CATALOG NO. 949

# LAFAYETTE CONCORD 

## RADIO \& TELEVISION

We guarantee you the immediate benefit of any lower prices prevailing after the catalog is printed.

We'll return any over payment to the penny.

tetevision


HIGH FIDELITY


PUBLIC ADORESS


RADIO TUBES (ANNIVERSARY

## INDEX ON PAGE 158

TEST EQUIPMENT


COMPONENTS


BRONX: 542 E. FORDHAM ROAD

## Where the World shops...



## shop by mail...

You can live in Saskatchewan, Teaneck, N. J. or Trincomali - it doesn't matter how far you are from the radio center of the world - you're right on the inside, now that you oun this catalog. you can get any item you want by mail and fast. Our remarkable mail service has been famous now for 29 years. It's been famous for its speed, the down-to-earth prices (which make most people shake their heads and say. "Don't moderstand how Lafayette-Concord can work on sweh a tiny markup!") and our unshakable reputation for reliability. Every printed word in this catalog is backed by guarantees. Anything you see on these pages can be yours just by dropping a card or letter to us. Send a trial order and see what we mean by LAFAYETTE-SERVICE.


## BIGGER STOCKS-LOWER PRICES

With 7 stores to keep supplied, and all our purchasing done through one central office, you can imagine the huge quantities of parts and components we buy each year. Naturally, with such complete stocks and rapid turnover, we can afford to work on slim mark. ups... and we do just that. Almost every item in our catalog is priced lower than you would find it elsewhere.

## FAST SPEED-SERVICE

Speed is our middle name! Oür mailrooms and switchboards are constantly busy with orders pouring in from every corner of the globe. We usually ship merchandise withih 24 hours of receipt of your order. If the branch to which you send your order is temporarily out of stock, there is no delay. Our inter-branch teletype system' makes it possible to relay orders and make immediate shipments from another warehouse or branchistore.

## FRIENDLY COUNSEL

The men who serve you in Lafayette Radio centers are essentially engineers, not salesmen. If you visit one of our showrooms or write for advice, it will be given freely by our engineers without obligation on your part. Write, call or visit these departments in NEW YORK or Chicago: amateur, broadcasting, EXPERIMENTAL, INDUSTRIAL, INSTITUTIONS, SCHOOLS, SOUND, SPECIAL LABORATORIES, TELEVISION.

## TIME PAYMENT PLAN

Now you can own a radio, sound system or any electronic equipment that you want, when you want it. All Lafayette centers have an easy time payment plan on radio, television, phonographs, sound and similar equipment. Time payments can be arranged through the mail... please write for details of plan and application blanks.

## LAFAYETTE BUREAU OF STANDARDS

Trained technicians in Lafayette's testing laboratories examine and test every plece of equipment down to the smallest part. Every item sold, either through this catalog or over the counter in one of our seven stores, has been tested and approved by Lafayette's Bureau of Standards.



## shop in person...

 New Englond - heod. quorters of 110 federal Street, between South Stotion and the P.O. Phone: HU 2.7850If you live near one of Lafayette's seven branches, you'll find shopping in person an added pleasure. Here you will see these catalog pages come to life... here you may discuss problems personally with experienced engineers... here courtesy, understanding, wholehearted cooperation are the order of the day - every day. You are familiar with Lafayette's efficient and spirited mail-order service. Now enjoy this friendly way of doing business first hand at wour nearest Lafayette branch.


Radio and comero fons alike find their best volues at Lofoyelte, 265 Peochiree Streat Phone, WAlnut 5140

## CHICAGO

To serve the loop with rodios ond comeros we have on outlet of 220 West Modison Streat Phone: CEntrol 6.5971

All orders outside of the continental United States are handled by our main office in New York, and should be marked to the attention of export department. All prices on such orders are net, F.O.B., New York warehouse, subject to change without notice. The morchandise is payable by elther confirmed, irrevocable credit, or by a remittance in United States Dollars on a New York bank, and should include enough to cover insurance and consular expenses. All orders are to have a minimum merchandise value of \$10. Goods are packed in cardboard cartons. For wooden export packing, there is a slight additional charge. Please send all correspondence by air for best service. CABLE ADDRESS: WHOLRAD, NEW YORK, N. Y., U.E.A.

## LaFAYETTE <br> SELLS OVERSEAS



## Lafayette <br> SERVES INDUSTRY

Purchasing Agents for industrial organizations, schools, laboratories, government agencles, etc. etc. have come to depend on Lafayette for unusua! paris as well as for routine electronic requirements. When an engineer puts through a hard-to-fll order, marked "russ", he knows and his P.A. knows that Lafayette's Industrial Division will speed it all the way. Lafayotte delivers...and at the right price.


## CONSOLE PERFORMANCE IN A TABLE MODEL

This Deluxe supenheterodyne incorporates most of the leatures you'd expeci to find only in a console radio. A push-pull outputstags delivers 3 watte of undistorted signal to the powerful Alrico V 5" PM speaket. Ne gative leedback acrose the entire audio circult greatly reduces hum level and insures excellent tone quality. A conilin-uously-variable tone control-lets you pick the exact point of pleasing tonal response. The clearly-lettered sllderule* dial alopes Just enough so that it may be read from above or in front of the set And you'll be proud to dis. play the smartly-styled Walnut plastic cabinet, with ite unique grill design. A built-in loop eliminates the need for an outaide antenaa, bul a connection 10 provided for those locations wher one might be destrable. The tube complement includee one 6SA7, on 6SF7, one 6SL7-GT, two 25L6-GT, and two 25Z6-GT (rectlifers). Separate power supplles are provided for the output stage and for the rest of the met. Dperates on 105-125 volte, a-c and d-c. Cabinet elze: $121^{\circ} \times 9^{\prime \prime} \times 81 / /^{\prime \prime}$. Shpg. Wt; 12 lbo . 1N708-Esech, in lots of $3 .$.
20.95

## MODERN STYLING IN 5-TUBE SUPERHET

You'll be proud to dieploy this S-tube superheterodyne in it beautifully molded cabinet in walnut plastic, with its unique grifl design. The offictont and cenaltive circulte use multi-purpone tubes to give the effect of 7 -tube performance. The sloping, eatey-lo-read "s lide rule" dial can be read from above or in front of the set. A continwously variable tone control lets you adjust the tone to match the room acoustics. Eacellent tone quality and good volume is assured by the $5^{\circ}$ Alnico $V$ permanent-magnet dynomic speaker. Hi-Q, dual-tuned $1-f$ tran formere typliy the high-quality components used internally. There'e a bullt-in antenna, of course. And Lafayette brings you all this at a price lower than even we thought posesble only a few ahort monthe ago.
The rube complement includes a 12SA7 oscillator and first detector; 12SK7 1-f amplifior; $125 Q$ ? detector, audio, and AVC; 50L6-GT beam-power audio output stage; and $35 Z 5-G T$ reclifier. The cabinet measures $\left.12^{\circ} \times 81 /{ }^{\circ} 271 /\right)^{\prime \prime}$. Wetght: 9 lbs.
Radio in walnut plastic. Shipping Walght 12 lbs. 405 iN540..
Lots of three.
Each
.13 .95


## LUGGAGE.TYPE PORTABLE

Threeway portable in luggage-type case of striking appearance. Sturdy plywood cabinet is covered with attractive $\tan$ leatheretto, contrasing with shiny plastic carrying handle and control knobs. Fiont panel is perforated brushed brass, with dial and markings is periorated brushed in red. Radio operates on a-c and $d-c(110$ stamped in red. Radio operates on $\alpha-c$ and d-c volts) or on its own extra-long-ite, self contained afficient miniature lubes plus selenium rectifier. Set also has built-in loop and Alnico V PM speaker. Uses one 1R5, one 1L4 one IU5 and one 2S4 tubes. Cablnet dimensions: $91 / 2^{\prime \prime} \times 71_{4}{ }^{\prime \prime} \times 41 / 2^{\circ}$. Weight, less batteries: 7 pounds.
iN425-Les: Batteries....Shpg. Wt: $10 \mathrm{lbs}, \ldots 16.95$
Battery kit for abave; one $671 / 2$ volt, four $1 / 1 / 2$ volt batt. 20N19857-Shipping Welght: $21 / 2$ lbs..
1.65

## PLASTIC CASE PORTABLE

A three-way portable of smart, modern desion in beartiful maroon and ivory plastic cabinet. Flexible plantic strap makes carrying easy, and lies flat when not in use. Tuning dial ranges from 540 to 1650 kilocycles in large, easily-road numbers. Radio operates anywhere on 110 volis $a-c, 110$ volis $d-c$, or its own lightwelght batteries. The sensltive superheterodyne cirwelght batteries. The sensitive superneterodyne cir highly-efficient selenium rectifier ls used instead of an extra tube. Beam power output plus a poweriful Alnico $V$ PM speaker assures plenty of volume and excellent tone. Cabinetmeasures: $41 y^{\prime \prime} \times 7^{\prime \prime} x 100^{\prime \prime}$. Welght, less batteries, only 6 lbs.
IN421-Less Batteries....Shpg. Wt: 9 ibn... 23.95 Same as $1 N_{4} 21$, but adds short-wave band ( 5.8 to 18.3 mc ) less bottories.

IN422-Shipping Woight: 9 lbs
29.95

Batt. kit for elther model; one $671 / 2$ volt, one $41 / 2$ volt battery.
20N19881-Shippligg Weight: 14/2be.................. 1.90

## ECONOMY MODEL 5-TUBE SUPERHET

Here's a 5-tube radio packed with plenty of power and value at Lafayotte's low pricel The attractive plastic cabinet is designed to harmonize with modern furnishings. You can order it in a Walnut color to match dark furnilure, or a gleaming ivory to match light furniture. An Alnico $V$ PM specker assures sufficient volume and clear tone. All the sensitivity and selectivity inherent in superheterodyne receivers are incorporated in the efficient circuits of this little sot. The clock-type tuning dia! with prominent numbers, coupled with vernler tuning, makes finding stations easy. The sel operates almost anywhere...on a-c or d-c...with its built-in loop antenna, or an outdoor antenna if you prefer one. Included in the tube complement are: one 12BE6 pentagrid converter, one 12BA6 1-f amplifier pentode, one 12AT6 detector-audlo-avc, one 5085 beam-power output, and one $35 W 5$ rectifler. Cabinet measures only $7^{\circ \prime} \times 5^{\prime \prime} \times 51^{\prime \prime}$. Shpg. Wt: 9 lbs .
1N542-Radio in Walnut Plastic Cabinet
12.95

IN543-Radio in Ivory Plastic Cabinet........................ 13.95

## FULL-SIZE RADIO FOR LESS THAN $\$ 10$

For that second or third radio...for the children's room or the guest room...here is an inexpensive table-model radio at an unusually low price. A 4-tube TRF set, with many of the features of more expensive sets, it can be tuned in on the Kiddies Hour, the local disc jockey, the ball game, while the "family set" is recelving Mother or Dad's favorite program.
Sturdy cabinet neatly destgned in walnut plastic. Large, easy-to-grip knobs operate the volume control and clock-type tuning dial. Power supply for the radio may be 110 volts a-c or d-c. Efficient circults utilize one 12BA6 r-f pentode, one 12AT6 diode-triode, one 50B5 beam power pentode, and one $35 W 4$ rectifier. The dynamic speaker gives clear tone at good volurne. Cabinet dimensions: $91 / 4^{\prime \prime} \times 6$ " $\times 53^{\prime \prime}$ "
1N $\mathbf{4 2 6 - S h i p p i n g ~ W e i g h t : ~} 7$ lbs. $\qquad$ Fach
9.95
1.ots of 3....................................................................8.8.95



