Control Input50 Ohm Input
125 Ohin Input 200 Ohm Input 500 Ohm Input 500 Ohm Outpat Plate Plate Voltage Power Amp. Grid Power Amp. Plate Receiver Rectifier
Microphone Modulation Ind. Speaker Specify marking desired. C9898-Any Type, Each.. 10 For (any selection)


# Ale-fupose <br> <br> Relays by GUARDIAN <br> <br> Relays by GUARDIAN <br> <br> Overload Relays <br> <br> Overload Relays <br> Oversize silver SPST contacts rated at 1500 

 watts non-inductive or 1000 watts inductive 110 volt AC load. Contacts lock open, cannot be reset, or held in contact until overload is removed. Coil insulated for 200 volts-to be used in series with negative lead in DC power supplies.C14113-Guardian L250. Breaks circuit at 250 MA . Max mum drop across coil 10 volts. Your Cost mum drop across coil 5 volts. Your Cost.............. $\$ 5.06$ Antenna and High Frequency Relays
Low capacity oversize silver contacts handle 1 KW in AF or RF circuits at rrequencies up to 28 MC . Alsimak insulation; 110 volt AC coils. C14118-Model R-100 SPST, Normally Open. Your Cost. C14115-Model R-100-B SPST, Normally Closed. Your Cost C14117-Model A-100 DPDT. Your Cost.

Silver contacts handle 1500 watts non-inductive or 1000 watts inductive at 110 volt AC. Clean make and break at potentials of up to 2000 volts. Insulated for 5000 volts. Coil operates on $11 / 2$ to 5 to 16 volts AC
C14123-Model K-100. Your Cost
$\$ 3.70$
Break In Relay
Specifically designed for break-in operation of transmitters. $1 / 4 "$ fine
silver contact points handle 1500 watts non-inctive silver contact points handle 1500 watts non-inductive or 1000 watts inductive 60 cycle AC. Two sets of SPST contacts, 11 coil.
C14125-M Iodel B-100. Your Cost
\$5.06

## WARD-IEONARD Relays <br> Standard-Antenna Change-over

Mycalex base and cross-arm. Coil consumption to 4 watts at $110 / 120$ Y. $50 / 60$ cycles A.C. Wiping make and break silver-to-silver contact Base $21 / 8 \times$
wt. 11 b .
C14148-Type 507-531. Each

## With Break-in (No. 507-534)

Same as above but with two additional single poles. One normally closed, the other normally open. Base: $35 / 8^{\times 27 / 8^{\circ}}$. Shpg. wt. 1 lb . C14131Your Cost

## Remote Control Heavy Duty Midget

Single-pole double-throw, single break. 110 V. A.C
operation. Silver to silver self-cleaning contacts Rating: 20 amps. A.C. normally open, 15 amps. A.C normally closed. Size: $25 / 8 \times 17 / 8$ Type 507-549.
C14124-Your Cost


For rectifier turnal For rectifier tube protection. Single-pole doublethrow, single break. Timing adjustable from 15 to 45 sec. 4 amp . contacts. Dust proof cover. $110 / 120$ V.50/60
cycle. cycle.
C14129-411/6 x43/8.
Your Cost.
$\$ 8.82$

## POTTER-BRUMFIELD Relays



## "SP/ Series

Shockproof. Ideally suited for use in mobile radio of communications equipment. Armature is carefully balanced for efficient operation in any position. Molded bakelite base and contact
pupport. all steel parts cadmium plated Double break contacts rated at 10 amps. and single at 5 amps. 110 volts non-inductive $A^{\text {A.C. C O P }}$


 C14462 SPA-3 SIST-DB-NC* C14463 SPA-1 SPDT-DB $\begin{array}{ll}\text { C14464 SPA-1 SPDT-DB } & 110 / 60 \mathrm{CAC} \\ \text { C1465 }\end{array}$ $\begin{array}{llll}\text { C1 } 4465 & \text { SPA- } & \text { DPST-NO } & \text { 6V/ 60c AC } \\ \text { C14166 } & \text { SPA-5 } & \text { DPST-NO } & 110 / 60 \mathrm{C} \text { AC }\end{array}$ C14467 SPD-2 SPST-DB-NO* $6 \mathrm{~V} / \mathrm{DC}$ C14468 SPD-2 SPST-DB-NO* 24 Y'/DC
C14469 SPD-3 SIST-DB-NC* $6 \mathrm{~V} / \mathrm{DC}$ $\begin{array}{ll}\text { C1446 } & \text { SPD-3 } \\ \text { C14TST-DB-NC* } & 6 / \mathrm{DC} \\ \text { SPD-3 } \\ \text { SPST-DB-NC* } & 24 \mathrm{~V} / \mathrm{DC}\end{array}$ $\begin{array}{llll}\text { C14471 SPD-1 SPDT-DB } & \text { SV/DC } \\ \text { C14472 } & \text { SPD-1 } & \text { SPDT-DB } & 24 V / D C\end{array}$ *NO-mormally open. ${ }^{*} \mathrm{NC}$

| "SR"' Series |  |
| :---: | :---: |
| Sensitivity combined with |  |
| ruggednessworkmanship. Contact ga |  |
|  |  |
| armature gap, and spring |  |
| pressure are easily adjustableby means of screws. Balanced armature |  |
| makes these relays suitable for operationunder vibration. SPD ${ }^{\text {contacts handle } 2}$ contal |  |
|  |  |
|  |  |
|  |  |
| C14241-2500 ohms. Your Cost. .... 56.25 |  |
|  |  |



Type "PR"
Designed for motor starting up to 1 HP , heater load to 20 amperes, or any control circuit requiring fast positive switching. Full floating contact carrier positively locked in place. Coil operates on only 4 volt-amperes or approximately 3 watts. Will not heat in continuous duty. ${ }^{5}$ silver contact points
rated in double break type at 20 amperes noninductive load at 110 V . AC or 10 amps. 110 V . DC , or 1 HP 110 or 220 V . single phase motor. Single break types carry non-inductive loads of $15 \mathrm{amps}$.110 V ; AC, 8 amps. 110 V . DC or 220 V . AC. Size: $25 / 8^{\circ}$ long, $21 / 8^{\circ}$ wide, $2^{\circ}$ high. Shpg.
wt. 2 lis each. wt. 2 lbs. each.


Contacts
 $\begin{array}{ll}\text { C14256 } & \text { PRA-2 } \\ \text { SPST-DB-NC* }\end{array}$
 $\begin{array}{lllll}\text { C14258 PRA } & \text { SPDT } & \text { SR-NC } & \text { GV/60c AC } \\ \text { C14262 } & \text { PRA- } & \text { SPDT } & 10\end{array}$

 C14267 PRD-2 SPST-DB-NC*
C14268 ${ }^{\text {Cl }}$
C14269 C14270 PRD-3 SPDT

## Slotted Polystyrene Rods

 Your Cost


## "MR" Series

 A more compact relay fo lighter loads than the one list ed above. Will handle 8 amps tive loads. Adjustable spring. No current carried thru spring. $27 / 8^{\circ} \mathrm{L} . \mathrm{H}^{2} /^{*}{ }^{*} \mathrm{~W} ., 15 / 8^{\circ} \mathrm{H}$. AC coils re quire approx. 2 watts; DC approx. 116 watts. No. Type Contacts Coil Vlits. Eachc14271 MRA-1 SPDT 6V/60c AC $\$ 155$
 $\begin{array}{llll}C 14273 & \text { MRA-4 DPDT 6V/60cAC } & 2.20\end{array}$ $\begin{array}{llll}\text { C14274 MRA-4 DPDT } 110 V / 60 \mathrm{cAC} & 2.20\end{array}$ C14275 MRD-1 SPDT 6V/DC $\begin{array}{lll}C 14276 & \mathrm{MRD}-1 & \text { SPDT } 24 V / D C \\ \mathrm{C} 14277 & \mathrm{MRD}-4 \mathrm{DPDT} & 6 \mathrm{~V} / \mathrm{DC}\end{array}$ C14278 MRD-4 DPDT 24V/DC Plate Circuit Type: similar to above but only ${ }^{5}$ if high. Ilandle 6 amps. 110 V. AC C14279 MRS291 SPDT 2500-ohm coil\$1.00 C14281 MRS292 SPDT 5000-ohm cuil 1.15

## Automatic Lock-Relay

## Electrical Release

Employs two coils-one to operate relay and an other to release the lock When the circuif to th operating coil is closer momentarily the normally closed contacts open and the normally open ones are closed with the relay remaining in this position even with the current removed from the coil. In arder to eturn the contact positions to normal, current the aulemathe release coil whe relar to re turn to its original position. $3^{15} / 6^{\circ}, 21 / h^{7}, 13 /{ }^{\circ}$. C14142-ELA. 6 DPDT contacts. 110 V. 60 cycle AC coils. Shpg. wt. 2 lbs.

AMPHENOL "'912-B"'

## Sheets

Strong, clear flexible material (Polystyrene) for high fre-high-voltage work. Does not de teriorate with age and will not discolor. Absorbs little moisture; water content only, $8 \%$. Can be cut,
drilled. machined. etc, Can be shaped when heated.
Stock
No.
Overall
C8071
$1-6 \times 8 x^{1}$
C8073
100
Each C8066
$6 \times 8 \times 1 / 8{ }^{\circ}$
$6 \times 8 x^{3} / 10^{\circ}$


100

Amphenol A synthetic resin having transparency greater than most glass and having good electrical insulation characteristics. Can be shaped
(when heated) (when heated), drilled, cut, etc. Very strong. In strips $\mathbf{1 2}^{\prime \prime}$ long, 1/0" thick. For Coil supports, trans mission line spreaders, trimmer bases, or binding post or tip jack mounting strips.


## Polystyrene Rods



Molded from pure polystyrene. $6^{\circ}$ and $12^{\prime \prime}$ lengths for machining special coil forms and low loss parts. C8074-1/4 dia. x $6^{\prime \prime} \mathrm{L}$
C8075-
C8067
$1 / 8^{\circ}$
$4^{\circ}$
18
$1 / 2^{\circ}$
AMPHENOL Polystyrene Coil Form
For U.H.F. antenna, RF and oscillator coils, $1^{19}$ "long, $3 / 4^{\prime \prime}$ dia. Raised
hole in center. for self


## HFADPHONES - A ACCESSORIISS

## BRANDES "Admiral" Headphones



Compact, efficient phones featuring powerful magnets, molded caps, steel headbands with new tylue adjustable clips C13928-2000 ohms
Per Set C13929-3000 ohms Your Cost, Per Set C13930- 5000 ohms

## BRANDES "Superior' Headphones

The old standby in the radio screw terminals. 2000 ohms.<br>Headphone Caps and Diaphragms<br>C13936-Bakelite Cap (fits all models). Each<br>C13935-Aluminum Cap (fits all models). Each<br>C13937-Diaphragm only (fits all models). Each

Cannon Ball "Chief"

All Bakelite Phones High grade, sensitive phones in molded bakelite housings. Provided with lleather covered adjustable head band and 5-tt. cord. Concealed terminals. Wt. 2 lbs.
2000 ohms imp. C13948-Per Set 3000 ohms imp.


## Crystal Detector

Includes ball and socket wivel arm, crystal holder and mtg hardware. Completely mounted as illustrated but less crystal
 clips not supplied C13903-Each. Mounted crysta C13900-Each.

## Cat Whiskers

 Finestwire-correc tension-holds that sensitive spotC13921-
Envelope of 3. Your Cost

- 4


## Popular Phone Plugs <br> 

Metal Shell Type
Same with nickeled brass shell $33 / 3 x$ C14970 For $\$ 4.75$
"Stubby" Metal
As above but with short metal shell 214" overall. 10 For $\$ 3.75$ C14959-Each

## Midget Bakelite Plug

 Bakelite shell. 21/4" overall X $9 / 10^{\circ}$ diameter. Solder lug connections. C14960-Black C14963-Red Your Cost 10 For $\$ 2.85$ 32[^3]
## Cliance DX Type Headphones

Made especially for DX fans. ITave featherweight shells and a one-piece adjustable steel headband with adjustable clips. Each unit has a powerfustable clips. Each unit BAgnet and BAKELITE CAP polarmagnet and a BAKELISE 2000-0 hm Headset
C13892-Complete. Your Cost. C13893-3000 ohm Your Cost.
s. 1.40 C13894-Cap is 15 İD. Each C13898-Cap 17/8" I.D. Each. 12c C13895-Diaphragm. 17/8*dia. Ea.5c C13899-Diaphragm. ${ }^{13 / 1 / 6^{7}}$ dia. Ea.5c


Reliance, Single Unit Headsets
Similar to above, but one phone. Clack-stec band permanently attached; with $4 \frac{1}{2} \mathrm{ft}$. cord. C13896-1000-ohm single set. Your Cost

784
-24 C13897-1500-ohm single set.