3 SPEED RADIO-PHONOGRAPH
One compact, hands ome portable case contains a highly sensitive 5 -tube superhet radio plus an amplified phonograph for ploylng 33-1/3, 45 and 78 RPM records. This outstanding ontertalnment package features the new reversible cartridge pickup with dual needle for standard and milcrogroove records. Speed requlator on motor board permits instant changeover to each speed. Special disc is provided 45 RPM records. Plays all records with the lid closed. A full $5^{\prime \prime}$ Alnico V PM speaker gives excellent reporduction of high and low notes excellent reporduction of high and low notes zom recorde and radio. Tubes: 12SK7, 12SA7,
12SQ7. 50 L 6 GT and $35 \mathrm{Z5GT}$. Attracive two tone maroon and tan leatherette case measures $141 / 2 x 81 / 4 \times 14^{\prime \prime}$ Shlpping Welght: 20 lbs . For 105-125 V. 50/60 cycles AC.
37.50 IN544-Complete with Tuben.
....... 34.95
Lots of 3...........................Esech............ 34.95


## AUTOMATIC PHONOGRAPH

An inezpensive outomatic phonograph of ex ceptional quality to give you years of record entertanment. Compact, luggage-type case is finished in ottractive twotone brown and tom loather et te. Sturdy, precirion-made record changer with even-running 78 RPM motor plays twelve $10^{\circ}$ or ten $12^{\circ} \mathrm{rec}$ ords with the lid twelve closed. A high indelity crystal cartridge in closed. A high indelity crystal cartridge in lightwelght pickup arm assures minimum re-
cord wear and wide range response. 3-tube high gain amplifier and S" Alnico V PM speaker give falthful reproduction of your fovorito rocordings. Volume and tone conlrols are located on the outside of the case. Dimensions: 17x $13 \times 9^{\prime \prime}$ Shpg. Wt. 21 lbs . For $105-125$ V., $50 /$ 60 cycles AC.
34N22694-Complete with Tubee...... $38.5^{9}$ Lote of 3..........................Each............. 34.95

## High Fidelity Record Reproduction!

## NEW AUTOMATIC TABLE PHONO

You won't belleve it until you hear it! Tone quality such as this belongs to a massive console...to find it in a compact table model phonograph is the most pleasont surprise we con imagine for the music lovers who hove nelther the room nor the bank account to install the larqe, high-priced units formerly required for real high fidelity reproduction. Here's 50 to $10,000 \mathrm{cps} \pm 1 \mathrm{db}$ from a 4-fube, push-pull beam power amplifier, plus individual bass and treble tone controls. Here's a highly efficient 6 。 PM speaker, carefully matched electrically to the amplifier, and matched acoustically to the cabinet. Here's cabinet beauty consistent with coustically to the cabinel. Here's cabinet beauty consistent with with a soft, golden-colored speaker grille - a combination that blends with both modern and period furniture styling. The latest type record changer operates outomatically with all three kinds of records: 78, 45 and 33-1/3 RPM. The lightwelght phono pickup contains a dual-needle cartridge which is tulted into correct ploying position by an easily moved lever on the plckup houalng. No weight shifting is neceseary. Plano hinged lid has a hid stay, and can be left open or closed while the instrument is in operatlon. Dimen: 17x183/4x10-3/8" high. Shpq. Wi! 34 lbs.
34N2265.
Het....
124.50

## -afayette Offers Two Magnificent Console Combinations

## A Featured Value!

## FM-AM Reception Plus Automatic Phonograph for the Cabinet Price Alone <br> 2-SPEED RECORD CHANGER for LP \& 78 RPM RECORDS

Here is a sensational radio-phonograph value that stands out above all competitionl $\mathbb{A}$ powerful 8-tube radio PLUS staticless FM, combined with a fine cutomatic phonograph, You'll thrill to the full range reproduction of both records and radio... especially the brilliance of tone and noisedree reception on the FM band. Every feature of this exceptional instrument is the result of modern engineering design and finest workmanship. An advanced superheterodyne circuit covers the entire standard broadeast ( $540-1600 \mathrm{KC}$ ) and FM (88-108 MC) bands. Each band is equipped with its own builtin antenna for maximum sigral: a loop anterna for AM and a dipole for FM. The full size speaker has plenty of reserve power and range to taithfully reproduce all the instruments of a symphony orchestra. For your record enjoyment, you can play a complete symphony or several hours of dance music with but a single record change. The quiet, gentle record mechanism plays ten 12 -inch or twelve 10 -inch records-automaticalIY... elther 78 or 33 1/3 RPM. A special revers. ible cartridge in the pickup arm assures proper balance and tracking on both types of records. Tubes: 12AT7, 6BE6, (2) 6BA6, 6AL5, 6AT6, 6 RQ5 and $5 Y 3$ rectlifier. For 105.120 volts, 60 cycles AC. Dimensions: $33 \times 341 / 2 \times 161 / 2^{\prime \prime}$. Shpg. Wt. 90 lbs .
in 1 13-Complete with Tubes .... 149.50
Same combination as above, except with single speed 78 RPM record changer.
INB 14 -Shipping Weight $88 \mathrm{lbs} . . . . . . .139 .50$


## Chassis-Speaker and

 Record Changer for your Custom Installation...A powerful FM-AM chassis and automatic record changer built to the most exacting standards of performance. Ideal tor custom installation. Instal it in your own furniture or eelect a cabinet from this catalog. This custom package includer a complete FM.AM 12 -lube radio and 3-speod record changer mounted side by side on o sturdy basoboserd (a smoothly sanded wood radio panel with framed dial cut-out is also mounted on the baseboard), a 12 -inch Alnico V PM on the baseboard), a 12 -inch Ainico bry speaker, a loop antenna for the standard broado cast bend ( 54.1700 KC ) and a separate built-in
dipole for the high fidelity FM band ( $88-108$ dipole Ior the high fidelity FM bond (88-108
MC). Important other features include a FULL RANGE TONE CONTROL PUSH.PULL AUDIO OUTPUT, AUTOMATIC FREQUENCY CONIROL and AUTOMATIC VOLUME CONTROL. The 3 -speed record changor is supplied in i wood base mounted on a "slide-out" device for easy accessibility. It plays inn 12 -inch, twelve 10 -inch and twelve 7 -inch records automaticsilly $\ldots$ either 3314.45 and 78 RPM. Tubes: 6BA6. 7F8, 7Q7, 6C4, 7AH7, 6SG5, 6SQ7, 7A6, 7F7. (2) 7 CS and 5Y3GT rectlier. Size: $30 \%$ wide. $94{ }^{\circ}$ high. $15 \% \%^{\circ}$ doep. 75 lbs .29 .50 IN 1205 -Chassis and Speaker.

## Safayette 12.Tube FM-AM Combination

Superb High Fidelity Reception Concert Hall Realism from Your Symphonic Recordings - Automatic Frequency Control For Top FM Performance

- New 3 Speed Record Changer For 33 $x_{3}$-45-78 RPM Records
- Push-Pull Audio Output
- DeLuxe 12" Concert Speaker - Latest FM-AM Circuit

Now... you can have true luxury in a radiophonograph combination at a moderase price. Everything you could possibly desire firs complete listening entertainment, has been packed into this fine musical instrument: High fidelity FM reception on the 88-108 MC band: semarkable sensitivity and seloctivity on all standard broadeast stations from 540.1700 KC : an automatic phonograph with the latest type record changer ther plays ALL speed secords; a handsome console cabinet of exquisite hand-rubbed mahogamy veneer's for added beauty and richness in your home.
No detall has been overlooked to make this radio-phonograph one of Lafayette's truly remarkable values. The smooth, fast operating precinion record changer plays all makes and sizes of records...7, 10. 12 -inch, conventional or long-playing type. You can stack a group of 10 and 12 -inch long playing diess on the instrument and enjoy up to $41 / 2$ hours of your favorite music without interruption.
Modern engineering has worked wonders to give you the newest in circult design including the advantages of an automatic isequency control for the FM band. This advanced development solves the problem of stabillty and increased accuray in FM tuning. The powerful. elficient circult also includes push-pull beam power cudio output, an automatic volume control and 12 tubes (including rectifier) for "in person" performance on both FM and AM. A loop and separate dipole antenna built into the cabinet, make outdoor installations unnecessary in most locations. High fidelity reproduction of records and radio is provided through the deluxe 12 -inch Alnico V PM speaker and push-pull amplifier. Wattage is high enough to take care of peck output without distortion. yot capable of bringing out the softest passage of an orchestral seloction. Tubes: 6BA6, 7F8, 6CA, 7AH7, 6SH5. 6SQ7, 7A6, 7F7. (2) 7C5 and 5Y3GT rectitier. Operates on 105-120 volts, 60 cycles AC oaly. Cabinet dimensions: $331 / 2 \times 35 \times 17^{\prime \prime}$. Shipping Welght 100 lbs.
IN1 209-Completo With Tubes .179 .50
Same radio-phonograph as above except with a single speed record changer for standard 78 RPM records.
IN 1207 -Shipping Weight $98 \mathrm{lbs} . . . .169 .50$ CABINET ONLY-Shipping Wt. $45 \mathrm{lbs} . .72 .50$

## FM-AM Combination

Here la the same chassis, epeaker and phonograph unit dencribed above except housed in a cabinet for the modern home. Consider this tine console of striklng design and func tume. Consider this ine console of striaing deaign and func and hand-rubbed to a lustrous tinish. The beveled molding and hand-rubbed to s luptrous inish. The bevoled molding and offset legs add a richness to the distinctive atyling. Record ahanger compartment slides out for easy accessi-
bility withoul disturbing decorative pleces on the cabinet top. bility whoul disturbing decorative pleces on the cabinet top. space; a hinged, "slide-away" door tucks into the space provided above the control panel. The lower section is covered with attractive woven grille cloth concealing the batlle and 12-Inch high-fidelity speaker. Dimenstons: $35^{\circ}$ high z $365^{\circ}$ wide $\overline{5} 17$ "" deep. Ship. Wt. 100 tbs.


## GIANT 16" TV CHASSIS

Here's exciting new big screen television in a precision-built chassis for your custom installation. A huge 145-square inch picture that can be viewed from any part of your living room in combort and without eye-strain. Brilliant, life-like pictures of all TV programe brought into your home for full enjoy. ment. See and hear thrilling sports events, amusment. See and hear ing comedy, dramatic presentations, movies and Ing comedy, dramatic presentations, movies and new automatic frequency control systom for horbzontal synchronization assures greater detail and locks the picture in against normal noise bursts. Another dovelopment is the new high voltage power supply with improved requilation which provides far better contrast and brilliance. The large, extra bright picture permits day or might viewing without discomfort. All 13 channels are covered with highest sensitivily. Tuning ls easy and precise. Top quality FM sound system reproduces music and speech with exceptional clarity duces music and speech with exceptional cianty $20^{\prime \prime} \mathrm{D}$. Shpg. Wt. 85 lbs . Tubes and speaker included.
IN137-With $16^{\circ \prime}$ Picture Tube............ $200^{\circ} 0$

## Lafayette Large Screen

For 1950. Lalayette brings you perfected and performanceproved television in the larger size screens at prices you want to pay. CONSOLES . . TABLE MODEIS . . CHASSIS for custom installation-a model to fit every sequirement of space and price. Latayette television is "Eye-Fidelity" television . . . another way of expressing high fidelity reproduction in terms of visual onjoyment. Pictures come in clear and bright, and the sound is better too, because It's staticless FM. You will marvel at the life-like sealism of the pictures. These fine quality units are ruggedly bull with the best parts to give years of superb performance.

## 

## Television for 1950

Thousands of satisfled customers have purchased lafayette television by mall since the first station went on the air. If you are within the reach of TV stations, rou want a receiver that can give you full enjoyment of all the wonderful programs now available. Our engineers are ready to advise you on how to obtain good reception in your area. Let us know exactly where you live and whether your home is on a hill or in a valley. We'll be able to be specific with practical suggestions. There is no obligation for this service. Remember though, Lafayette won't sell you a TV set unless they are sure you will get good reception!

## Custom Deluxe

 16 TABLE MODELNow, you can have giant-screen television in a choice of cabinets to meet your living room space requirements. A full 145-square inches of plcture area filled with thrilling sports events, drama programs, news, comedy shows and othet tascinating presentations for the ontire family. Here is the famous RCA 630-TS pro-cision-engineered circuit, especially designed for the $16^{\prime \prime}$ picture lube, and recognized as "rops" in the TV field. You get the best developed circult plus components that are bullt for lasting service. This means sharp, clear, steady pictures of unusual brilliance on all channels . . during daylight as well as night time viewing. There's no need to crowd around the set to see with gomfort because this is a huge $16^{\prime \prime}$ picture visible from any corner of the cause this is a huge 30 pictube chassis ( 5 rectifiers) includes the RCA room. The powerful 30 -tube chassis (5 rectifiers) includes the RCA "Synchro-Lock" which holds the picture steady at all times.

Tuning is simple with the four easy-to-manipulate controls providing pin-point focusing and fast station selection. The picture is accurately and automatically synchronized with the latost type FM audio circuit. Both music and speech are reprodaced with brilliant clarity and resonance. $\mathbf{A}$ top quality $10^{\prime \prime}$ spoaker is supplied with the console recelver. The four-stage steture if ampliflet and two-stage video amplifier provide exceptionally high sensitivity with plenty of reserve power for weal signals and fringe area reception. Maximum video response and sharper contrast provided with 4 megacyele bandwidth.
IN148-Mahogany Console with Picture Tube

## BIG, BRILLIANT 12 $1 / 2^{\prime \prime}$ PICTURE POWERFUL 30-TUBE RECEPTION

Here's high quality, big.screen television at a real budget pricel The dependable HOA 630TS circult combined with an exquisitely Inished deluxe cabinet of the linest woods, will add to the pleas. ure and beauty of yout home. With this set. you can relax anywhere in the room and enjoy exciting sports events. thrilling drama programs, onthespol news broodcasts, movies, talent shows. comedions and musical presentations. Its 95 -square inch picture is big and bright enough to permit comfortable viewing by the entire family and friends. This is tested and perfected television, ongineered for the linest performance and sold direct to you for the best in dollat value. Clear, bright, steady pictures on all channels are assured with the high powered twostage video amplifier, four-atage picture If amplifier. RF amplitior and "synchro-lock" leature. The excellent FM sound system reproduces music and speech with brilliant clarity. Smartly styled. bocutitul veneer cabinet in simply designed to harmonise wilh the finest interior decoration. Dimensions: $18^{\prime} .^{\prime \prime}$ high $\mathrm{I}_{2} 25^{\circ}$ wide ${ }^{x} 201{ }^{\circ \prime}$ deep. Shog. Wi. 110 lbe.
IN 142 -With $12 \mathrm{~V}_{2}{ }^{\text {T }}$ Picture Tube.. Mahogany Finish 2..9. 50 IN 143-As above oxcept in Blonde Maple Finish



## MODERN CONSOLE TV CABINETS

 for $10^{\circ}$ or $12^{\circ}$ TubesConstructed of fine qualliy plywood with selected outside veneer, hand-rubbed to arich furniture finish. Removable legs are set at an angle, giving the cabinet a distinctive appearance. Front panels removable; chassis shelves arecut out to accommodate Hadlicrafters or RCA type chassis. Dimensions: $39-9 / 16^{\prime \prime} \mathrm{H}, 241^{\prime \prime} \mathrm{W}^{\prime}, 21^{*} \mathrm{D}$. Shlpping Wt: 95 pounds.
40N24343-Mahogany..................... 49.50
40N24342-Blonde............................. 49.50
For 15* or $16^{\circ}$ Tubes
Dimensions: $421 / 2^{\prime \prime}$ H., $25^{1 / 2^{\circ}}$ W., $25^{*}$ D. Wt: 101 pounds.
40N24341-Mahogany
60.00

40N24340-Blonde.
60.00


FOR $15^{\circ}$ OR $16^{\circ}$ TUBES
Fine mahogany veneer cabinets expectally designed for the Tech-Master peclally dosigned for the Tech-Master
chassis shown on page 127 . Neat, otchassis shown on page 127 . Neat, attractive modern style blends with any
surroundings. Completely druled for surroundings. Completely drumed for all controls; has buili-In safoty glass over tube opening. Dimensions: $261 / 2^{\circ}$
W., $25^{\circ} H ., 231 / 2^{\prime \prime}$ D. Shippinq Welght: 68 pounds.
40N24344-Untversel $15{ }^{\circ}-16^{\circ} .54 .50$


Lafdyette is proud to offer thesedistinc tively styled cabinets of select woods to complete your. custom television in tallation. Handsome table models...and distinquished conmoles in a cholce of inishes to blend with your Interior decorotion. All cabinets are designed to fit the TV lits and chassis shown on pages 8 and 127.

## 16" TV PERIOD CONSOLE

Gracefully atyled to blend with the conventional living room. Truly an impressive plece of furniture, solIdly built of selected mahogany veneer woods hand polished to a vemoer woods satlingmish. Atiractive smooth sath limish. Attractive grille cloth covers the speaker
baffle which accommodates speakbaffle which accommodates speak-
ers up to 12 in dianeter. The reers up to $12^{\prime \prime}$ in diameter. The receiver controls are cleveriy con-
cealed by a hinged pamel that closes flush with the cabinet when the set is not in use. Dimensions: 41" H., $26^{\circ}$ W., $24^{\circ}$. D. Shipping Wolght: 110 Lbs.
3N108-Mahogany Finish. 78.50 3N109-Blonde Finleh.......... 88.50


## FOR 15* OR 16" TUBES

This beautiful table model cabinet ts solidly constructed of fine woods, hand-rubbed to an exqulsite satin inish. Here is distingulshed design in a deluxe model you'll be proud to ownl Thoroughly reinforced throughout. Bulli-in, crystal clear lucite mask is attrac tively fromed in matching panolling. Dimensions of $15^{\circ}$ size: $24^{\prime \prime}$ W. ling . Dimensions of 15 size: $24^{\circ}$
 except $\%$ " higher.
except 40 24 $247^{\prime \prime} 15^{\prime \prime}$ Mahorany. 72.50
40N24330-15* Blonde.
77.50

40N24346-16" Mahogany..... 72.50
40N24329-16" Blonde........ 77.50


These table model cabinets, except No. $40 N 24344$, can be supplied with blenk panols (ezcept for picture tube cutout) when epecified.

## FOR $10^{\circ}$ TABLE MODEL CHASSIS

Here's a handsome styled cabinet of fine walnut veneer, beartifully finished and polished. You'll be pleased with this solldy constructed model drilled to fit the RCA 630 Type television recelvers exactly. The plcture tube is framed by a bullt-in lucite mask that gives protection to the tube and adis a professional touch to the overall appearance of the cabinet. Will tit all 10 inch kits and chassls shown on page 127. Dimensions: $141^{*}{ }^{*} \mathrm{H} ., 24 y^{\circ \prime} \mathrm{W} ., 211^{\circ \prime} \mathrm{D}$

40N24349-Shipping Weight: 25 lbe.
35.00

## Safayette

Lafayet te leadis aqain with outstanding cabinet values for the ilnest homes. See these erquisite, custom designed console untte fordelure radio-phonograph and television installations. Here í llawless cabsnetry with the charion of fine furniture.. functional beauty that is simple and in good taste.

## Custom Designea cabinets for RADIO and TV



DELUXE PERIOD DESIGN CONSOLE Here is an unusually fine credenza style console of classic simplicity. Solidiy constructed of cholce mahogany hardwood, hand-rubbed to a smooth satin finish that matches the oleqance of truly ercuisite furniture. Each section of the clevarly desianed doors foids in two when opened, and swings back ilush with cabinet sides, permitting easy access to controls. Record changer mechanism is housed in a sonooth-silding drawer. Attractive matching qrille a smoothesiling drawer. Attractive matching grile
cloth covers the acousiteally constructed spaker cloth covers the acoustically constructed speaker
compartment. TV panel accommodates picture tubes compartment. TV panel accommodate ?N 112 -Shlpping Welght: 250 1be.
349.50

## TELEVISION TABLES

Solidly constructed swivel top TV tables. Rotate your receiver for most convenient viewing angle. Shpq. Wt: 26 pounds. $201 / 2 \times 201 / 2 x$ $26^{\circ} \mathrm{H}$.
40N24339...14.25 $211 / 2 \times 26^{1 / 2} \geq 26^{\prime \prime} \mathrm{H}$.
40N24338...... 15.75 Plain table, no swivel. $201 / 2 \times 20 \frac{1}{2} \times$ $26^{\prime \prime} \mathrm{H}$.
40N25723...... 12.75
$21 \frac{1}{2} \times 26 \frac{1}{2} \times 26^{\circ} \mathrm{H}$. 40N25726...... 14.25


MODERN RADIO-PHONO \& SPEAKER CABINETS
Magnificent combination cabinets congtrucied of the highest qualliy seasoned woods, perfectly matched and superbly designed for your custom installation of radio, phonograph and spealer. Three-section unit provided with tuner and amplifier compartments and slide record changor drawer wlth Webster model 356,3 -apeed changer cut-out (can supply blank, if desired). Removeable " finished wood panels for top and oottom compartments have solid bras: friction lid supports. Tuner and amplifier shelve are removeable. Overall dimensions of equipment and speaker cablnete: $33 \%^{\circ} \mathrm{H}, 21 \%^{\circ} \mathrm{W} ., 18 \mathrm{~K}^{\circ} \mathrm{D}$. Inside amplifier and tuner compartments: $20^{\circ} \mathrm{W}$. $9^{\circ} \mathrm{H}_{\mathrm{H}}$. Equipped with lull length protective omen bact, Mahoomy fintuhed cabinet has ween lacquered fintsh on保 back of drop lide and drawer pull-outs. Limed oak cabinet supplied with wine color lacquer instead of oreen. Matching speaker cabinet is available in mahogany with attractive green-grille cloth or limed oak with armonizing wine-gri lie eloth (cream or brown also available). Cabinets are acoustlcally constructed and tuned for $12^{\circ}$ or $15^{\circ}$ speakers. Cablret for $15^{\prime \prime}$ speaker has inner lip at port to lower sesonant frequency to match that of a $15^{\circ}$ speaker cone. Has a removeable front panel; entire inside lined with insulating materiah.
40 N24336-Mahogany Radio-Phono Conoole Cablnet.
128.50