## TRIMM Featherweight Phones

Lightweight-only 4 oz. Beautifully made Bakelite shell and cap. Forged cobalt steel magnets. Adjustable steel headband C13919-24,000 ohms impedance. C13918- 4,000 ohms impedance. $\$ 5.88$
Your Cost Each.............. 8.

TRIMM Dependable Headset Well made economy model. Bakelite shells and caps. Chrome steel magnets
C13914-2000 ohms. Ea. Per Pr. $\$ 2$ - 2

> Professional Headset: Similar to above but 4000 ohms. C13915-Your Cost Each

Commercial Headset:
DeLuxe super-sensitive phones. Exceptionally rugged. 3 year guar antee. A favorite of commercial operators.
C13908-17,000 ohms imp., with army-navy cype plug. C13939-Same but 600 ohms impedance
Your Cost, Either Type

$\$ 2.73$

C13912-Same as C13908 but less plug
$\$ 9.41$
. $\$ 8.53$


## ARMY-NAVY Type Headphones

Sensitive and durable to meet Army and Navy specifications. Extra heavy duty bakelite cap brass shell. Bi-polar magnets. 6 -ft. cord. Moisture proof. Shpy. wt. 2 lbs
C13926-17,000 ohms impedance.
C13927-Same as above, but low impedance type Your Cost Each
Either Type.
$\$ 9.41$
C14969-Army-Navy type plug. Hard rubber insulation. Black acetate shell. Fits standard phone jacks. Each

## CANNON-BALL Headphone Kit



When installed, the user can enjoy headphone reception only, speaker reception only or both together; Complete outfit consists of: $18{ }^{*}$ connecting cable, adapter with three-way switch and terminal jacks on an insulated panel, special Reliance phones with 6 - ft . cord and complete installation instructions. Shpg. wt. 3 lbs
C13944-
Your Cost,
Complete'Kit.

Acme Deluxe Headphones $\Lambda$ superior head-
set in the lightweight low-price
field. Cap and
shell of molded
bakelite. Has chrome steel magnets and weighs only 6 ounces complete with two units, $41 / 2$ foot cord and metal headband.
c13904-Double Headset. 2000 ohms d.c. resistance. \$1 45 C13905 - Single Headset 1000 C1395
ohms d.c. resistance. Each.
BRUSH "HUSHATONE" The HUSHA TONE is a small streamlined, modern, thoroughly dependable extension loud speaker that will end "radio irritation" in your home. Provides individual listening choice by merely slipping it under bed or sofa pillow or under the puff of a sota pillow or under the pillow-back chair. The HUSHATONE is of molded plastic with attractive chrome trim. Compactmeasures only $4^{3} 116^{\prime \prime}$ in diameter and ${ }_{1}^{11}$ I6 $^{\prime \prime}$ thick. Complete with convenient detachable extension cord C13911 Your Cost
$\$ 9.55$

## Headphone Cushions

 Soft rubber. headphones.C13943-Palr

6
10 Pairs for
$\$ 5.85$

## Phone and Speaker Cords



Cotton Braid Insulation
 C13956 Doublet $\left.4 \frac{1}{2}\right\} \geq 24$ C13957 Singlet $41 / 2 \ldots . .15 \mathrm{c}$ *Spade tips one end; straight tips other. †Pin tips both ends.


# T Tememitunters ACCESSORIIS 



For all types of communications work wherespeed and perfect Mors are essential. Single lever. Two pairs of contact points; one for
dots, other for dashes. Easy to adjust. Has unlimited sending Tossibilities. Polished parts with black base. Supplied complete with cord and wedge. C14057-
Your Cost.
s15.95

SIGNAL Model R-68 Code Practice Set


Key and high frequency buzzer on a polished hardwood base. Hook battery to terminals ( $11 / 2$ volt cell required to operate. Metal code plate ready oase. Wt. 2 lbs. $\$ 2,55$
on $\mathbf{C 1 4 0 0 1 - Y o u r ~ C o s t ~}$ Type R-60 BUZZER ONLY: Fully adjustable. Has standard resistance of 2 ohms. Black crystal lacquer finish.
C14006 Your Cost.... 7 6
"Champion" Vibroplex


Inexpensive and has exceptional sendingqualities; clarity, speed and ease of operation. Single lever with for pairs of contact points (one adjust. Black crystal finish metal adjust. Black crystal finish metal finish. Shpg. wt. 4 lbs .
C14058-Each.
\$9.95

## Carrying Case For Keys

Plush-lined case finished in handsome black morocco. Reinforced corners. Flexible leather carrying handle. Has lock and key. Inside
 Shpg. wt. 3 lbs. Cost Each...... \$5,50

SPEED-X KEYS and ACCESSORIES Model 321 Senior Key


Heavy
duty
hand
1
contacts. Navy type knob. Die cast heavily plated base and key arm. Adjustable steel bearings; concealed brass connector strip. Shpg. wt. 2 lbs. $\$ 255$
C14039-Your Cost.. Model 300 Practice Key
 Has two
adjustments. Base of bakelite. $1 / 4$ coin silver contacts. Machined parts in bright finish. c14041-

Your Cost.
884 Mod. 305. As above, with metal C14053-Your Cost... . . . . . \$1.03 Model 310 Manual Key Heavy die-

56

kle enamel. Smooth adjustable bearings. $1 / 8$ pure silver contacts. Shpg. wt. 1 Ib . Like above, but with $\$ 1.76$ Your Cost.

## Constant Tone Buzzer

## $\because$ Black bakelite base and cap. Silver contacts. Resist. 2 ohms. Operates on $2-11 / 2 \mathrm{v}$. cells or C14021-Your Cost <br> 734 C20622-1 $1 / 2$ V. cells. Ea. <br> c1

G.I. Automatic Tape Sender Model J. Compact, easy to operate and highly accu-
rate. Blank $t$ a pe spaced and punched, then run through the sender at speeds from 10 to 60 words per mith cord and plue $5 \times 5 \times 3^{\prime \prime}$. Supplied with 5 rolls of blank tape. Shipped Postpaid in U.S.A.
C14022
Each.
$\$ 12.50$
C14023-1000-Ft. Roll Tape. $\$ 1.00$


Gardiner Model 5 Deluxe compact automatic tape
sender. Has silent 110 volt a. c. motor variable speed from 4 to 60 words per minute. Only 3 controls: motor switch, contact switch and speed control. Terminals for osc. or buzrer. With 10 rolls double perforated tape. Complete with case. $51 / 2 \times 41 / 2 x$
$6^{\prime \prime}$ Shipped Postpaid in U.S. A. ci4060 -
Each.
$\$ 25000$
Bakelite Key Knobs Brilliant black bakelite.
Navy knob (illustrated) Navy knob (illustrated) with disc.
C14037-Each. 8 F on most speed keys. C14038-Your Cost

## SPEED-X Practice Key

Standard spring adjustable hand key with 1/8" pure silver contacts mounted on a moulded brown bakelite base 23 " $x 5^{\prime \prime}$ with circuit closing switch and terminal connections on base. machine parts nickel plated. Wt. 8 oz C14071-Your Cost,
Each


SPEED-X Professional Semi-Auto. Key A High-Speed chromium plated heavy steel base key with four non-slip rubber feet. $61 / 4^{\prime x} \times 1 / 2^{\prime \prime} \times 1 / 2$ ". Heavy brass connector strips mounted under base. Frame has five screws for sensitive adjustments. Vibrator is de-
signed to obtain slowest and fastest speeds. Two sets of $14^{*}$ pure silver contacts. Pigtail connections to vibrating arm. Lock nuts on all adjustments. Paddles adjustable to any required height. Furnished with circuit closing C14028 Your Cost, Each.
$\$ 10.29$

## ICA Deluxe Signa-tone -

$\star$ Code Practice Set *Keying Monitor A perfected Audio Oscillator, having 3 different output frequencies and a continuously variable volume control. A number of phones and keys may be connected for class room or radio club instruction. Will
follow the "bug" at all speeds. The Audio notes are similar to those of high quality commercial CW stations. $71 / 2^{\prime \prime} \mathrm{W}, 41 / 2^{\prime \prime}$ H, $4^{\prime \prime}$ D. Shpg. wt. 4 lbs. Complete with


## BUD CODE PRACTICE OSCIIIATOR



An audio oscillator with a built-in magnetic speaker that will operate up to twenty headphones. The internal speaker is automatically cut out of the circuit when head iable volume control and a variable pitch control for individual adjusting. Any number of keys may be connected in parallel to the oscillator for group practice. Metal case finished in grey crackle enamel. $41 / 2^{* \prime}$
$\mathrm{H} ., 71 / 8^{*} \mathrm{~W} ., 33 /{ }^{\prime \prime} \mathrm{D}$


As one of the largest distributors of RCA tubes, we carry a complete stock of transmitting, power. and special purpose types. If the particular type you want is not listed please write for quotation. RCA tubes are the most widely used of any tubes on the market today

G-E monogram tubes are manufactured with the most modern high-precision equipment, and are pretested to insure long trouble-free service. A written warranty, fur ther assures you of full dollar-value from

Transmitting, Power, and Special Purpose Tubes
68. Industrial Tubes

## Ignitrons

High-peak-Current gas-filled tubes with a mercury-pool cathode. Supply heavy current for use in spot or seam welding. Used in place of rotating machinery for changing a-c to d-c

| $\underset{\text { Type }}{\text { G E }}$ | Max. Amps. | Net |
| :---: | :---: | :---: |
| GL-415 | 22.4 | 530.00 |
| FG-271 | 56.0 | 51.00 |
| ${ }_{\text {FGG-258A }}^{\text {FG-23A }}$ | 1.10 .0 | 75.00 |
| FG-258A | 355.0 | 165.00 |

## Phototubes

Both gas-filled and high-vacuum types. No grid. Used in applications requiring great stability and instant response to light changes Extremely sensitive.

| $\begin{aligned} & \text { G-E } \\ & \text { Type } \end{aligned}$ | Kind | Anode Volts | Net <br> Each |
| :---: | :---: | :---: | :---: |
| PJ-22 | Vacuum | 200 | \$2.60 |
| PJ-23 | Gas | 90 | 2.15 |
| FJ-401 | Gas | 90 | 6.75 |
| GL-441 | Vacuum | 200 | 4.50 |

## Thyratrons

Grid-controlled gaseous discharge rectifier tubes with one or more grids to control the tubes with one or more grids to control the
starting of the plate current. Will run d-c starting of the plate current. Will run d-c
motors directly from a-c lines. Can hold demotors directly irom a-c lines. Can hold de-
sired motor speed constant regardless of sired motor speed
changes in the load


|  | Type No. | HYTRON TUBES |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 51n |  | Purpose | Fil. Plate Plate Volts Volts Ma. |  |  | Diss. | Your Cost |
|  | 2 E 25 | Beam Tetrode | e. 6.0 | 450 | 75 | 15 W | \$3.95 |
| Hr302 | HY24 | Triode | 2.0 | 180 | 20 | 2 W | 1.50 |
|  | HY30Z | Triode ${ }^{\text {F }}$ | 6.3 | 850 | 90 | 30 W | 2.75 |
| T | HY31Z | Twin-Triode | 6.0 | 500 | $150 *$ | 30 W. | 3.50 |
| 4 | HY40 | Triode | 7.5 | 1000 | 125 | 40 W . | 3.75 |
|  | HY40Z | Triode ${ }^{\text {a }}$ | 7.5 | 11)0 | 125 | 40 W. | 3.75 |
|  | HY51A | Triode | 7.5 | 1000 | 175 | 65 W. | 4.75 |
| (4TREO | HY518 | Triode | 10. | 1500 |  | 65 W. | 4.75 |
| (19) | HY51Z | Triode $\%$ | 7.5 | 1000 | 175 | 65 W | 4.75 |
| CII | HY60 | Beam | 6.3 | 425 | 60 | 15 W . | 2.75 |
| U, | HY61/807 | Beam | 6.3 | 600 | 120 | 25 W . | 1.95 |
|  | HY67 | Beam 6 | 6 or 12 | 1250 | 175 | 65 W. | 7.75 |
|  | HY69 | Beam | 6.0 | 600 | 100 | 40 W | 3.95 |
|  | HY75 | Triode | 6.3 | 450 | 80 | 15 W | 3.95 |
|  | HY1148 | Triode | 1.4 | 180 | 12 | 1.8 | 2.25 |
|  | HY 615 | Triode | 6.3 | 300 | 20 | 3.5 W . | 2.25 |
|  | 8014 ; 801 | Triode | 7.5 | 600 | 70 | 20 W. | 2.50 |
|  | 866A 866 | M.V. Rect. $\ddagger$ | 2.5 | 3165 | $500 \dagger$ |  | 1.50 |
| (1) |  | M.V. Rect. $\ddagger$ | 2.5 | 1575 | $250 \dagger$ |  | 1.05 |
|  | HY1231Z | Twin Triode | 6;12 | 500 | 150* | 30 W .* | 4.50 |
|  | HY1269 | Beam | 6;12 | 750 | 120 | 40 W. | 4.50 |

- Continuous Service Rating. - - Both Triodes. $\ddagger$-Shielded Filament. $\dagger$-Per pair. OA2 Volt. Reg., Min. 150 Op. V., $5-30 \mathrm{Ma} .51 .90$ OB2 Volt. Reg., Min. 108 Op. V., $\quad 5-30 \mathrm{Ma} . \quad \begin{aligned} & 2.30\end{aligned}$

Heintz-Kaufman
Type Watts Plate

| Type | Watts | Plate | Fil. | Power | Max. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Diss. | Volts | Vlts. | Outp.* | Freq. | Cost |
| 24 | 25 | 2000 | 6.3 | 89 | 100 MC | \$4.75 |
| 54 | 50 | 3000 | 5.0 | 210 | 100NIC | 8.00 |
| 254 | 100 | 4000 | 5.0 | 450 | 50 MC | 13.50 |
| 354 C | 150 | 4000 | 5.0 | 750 | 30 MC | 24.50 |
| 2578 | 75 | 4000 | 5.0 | 225 | 30 MC | 24.50 |
| $454 \mathrm{H}+$ | 250 | 5000 | 5.0 | 900 | 150MC | 27.50 |
| $854 \mathrm{H} \dagger$ | 450 | 6000 | 7.5 | 1800 | 125 MC | 60.00 |

*-Single Class Tube "C" R.F.
$\dagger$-High-Mu types (Low-Mu on special order).

## EIMAC POWER TUBES



## TAYLOR POWER TUBES

As factory representatives we are in a position to quote special prices to quantity users of TAYLOR high quality tubes. Contact us, stating quantity and types desired. The well known, heavy duty $866 \mathrm{~A} / 866$; shown at left has ceramic insulation between plate cap and giass, assuring breakdown protection. Peak inverse voltage, 10,000 volts. breakdown protectio
Type 866 A/ 866 .Fil; 2.5 V at 5A. net
Type 866-Jr.-Lighter duty version of above.
GENERAL PURPOSE TUBES

| Type | Watts Diss. Description |  | Each |
| :---: | :---: | :---: | :---: |
| T-20 | 20 | Gen. Purpose Triode. Metal Plate | 2.25 |
| TUF-20 | 20 | UIIF Gen. Purpose Triode | 4.95 |
| TZ-20 | 20 | Zero Bias Triode. Metal I'la | 2.25 |
| T-21 | 21 | Superior Low-Power Beam Amplifier | 1.95 |
| TB-35 | 35 | UIIF Beam Tetrode | 10.00 |
| T-40 | 40 | Gen. Purpose Triode. Carbon Anode | 3.50 |
| TZ-40 | 40 | Zero Bias Triode. For R.F. and Class "B" AF | 3.50 |
| T-55 | 55 | Improved model. Max. freq. 120 MC | 6.00 |
| T-125 | 125 | Top plate and side grid caps. Accelerating fins | 3.50 |
| T-200 | 200 | Similar to T-125. Super carbon anode. | 21.50 |
| 203-A | 100 | General Purpose Triode | 10.00 |
| 203-Z | 65 | Zero Bias. Metal Plate. Class "B" Audio | 8.00 |
| 803 | 125 | P'entode RF Power Amplifier | 25.00 |
| 822 | 200 | Class "B" Audio. Carbon Ano | 18.50 |

# RACKS•PANELS.CABINETS 

## Steel Cabinets for Rack Panels



Heavy duty cabinets built of $1 / 66^{*}$ steel and finished in black ripple Standard and DeLuxe models. Standard models have square re-enforced comers; spot welded joints. DeLuxe models have neatly rounded comers. Both types are unversally drilled to take all standard $19^{\circ}$ rack panels. All have louvres and latch covers. All take chassis $13^{\circ}$ deep.
De Luxe àvailable with slate gray finish on special order.
STANDARD STEEL CABINETS

| Stock | Cabinet | Panel | Door | Shpg. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | imensions | Spa | ocation |  |  |
| C22194 | $83 / 4 \times 19 \times 131 / 2{ }^{\prime \prime}$ | 88/819* | Top Only | 20 lbs . | \$ 5.08 |
| C22070 | 121/4×19x131/2 | 121/x ${ }^{19}{ }^{\prime}$ | Top Only | 27 lbs . | 6.32 |
| C22193 | 1712x $19 \times 13$ | $171 / 2 \times 19^{*}$ | Top \& Rear | 3.4 lb :. | 9.41 |
| C22192 | 261/1) $19 \times 13$ | $26^{1 / 4 \times 19}$ | Rear Only | 47 lbs . | 10.29 |
| C22190 | $35 \times 19 \times 131{ }^{\prime \prime}$ | $35 \times 19$ | Rear Only | 55 Ibs . | 12.05 |
| ICA DE LUXE STEEL CABINETS |  |  |  |  |  |
| C22188 | $101 / 2 \times 21 \times 131 /{ }^{\prime \prime}$ | 88/4819* | Top Only | 22 lbs . | 9.70 |
| C22071 | $14 \times 21 \times 131 /{ }^{\prime \prime}$ | 121/4x19" | Top Only | 29 lbs . | 11.76 |
| C22191 | 191/4x21x131/: | 171/2x19" | Tcop \& Rear | 34 dbs . | 16.32 |
| C22198 | $28 \times 21 \times 1312^{*}$ | 261/419' | Rear Only | 69 lb | 18.23 |
| C2219 | 28 | 35 | Rear Only | , | 20.29 |

## I.C.A. Hinged Steel Cabinets

 Employ full piano-hinged doors, and removable front panels. Modern grille type ventilation provided at the side:s and back Front side corners are rounded. Finished in black ripple enamel. All Less Bases. Wts.: 5, 6, 7, 1.5 lbs.| Stock | Dimen. | Panel | Your |
| :---: | :---: | :---: | :---: |
| No. | H. L. D. | Size | Cost |
| C22200 | $8 \times 10 \times 8$ | $8 \times 8^{\prime \prime}$ | $\$ 2.65$ |
| C22201 | $8 \times 12 \times 8^{\prime \prime}$ | $8 \times 10^{\prime \prime}$ | 3.09 |
| C22202 | $8 \times 14 \times 8^{\prime \prime}$ | $8 \times 12$ | 3.88 |
| C22203 | $12 \pi 20 \times 12^{\prime \prime}$ | $12 \times 18^{\prime \prime}$ | 7.06 |

1.C.R. De-Luxe Hinged

## Steel Cabinets

Attractive streamlined cabinets, with full length piano hinge and removable front panel. Ventilating louvres on sides. Finchassis. Wts. same as above.

I.C.A. Sloping Front Cabinets Trimmed with red-striped moulding, with slate gray ripple finish. Front panel removable. Rear with openings
for ventilation, leads, etc. Less chasfor
sis. Sto
N
C22
I.C.A. Standard Speaker Cabinets
 Substantially made from sheet steel,
with louvred
der with louvred
back cover with slots for wall
hanging. Finhanging. Fin-
ished in black ripple enamel. $\begin{array}{llll}\text { toch } & \text { Size } & \text { Shrg. Your } \\ \text { No. } & \text { Sphr. Cabinet } & \text { Wt. } & \text { Cosit }\end{array}$ $\begin{array}{lllll}\mathrm{C} 22140 & 6 & 10 \times 10: 6^{\prime \prime} & 8 \mathrm{lbs} . & \$ 3.00\end{array}$ C22141 8* 12×12xi* 9 lhs. 3.59 $\begin{array}{lllll}\mathrm{C} 22142 & 10^{\prime \prime} & 14 \times 14 \times 8^{\prime \prime} & 15 \mathrm{lbs} & 4.70 \\ \mathrm{C} 22143 & 12^{\prime \prime} & 16 \times 16 \times 8^{\prime \prime} & 20 \text { lhs } & 6.31\end{array}$

## Heavy Duty Type $1 / 16^{\prime \prime}$ Steel Chassis With Bottom Cover Plates

I.C.A. Standard Type Steel Chassis Bases


Stamped from one piece of No. 20 gauge cold rolled steel. Have four solid sides with welded comers. Bottom edges flanged in on four sides for additional reinforcements, and are drilled for bottom plates. Black ripple finish.

| Stock No. | Size <br> D. L. H. | Wt. Lbs. | Your Cost |
| :---: | :---: | :---: | :---: |
| C22211 | 5x 91/2x11/2" | 2 | \$0.62 |
| C22212 | 7x 7x2 | 2 | . 76 |
| C22213 | $7 \mathrm{x} 9 \times 2$ " | 2 | . 82 |
| C22214 | $7 \times 11 \times 2$ - | 3 | . 88 |
| C22215 | $7 \times 13 \times 2$ * | 3 | . 97 |
| C22216 | $7 \times 15 \times 3$ " | 4 | 1.21 |
| C22217 | $7 \times 17 \times 3$ " | 4 | 1.21 |
| C22226 | $10 \times 12 \times 3$ " | 4 | 1.29 |
| C22227 | $10 \times 17 \times 3^{\prime}$ | 5 | 1.21 |

## I.C.A. Black Ripple Finish

 Steel Bottom PlatesBottom plates have holes to match the steel chassis listed above, and have pressed "bumpers" at the corhave
ners.
I.C.A. $1 / 16^{\prime \prime}$ Steel Panels

Black wrinkle finish. For all radio applications

| applicat | Size | Wt. | Each | C22256 | $7 \times 13^{\prime \prime}$ | 2 | 56 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C22218 | $7 \times 10^{\prime \prime}$ | 2 lbs . | \$0.47 | C22258 | $7 \times 15$ * | 2 | . 62 |
| C22219 | $7 \times 12^{\prime}$ | 2 lbs. | . 53 | C22260 | $7 \times 17^{\prime \prime}$ | 2 | . 65 |
| C22220 | $7 \times 14$ " | 3 lbs . | . 62 | C22265 | $10 \times 12^{*}$ | 2 | . 68 |
| C22221 | $7 \times 18$ * | 4 lbs. | . 82 | C22266 | 10x17* | 2 | . 82 |