40N24335-Limed Oak Radio-Phono Console Cabinet.
128.50

40N24334-Mahogeny Speaker Cabinet for $12^{\circ}$ n Speaker................ 79.50
40N24333-Limed Oak Speaker Cabinet for 12* Speaker............. 79.50
40N24327-Mahogeny Speaker Cabinot for $15^{\circ}$ Spoaker................ 79.50
40N24328-Limed Oak Speaker Cabinet for 15* Speaker............ 79.50
COMBINATION PRICE: Radio-Phono and Speaker Cabinets...... 201.00


BLONDE MODERN TV \& RADIO-PHONO CABINET
This striking console is an outatanding excmple of distuncuve modern styling. Full length folding doora are plano hinged and give easy access to radio, phonograph and TV controls. Attractive brass handles. Ample space for record changer, radto and TV chassis and pleture tube. The TV panel is supplied uncut. Size: $44 \times 40 \times 43^{2}$. Wt. 150 lbs.
3N110-For upto $123^{\prime \prime}$ Pleture Tube.
$\qquad$


TV SET TURNTABLE
Place on TV table and put recelver on tumtable. Permits ro tation of TV set to best viowing angle. Alum.; $16 \times 16^{\prime \prime}$
3 1N24337
2.55

## WEBSTER WIRE RECORDERS \& ACCESSORIES

WEBSTER PORTABLE WIRE RECORDER


Model 180-1. Make instantanoous true-to-life wire recordings of your favorite radio programs, phonograph records, speeches, parlies, meetings, and play them back immediately through the self-contained 6 " speaker, or through an external amplifier or radio. Here's an Inexpensive unit as easy to use os a radjo. No technical knowledge required to operate. If desired, automatic erase device removes old recording while new one is being cording while new one is being made. High ampedance crystal be held in hand, suspended, or seton table while recording. Other features include an elapsed time indicator, a removable take-up drum, automatic stops and lock-fast operating lever. Lightweight portable case finished in attractive burgundy leatherette. Dimensions: $173 / 8 \times 11$ $3 / 8 \times 71 / 2^{\prime \prime}$. Supplied with 3 spools of recording wire, tubes, microphone and cable.
35N 22602 -Shippihg Walght $32 \mathrm{lbs} \ldots . . . . . . . . . . . . .$. $35 N 16319$-input Cord to connect radio or phono............. 2.50 35N16304-Out put Cord for external speaker or amplifier.. 1.75
35N16322-TD422. Take-up dsum for above recorder........ 1.59

## CONTROL BOX AND RECORDING INDICATOR



Type 183. A destrable add for the above recorder. Attaches easlyy and provides push-button control for recording direct from radio or microphone; playback can be made through recorder speak er or radio. Recording level meter assures correct volume.
Shpg. Wh. 3 lbs. 35N16317..
29.50


RECORDING WIRE SPOOL ALBUM
Contains 10 spool-size bozes in sturdy burgundy ilnished cardboard. Titles can be written on boxes. can be written on boxes.
1.22

## NYLON THREAD LEADERS

For use in editing recorded wire or replacement of original wine leader. 600 feet, good for 100 spoole using 3-ft leaders.
35N 16327-Holde wire in place...
. 11

## SLIDE-DRAWER HARDWARE KIT

Provides neat and otractive inetallation of Model 178 in radio consolo. All hardware inModel 178 in radio consolu. A
cluded. Also for record changers. 35N16328.
-5x

## WIRE RECORDER MECHANISM

Model 178. Connect this complete recorder circuit and preamplifier to radio or amplifier for finest qual1ty wire recording and ployback. Mount in record compartment of console or place on table. Pushbutton controls and easy-to-read recording level meter simplifies operation and permits accurate setting of recording volume. O ther outstanding features include automatic stops to prevent wire from running off spool, elapsed time indicator showing fotal time consumed for any section of a recording lock-tastoperating lever for secure settings at "Run", "Stop", or "Rewind" positions, and removable take-up drum. Metal case $11 \times 113 / 8 \times 55 / 8^{\prime \prime}$. For $105-125$ Volts, $50 / 60$ cycles AC.
35N22519-Shipping Weight 23 Ibs.
35N16321-E
107.50

## RECORDING WIRE AND ACCESSORIES

## 35N16300-15-Minute Spool...................................... 1.96

Lots of 10, Each....................................................................... 1.27
35N16301-30-Minute Spool............................................. 2.94
Lots of 10, Each................................................................. 1. ${ }^{1} 1$

Lots of 10, Each...................................................................... 3. 18
35N16305-Empty Metal Spool............................................... . 73
Lots of 10, Each................................................................. . 47


## MICROPHONE STAND

Type MS 111 . Siteamlined, sturdy cast metal matching base that snaps onto mike quickly and easily. Designed for mike used with Model 180-1 recorder. Use it tor any stationary placement of mike, recordinglong programis.
35N16323.
1.11

## RECORDING HEAD

For replacement of head now in use on any Webster recorder models. Gives better response and erase than heads on original models. 35N16324.
4.78

MAILING BOX
Provides handy and easy mathod for malling recording wire. Fast and low cost means of sending messages between oftice and field. 35N 16326-Pkg, of 10 ...
$34 c$

$\qquad$

LAFAYETTE COMBINATION WIRE RECORDER-RADIO-PHONO

Here it is-all in one
compact portable casel compact portable casel A wire recorder... a radlo priced low to make this prem an outstomding value. One hour of continuous recording of family gatherings, businessconYeronces, Interviews, speeches, radioprograms and disc recordings from the built-in radio and self-contained phano. groph. Automatically ogroph. Automaticaly it rases old material as it matieally at the end of the spool when recording and rewinding. Equipped with a neon volume indicator and variable tone onntrol. Vi ga al indicator provides a means for ealculating the amount of feet recorded. Latest type superhet radio covers the entire broadcast band. Heavy duty, single speed 78 RPM motor drivas a heaviy ity ampllfier and fughiwolght crystal plckup. Tho high auahdistorted and farthfully reproduces music and volce. Supplied complete with Electro-Voice microphone and cable tubes and 2 spools of wire ( 15 and 30 minutes). Modern, portable case novered in becuifful two tone brown alligator oraned leathereovered in becrutiful wo tone brown aligator grained leathoretter Top cover can be detached easily whle instrument is $91 / z^{\prime \prime}$ high. Operatee on $105-125 \mathrm{~V} .50 / 80$ cycles.
35N 22611 -Shipping Welght 45 lbs
149.50

## NEW MASCO 2-SPEED DISC RECORDER

Model RK5L. Complete selfcontained 2 -speed disc recorder and play-back with bulltin amplitior and $6^{\circ}$ Alnico speater. Excellent for use in educational programs, for orchestras, vocalists, actors, lanquago students and in the rumpus room. Features: Instant ro cording at standard 78 and $331 / 3-R P M$ : volume leval indicator adjustable crystal cutting head. 2 playbor arms. one for standard 78
 RPM \& $331 / 3$ transcripiton typeove LP records: heavy duty recording motor and table. Sep arate input jacks tor direct recording mom any microphons; direct recording olectronically from a phonograph; directro cording from radio to record. Fecording from a microphone or rado may be independent or simultaneous Master quin and tone controls allow tor any desired volume or tone setting. A three way switch provides independent selection of recording, play-back and PA without Interaction. Tubes: (2) 6SL 7GT; 6 V6GT, 6U5, $6 \times 5 G T$, rectifier. Brown alliaator fabritoid covered case, $16 \times 191 / 4 \times 81 / 2^{\prime \prime} .117-\mathrm{V}$. $60-\mathrm{cy}$. $\mathrm{Acc}^{\mathrm{C}}$.
35 N22534-Shpg. Wt. 25 lbe. With tubee.
100.48

## RECORDING WIRE

For use with all wire recorders. Tested, uniform qualliy assures good tone reproduction and long life.
$35 \mathrm{~N} 16311-15 \mathrm{~min}$. spool wire.
1.17

35N $16313-60 \mathrm{~min}$. spool wire............
Plastic Leader for unlts on this page.
35N16318.

[^0]
## TAPE AND DISC RECORDERS

## LAFAYETTE TAPE RECORDER



Record your favorite $A M$, or FM programs, recordings, spectal events, meetings, etc. Recondings can be - dited, spliced with scoich tape, erased, used over and over, and stored for long periods without deterioration. Up to one hour of recording on a 1200 ft . reel of twin track tape, 30 minutes in each direction. Frequency response 50 to $7000 \mathrm{cps}^{2}+3 \mathrm{db} 6$-watt power output. Heavy duty 5 " PM speaker. High frequency erase. Revolves at 78 RPM; space provided for mounting a phono arm to make a combination tape rocorder and phonograph. Spocial switch cuts out epeaker when recording with a mike. Neon volume level indicator. Positive capstan drive gives constont speed, oliminates wow, and may be used to mount a conventional turntable. Housed in a rich brown pebbled leatheretto carryina case, with white irim. Complete with crystal microphons, one thirty minute reel of twin-tract tape and an additional ompty reel. Fhipping Weight 38 lbs. 60 -cycle AC. Dimensions: $21 / 1 / 211 / 2 \times 10$ " Shipping Weight 38 lbs .
127.50

35N16320-1200 ft. Rall tape for above.
3.10

## MASCO COMBINATION TAPE RECORDER AND AM RADIO

Model R3. Combination magnettc tape recorder, radio and PA system. Records continuously for one hour. Frequency response from 100 to $7000 \mathrm{cps} \pm 3$ db. 5 watts output. Recordings can be played back at ings can be played back at deterioration. Equipped deterioration. Equipped
with a permanent magnet with a permanent magnet
type erase. $6 x 9^{\prime \prime}$ PMoval type erase. 6 x $9^{\prime \prime}$ PM oval
speaker. Capstan drive espeaker. Copstan drive e-
liminates possublity of ilminates posstbility of
wow" and "flutier". Heavy duty motor and bearings require no olling. Microphone and radio-phono input channels. Three outputs: to intemal specker, exiernal speaker jack and jack for monitoring. Volume and tone controls. Treble atienuctor (continuously variable). Tubes used: 6SJ7, 6SC7, (2) 6V6GT, 6SA7, 6SF7, 5Y3GT rect. Two-piece portable case covered in bsown alligator fabricold, measures $19 \% \times 167 / 8 \times 101^{\prime \prime} \mathrm{hi}$ hh. Complete with bullt-in AM superhetrodyme radio tuner, Electro-Voice 915 crystal mike with $71 / 2 \mathrm{ft}$. of cable and plug and 1200 ft . reel of plastic recorjing tape. For $117 \mathrm{~V} ., 60$-cycle AC. operation. U $L$ approved Uses iype A tape. 35N22615-Shipping welght 47 dbe
142.76

Mode1 375. Same as above, less radio. Tubes used: 6SJ7, 6SC7, (2) 6V6GT, 5Y3GT rectifier.
35Ń 22616.

## MASCO TAPE HANDLING MECHANISM



Model M-60. Same basic machanism used in models R-3 and 375 shown above. Heavy-duty mechancal construction Powerful shock mounted motor requires no olling. Onefunction switch to play, erase, rewind. stop and last forward. Two heads, one erase and one record playback. Separate erase
head control and position indicating light. Recording bias hoad control and position indicating light. R
frequency 40 KC . Dimensions: $15 \% \times 11 \times 8$.
35N22617-Shipping Weight 17 lbs .
58.74

## MASCO PRE.AMPLIFIER



Model P-4. Designed for use with the M-80, Tape Handling Mechanism above. Three inputs for tape, microphone and radio-phono. Input sensilivity: 003 volts for microphone ingut and 4 volts tor radiophono. Output to PA 1.5 volis. Frequency response 100 to 7000 $\mathrm{cps}^{2} \pm 3 \mathrm{db}$. Bias osclliator 40 KC . Neon recording le vel indleator. Volume control; record playback switch; Input selector switch and power On-Off switch. Tubes used: 6SN7GT, 6SC7, 6V6GT and $6 \times 5 G T$ rectifior. Gray harnmertone finished ch
sures $12 \times 6 \% / 22 \%{ }^{2}$. For 117 -volt, 60 -cycle AC 35N22618-Shipping Weight 8 lbs.
48.22

## MEISSNER RECORDER-PHONO-RADIO AND AMPLIFIER SYSTEM

A high fidelity crystal cutting head assures faithful recording of profarthiul recording of procellent crystal microcellent crystal micro-
phone phone 1 s furnished ior Ing, Nomal and overload indicators stmplify control of input levels and permit anyone to cut perfect discs. Easy-tofollow disections are given in the instruction manual. Radio broad casts recorded by simply 8 witching radio to one of the recording channels. Separate volume nels. Separate controphone andradio input channels to the recorder allow programs to be mixed and blended with recording studio technique. Two turntable speeds, 78 and 33 1/3 RPM; up to 10 -inch dise recording and 12 -inch playback is provided with full control of tone and volume. Superheterodynerecelverdesigned for reception over the entire broadcast band with excellent sensitivity and selnctivity. Amplifier serves as amnouncer or public address system. Provision made for connecting extra speaker where greater volume is required. Everything you need is furnished with Radio-Phono Reconder. Built-in radio and amplifier are equipped with full set of seven tubes; crystal whend or stond its cable are in storaqe compartment ready for connection and immediate use. Complete unit, with cover, is only $19 / 8 /$ square by $9 y^{\prime \prime}$ high. Sturdy wooden case, attractively coverad square by $9 \%$ high. Sturdy wooden case, attractively covered in durable airplane style fabrikoid. Storage compartment for records in removeable lid. For 115 -volt, 60
Wt. 52 lbs . See page 50 for recording discs.
35N 22580 ..
.111 .28

## INDUCTION TELEPHONE PICK-UP

Picks up telephone conversations with no tapping of wires or special tel ephone circuit 5 , Simply place the phone base, elther cradle or upright type, on the plckup platform and connect the leads to the high impedance input of any medlum gain audio amplifier or directly to reconder. When used for public address woth a speaker ot home or in another city can address large in another city can address large phonecompany equipment.
35 N22523-Shp最Wt. 3 tbs.


35N22524-induction Coll only.
5.88

## "SCOTCH" PLASTIC RECORDING TAPE

A new high quality magnetic recording tope. Offers better frequency response at slow spoeds due to extremely thin magnetic coating. Low noise level because of uniform dispersion of particles and mirror lite surface. Higher coercive force insureshigherfrequency response and greater signal strength. Flat surface and large oreaprovide posillve contact with the Flat surface and arge area provide positive contact with the recording head which gives greater dynanic range. Non-magnetc tape backing between the layers of magnellc coating in the reel minimizes "cross talk". Easy to handle. No snarls, backlashos orkinks. Freedom from breckage. Tensile strength 6 lbs. Easily edifed and spliced with scatch splicing tape. Erases clean with low power-no spectal erase head is regulfed. Can be marked on back to indicate start and stop of different sound sequences in the same reel. Code A-magnetic coating wound facing in. Code $B$-magnetic coating wound facing out.

| Stock No. | Size | Code | 1 Reel | 6/Ea. | 36/Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 35N16410 | $1 / 4^{\circ} \times 1200$ | A | 5.50 | 4.95 | 4.40 |
| $35 \times 16411$ | $1 /{ }^{\prime \prime} \times 1200^{\prime}$ | 8 | 5.50 | 4.95 | 4.40 |
| 35N16412 | 1/4" $\times 600^{\prime \prime}$ | A | 3.50 | 3.15 | 2.80 |
| 35N16413 | $1 / 4^{\prime \prime} \times 600^{\prime \prime}$ | 8 | 3.50 | 3.15 | 2.80 |
| 35N16414 | $1 / 4^{\prime \prime} \times 150^{\prime \prime}$ | A | 1.00 | . 90 | . 80 |
| 35N16415 | $1 / 4^{\prime \prime} \times 150^{\prime \prime}$ | 8 | 1.00 | . 90 | . 80 |

## TAPE RECORDING ACCESSDRIES

"SCOTCH" SPLICING TAPE. $100^{\prime \prime} \times 1 / 2 "$. On metal utility disponser.
$\qquad$
35N16416.
Each
29c
"SCOTCH" EMPTY PLASTIC REELS

| Stock No. | Size | Holde | Each | 6/Es. | 36/Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 35N16417 | $7{ }^{70}$ dida. | $1 /{ }^{\prime \prime}=1200^{\circ}$ | . 60 | . 54 | . 48 |
| $35 N 16418$ $35 N 16419$ | 5" dia. |  | . 50 | .45 .14 | . 40 |

"SCOTCH"
Spaced with 3 ADER STOCK. For ease in editing breaks,
markings tor accurate timing. 150 f. $x$ \%, 35N16420-Lote/6 Ea. .45...Lote/36 Ea. .40...Ea. Singly . 50

## RECORD PLAYING EQUIPMENT



PORTABLE RECORD PLAYER


78RPM Constant-speed, turntable and motor mounted in a modern sturdy portable carrying case, covered in durable, lated alligator latheret Bullt-in two tube amplifier. Crystal pickup, volume and tone controls. Plays up to 12 a rec ords with IId closed. Enclosed Anico $V$ speaker reproduces all tones with excellent fidelity. $14 \times 7 \times 12^{1 / 2 "}$. 110 V., 60 cy . AC. Weight: 13 lbs.
34N22696.
22.85

78RPM WIRELESS AUTOMATIC RECORD CHANGER Plays through any Broadcast radio set without direct connectlons by means of two lube distortion-fise oscillator builit into oscillator built into base. Auromatic recplete enjoyment of recplete enjoyment of rec-
ords whout having to ords whout having to
jump up to change jurap up to change Inch or ten 12 -inch records at one loading. New "CrystoDynamic" velveltouch plckup brings out the full richness of tone on your records. Self-starting, constant speed motor for smooth, even performance. Single button for all controls. Streamlined wood case, walnut finlshed to blend with any surtoundings. Case measures: $131 / 2 \times 131 / 2 \times 8^{\prime \prime}$. For $105-$ 115 volt, 60 cycle AC only.
34 N22662-Shtpping Weight: 16 lbs.

## 78RPM WIRELESS RECORD PLAYER

Merely plug in and play through your present radso set. No wiring or special installation nespecial instalation neosclllator tuned to broadcast frequency. Brings out the rlchness and fullness of tone in the finest recordings. Plays all sizes of recordings from smallestio 12 -inch.
 Equipped with CrystoDynamic" pickup for extra quality. Self-starting, constant speed motor. Cabinet is of modern tear-drop design, made of shimering, jewel-like polystyrene. Case measures $12 \frac{1}{\prime \prime}$ long $x 8^{1 / 2}$ wide $\times 31 / 2^{\prime \prime}$ high. Operates on $105-115$ volts, 60 cycles AC only.
34N 22663 -Shipping Weight $51 / 3 \mathrm{lbs}$.
15.75

## LAFAYETTE 45 RPM AUTOMATIC PHONO

Here's an excellently desiqned Here's an excellently designed
cutomatic portable phonograph that plays the new 7 " 45 RPM necords with plenty of power and rich tone quality. A stack of ten $7{ }^{\prime \prime}$ records at one loading provides 50 minutes of uninterruped music or a full hour and 40 minutes with one change. The simple "drop" mechomism built into the spindle eliminates posts and clamps to hold the records. Fast...quiet... smooth change cycle takes only a few seconds. Last record repeats. Equipped with tone and volume controls and full range PM speaker. The handsome case is attractively covered in twotone brown tively covered in two-tone brown and tan. Measures: $121 / 2 \pi 81 / 2 \times 81 / "^{\prime \prime}$, For 110 -volt, $60-c y c l e$
tion. Shpg. Wi: 14 lbs . tlon. Shpg.
34N22700.
36.25

## 3.SPEED AMPLIFIED PORTABLE PHONO

Play any size record up to $12^{\prime \prime}$ with this new, extremely compact portable. A stmple slide switch instantly requlates the speed of the motor for $331 / 3,45$ or 78 RPM. Prectisionbullt motor runs at even speed onall 3 positions. All wood case houses a full-size Alnico $V$ speaker and carefully designed 3-tube amplifier that edives ercellent tone reproduction of vole reproduciion of volce wind muslc. Equipped with tone, volume control and switch. Single
 tone am with reversible caripidge equipped with two needles. Case is attractively covered in iwo-tone leatherette and measures $13 \times 101 / 2 \times 57 / 8^{\prime \prime}$. Omanental hardwatre lends a contrasting note of smarthess.
34N22701-Shipping Weight 12 lbs ..
26.95

## 3-SPEED PORTABLE AUTOMATIC PHONO

A deluxe model phonograph that plays $331 / 3$, 45 and 78 APM recordsanfomatically. Powerful 3 - tube ampllier and high quality 5 speaker alve amazing tone quality. Oversize case permits Oversize case permits
playlng of $12^{\circ}$ fecords with the ifd closed to minimize needle chatter minimize needle chafler
and surface nolses. Switch to any speed with Switch to any speed with conventent regulator on the motorboard. Has tone and volume control. Featherweight pickup features a dual reversible cartridge-each with its own long-life needle; provides instant change-over to piay stamdard or slow speed records. Qulet, smooth-oparating changer and motor. Rugged case covered in durable leatherette with contrasting bead.
34N22702-Shipping Weiglit 23 lbs...........................
48.50

## 3-SPEED TRANSCRIPTION PLAYER

Ideal for professional use, schools soles meetings or home. 33 speed-78, 45 and 33 $1 / 3$ RPM $\rightarrow$ plays all size records, including $16^{*}$ ifanscription type. transcriptron type. Powertul 4 -tube pushpull cmplifier delivers full 4 watts output. Excellent quality $0^{\circ}$ Alnico PM speakes mounted in detachable lop. Has microphone jack. Deluxe portible case mieasures $17 \times 13$ $x 81 /{ }^{\prime \prime}$,
$34 \mathrm{~N} 22703-S h i p p i n g ~ W e i g h$


34N22703-Shipping Weikht 17 lbs.........................
42.50

## 45 RPM AMPLIFIED RECORD PLAYER



This compact, open case phonograph is specifically desiqned for the new 45 RPM $7^{n}$ records. A complete. powerful phono with built-in amplifier and speaker that gives you all the advantages of these slow-speed records: Brilliant tone, neqligibleneedle scratch and unbreakable vinylite. saratch and unbreakable vinylite. Each record plays $5-1 / 3$ minutes
or the equivalent of a standard 12 record. New lightweight crystal plickup equipped with long record. New lightweight crystal pickup equipped with long Hfe needle. Sturdy wood case covered in brown
For $110 \mathrm{~V} ., 60$ cycles AC. Shipping Weight: 9.1 bs .
34N22697...
17.95

## 45 RPM RECORD PLAYER ATTACHMENT

Similar to above except has no amplifier. An easy, single connection converts your present equipment to play the new 45 RPM records.
34N22698-Shipping Weight: 5 tbs.
12.15

## 45 RPM WIRELESS RECORD PLAYER

Includes distortion-free oscillotor for playing through standard broadcast radio. No wiring necessary. Same case and plardup as above.
pickup as above.
34N22699-Shipping Weight: 7 lbs.
15.95


TWO IYPICAL GAFAYETTE CUSTOM RADIO ASSEMBLIES

## WHAT IS HIGH FIDELITY?

High Fidelity is reproduction of the studio or concert-hall program in your own home with such brilliance and clarity that vocalists and instruments - whatever their range of pitch preserve their individual identities. This achieves the rare quality known as "room presence:" the artists and their instrumenta are in the amme room with you!