## I_C.A. Heavy Steel Rack Panels, Black or Gray

|  |  |  |  |  | Availa <br> with con <br> nels do <br> sizes to | eel pan e with mercial 't colle mark neet any |  | all st black gray -an ireme | ripple ipple. they in 12 ts. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black No. | Gray <br> No. | Ht. | Wt. Lbs. | Your Cost | Black No. | Gray <br> No. | $\mathrm{Ht} \text {. }$ | Wt Lbs. | Your Cost |
| C22169 | C22118 | $1{ }^{3}$ | 2 | \$0.65 | C22163 | C22124 | 121/4 | 12 | \$1.59 |
| C22170 | C22119 | 3 | 5 | . 73 | C22164 | C22125 | 14 | 13 | 1.82 |
| C22171 | C22120 | 5 | 7 | . 85 | C22165 | C22126 | 158, | 14 | 2.12 |
| C 22160 | C22121 |  | 8 | 91 | C22166 | C22127 | 171 | 15 | 2.26 |
| C22161 | C22122 | 8\% | 9 | 1.15 | C22167 | C22128 | 191/4 | 16 | 2.45 |
| C22162 | C22123 | 101/2 | 10 | 1.29 | C22168 | C22129 |  | 17 | 2.76 |



## Enclosed Steel Racks

DeLuxe type, streamlined. diversally drilled for all standard panels. Stainless steel
trimming trimming
at topand bottom. Finished in slate gray.
(Black ripple available, specify on order). Pane! Midth 19 ! 22 12", wide, 16 㣙 deep Ilinged back Shipped Knocked down,with all
hardware. With 2 locks on rear door

| Stock No. | $\begin{aligned} & \mathrm{Ht} \\ & \mathrm{In} . \end{aligned}$ | Panel Space | Wt. Lbs. | $\begin{aligned} & \hline \text { Your } \\ & \text { Cost } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| C22145 | $42^{\prime \prime}$ | $36^{3}{ }^{3 / 4}$ | 100 | \$25.28 |
| C22146 | $66^{1}$ 2/ | 611/4* | 150 | 32.9 |



Ripple Finish Steel Cabinets Sheer steel with spot welded reinforced corners. Covers removable, held by self-tapping screws.
Stock No. Dimensions Shpg. Wt. Your Cost



* Sheet Steal
* Spor Welded Corners
Remorable
Tons. Bottom other purposes. All are substantially made of sheet steel, with spot welded re-inforced corners. The tops and bottoms are removable; held in place by means of self-tapping No.
c22209 $C 22209$
$C 2217$ C22174 C 22175 C 22173 C 22176
screws that are furnished. Black ripple



## ICA Sloping Panel Steel Cabinets

 Streamlined cabinets withrounded corners. Compact and rugged. For use as speaker cabinets, oscila talk systems, small receiv ers, etc. Both have
gray ripple finish.

c22097-(Left). $41 / 4 \times 41 / 2 \times 41 / 6$. Shpg. wt. 2 lbs. Your Cost. . 51.26 $715 \times 4152 \times 41 / 6^{\circ}$. Shpg. wt. 5 lbs. Your Cost...2.26

Three types avail able: Ternplate is steel with lead plating; Electralloy is non-magnetic zinc alloy; also in black vinkle finish Ternplate.

## Black

| Elate | Electralloy | Wrinkle |
| :--- | :--- | :--- | :--- |
| Each Each | No. Each |  | | 5 | $C 22306$ |
| :--- | :--- |
|  |  | .57

Ternplate Electralloy Wrinkle
L. W. H. $W \mathrm{t}$.
3 lb
3 lb 3 lbs. libs. C22299 $\$ 0.48$ C22320 $\$ 0$.
lank Metal Chassis Bases
Here's your chance to buy all purpose radio chassis, un drilled, at unusually low prices. All have re-inforced spot welded corners fo. extra strength

## $\begin{array}{lll}5 \times 912 \times 112^{\circ} & 3 \\ 53 / 2 \times 10^{\times 3} & 3\end{array}$

ICA Sloping Front


Heavy duty steel chassis finished in black ripple enamel. Sloping front for mounting instruments, etc Giver, effect of an open cabinet recciver or anmplifier unit when used witholt top covers. All sizes are $3 \frac{1}{2}^{\circ}$ lugh and have $4^{\prime \prime}$ slope front. 3 pozalar sizes.
Stoch Top of Bottom Wt. Your $\begin{array}{cccc}\text { No. Base of Base Lbs. Cost } \\ \text { C22099 } & 7 \times 17 & 10 \times 17^{\circ} & 4 \\ \$ 1.94\end{array}$
 C22101 $10 \times 17^{\prime \prime} 1: 3 \times 17^{\prime \prime}$

## ICA DeLuxe

 Meter Cases Desi mod to harmonze with the streitmlined equipment Finished in Ria ine Gray
Rippla Enamel and trimmed with red is riped Chrome band. For $3^{\prime}$ meters.
ir $10.1^{\prime \prime} \mathrm{D} .4^{3} 1^{\circ} \mathrm{W}$. and $4 \frac{1}{2}$
Your Cost.

## Chrome Handles

A beautiful adornment for auy cabinet, amplifier chassis transmitier, etc With mig. screw's.
Mif. centers $234^{\circ}$ Mtg. centers $234^{\prime}$
c14553-Your Cost.

## MASONITE and BAKELITE Radio Panels

Masonite: Tempered Masonite, nonmagnetic, sturdy, yet easily worked with ordinary woodworking tools. All panels ordinary woodworking tools. All
Bakelite: Fine grade bakelite, black finish panels, $3 / 10^{*}$ thick. Also suitable for test instruments, meters, etc.

| MASONITE PANELSSize Stock No. Each |  |  | BAKELITE PANELS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Wits. St | tock No. | Each |
| $7 \times 10^{\prime \prime}$ | C22280 | \$0.59 | $3 / 4 \mathrm{lb}$. | C19600 | \$1.32 |
| 7x12* | C22281 | . 65 | 1 lb . | C19601 | 1.62 |
| $7 \times 14$ " | C22282 | . 73 | 1 lb . | C19602 | 1.91 |
| $7 \times 18$ " | C22283 | . 88 | 1 lb . | C19603 | 2.41 |
| $7 \times 21$, | C22279 | . 97 | $11 / 2$ lbs. | C19604 | 2.73 |
| $7 \times 21$, |  |  | 110 lbs . | C19605 | 3.23 |
| $7 \times 30^{\prime \prime}$ |  |  | 2 lbs . | C19608 | 3.97 |
| MASONITE Relay Rack Panels |  |  |  |  |  |
| As above, but with amateur standard notching. |  |  |  |  |  |
| Stock No |  | Each |  |  |  |
| C22268 | $3^{13} \times 1{ }^{3} \times 19^{*}$ | \$0.47 | Stock No. <br> C22284 | $8^{3} \times 1 \times 19^{\prime \prime}$ | Each |
| C22269 | $51 / \times 19$ | . 73 | C22285 | 10312x19* | 1.18 |
| C22277 | $7 \times 19 *$ | . 85 | C22286 | 123: $\times 19^{*}$ | 1.18 |

$\square$

## MILLEN Quartz "Q' Sheet



For panels, condenser mtg., insulation, etc. Drills and cuts rapidly. Quartz " $Q$ " is a highly polymerized sty rene having remarkably low R.F. loss and high resist ance to voltage breakdown. Size: $3 \times 81 / 2^{\circ} ; 1 / 10^{\circ}$ thick C8024-A Iillen No. 55001. Your Cost Each



11 lb.
C196
$C 19605$


Size .18 .18

oundation Chassis Streamlined amplifier chassis and covers, with new decorative grille-type ventilators. Chassis stamped from stamped from
one piece coldone piece cold-
rolled steel, finished in black ripple. Covers are $6^{\circ}$ deep and slate gray, presenting a contrasting two-tone effect. Chassis are drilled for bottom plates(not supplied) see listing on page 40 . Chassis height

| No. | Size | Wt. | Each |
| :---: | :---: | :---: | :---: |
| C22132 | $51 / 2^{\prime \prime} \times 10^{\prime} \times 9^{\prime \prime}$ | 9 lbs . | \$2.12 |
| C22138 | $8^{\prime \prime} \times 12^{\circ} \times 9^{\prime}$ | 10 lbs. | 3.09 |
| C22135 | $7^{\prime \prime} \times 17^{\prime \prime} \times 9^{\prime \prime}$ | 11 lbs . | 3.18 |
| C22136 | $10^{\prime} \times 11^{\prime \prime} \times 9$ " | 11 lbs . | 3.44 |
| C22137 | $10^{\prime \prime} \times 17^{\prime} \times 9^{\prime}$ | 13 lbs . | 3.62 |

## ICA DeLuxe Amplifier Chassis

Chassis is of
one-piece cold
Chassis is of
one-piece cold
rolled stecl with reinforced corn rippled black ; cover
in slate gray
striped chro-
mium mold
ing and red
striped chromium handies. All covers $6^{\circ}$ deep.
Chassis drilled for hottom Chassis drilled for bottom covers (not sup nlied) ;see listing on page 40 . Chassis height 3 Stock No. Size Shpg. Wt. Each C22183 $53 / 2^{\circ} \times 10^{\circ} \times 9^{\circ} \quad 9$ bs. $\quad \$ 3.62$ C22139 $8^{*} \times 12^{*} \times 9^{\circ} \quad 11$ lbs. $\quad 4.70$ $\begin{array}{lllll}\mathrm{C} 22185 & 7^{\circ} & \times 17^{\circ} \times 9^{*} & 11 \mathrm{lbs} . & 4.85\end{array}$


# 45 

## ICA Sloping Chassis Units

 Deluxe steel amplifier units with sloping fronts on chassis basesped withchrome trimmed handles; top covers have beautiful
"air gate" ventilators with red striped chrome trim. Ventilating louvres on sides and back. Raised screen openings on top, with red striped chrome molding. Rounded corners. Marine gray ripple finish. All have $4^{\prime}$ slope; bases $31 / 2$ high.
No. Overall Bottom Wt. Lbs. Each C22131 7×17×91/2" 10x17 $11 \quad \$ 5.35$
$\begin{array}{lllll}C 22134 & 10 \times 14 \times 91 /{ }^{\prime \prime} & 13 \times 14^{\prime \prime} & 11 & 6.03 \\ \text { C22147 } 10 \times 17 \times 9 /^{\prime \prime} & 13 \times 17^{\prime \prime} & 11 & 6.47\end{array}$

# hallicrafters communications-EQUIPMENT 



## Model S-22R SKTRIDER MARINE

While de, gred particularly for marine use in the fir) and 700 mile tand, zois recever is capable of covering a complete tuning rance trini 16.7 to 27.30 meters 110 k - to 18 mc ) thus making it adeal fos any commercial or o fier sarvise requiring a receiver opertrite ${ }^{*}$ ith in th i range. The coinj lete range is covered in four thinth with in ircurnely calibrated zoin tumwer dial havin r a scale lineth of sily and a "parate mechan a I h) nd spread dial. beth sensitisit? and sel.ctivity are of a high omier. Imane rejection at the himirr frequencies is purticularly good due to the use of $15(\mathrm{H}) \mathrm{kc}$ i.f. सun former:
Wher fisture include: beat frequency oscillator, matched built-in \%) 1 ite, utomatic volume coatrol, individual coils for each band, en itivity and fain controls, 1 Fitch control, tone control, sonizecelve switch and phone jack The receiver is designed for operatom from =ither 110 volts a.c. of d.c. Can be operaied from ti volt d.c. slorage batuery by using converter listed below. The complete recelver is housed in an atiractuey inisned steel cabinet measuring $181 \times \mathrm{x}^{4}\left(\mathrm{x}^{8} 1\right)^{\circ}$.
C21078-Model S-22R SKYRIDER MARINE for 110 V. a.c. or d.c. With tuhen and spuaker. Shpg. ve. 35 lbs.
Your Cost
$\$ 74.50$
C14225-LLFCIRONIC Conrerter Miodel 302 for 6 volt battery qulleathof, of Shyrder Marine. Shpg-wt. 11 kbs.
Your Cost.
$\$ 21.76$


HALLICRAFTERS FM-AM-CW VHF Receiver Model S-36A
For the more discriminating buthe, tue pioneers in rasat production of VIl1. AM H'I receivers now prese it the mo tadral ced der lopment in thi, il 1 . All componeats are oi the highest quality and the entire rectirns des den dor mivic. in any clinate. (Octml whet at rear of chatio permits opreation fram exter zal fower burce kuth mistim and makes pownsion for remote stind hy switch. Hilliciation now 15 tube higl, fr quency conmunicaltom- rociv, $r$ incorphrates many new improwemens such as acomr tuly in the IR F . 1.t detectorr and high frec, rency owcillator circuits. I rovidis continuons coverage from 27.8 क) 143 mc . Either is limiler and dicrimmeter for IMt, or a 3id I.F. amplilier, dicac det ctor and noine lint ter for AM can be switrlred into the circuit from the front panel. Il. " 5 " meter and meciunical hand spread. Incorporates 2 new vait sudin tem with a response curve which io esentually flat from 00 to 15,010 cycles. P Sh-rull high fide ity ounput it et. Bin or in (o) ohm output plus Gio ohm balanced line. Controle: lMT-AM witch. R.F. gain, A.V.C. (n, of. Band svith, Antenmi, zend-recerve Selectivity, Meted Arijustment, Tone, $\Lambda$ NL. on off,
 RI, 1-954 Con Mix, 1-6AC $1 \mathrm{st} 1 \mathrm{~F}, \mathrm{l}$-6AB7 2nd IF, 1-fSK7 ord If, 1 - 116 A.M. det and noise limizer, $1-6 A C=$ FMt limuty, 1, fiHt im Inicc, 1 GSLCGT urdio, 1 -VR 100 voltapi R
 Size 194 , Finished in black wrinkle. Rach type pancl.