## IS IT EXPENSIVE?

Definitely not. You can spend as little as $\$ 150$ on a custom assembly and get performance better than ready-made seta costing up to $\$ 500$. Your entire investment goes into functional sudio-equipment rather than the "trimmings." You can install the components into a piece of existing furniture. A little ingenuity saves you hundreds of dollars. Note, too, that it isn't necessary to buy all the components at once. You can add one section at a time - as rapidly as you feel you can afford it. A television unit can be incorporated inexpensively, at any time, as part of your high fidelity system. By using your high quality sound aystem for television, you will be in a position to enjoy superb audio reception along with your video.

## THE COMPONENTS



## SELECTING THE COMPONENTS

All Lafayette High Fidelity Centers (addresaes on page 1) feature the newly developed "Selector Rack" which enablew you to select your components "by ear." Here's how it works: all the famous components are wired for selection on a master control panel. You point out any possible combination to the Lafayette engineer. (There are thousands of variations.) Then you sit back and hear how your selection of a high fidelity system actually sounds. You can't go wrong in your choice because you make your own on-the-spot comparisons 1

## ASSEMBLING THE SYSTEM

Lafayette engineers will do all the necessary wiring and soldering to adapt your components. In many systems this is included without charge. No further electrical work is required. Aside from installing the components in the housing you select, it is only necesasry to plug the components together.

## Components

 can be pluggedtogether...
easy as pie


## CABINET INSTALLATION

For your convenience, Lafayette maintains a service for installing high fidelity components into your existing furniture at a moderate cost. Bring in or send your cabinet to us. We'll do the rest. If you prefer new custom furniture we can show you a complete line of modern and period cabinets. Our service is unique in that it combines expert woodworking craftamanship with professional audio engineering.

## HOW TO ORDER BY MAIL

Thousands of music lovers who live too far from a Lafayette High Fidelity Center to shop in person have ordered by mail the high fidelity systems or separate units shown in this book with complete assurance and satiafaction. The personal advice and service of our engineers is as close to you as your mail box.

When you worte please be as complete as possible. Tell us:

1. Which components are you interested in - AM, FM, Television, Record Player; Tape, Wire or Disc Recorder.
2. Which components you now own that you feel can be utilized.
3. What your system is going to be placed in (rough sketch, but complete inside and outside dimensions of the furniture to be used).
A. In an existing piece of furniture?
B. In a atorage wall?
C. In a new cabinet?
4. How much would you like to spend.

Write to the High-Fidelity Division of the Lafayette Mail Order Center in New York or Chicsgo (whichever is nearer). Remember there is no charge or obligation for using this service.

## MEISSNER \& RADIO CRAFTSMEN TUNERS



## MEISSNER MODEL 8C FM TUNER

Adds static-free reception to any AM recelver, instontly converting if for thrilling FM-AM use. Provides the ultimate in listening pleasure without outside disturbances. Can be used with any high quality power amplifier outside disturbances. Can be used with any high quality power ample Sonsitivity 40 microvolts. Output flat within 2 db from 50 to 15.000 cps . Large $542^{\circ}$ slide rule dial calibrated in MC and channel numbers or easier tuning. Unit is also equipped with a tuning control and a combinaton volume control and power s witch. Bulk-1n fower aupply for 105-125 volts, $50 / 60$ cycles AC only. Attractively styled walnut cabinet measures $124 \times 6 \% \times 8^{\circ}$. Supplied complote with seven tutes and rectilier. Shipping. Weight 13 lbs.
30N22490-Llat Price $\$ 57.50$.
Not 38.33
Same as above, except less cabinet; Shpq. WI. 10 ibs.
30N22480-With Tubes. . . . . . Liat Price $\$ 51.50$.
. Not 34.33

## MEISSNER AM-FM TUNER

Model 9-1091-C. Here is a top quality unit for use wherever the very higheat fidelity reception is desired. Covers the AM broadcast band from 527-1620 KC and the FM band from 88-108 MC. Response: 30 to 15,000 eps. $\pm 2 \mathrm{db}$. Separate bass and treble controls. Input jack provided for cryatal or high lovel magnotic type phonograph pickup. Sensitivity; 10 microvolts. Selectivity for AM-signals may to "Broad" or "Sharp." Output 11 volie at high impedance torminals and 2 volts at balanced 500 ohm torminals. Hum level 60 db below full output. Phonograph input terminala are provided for record player use. FM antenna connections for 300 -ohm tramamasion line. FM antenna and tranamiasion line act as efficlent AM antenne. Tubes: AM section: 6BA6 RF amplifier, 6BE6 convertor, (2) 6BA6 IF ampliflers, 6AL5 delector; FM section: 6BA6 RF amplifier 6C4 oscillator, 6BE6 lst detector or mizer, (3) 6AG5 IF amplifiera, (2) GAU6 limptera, 6ALS detector. (2) 6J5 audio smplifiore, 6U5/6G5 tuning indicator and SYGGT rectifer. Chassis bize: $16 \% \times 10 \%$ ". Overall helght $9^{* \prime}$. Needs $11^{\prime \prime}$ botween chassis and panel. Slide rule dial for $2 \times 7 \%$ " opening. With tubes and dial escutcheon plate. For $105-125 \mathrm{~V}$., $2 x 76$
$50 / 60$ cycles AC. Shpg. Wi. 19 libs.
30 N 22499 -Liat Price $\$ 245.00$.
. Net 147.00

## MEISSNER AM-FM TUNER \& AMPLIFIER

Model 9-1093. Undoubtedly one of the finest high quality AM.FM tuners and amplifiers on the market foday. Frequency range 535-1620 KC on the AM band and $88-108 \mathrm{MC}$ on the FM band. Audio tidelity is glat irom 50 to $19,000 \mathrm{cps} \pm 2 \mathrm{db}$. Hum level 65 db belowa full output. Elat from 50 to $19,000 \mathrm{cps} \pm 2 \mathrm{db}$. Hum level 65 db belowaful output: Designed for use with either cryatal or magnetic pickup; has buili-in pre: amp for GE reluctance and magnetre pickups (requires 6SC7 tube not
supplied). Sensilivity is oss than 20 microvolis. Tuner has a two-position AMplied). Sensilivity is jose than 20 microvolis. Tuner has a two-position AM selectivily control for distant or local reception. Phono input jack controlled by panel switch. A combinction tone control provides bass boost up to 11 db at 40 cps , and treble atlenuation up to 13 db at 10,000 cps. Output designed for 8 to 16 -ohm speaker. Two Indoor antennas are supplied: One indoor folded dipole, 300 -ohm, for FM, and one $12 \times 16^{*}$ nolse reducing loop tor AM. Provision is mode for connecting external AM and FM antennas. Tubes: (3) 6SK7, 6SA7, 6H6, (5) 6AG5, 6C4, (2) $9001,6 A L 5$, (2) 6J5, 6SN7GT, (2) 6L6, 5Y3G and SV4G rectifiers and 6U5/6G5 tuning indicator. Chassis mounting space: Tuner: $141 / \mathrm{x} 12 \mathrm{y}$ Ix 89\%": Amplifier: $71 / 5 \times 161 / 4 \times 7^{\prime \prime}$. For 105125 volts, $50 / 60$ eycles AC. Complete with tubes, two antennas and hardware. Shpg. Wt. 50 lbs .
30N22478-List Price $\$ 310.00$.
Net
186.00

## Radio Craftsmen Hi-Fidelity FM-AM Tuner

Model RC8. Designed with such biq sel features as automatic frequency control to eliminate FM receiver drift, electronic correction to "lock in" receiver to FM signal and tuned RF stage on FM and AM. Frequency ranges: FM, 88-108 MC: AM, 540-1600 KC. Has two AC outlets for supplying power to amplifier and phono motor. Rear socket for 6.3 V . AC and filtered $100 \mathrm{~V} . \mathrm{DC}$ tor pre-emps such os GE. The following controls are included: Base, ON.OFF Volume, AM.FMPhono-TV, Tuning and Treble. Silde rule, edge-lighted dial tor tast, easy funing. Uses nine fully Treble. Slide rule, edge-lighted dial for fast, easy tuning. Uses nine fully, shielded miniature tubes plus rectifier. Has loop antenna for indoor AM. high impedance antenna coll for connection to outdoor AM antenna, and a flexible dipole for FM reception. Attracilive chrome plated chassis
measures $9 \times 14 \times 10^{*}$ overall. For $105-125$ V., 60 cycles AC only. Shpg Wi. 19 lbs.
30 N 23487 -List Price $\$ 183.30$
Nol 110.00

## Radio Craftsmen Hi-Fidelity Amplifer

Model RC2. Companion unit to tuner above. Output over 12 watts at $1 \%$ distortion. 4, 6, 8, 15 and 500 -ohm output taps for one or more speakers, transmission lines, recorder. Overall gain 70 db . Hum level 70 db below rated output. Frequency response within 1 db from 20 to 20,000 oycles at 8 watts output. High impedance input. Includes four tubes and rectifier. For $105-125$-voll, 60 -cycle AC. Chrome plated. Size: $7^{\prime \prime} x 10^{\circ} \times 6^{\prime \prime}$. Shpg. Wt. 12 lbs.
30 N 22488 -Liat Price $\$ 65.00$
Net
39.0

## LAFAYETTE, ESPEY \& BROWNING TUNERS

## LAFAYETTE AM TUNER

A budget priced AM luner for high fidelity coverage of the entire kroad A and Hi-Fi cuatom installations. Has phono-radio chanceover iwitch. ansitivity 30 microvolts; high impedance output. Features include a and , 60, easy-to-read side rule hum level. Uses the following tubes: $6826,68 A 6$. $6 A 16,6 \times 4$ rectitier. Welght 10 the.
WoNght 10 ibs. With Tubes. .
List price $\$ 34.35$
31.95

## LAFAYETTE FM-AM CHASSIS with Automatic Frequency Control

Butid your own new FM-AM radio, or modernize on old radio coneole with this fine quality chassis. Covers the entire standard broadcast band and the 88-109 MC FM band. Features automatic frequency control on FM for tuning stability, a full range tone control and automatic volume control. Chasais is wired for phonograph oferation. Pufh.pull team power output provided with 11 latest model tutes plus rectifier. Outpu matches 3.2 ohm voice coll. Indirectly illuminated elide rule dial simpit ftes accurate tuning. Iwo Indoor antennes are supplied: one loop for AM and a folded dipole for FM. Loop Antenne measures 81/x $131 / 1 / \mathrm{x} 1 / \mathrm{K}_{1}$ Chassis dimensions: $13 \mathrm{x} 9 \mathrm{x} 91 /{ }^{\prime \prime}$.". For operation on $105-125$ volts, 60 cycles AC only. Supplied complete with tubes, dial escutchoon and two antenrias. Shipping Welght 25 lbe . iN1208-List Price $\$ 120.85$
72.50

## ESPEY FM-AM TUNER \& AMPLIFIER

A deluxe high tidelity combination unit, matched and preciaion built for the diecriminaling listener who wante to build his own FM.AM console. The tuner has two frequency ranges: $88-108 \mathrm{MC}$ for FM reception and $540-1620 \mathrm{KC}$ for standard broadcast use, an improved automatic volume control, and full range bass and treble tone controls. Featured also are separate tuned RF stages on both FM and AM for extreme sensitivity and low nolse level between stations. Power supply and audio amplifier are low noise level between siations. Power the following tubes: (2) 6BA6, included in the amplifer chasis. Uses the following tubes: (2) $6 B E 6,6 C 4,6 S G 7,6 S H 7,615,6 S Q 7,6 A L 5$ and $6 U 5$ tuning indicator.