## Model S-41G Skyrider Jr.

The 1916 Hallicrafters Skyrider Jr. is a 6 Tirbe AC/DC communications riceiver designed for far reaching short wave recertion an well as standard broadcast recertion. Frecuet ney rar ge is 550 ) to 30,000 kilocycles in 3 bands. Separate 180 dewree bandsprtad dial is utilized on all bxinds and in topecially uefu. on the hort wave ranges for line separation of forrign stavione. Be tirequency Oicillator incorporated in the recifiver maked it extremely useful to new amateurs for communications work at low cost, or to the experienced amateur as a secondary com munications receiver or monitor
Among ts many outstanding features are the following: Complere coverage from .55 to 30 megacycles; Electrical bandspread; plete caliorage from in meracycles withall importani tainds identified; Dial caliorated in merracycles withall importani mands identified B1. panel svitch; headphones completely izolated hy means of thone panel svitch, headphones complelely isolated hy means of thone
circuit transformer; AC/DC operation $110-12$, or $220-2.50$ volts circuit transformer; AC/DC operation $11(0-12$, or $220-2.50$ volts
when und with external resintance line cord; eirod selectivity combined with exceptional sensitivity: Modern 6 , ubectupe r heterodyne circuit. Tube lineup: 12 SA 7 mixer; 12 SK 7 IF amp.; $12 S Q 7$ 2nd detector, first audio amp. and AVC; 3iLSi aT 2nd audio amp. $12 \mathrm{SQ7}$ 13FO and automatic noise limiter; 357.5(:T rectifier. Sreaker mounted in top of cabinet uts projecting louvres instead of grill for better protection. flou ed in arty metal cabinet trimmed in maroon, measurine $8^{\circ}$ high, $111^{\prime \prime}$ wide, $81 / 3$ decp. Shpg. wt. 12 lbs.
C25090-Model S-41G. Complete with tubes \$3. 3.50
C $5245-220$ to 250 volt resistance line cord.
85


## HALLICRAFTERS SX-28A Super Skyrider

Traditional sensitivity and selectivity of thi old model SN 2 or have been furthr impros di in this new Supter shy K der by fe is of "micraset' permeability-tuned inductances in the RIF sew in n. This eceiver offrit the maximum in communicutions recivel int form: nce $t$, the di-criminating buyer. 1., Tube s'ure het copers, from 5.5 ke to 12 mc in six hands. Each control pen forn a d linite function
 that ontri sute tos the oul andind receptionc eap milrie of the unit, and all the controls are conveniently arranged for effot the tunir under all conditions. Variable A.N.L. control.
Circuit features include: 2 r.f. stages push-rull, fileliy audio, (i-ht $p$ ) vide ringe selectivity, band pass fiud ir wide angle ' $S$ ' meter, shono jack, adequate headphon' ourf,ut, im rov-d signal to nose ratu, $80 \quad 10,20 / 10$ meter amateur bands, cilibrote 1 , signal to nolse ratio, $0010,20 / 10$ meter arnateur band chilmolt i,
 gauge $x t+1$ cadiniurn plated. The 83 rig rack $t r w$ pane is of
thick tol with elched control marhing and inished in Mirocci).
 tool gray wrinkle.
C21083-Model SX-28A with crystal and tuhe; but less speaker. For 11 J voll Su (6)creles A.C. operation. Shpg. $\$ 223.00$
For operation on 110,220 volis, or $50-60$ cycle, add $\$ 11.50$ to the showe prite
$10^{\circ}$ PM Sy ${ }^{\circ}$, ker in Table Model Cabinet. Shpg. wt. 17 lbs.
C21193-YOUR COST.


## HALLICRAFTERS Model S-40

The first of Hallicrafters post-war communictions receivers is this en ational nev nudel with the tinest perfolmince ever prented in the popular price field. A completely new conception of riceiver beaty and tyling is incorforated is chi rectiver. The p of the calnnet itself provides the maximum in vintilation by use of a multisude of tiny openings. Controls are clearly ider ti use of multude of tiny openings. Controls are clearly ider tio cast recention. Features never before availible in a receiver in this cast receftion. Features never before avalable in a receiver in this price cl- are included. Of particular nies is the use of 1 h .2 F "cicion orsivting of permeability adjusted "micro-st " inductanes
 Excellent iment-to noie ratio and hith an nitivity ar achat d y he une of a ESA\% pentagrid conveter. Many other wextitis line Iturnt ve: surwnatic nuise limiter, telhmer, otur bengetheted 1F (ecillotor, beat trequency oscillator, scpafie RFF Dinillsy are powition tone contrel, or parat tlectrical bind noresd ith incertin fty wheel tuning. The overall frequency ranse bman on a thonors kile veles are covered in four bands: 550 to $1,80 \mathrm{KC}$
 vision man tuning dial is accurately calibrated in meracycles Yitch of Itroman beadiustid from the frumitimel. Sprecial noclet or Ftinal ipwt supply. is watts matimum andio output. Siociet

 and IF: \&QQ?ncl detector and 1 st audio amis; ;if ©f; 2nd tu lio any: Cris AVC and noive limiter; GJJGT BFO: 80 rectiler. 2) cirl ac. $872 \times 8,5 \times 11^{\circ}$

C21094-S-10 Fo operation on 110V:0 f0c. 1 C. ${ }^{\text {TV }}$ ? 50 c21085-5-40U Univeral Model for use on $110 / 220$ volts, 2 to 0 cycle 10 .
$\$ 87.00$
c21086 - Hill 10 (tisternal " $S$ " meter). Your Cost Approx 15.00
hallicrafters


## Model SX-25 SUPER DEFIANT

One of the finest values ever offered in the communications field? Most unusual in a receiver at this price are its extreme selectivity its more and fretter audio amplification. Fiour bands cover from ais KC io 12 MC . Sops ratr callifaied hind sprest dial for the 80 , he 20 and 10 meter bauss. Compensated ultra stable oscillator. Fine
 quariz crvital. Tuls, incluce: 6 Sk 7 1it RF Rp ; $6 S \mathrm{SK} 7$ 2nd R imp.; fikis Ist detect mixer hirh frequency eciliator; 6SK7 lit
 6SQ7 phase invert r; (II6 automatic noje I minter; 6J5GT B1F); GF'6's output; 80 rectivier. Sind-rative termintits, hadphone ject, 5000 or 500 ohm outpat, ponts for single wire or doublet antenna provided. Automatic ne limiter reduces noite by ite much all 7 er $1912^{n}$ long, 9$)^{7}$ hish and $111^{1}$ deep. For 110 vole 50,60 cycle 40 onvration. Sichet proviled for DC operation from either batterics ef a vibrapack. Shye. Wit is lhs
C21240- Viod! SX-25 complete with tuhes, crywal; less antitrn
\$94.50
Your Cost Yor kintratio
C21193-10e PaI Spal er in Tabl Monil Cubiut. Shpo. Wr . 17 fren Your Cost $\$ 15.00$


## NEW HALIICRAFTERS Model S-38

This rmy I Iallicrafurs Model S-3ह is the finest rectiver value ever
 andici It civer yur $u$ in any romm mis honle. In *idition it ampr thy itivite miskes it an exeellent recelter for commumeation,
 in sablaned in murscreles. All controls art clarly marined ans



 in the el if of




 and sudio Amylater and a soluct rectils 2.0 volt. $4 C$ or $D C$ is ife 220 volt line cand converter is teil whor. Receiver inclumel luilt-in PM dena mic speaker. Overall
 C21081-Mudel S-is Itictiver, it uh tul-.
Your Cost.
C5245-120 V'olt Line Cord Converter. Your Cost
\$39.50



 Somponin in the richer fation purli. for we of live 1)





 if C की की ©


 C21346-C miplove with tule:, but lats
Tour Cest
$\$ 250.00$
 mine fric.

Coils for Above

010286 -0 Irtikr. C10288-10 meter. Each set.

CLAROSTAT Series "M" Volume Controls
 Compact, efficient and long-
life are some of the features of life are some of the features of these Clarostat controls. Con-
sistent service is assured in all weather and in all climates by the utilization of an exclusive stabilized element. Where

tapped controls are required one will find the use of " T " controls (listed below) permit splecial functional operation not attainable with other types of controls. Switches to fit either type control are listed

s-Standard Pot.
V-"C"Bias Rheostat. U-Antenna and Bias

Z-Audio Shunt AVC
STANDARD CONTROLS

| $\begin{aligned} & \hline \text { Stock } \end{aligned}$ | Taper | Ohms | $\left\lvert\, \begin{aligned} & \text { Stoek } \\ & \text { No. } \end{aligned}\right.$ | Taper | Ohmis | $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Taper | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{\mathrm{C} 7350}$ | S | 500 | C7360 |  | 15,000 | C7370 |  |  |
| c7351 C 7352 | S | 1000 2000 | ${ }_{\text {c7361 }}^{\text {c7362 }}$ | $\begin{aligned} & \mathrm{u} \\ & \mathrm{~s} \end{aligned}$ | 15,000 25,000 | C7371 c7372 | $\begin{aligned} & \mathrm{s} \\ & \mathbf{z} \end{aligned}$ | $\begin{aligned} & 500,000 \\ & 500,000 \end{aligned}$ |
| c7352 c 7353 | S | 2000 3000 | ${ }^{\text {c }}$ | s | 20,000 | ${ }^{\text {c77373 }}$ | s | 1 Meg. |
| c7354 | s | 5000 | C7364 | z | 50,000 | C7374 | z | 1 Meg . |
| C7355 | U | 5000 | C7365 | S | 75.000 | C7375 | 2 | ${ }_{3} 2 \mathrm{Meg}$. |
|  | S | 7500 10.000 | $C 736$ $c 736$ | s | 100,000 100,000 | C7376 $C 7377$ | 2 | 3 Meg. 4 Meg. |
| C7357 c 7358 | S | 10,000 10,000 | c7367 c7368 | z | 100,000 200,000 | ${ }_{c}^{\text {c7378 }}$ | 2 | a 5 Meg. 5 |
| C7359 | v | 10,000 | c7369 | s | 250,000 | C7379 | 2 | 10 Meg. |
|  |  |  |  |  |  |  |  | $594$ |

SERIES (T) TAPPED CONTROLS

| Stock No. | Ohms | Tapped At | Stock No. | Ohms | Tapped At |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{C 7380}$ | 250,000 | 125,000 | C7387 | 1 Meg. | 500,000 |
| C7381 | 350,000 | 75,000 | C7388 | 2 Meg. | 100,000 |
| C7382 | 500,000 | 100,000 | C7389 | 2 Meg . | 500,000 |
| $\begin{aligned} & \text { C7383 } \\ & \mathbf{C 7 3 8 4} \end{aligned}$ | $\begin{aligned} & 1 \text { Mek. } \\ & 1 \text { Meg. } \end{aligned}$ | 50,000 $\{100,000$ | C7390 $\mathrm{C7391}$ | 2 2 Mcg . | 1 Meg. $\{250,000$ |
|  |  | \{ 500,000 |  |  | $\{500,000$ |
| $\begin{aligned} & C 7385 \\ & C 7386 \end{aligned}$ | $\begin{aligned} & 1 \mathrm{Meg} . \\ & 1 \mathrm{Meg} . \end{aligned}$ | $\begin{aligned} & 100,000 \\ & 225,000 \end{aligned}$ | C7392 | 4 Meg . | 500,000 |
| Your Cost, Any above ................. ............ 888 |  |  |  |  |  |
| AD-A-SWITCH PLATES |  |  |  |  |  |

##  <br> "OSCILLATONE/" Code Practice Oscillator



Here is the last word in code practice oscillators. New Adjustable Resonator (optional) increases volume five times. Tone frequency variable from 600 to 1500 cycies. "PM" dynamic speaker may be disconnected during headphone operation if desired Up to 300 head phones may be used. Has phone jack for headphones. Ontional built-in key. Abso Operates on 110 V . AC or DC. Uses 117 N 7 GT tube Gray wrinkle finish metal case.

C14064-Has all features described, but less resonator and ess built-in key. Si
Your
$\$ 9.00$
C14065-With resonator, but less built-in key. Size, $4 y^{4} \times 3 \times 1 / 2^{\prime \prime}$.
Cour
s 10.50
Professional Speed Key


Designed by the world's cham pion radio Telegrapher. This key has a steel base with blue-grey wrinkle finish. All metal parts in superstructure are finished in highly polished chrome for at tractiveness and durability. Fine steel springs. Fully adjustable, with silver contact points. No shocks, no "chirping," nothing but good, clean cut keying for the discriminating operator who wants top notch performance, c14087Your Co

C14066-With built-in key, but less resonator. Size. $5^{3} \times 3 \times 41 / 2$ "
Your
Cost. . . . . . . . .
C14067-Deluxe Master Oscillatone with all features including resonator and built-in key. Size, $5^{3} \times \times 3 \times 41 / 2$
Your
Cost
$\$ 13.00$
Deluxe Speed Key


This is the finest "bug" available. Highly polished chrome finished base and superstructure. Precision designed to give the utmost in clean cut, speedy keying. It has selected blue steel springs for uniform performance, and all contacts are of silver. Fully adjustable with 9 points of adjustment. This is the key for "Hams," commercial communication stations, and schools. Size. $4 \times 61 / 2 x, 3$ C14093
Your Cost

## Antenna Loops

Ideal for bat tery and mid gel setso portables. Re places an
tenna coil gives satisfac tory pickup ty. Induct excellent selectiv than moval of turns for adjustment $43.4 \times 8^{\prime \prime}$.

## C16450

Your Cost


This Sup This SuperSet is a big sellier and seller and plenty of good reason for its popu larity. Remarkable results have been obtained and its scientific construction gives loud, clear distortion free reception. A super sensitive crystal is utilized which is mounted in a glass dust proof enclosure. Shpg.wt.1 Ib. $\$ 1,27$
C13888......... 7. ${ }^{\text {"MIKE' }} \mathbf{~ J x}$.

A real quality radio micro phone easily attached to any radio. Great for home entertainment but also has prac tical uses for dents, etc. In brown finished metal case with attachment cord. Has a push switch to cut out radio whenever desired. Shpg. wt. 1 lb C13379
Your Cost, Only
$59^{4}$
Antenna tuner, wave trap, aerial eliminator all in this one instrument, depending on the manner of its connections to the radio set; greatly enhancing radio performance. Operates on any make or model radio set. Can be installed by anyone
C12678-
Your Cost
$4 \leqslant 4$


AUTOMATIC RECORD CHANGER $\star$ LIGHTWEIGHT $\star$ SMALL SIZE $\star$ NO GEARS
t11/4 Oz. NEEDIE 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 a series of up to twelve 10 -inch records or ten 12 -inch records of the 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 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. Needle pressure $1 \frac{1}{4} \mathrm{oz}$. Conventional removable needle. Turntable is brown flox coated. Entire unit is finished in beige and brown enamel. Overall size: $103^{\prime \prime}$ by $121 / /^{n}$ by 8*. Requires $6^{\circ}$ above motor boa
plete with mounting hardware.
C22560-Your Cos 2
$\$ 18,27$

## Base for above Record Changer

Wood mounting base for use with above record changer. Walnut finish. Mounting holes and clearance cutout already provided. Proides a complete portable unit ready to attach to a radio. Size, $2^{5}{ }^{\circ} \times 11^{3}{ }^{16^{\prime \prime}} \times 2^{1 / 4}$
s1.95

## NOT

For additional listings of record players, changers and pickups, see pages 34-35.

## NEW CALTRON MAGNETIC PICKUP

something new in a high quality phonograph pickup in this Caltron model which incorporates a vibrating reed magnetic pick-up cartridge with a needle point pressure of only 1 oz . Especially designed and long record life are important Recommended for use on all records including the new noiseless Vinylite pressings. Up to 12 -inch records with the Model 300 and up to $171 / 2$-inch records with the Model 301. Realistic re juction is now realized due to the low needle point impedance $\mathbf{o}^{2}$, $\mathbf{y h m s}$ and absence of vertical response. Output 2.5 millivolts. Shimzt. 10 oz. C13467-Model 300, 7" arm. Each
\$11.76

## Replacement Cartridge

 Mode! 100. A vibrating reed magnetic pick-up cartridge in stream lined plastic case. Not affected by weather. Impedance 100 ohms. Output 2.5 millivolts. Shpg. wt 3 Oz.c13469-Each... $\$ 5$ - 8

## Pre-Amplifier

Model 400. For use with radio and amplifiers having insufficient gain for operation of the Caltron pick-up described above. Delivers volt of undistorted output. Uses 1372-Less tube. \$5 88 Each.


## HALIICRAFTERS Model S-40

The first of IIallicrafiers post-wer comnunications receivers is thii en ationtl riem midel with ine hine from nee ever presited in the popular price fiela. A continetis nev conception of receiver beat and tyline is incorpmitiod in hi receiver. The (in) of the calini itwif provides the mumitin in ventilition by to of a mult tu le of tiny openings. Contails are cleaily wientiid afd the minn 1 ponion are marked in ied for st nided trandcat riception. F-ature never betore atailible in a receivir in this price clats are includial. Of particular no is is the $u$ uo of the RF price clates are ircludiri. Of particular no is the $u$ in the RF , Fhationinn it in of permeatility-ulju ind nicfo-set inductances, identical with thy in the most eapernve Hallicrafters rectivers. Th ut of a $6.3 \%$ Fer tagrid contertor Many other out ancing Gatures are: au'omatic noise lin iter, temperature comper sated If r-cillator, beat frequency oscilate. se rale RF and AI atin witr l, these pration tone contrib, eryarmas ill cirical bandspitad
 inftikni, liserese ser culced in inr io de 50 to wo hC ,
 Qifnt min tunirefill in accurairle catarsi d in meracy cles. I'itch
 fivenal fowir sulphty. 2 s wath nom hum audio output. Sochet

 3) Il 11 SU, zod det ctor and 1 t avdio mp ; fFFic; 2nd audio
 io cycle AC. 8 2'zo? "tall.

C21085 S-4OU Universal Model for une on $110 / 220$ volte, 2., to (i) cycle AC
387.00

C21086 SM 10 (Exter nal 'S" meter). Your Cost A pprox. 15.00


## HALLICRAFTERS HT-9 100 Watt Phone/CW Transmitter

 frises de irned ton riskimum leansli, ind zonvinience. If at com-

 Arromimation in the escitr cetioir poovide fir use of live




 1:

 :nij :

 C21366 ConTtay Fill ruks, fui Its

## Your Cost

$\$ 250.00$ tot का rotur
on 11.1, $3:$

## Coils for Above

## 



1.6. lidy, Each.


# hallicrafters COMMUNICATIONS/EQUIPMENT 

## Model SX-25 SUPER DEFIANT

One of the fincst values ever offered in the communications field Most unusul in a receiver at this price are it evtreme selectivity ami its nort and be ter Audio amplification. Four 1 and cover from 5 \%) hC to 12 MIC. Separate calibrated bind spread dial for the 80 , th
 meter. \& vatt puch-pull outpur etjet. lahoiatory checked piro
 amp.; fikh 1st de tic r-mikr lish frequency oscillator; 6SK7 1-t IF amp.; 6SK, 2nd IF amp.; 6SQ7 2nd det.-AVC-1st audio amp GSQ7 thase invert r: 616 automatic rive limiter; 6J5GT BIC: GFf's output; 80 rectiher. Send-rective lirminals, headphone jach, 5000 or 500 hm output, pofif for cinsle wire or coublet intennfi
 $1910^{\circ}$ lone. $015^{\circ}$ hish and $11^{1}$ diep. For 110 volt $50 / 60$ cycle $A C$ Giention. Solfitisrovid dor I)C oprration from wither batt rime et vibropack. Myp. Wi bis lbe.
C21240-Model SX-25 complete if ih tubee, cry 1 li less ant lier
Your Cost.
$\$ 94.50$
For op -ation on 110220 volts, 22 io cjell. sidd $\$ 10.00$ so then alote price.
 Your Cost.


## NEW HALLICRAFTERS Model S-38

This wor IXallicrafert Nundel S-38 it the fine treciver talue ofer allerd in the lan price neld. The unutually ine styling makes thes

 rvic. Fog terite are covertel: 510 to $1,680 \mathrm{KC}$, $1,6,0$ ) to 3,200
 ${ }^{1}$ cathoritted in mersicyeles. All control fart cltatly mitrhed and

 jache and zoforme firmixals axe provided at the rear of the cab-











 C21081- Model S 2. K-wivi. vith tult.
Your Cost.
C5245 -

CrAROSTAT Series "M" Volume Controls
 Compact, efficient and longlife are some of the features of sistent service is assured in all weather and in all climares by the utilization of an exclusive
 stabilized element. Where tapped controls are required one will find the use of "T" controls (listed below) permit special functional operation not attainable with other types of controls. Switches to fit either type control are listed below. Dia. $13 / 8^{\prime \prime} .1^{\prime \prime}$ "shaft. $2^{\prime \prime}$ long. ${ }^{3}{ }^{\prime \prime}$ bushing with nut.
S-Standard Pot CLf.ROSTAT Taper Code
S-Standard Pot. Bias
V-"C" Bias Rheostat.

| Stock No. | Taper | Ohms | Stock No. | Taper | Ohms | $\begin{gathered} \text { Stock } \\ \text { No. } \end{gathered}$ | Taper |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{C 7350}$ | S | 500 | C7360 | S | 15,000 | C7370 | 2 |
| C7351 | S | 1000 | C7361 | U | 15,000 | C7371 | S |
| C7352 | S | 2000 | 67362 | S | 25,000 | C7372 | 2 |
| c7353 | S | 3000 | C7363 | 5 | 50,000 | ${ }^{\text {C7373 }}$ | \$ |
| C7354 | S | 5000 | C7364 | $\underline{7}$ | 50,000 | C7374 | $\frac{2}{2}$ |
| C7355 | U | 5000 | C7365 | S | 75,000 | ${ }^{\text {C7375 }}$ | 2 |
| C7356 | S | 7500 | C7366 | S | 100,000 | ${ }^{\text {C7376 }}$ | $\frac{2}{7}$ |
| C7357 | S | 10.000 | ${ }^{\text {C7367 }}$ | $\underline{7}$ | 100,000 | ${ }_{C} \mathbf{C 7 3 7 7}$ | 2 |
| C7358 | U | 10,000 | $C 7368$ $C 7369$ | S | 200,000 | C7378 $C 7379$ | 2 |
| C7359 | $\checkmark$ | 10,000 | C7369 | S | 250,000 | C7379 | $z$ |

SERIES (T) TAPPED CONTROLS

| Stock No. | Ohms | Tapped At | Stock No. | (\%hms | Tapped At |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{C 7380}$ | 250,000 | 125,000 | C7387 | 1 Meg . | 500,000 |
| C7381 | 350,000 | 75,000 | C7388 | 2 Meg. | 100,000 |
| C7382 | 500,000 | 100,000 | C7389 | 2 Meg . | 500,000 |
| C7383 | 1 Meg . | 50,000 | C7390 | ${ }_{2} \mathrm{Meg}$. | 1 Mer |
| C7384 | 1 Meg . | $\left\{\begin{array}{l}100,000 \\ 500,000\end{array}\right.$ | C7391 | 2 Meg . | $\left\{\begin{array}{l}250,000 \\ 500,000\end{array}\right.$ |
| $\begin{aligned} & \mathrm{C} 7385 \\ & \mathrm{C} 7386 \end{aligned}$ | 1 Meg . 1 Meg. | $\begin{aligned} & 100,000 \\ & 225,000 \end{aligned}$ | C7392 | 4 Meg . | 500,000 |
| Your Cost, Any above . . . ......... .........\%84 |  |  |  |  |  |
| C7398-SPST. |  | -A-SWITC <br> Each 29c | $\begin{aligned} & \text { PLATES } \\ & 7399-D P \end{aligned}$ | I. . | Each 29c |


"OSCILLATONE" Code Practice Oscillator


Here is the last word in code practice oscillator New Adjustable Resonator (optional) increases volume five times. Tone frequency variable from 600 to 1500 cycles. "PM" dynamic speaker may be disconnected during headphone operation if desired. Up to 300 head phones may be used. Has phone jack for headphones. Optional built-in key Absojack for headphones. Optional built-in key Abso-
lutely safe. No shocks. Clean cut, chirpless keying. lutely safe. No shocks. Clean cut, chirpless keying.
Operates on 110 V . AC or DC. Uses 117 N 7 GT tube. Gray wrinkle finish metal case.