AMPLIEIER POWER SUPPLY CHASSIS is espectally designed to match the tuner described above. It uses (2) 635 s in a balanced phase inverter, push-pull circuit driving (4) 6V6 triodes in a paraliel push-pull output circuit. Includes (2) 5Y3GT/G rectiffers. High ildelity amplifier performance is assured through the use of on inverse feedback circuit. Tuner chassis dimensions: $131 / 2881 / 49^{\prime \prime}$; amplifier chassis dimensions: $131 / 2 \times 7 / / 2 \times 8^{\prime \prime}$. Complete with ascutcheon plate, dial, two antennas and tubes. For $105-125 \mathrm{~V} ., 50 / 60$ cycles AC. Shipping Weight 40 Ibs

30N22477-Liat Price $\$ 195.35$
Not 114.86

## BROWNING FM TUNER \& POWER SUPPLY

RV-10. An excellent way to add high ficielity FM reception to exiating radio and amplifier systems. Small size permith easy mounting in cabinet, shelves, bookcases and drawers. Sensitive Armstrong circuit covers 88-108 MC band. Features tuned RF stage, two-stage cascade limiter, high impedance output. Phono.FM switch and self-contained power supply. Attractive edge-lighted dial calibrated in meqacycles and channel numbers. Tubes: (3) 6AU6, 7F8, (2) 6SJ7, 6H6, 6US tuning eye and 80 rectifier. For 115 -volt, 60 cycle $A C$. Dimensions: $61 / 211 \mathrm{z} 8 / 6^{\prime \prime}$ Supplied complete with tubes, dial escutcheon, two audio shielded plugs and $8 . \mathrm{ft}$. Wire.
82.22

## BROWNING FM-AM TUNER

Model RJ.12A. Precision engineered lor high lidelity reception on the 88-108 MC FM band and 530-1650 KC ktandard broadcast band. Famous Armstrong FM circuit leatures 2 -stage cascade limiting, RF stage on both bands and high impedance output; drift compensoted. FM sudio esponse flat from 20 to $15,000 \mathrm{cps} \pm 11 / 2 \mathrm{db}$. Separate RF and IF syatems on both bands assures maximum performance and eliminaten coil witching. FM antenna input 300 ohms. No separate antennas required FM antenna also serves AM. Tubes: (3) 6AU6, 7F8, 6SK7, 6SG7, (2) 6SJ7 $6 H 6,6 S A 7$, 6U5 tuning eye and IN34 crysial detector. Dimensions $7 \%$ 备 $131 / 59^{\prime \prime}$. For 115 voles, 60 -cycle AC. With tubes, dial escutcheon and flastic window. Appecrance lite AJ 20 below. 30N 22488 --Shlpping Weight 16 Ibs.
113.78

Model PF12. Power supply for above tuner. $6 \mathrm{z} 31 / 4 \mathrm{~m}^{\prime \prime}$ 30N22513-Shipping Weight 9 lbs.

## BROWNING FM-AM TUNER AND POWER SUPPLY

Model RJ-20. For the discriminating listener who wants the uitimate in moll eange reproduction Especially destoned tuner and selt-contained full range power supply or custom instatlations in the broadcast and 88-108 MC bands. Response: 15 to 15,000 lons in the broadcast and $88-108 \mathrm{MCFM}$ bands. Response: 15 to cps $\pm 3 \mathrm{db}$. Separate RF and IF syaterns lor AM and FM provide top perlormance and sensitivity. FM utilizes dual coscade limiting in genuine Armsirong circuit. Uses two stages of audio amplinication with treble and base controls giving a 20 db boost in elther tone range. Output Impedance 20,000 ohms; 300 or $72 \cdot 0 \mathrm{hm}$ input provided for FM antenns. Tubes: (5) 6AU6, 7F8, (2) 6AL5, 12AU7, 6SK7, 6SA7, 6SG7, 6AL7 tuning eye and SY3 rectifier. Dimensions: $7 \mathrm{Yx} 17 \mathrm{~m} 9^{\prime \prime}$. Dial eacutchoon and plastic window included.
30N22481-With tubes. Shpg. Wt. 24 lbis.
155.43


## HIGH FIDELITY AMPLIFIERS


by additi no manner in which the audio performance of the $12 \mathrm{A3}$ could be improved by additional momurgctur log expense toter the manuiceturer of this fine unit. Her is a lo-wqt, all low-mu triode amplifier with lese hicm $1.25 \%$ tota hormonic distortson at full rated output. Even for power peats (of leste than $1 / 2$ aecond durar tion) rieing well over 10 watt, the dietortion does not increape because of the remarkable transient peat circult included in the amplifier. The pre-amplifter and controls are in a separate unil connected by a 6 -foot cable to the amplifier. A conbiderably longer cable can b used where requised. Thre Inpute - iwo compeneated for magnetic and variable reluctance pletupe, and other provided for radio or ary 500 plakup - are furnished. Output impedances range from 1.51024 ohme, plue 500 ohms trom a eeparate winding. With treble and bas tone controls set for illat reaponse, the trequency range 'in 20 to $20,000 \mathrm{cps}$ within $\pm K \mathrm{db}$. Hum level is 75 6SH7, two


2N417-Amplifler and control untis, Includint tubes. Shps. Wt: 28 ibe... 6.50


## H. H. SCOTT MODEL $210 A$ AMPLIFIER Hi-Fi Plus the Scott Dynomic Nolse Suppressor

Deatgned by an orgmization producing moally laboratory and broadcast equipment the 20-wat Scott 210 sets a new standerd of excellonce fro amplifiers of its class. Destgned espectally for use with the new raricble roluctance plekupe, a preamplifier stage operating entiraty on d-e is included other featurss are; a opectal input for tuners and crystal pickups, a callbretod hi-frequency cut-of! control, a "aqualch" efreut to climincte nolso during record-changer cyeling, and the 4-tube Scott Dymanic Notse Suppreseor (described below). With treble cund base tone controls or midpolnt and volume on full, the frequency reaponte ts down 3 db at 30 and $20,000 \mathrm{cps}$. Harmonic distortion is less than $2 \%$ and hum level is down 80 db at full roted output. Output mpedance: 2-500 ohms. Tuben used: 12SL7-GT 6SL7-GT, 65Q7 12SG7, 8SG7 (1wo) 6SN7-GT. 6L8-GA (iwo). 5V4-G (rectifiar): Power Input: $117 \mathrm{v}, 60$ cycles AC. Dimenmans! 12 I 15 I $81 / \mathrm{h}^{\circ}$. 2N419-Axplifier, with tubes. Shpg. We. 23 lbs...
214.62

## H. H. SCOTT DYNAMIC NOISE SUPPRESSOR

Model 111 . Neweat version of the famous Dynamic Noise suppressor, Reduces annoy ing record scratch and motor "rumble" In any HilFi system with this untt. Chasal mounte near other equipment; single control ie at end of extenaion cable. operating power or unit obiained through plug which fils octal-base output socke ploys nower. Hign impedance Lnupi and output circuite maich most ystoms. Employ now mutual inductance gate circult giving flot repponee 30 to 10,000 cyclas ules cables and 14,000 cestes. Duphe $703 \%$ with one

28.91

Model 112A. Strallar to above oxcept has proamp for GE reluctance and elmilar cartridqes. Flar response 30 to 17,000 cyclos.
2N428..
.46 .55

## THORDARSON MODEL T-32W10 AMPLIFIER

Thit 10 wat amplifier incorporotes only those componente neceseary for a "flat" full-range trequency raponse from a radio tuner or crymal plekup You pay for nothing more. For variable reluctance pletupe or a high-impedance mite the T-32WOO pro-amplifier (isted below) plugs into a pro-wired sockot. Volume, supar ote base ard treble tone controls. Outputs $3-6,8,15-16$ ohme. Hum lovel down 70 db. Tubes: 6SL 7-GT, 6VGGT (two). 5 Y3-GT (rectifler). Power requiromente: 115 volts, AC. Dimensions:
2N420 Amplifier, with tubee. Shpe. Wh, 11 lbe.
32.34

Thordarion T-32WOO Plug-in Pre-Amplitier, for use with T-32W 10 Amplifier. Has carrect gain and compensation for use with varlable reluctance pletupa. Ajso can borrect gited for and rensonse for use with hl-impedance antle. 2N421 Pre-Amplifier, with tube. 8 hpg . Wt, 2 tbe

## BELL MODEL 2122 AMPLIFIER

## A Consumers Organization Recommendation

The quality of this excellent 10 watt amplifitar is typified by the frequency roThe quality of thia excr $4 / \mathrm{db}$ from 30 to 15,000 cycles (with tone controla set for sponse charanseri. Extremoly flezible in application, the amplifler is well suited for alrnosi any high-fidelity aytem. Four inputs are providod: (1) radio- 750,000 ohms input Impedance 76 db overall gatn; (2) Crystal phono plckup 1 meqohm input umpedance 74 db qain; (3) magnetic (variable roluctancel pickup pickup22 input impedance, 22 db gaini 110 db gain. Output impedances ate 3.4-4 ohms, $6-8$ 22,000 ohms inpur inpedancel pre-amplifiern, each with its own equalization, ase ohma, $15-18$ ohms. Individual pro-ampiriers each mapotic plckups. Separate base sure proper response from the various bpes variation runs from to to $\pm 12 \mathrm{db}$ at and treble tone controls are incluced at 10,000 cycles. Peak power output is 15 100 eyeles; trebe runs from $\pm 18$ dotortion) is 10 watts. Hum level is down 65 db watts; normal (at lese than $3 \%$ distorion 76 watis at 117 volts, 60 cyclow, acc. A from rated output. Pow phonograph power 18 mounted on the rear apron of the chasreceptacle for radio or phonograph power is mounted on the rear 5 Y3-GT (rectifier).

2N404-Ampllfier, with tubeA........Shpg. Wt: 11 lbe.
40.87

2N404-Amplifier, with tubea........shpg. Wr: -xtension cable.