C14064-Has all features described, but less resonator and Your
$\$ 9.00$
Cost
C14066-With built-in key, but less resonator. Size, $\$ 1$
C14067-Deluxe Master Oscillatone with all features including resonator and built-in key. Size,
$53 / 4 \times 3 \times 41 / 2$
Your
Cost
$\$ 13.00$
Deluxe Speed Key


Designed by the world's champion I'adio Telegrapher. This key has a steel base with blue-grey wrinkle finish. All metal parts in superstructure are finished in highly polished chrome for attractiveness and durability. Fine steel springs. Fully adjustable, with silver contact points. No shocks, no "chirping," nothing but good, clean cut keying for the discriminating operator who wants top notch performance, reasonably priced. Size, $4 \times 6,2 \times 1 / 2^{\prime \prime}$.
CYour Cost
\$6.75
tions. and C14093-
This is the finest "bug" available. Highly polished chrome finished base and superstructure. Precision designed to give the utmost in clean cut, speedy keying. It has selected blue steel springs for uniform performance, and all contacts are of silver. Fully adjustable with 9 points of adjustment. This is the key for "Hams," commercial communication sta-
$\$ 9.75$

## Antenna Loops

Ideal for bat tery and mid get sets or portables. Replaces antenna coil; gives satisfactory pickupuand excellent select ivity. Inductance slightly higher than necessary, permitting re$4_{4}^{3} \times 8^{\prime \prime}$.
C16450
Your Cost


This tone Crystal Set is a big seller and there is plenty of good reason forits popularity. Remarkable results have been obtained and its scientific construction gives loud, clear. distortion free reception. A supersensitive crystal is utilized which is mounted in a glass dustproof en| closure. Shpg.wt.1lb. $\$ 1.27$ |
| :--- |

 Jr. A real quality radio microphone easily attached to any radio. Great for home entertainment but also has prac-
tical uses for oice stu dents, etc. In brown finished metal case with attachment cord. Has a push switch to cut out radio whenever desired. Shpg. wt. 1 lb. C13379
Your Cost, Only.


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 a series of up to twelve 10 -inch records or ten 12 -inch records of the boday for home use are of this type. Very old records that do not today for home use are of this type. bery 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 lloating tone arm incorporated ile pressure $1 \frac{1}{4} \mathrm{oz}$. Conventional removable needle. Turntable is brown flox coated. Entire unit is finished in beige and brown enamel. Overall size: $10^{3} 4^{\prime \prime}$ by $121 / 8^{\prime \prime}$ by $8^{\prime \prime}$. Requires $6^{\circ}$ above motor board and $2^{\prime \prime}$ below motor plete with mounting hardware.
C22560-Your Cost
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, C22361-Your Cost

## NOTE

For additional listings of record players, changers and pickups, see pages $34-35$.

## NEW CALTRON MAGNETIC PICKUP

Something new in a high quality phonograph pickuprates a vibrating reed magnetic pick-up cartridge with a needle point pressure of only 1 oz.
Especially designed for use where high
quality reproduction and long record life are important. Recommended for use on all records including the new noiseless Vinylite pressings. Up to 12 -inch records with the Model 300 and up to $17 \%$-inch records with the Model 301. Realistic re" "uction is now realized due to the low needle point impedance 0 , shms and absence of vertical response. Output 2.5 millivolts. Shpg. wt. 10 oz. C13467-Model 300, $7^{\prime \prime}$ arm. Each C13468-Model 301, $10^{*}$ arm. Each

## Replacement Caxtridge

Model 100 . A vibrating reed magnetic pick-up cartridge in streamlined plastic case. Not affected by weather. Impedance 100 ohms. Output 2.5 millivolts. Shpg. wt.
3 oz.
c13469_Each $\ldots$. $\$ 5.88$

## Pre-Amplifiex

Model 400. For use with radio and amplifiers having insufficient gain for operation of the Caltron pick-up described above. Delivers pol of undistorted output. Uses 1-7F7. Shpg. wt. 13 oz . C1347

# HOWTO ORDEF RY MALL FROM CONGORD RADDO COBR cाIcaror.ill. - <br> 901 W. JACKSOM BLVD. <br> PHONE: MAYMARKET 0422 . TELETYPE NO. CG 320 <br>  ORDERS TO 

# PLEASE READ THIS PAGE CAREFULLY AS IT WILI HELP YOU OBTAIN THE FASTEST POSSIBLE SERVICE 

## HOW TO ORDER

Use our convenient order blank (additional blanks sent on request). Please write In ink, legibly, and not more than ONE item to a line. Make sure you write the exact stock numier and that the price is the one quoted for the item wou want. Specify how we shall make shipment by "Express", etc. We shall follow your instructions, but will change them wherever we are sure that such a change is to your better interest. Please keep all correspondence or remartis relative to your order on a separate sheet of paper Make sure you include sufficient postaze; all overpayments promptly refunded (if overpayNOTE: In 10 c , we will credit your account. tabulated lists of merchandise it is imy in the to show shipping weights. In is impossible cases it s a simple mati. In practically all weight of each article. Please be sure to include sufficient postage. We will credit you wilh any overpayments

## DOMESTIC ORDERS

We buy for cash and sell for cash; this emplains our low price policy. We do not carry credit acvvin, and we pass on to our customers all savings affected by the elimination of costly brovidining. We will ship C.O.D. if desired, your order. CCO.D. parcels may ise shipled ONL.Y to places in the 48 states of the U.S. and o U. S. territories. On small orders, remittance in tull saves you extra costs.

FOREIGN ORDERS
On foreign: orders we require payment in the United States by irrevocable and conimmed etter of credit against documents, or $5(\%$ deposit with order, balance sight draft against B/L. All quotations F.O.B. our warehouse, with slight additional charge for export packing. Orders up to $\$ 25.00$ payable in full in advance, inclucling postage. All remittances payable in U. S. funds.
$\mathbf{2 \%}$ TRANSPORTATION ALLOWANCE
On mail o-ders of $\$ 25.00$ or more, we allor you to deduct $2 \%$ from the total as iransportation allowance, with the following exceptions: All concord and National Co. products; all items sold under Fair Trade regulations; all items

## RETURNS

If you find it necessary to return any merchandise for acjustments, please write in advarce stating the following: reason for return-when purchased over the counter) If your shipment is received damaged, obtain a report from the postmaster or express agent and mail it to us. Use a separate sheet of palper mai adjustment matter; do not add remarks to a new order fir parts. Do not include money in the package you return. When returning merchandiee, pack carefully, insure, and write your name and address on all packages and letters.

## FINAL PRICES

es shown in this catalog are net. All d s
Is hat en deducted, including $2 \%$ disants for notice; we give customers the change of all reductions taking place after the catalug of all reduct
is published.

## POSTPAID ITEMS

Items marked "Shipped Postpaid" do not require postage. Postpaid items refer on!y to shi? ments made within the 48 states of the

## SENDING MONEY

The safest and best way to send money is by: American Express; Post Office or Telegraph Money Order; hank drafts; firm checks; stamps. Do not send cash. If absolutely necessary to remit cash, send by registered mail only.

## PARCEL POST RATES FOR ALL ZONES

Parcels up to 8 ounces may be shipperl anywhere $/$ widest point. Example: a package 35 in . long in the United States for 6c. Parcel post ship- 10 in . wide and 5 in. high measures 65 in. in The limit of size on all not exceed 70 pounds. length and girth combined (length 35 in., plus | The limit of size on all parcel post sackages is |
| :--- |
| 100 inches in length and girth combined, at 10 in. width, plus twice 5 in. height, equals |

|  | First ${ }^{\text {LONES }}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Weight In <br> Pounds | Local | First 8 Second to 150 Mi . | $\begin{aligned} & \text { Third } \\ & 150 \text { to } \\ & 300 \mathrm{Mi} . \end{aligned}$ | Fourth 300) 10 (io) Mi. | $\begin{gathered} \text { Fifth } \\ 600 \text { to } \\ 1000 \mathrm{Mi} . \end{gathered}$ | $\begin{aligned} & \text { Sixth } \\ & 1004 \text { to } \\ & 1400 \mathrm{Mif} . \end{aligned}$ | $\begin{aligned} & \text { Seventh } \\ & 1100 \text { to } \\ & 1800 \mathrm{Mi} . \end{aligned}$ | $\begin{aligned} & \text { Eighth } \\ & \text { Over } \\ & 1800 \mathrm{Mi} . \end{aligned}$ |
| 1 | 5008 | \$0.09 | \$0.10 | \$0 11 | \$0.12 | $\$ 013$ | \$0.15 | \$0.16 |
| 2 | 09 | . 11 | . 12 | 15 | 18 | . 20 | . 24 | . 27 |
| 3 | 09 | . 12 | . 17 | . 18 | 23 | 27 | 33 | 38 |
| 4 | 10 | 13 | .13 | 22 | 28 | 31 | 42 | 19 |
| 5 | . 10 | 14 | 18 | 25 | . 31 | 11 | 52 | 61 |
| 6 | 11 | . 15 | .23 | 29 | 39 | 18 | 61 | 72 |
| 7 | 11 | 16 | 23 | . 32 | . 44 | 56 | 70 | 83 |
| 8 | 12 | . 17 | . 21 | . 36 | 50 | 63 | 79 | 95 |
| 9 | 12 | 18 | $2{ }^{\circ}$ | . 39 | . 56 | 70 | 89 | 1.05 |
| 10 | 13 | 19 | 23 | 43 | . 61 | 77 | . 98 | 1.17 |
| 11 | 1.3 | 20 | $31)$ | 16 | 66 | 81 | 1.07 | 1.29 |
| 12 | 11 | 22 | 32 | 50 | 72 | 92 | 1.16 | 1.40 |
| 13 | 14 | 23 | 38 | . 51 | . 77 | 99 | 1.26 | 1.51 |
| 14 | 15 | . 21 | . 35 | 58 | 82 | 106 | 1.35 | 1.63 |
| 15 | 15 | . 25 | . 33 | 61 | . 89 | 113 | 1.44 | 1.74 |
| 16 | 16 | . 26 | . 10 | 65 | 94 | 121 | 1.53 | 1.85 |
| 17 | 16 | . 27 | 40 | . 68 | . 99 | 128 | 1.63 | 1.97 |
| 18 | 17 | . 28 | . 14 | 72 | 1.05 | 1.35 | 1.72 | 208 |
| 19 | .17 | 29 | . $4 \mathrm{H}^{3}$ | 75 | 1.10 | 1.42 | 1.81 | 2.19 |
| 20 | 18 | 30 | . 18 | 79 | 1.15 | 1.49 | 1.91 | 2.31 |
| For Each ddded lb. Add | 1c | 1c | 2 c | $31 / 2 \mathrm{C}$ | $51 / 2 \mathrm{c}$ | 7 c | 91/2c | 11c |

## EXPRESS CHARGES

Express Charges are determined by the weight of the shipment and distance of Destination NOTE: Add 10 c Irmergency Charge to rates shown (hill enable you to estimate charge Add comergency Charge to rates shown below lor each shipment. Also subject or the duration. Tax on Total Charges. These two additional charges are applicable Maximum Distance Cost up $10 \quad 5$

| 50 Mi | 150 Mi | 300 Mi. | 500 Mi | 750 Mi. | 1000 Mi. | 1500 Mi. | 2000 Mi. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |



| * | - | 10 | ${ }^{4}$ | 30 | 30 | . 40 | 50 | . 65 | 65 | 92 | 1.15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | " | 15 | 4 | 30 | . 34 | 47 | 59 | . 76 | 88 | 1.33 | 1.67 |
| 4 | 4 | 20 | " | 36 | . 42 | 59 | . 75 | . 97 | 1.14 | 1.74 | 2.19 |
| 4 | 4 | 25 | " | 42 | 50 | 71 | 92 | 1.19 | 1.10 | 2.15 | 2.72 |
| 4 | " | 35 | a | 55 | 66 | 95 | 1.24 | 1.63 | 1.91 | 2.97 | 3.76 |
| 4 | $\bar{\square}$ | 1.5 | * | 68 | . 82 | 1.19 | 157 | 2.06 | 2.43 | 3.79 | 4.81 |
| " | , | 55. | 4 | 80 | 98 | 144 | 189 | 2.50 | 2.95 | 4.61 | 5.85 |
| ${ }_{6}$ | 4 | 70 | * | 99 | 1.22 | 180 | 2.38 | 3.15 | 3.72 | 5.81 | 7.42 |
| « | * | 85 | " | 118 | 1.46 | 2.16 | 2.87 | 3.80 | 4.50 | 7.07 | 8.99 |
| $\checkmark$ | 4 | 100 | ¢ | 1.27 | 1.60 | 2.42 | 3.25 | 4.35 | 5.17 | 8.20 | 10.45 |

## INSURANCE

Parcel post insurance rates are: 3c for parcels up to $\$ 5.00 ; 10 \mathrm{c}$ for parcels from $\$ 5.01$ to $\$ 25.00$; 15 c for parceis from $\$ 25.01$ to $\$ 50.0 \mathrm{th} ; 25 \mathrm{c}$ for CELS WE SHPP MUST BE INSURED. Express insurance rates are: for shipments under $\$ 50.00$, no extra insurance charge: for shipments valued from $\$ 50.00$ to $\$ 150.00$ charge is 10c. For each additional $\$ 100.00$ value or por ion thereof, charge is 10 c .

## EXPRESS \& FREIGHT SHIPMENTS

Express and freight shipments are sent transportation charges collect. If your station has no agent, please send sufficient money to cover over-payments are promptly refunded

## C.O.D. SHIPMENTS

Transportation charges on C.O.D. parcels are slightly higher than those sent prepaid. C.O.D. charges in addition to the regular postage cost outlined above are as follows (including insurance): When value of parcel is up to $\$ 5.00$ the extra charge is $20 \mathrm{c} ; \$ 5.01$ to $\$ 25.00$ the extra is $40 \mathrm{c} ; \$ 50.01$ to $\$ 100.00$ the extra charge is 50 c is $40 \mathrm{c} ; \$ 50.01$ to $\$ 100.00$ the extra charge is 50 c ; $\$ 100.01$ to $\$ 150.00$ the extra charge is 55 c ; $\$ 150.01$ to $\$ 200.00$ the extra charge is 60 c . The Post Office also charges an extra small money order fee on each C.O.D. parcel. Save these
fees by remitting in fuif.
15 T: Equipment built or ordered esirecially to meet customers
requirements not subject to exchange, credit or refund. All orders for special merchandise must



Article

Iabels, Record lacquer
Lamps, Exciter Lamps, Neon Lead-ins, Aerial Leads, Test
l, ightning Arrestors
Lights, Pilot
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## MALLORY

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Contact
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Mynar
Kontak
Lapel.
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Motors, Phonogiap
Mounting Strips
MULTIAMP
ADD-A-UNIT
ACCESSORIES ...18-21
Name Plates.
NATIONAL
Needle Sharpener....
Ncedles, Phonograpi Needles, Phonograpi
Needles, Recording. Needles, Recording
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Neutralizing Tools. $\qquad$ 80,88
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.54, 77,95
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Photo-Electric
Equipment.
Pilot Light Brackets
Pilot Light Bulbs
Plates, Con
Mounting
Plates, Etched
Plexiglass
Pliers.
Plug-in Coils.
Plugs, A.C
Attachment
Battery
Cable
Microphon

## Suppressors, Auto

## Resistors

Cabinct
Carbon.
Center Tap
Line Cord.
Meter Shunt and
Multipliers. . 55 Sliders.

## elence

## Radio

## Radio

Pilot Bracket


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## - CDMMUNLCATIINMEEFDEBE-

NATIONAL NC-46





 $4.12 .0 \mathrm{me} ., 16,2.15 \mathrm{me}$, and 0.50 .1 .6 nic . On the band hemel inill the followine division are available: 70 dial divisions on 2.6 mc , s. 5 in 7 , $1 / \mathrm{mc}$., if on 14.0 me , ind 10 on 28 mc . Features include hat ies vily toin firmur vith atumati tfire hold control, CW elacillator, phitute RF ind it min cimroll, and amphitd and delayed AVC. A puibhatll kudin semp int meth deliver appookimate i, vatt. A siraieht lime frequency rracket in conjunction wh a temarate band soread condeneer bith havink mera infut drive are used. The mil switchme unit uses silver plat d contare. Proveman is made for pither he adphone or swaker. Circuit consi=s of tal a cen rter, is made for pither he adphone or sinker. ircuit consis. of it AlC amplifer, 6SJ7 CW oscillator, 6SC7 audio-inverter, two 25166 G T audio output and one $25 Z 5$ rectilier. Sensitivity: approximately 5 microvolts input ritovide a 0 milliwatt cutput over entire ranpe. Like all receivers which have nu R tage, the NC- 6 is not entirely free from images. Output with AlC bates 1ale, than $\pm 1$ DI3 with inputs ranging from 10 to 10 ), (100) microvalt.

C21259-Model NC 16, Complete with tubes, Less Spal er. Approximate price subiect to O.P.A. approval
$\$ 90.00$


## NATIONAI NC-2-40C



 c21261 Model NC a HOC. Complete with tubes. C21261 Stwaker
C21262 10 inch waker menanted in marate cabinet specially d itsed us 5.00 nonize with the rectiver's trim lines.

One of the finesi communications receivers ever mad contimuoue frequiny range from 490 to 30,000 hiliolitir. continuoue freaucricy range from 490 to 30,000 kilexpitr The rearesil calihrated coll ranpes, controlled by a koohor the front pantl she in moves the de ired coils inta poulit prase the tunivis conden er and plugs, them into the circul. How alfuring very short leads for more efficient jer, lormanc : Tunite control has a ratio of 60 to 1 , ard thaser in freduency may be done rapidly rierely ty minhing ithe dill. The mod l has-s number of nevi festur-\%

 Din oonting and trewarl bating or fluitering which w"cur on and fremftex (m) uning in strone signals. A line shite if

 mite. Moul 1 , ply yrene coil frme are used in both $\mathrm{k} \mathrm{F}^{\circ}$




 (inecter, Th, y, musb pull deliver 8 wats of audio but-


## HAMMARLUND HQ-129-X


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 bands. The lands are broken down as follow: 540-1:39 ie, If
 addumion io the calibrated hand soread dial which covers 1 if thater







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C21035 3/asi=1 FO-13.1 X, Complite
with tulas, les, Spaker
C21036 Matching Spasher in Cabinet
$\$ 129.00$
$\$ 10.50$


## Plays twelve 10 -inch records and ten $\mathbf{1 2 - i n c h}$ records automatically-without attention

Just what you've been waiting for . . . a handsome, well made, highly efficient automatic phonograph that plays a full hour of records without interruption! Dance to your favorite records . . or listen to them . . . and "hear them for the first time," because this phonograph will play them with so much fidelity, with so little record noise, the muser, will come to you rich, clear, and mellow.

## A Fine Instrument Gives Years of Pleasure

In a modern-design cabinet, finished in brown hammerlin enamel, we have firmly anchored the chassis and the record changer. Uses three tubes: 12SQ7GT, 50L6GT and 35Z5GT, and is equipped with permanent magnet loud speaker. Features separate tone and volume controls . . . turn one
knob for the precise tone you want, from mellow bass to crystal-clear treble; turn another for volume, from soft and low to strong and loud. Reject any record by a quick flick of handy switch-button.
Record changer is equipped with super-sensitive crystal pickup and free-floating, featherweight tone arm which reduce record wear. Entire instrument is permanently lubricated to give years of smooth, trouble-free, attention-free pleasure. Operates on 105-125 volt, 50 cycle AC. Easily portable anywhere. Dimensions: 12 inches wide at base, $101 / 2$ inches deep, $71 / 2$ inches to top of toggle. In every detail this is the postwar automatic phonograph you have been waiting for! It's a fully guaranfeed postwar desiqned CONCORD Automatic Phonograph! 6D3ARC-Brown. Shpg. wt. 25 lbs .

## STARTLING INNOVATIONS:

MULTIAMP PM
EXCLUSIVE WITH CONCORD!

## Sensational NEW FEATURES

## * FLEXIBILITY

Choice of 120 different amplifier and file elf. Race combinations in e single case

## * FIDELITY

$2 \%$ or less ratal harmonic distortion at rotted power output

* POWER

30-45-60-75 or 90 watts in a single cobinet-increasable os desired

Even the experts, the men who spend their lives developing sound equipment, are amazed when they hear the unbelievable performance of CONCORD'S thrilling new MULTIAMP Add-A-Unit AMPLIFIER. Never before such clarity and fidelity! Never before so little hum and distortion! By stacking interlocking cabinets you can at will, add more power units to total 270 watts and more. A SINGLE PORTABLE CASE houses a portable Multiamp amplifier of from 30-S0 watts output. From every standpoint Multiamp Amplifiers are a remarkable achievement!

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 Here is a high fidelity, compact Amplifier that performs as efficiently as the MULTIAMP described above-the same remarkable high quality performance -the same low hum level and percentage of distortion. This is the ideal unit for those who will never require wist .ore than 15 watt power output with two dual purpose input channels. Available with or without phono player, for either portable or permanent installations-fulfills most amplifier needs!For Complete Descriptions and Prices of these Amazing Amplifiers See Pages 8 to 23.


[^0]:    6D511-Ivory Plastic with Royal Blue Trim $12^{\prime \prime}$ wide, $611^{\prime \prime}$ deep, $6 \frac{3}{4} 4^{\prime \prime}$ high.
    Your Cost (Do not order before June 15.) . . . . . $\$ 18.95$
    C5243-Line Cord Resistor for 220 Voll operation. Additional .82

[^1]:    | Stock |  |  |  |  |  |  |
    | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
    | No． | Thord． | Nap． | Watts | Pri．Na． | Secondary | Ma． |
    | Per Side | Wt． | Your |  |  |  |  |
    | Series | Par． | Lbs． | Cost |  |  |  |

    $\bar{c} 542 \mathrm{~T} \frac{19 \mathrm{M} 13}{15}-\frac{50}{50} \frac{1(1)}{2} \frac{\$ 4.02}{}$

    | C542 | T19M13 | 15 | 50 | 50 | 100 | 2 | $\$ 4.02$ |
    | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
    | $-c>1$ | T19M14 | 30 | 75 | 75 | 150 | $41 / 2$ | 7.00 |

[^2]:    **Same as V-1, but includes 0-150 volt A.C. meter

[^3]:    - Far ABAAAAAAAAAAB For a completelisting of all types of phone plugs pleas $\leq$ refer to pages 71872. -