Controle remotely


SCOTT LABS "MUSICALE" AMPLIFIER
Build or Improve Your High.Fidelity Systam with this L afayette "Best Buy"
A euparb amplifying systers with a conservative rating of 20 watts, bullt by a manulacturer whos nome is associated only with the highest quality eleritronic equipment. The Scott "Musicale" ampllfier was designed for those munic lovers equipment. The want the utmost in high-lidellity reproduction with no limit on circuits, size, or cont. It was produced originally to be a part of one of the world-famouis sizot or cont. It was produced originaly whonograph combinatlons, whil for as much as $\$ 1000$. Leilayelte made a fortunate purchase of a limited number of these ampliflers, which enables us to offer them at a price usually asked for ampliffers of less periect response as and lower power ratings.
This cmplifying system consists of two chassis containing a total of tubes including 2 rectiffers. The Voltage Amplifier - Control Unit mounts a bruahod sciln aluminum panel, $\mathrm{I}^{\mathrm{m}} \mathrm{m}^{\prime \prime}$, with chrome-nkirted control knobs. The Pow of Amplifior - Recirier chassis is finished in the polishod chrome that is iyplcal othe crartimaneliti ing of the two chant.
way in the mounting of the two chassis.
The frequency characteriatic ts flat within 11.25 db from 40 to 20,000 cycles at 20 watt output; uniform from 100 to 16,000 cyclen. One input ts provided for a cryetal phonograph pickup; another to the lit amplifter stage which can bompensated for variable roluctance pickups. The famous Scoti Dynamic Noles Suppressor circults are incorporated as part of the Control Unit. Conitrols provided arei Volume, Bess Tone, Treble Tone Music (Noleo Suppresor) Control, and PhonoMike (Low and High Gain lnput). Cutput stage usen push-pull $6 \mathrm{~L} \mathrm{Lg}_{\mathrm{j}}$ output impodonce $8 / 16$ ohms. Control Unit size: $8^{\circ}$ z $15^{\circ}$ z 7
Powar requlremente: $110-125$ volts, 60 -cycies a-c.
IMPORTANT - Do not restrict the capablisties of this amplifying system with an ladequate speaker. Select (from pages 42-44) a coaydal apeater or a woofartweeter combination sated at not less than 20 wotte and ortending well into the high-frequency range.
2N406-Amplifler, with tubee...... Shipping Welght: 50 ibe..................... 189. 50

## MASCO MODEL 10-HF AMPLIFIER

This is a 10 -watt, 4 -input high-fidelity amplitier, with bulli-in compensation and sufficient gain for variable reluctance plctups. Two of the amplifler inpute are equallzed for curtent iypes of variable reluctance plckupp; the thirg is equalized for cryatal plckups; and the fourth le unequalized, for radio input. Separate treble and base tone controle are provided permpliting up 1012.5 db boos ar attenuation at 50 cyclee and $\pm 15$ to $\pm 14 \mathrm{db}$ vartation at 15,000 ercles. Frequency character letic is $\pm 1 \mathrm{db}$ from 40 to 20,000 cycles when the lone controla aro set for flat rosponese. Two hum-baloncing adjuatmenta bring tho hum level down 70 db from rated output. Aated output is 10 watts (with lesE than $5 \%$ distortion); peat output Is 14 watts. Output impodances available are $2-4-8-16$ and 500 ohme. Power fequirements: 74 watte at 117 volts, 60 cycles a-c. A power receptacie on he chanEis permits plugging in aradio or phonograph. Chassis is finished in gray hammer tone. Dimenstons: $12^{\circ}$ 玉 $7^{\circ}$ z $1^{\circ}$. Tube complements two 6SL7-GT, one bse, iwo 6V6-GT, one 5Y3-GT (rectifier). Welght: $11 / 1 /$ lbs.
2N422-Ampliftor, with tubes...... Shipping Welght: 20 lbe.
.40 .50
2N424-Three $6^{\circ}$ extenction ohafte for controle.

## MASCO MODEL 10-EX AMPLIFIER WITH VOLUME EXPANSION

This is busically the same as the Model $10-\mathrm{HF}$ cmplifier described above, with volume expander circults added to give up to 10 db expansion. A 4-position tone awitch, giving solected response characteristics replaces the separate tone conone 5 Y3-GT (rectifier). Wolght: 12 lbs .
2N423-Amplifier, with tubes......Shipping Welght: 20 lbs.
49.95

2N425-Three $6^{\circ}$ extension theft for controls............................................ 1.47



## SELECT YOUR HI-FI COMBINATION FROM THESE FINE GROUPS

Now you can choose your own high fidelity radio-phonograph package from the preciston-tested uniti listed below. For your complel- listening pleasure, Lafayette offers a choice of two superb amplitiers (elther the Bell Model 2122 or Bogen PHi0), two top quality Webster record changers, the full range GE Modol S120to speaker and phonograph pre-amplifior and the popular Molssner BC FM tuner. In addition to the customary manufacturor's lesis given the individual units, Lafayette engineers will also

## BELL MODEL 2122 AMPLIFIER

F19. C. Recommended by a famous research organization for high ifollity custom insiallations. Frequency responte $30-15,000$ cycles $\pm \geqslant / \mathrm{db}$. Inpute for radio, magnotic, reluctance or crystal cartridges. Individual bass and treble tone controls. Output impedances of 3.4 to 18 ohms to match any high ildelity speaker. Has low hum level. This amplifier is ideal for microgroope record ap pllcations using the new type magnotic pickups. Output is io watts with a peak of 15 . Dimensions: $71 / 2^{\prime \prime} \times 6^{\prime \prime} \times 111 / 2^{\prime \prime}$. Shipping Weight 15 lbs. Supplied complete with tubes. (See pages 18 and 19 for additional amplifier specifications.)
2122R-Same as above plus 4 -ft. extension controls for remote control use.

## BOGEN MODEL PHID AMPLIFIER

Fig. A. Designed to give high fidelity amplification with minimum hum. Remarkable "Mult-Range Tone Control" provides four separate laboralory selected response curves to give the best in periormance. There's no quesswork furvas the user when selectIng the proper tone balance for varying program material. Outpul 10 walis with a gain of $72 \mathrm{db} \pm 1 \mathrm{db}$ from $40-15,000 \mathrm{cps}$. (Additional specifications on pages $1 \frac{18}{8}$ and 19 .)
PHIOC Same as above pluz 4 ft . extension controls for remote control use.

## WESSTER 156-27 CHANGER

Fig. F. Plays twelve $10^{\prime \prime}$ and ten $12^{\prime \prime} 78$ RPM records at one looding. Automatically shuis off after the last record. Lightweight GE variable reluciance magnetic plckup included for minimum wear. on valuable records. Only one control button is required lor all operations of changer. Heavy duty. 4 -polo singlo apeed motor operates on 105-120 V., 60 cycles AC.
wirs all the plugs, cables and connuctors for a nominal price of $\$ 7.00$ and then test the group logether as a HI-FI system. Every litem required for the installation, including all inter-connections, is included in the aingle price (except cabinet and speaker enclosure). For a cholce of either modern or period desion cabinats to house the package, tum to pages 10, 11,22, 42 and 43 of this catalog . . or use furniture of your own.

## MEISSNER OC FM TUNER

Fig. E. Brings in FM programs free of static and station inter-forence-gives reallatic high fidelity reception withour distortyen. The audio fidelity fat from $50-15,000 \mathrm{eps}$. A modern. sidide rule dial is calibrated in MC and channel numbers for fati, easy tunina of your favorite station. Preciston-bult, advanced circult uses 6ALS, (2) 6BAB. (2) $6 \mathrm{AG5}$, (2) 6C4 and $6 \times 5 \mathrm{GT} G$ rectifier. Chasis dimenslons: $71 / 2^{\prime \prime} \times 11^{\prime \prime} \times 5^{\prime \prime}$. Shipping Weight 7 lbs . Same chassis as above is available in polished cabinet. (See page 16 for additional epecifications and information.)

## GE PRE-AMPLIFIER AND SPEAKER

Fig. A, The model MSC proamplifier is designed for use with high fidelity reluctance cartidges. It uses a shock mounled 6SC7 tube in an equalizing circuit. Covers full audto range of 20-20,000 cps.
F1g. D. Model S1201D speaker is excellently constructed 12 -inch Alnico V PM type. Molded one-plece cone assures brillant frequency response. Power handling capacity: 25 watts.

## WESSTER 356-27 CHANGER

Fig. F. Three speeds . . . plays all makes, all sizes and all speeds of records-cutomatically. Single switch makes speed changeover trom 78, 45 and $331 / 3 \mathrm{RPM}$, fast and effortloss. Equipped with a Iightweight arm that plays standard and LP records without weight adjustment. Ptckup returns to rest after last record except $7^{\prime \prime}$ size. Shock mounted motor assembly qas ures smooth, quist operation at any speed. Supplied with 10 spiders for 45 SPM records and two plug-in GE reluctance caritidges. Mounting: $55 t^{\prime \prime}$ above plate; $27 / 4^{\prime \prime}$ below plate. Dimensions of motorboard:
$141 / 4^{\prime \prime} \times 14^{\prime \prime}$.

NOTE: Below systems can be supplied with the Meissner 8C Tuner in wood cabinet if desired, at $\$ 3.68$ additional. Charge for wiring plugs, cables and connectors, and testing any group (see tezt at top of


## SELECTED HIGH FIDELIY GROUPS

## HI-FI PACKAGE NO. 1

Here is a superb custom package for the discriminating radio and record listener who demands the finest in high fidelity reproduction. Complete standard broadcast AM and FM coverage for all your favorite radio programs and a top-notch record playing system that handles all speeds, types and sizes of records. This high idelity equipment gives you the entire range of sound, from extremely low notes of the tuba to the highest notes of the oboe. Every unit in the package has been tested individually and in combination to assure maximum efficiency and perfect matching of all components. To achieve these excellent results, Lafayette technicians selected the fcllowing outstanding equipment: (B) The famous high fidelity Browning Model RI-20 FM-AM Tuner; (C) a fine 12 -watt Radio Craftsmen RC2 amplifier with a range of 20 to $20,000 \mathrm{cps}$ to match the tuner; ( E ) the latest Webster Model $356-27$ 3 -speed record changer with iwo GE reluctance cartridges; (A) Stephens Tru-Sonic Model 102FR $15^{\circ \prime \prime}$ speaker-a high fidelity cospiral unit capable of handling 20 watts undistorted output; (D) the GF, self-powered preamplifier for use with variable reluctance cartridges. The components are supplied with all interconnecting cables, plugs and jacks to permit immediate installation. Operates on $105-125$ volts, $50 / 60$ cycles AC. For additional information on the above components, see pages 16-19, 43 and 46
COMPLETE PACKAGE NO. 1 (A-B-C-D-E)
30N21400-Ready To install.
295.74

## HI-FI PACKAGE MO. 2

It's easy to enjoy a high fidelity radio and phonograph installation in your home with these fine components...economically priced for the modesi budget. A compact, three unlt package that can be readily adapied to the smaller furniture piece or console cabinet. Model INI206 12-tube FM-AM single untt chassls ( $F$ ) covers the standard broadcast and 88-109 MC FM bands. Features include cutomatic frequency control, push-pull output, a loop antenna for AM broadcasts and a iolded dipole for FM. Full range repraducion of your finest classical records is assured with the (G) GE model S1201D 12" speaker and (E) Webster Model 356-1 3-speed record changer. Tested and matched components give top pertormance from records and radio. All inter connecting cables, plugs and jacks are supplied with the package. For 105 125 volts, $50 / 60$ eycles AC. For additional information see pages 17,42 and 46 . COMPLETE PACKAGE NO. 2 (E-F-G) 30N21401-Ready To Install.
122.75

## HI-FI PACKAGE NO. 3

Heres a precision built, 5 -unit package for the discriminating listener who wants a high fidelity installation of unusually fine quality. The popular ( H ) FM-AM Espey Tuner (No. 30N22477) has separate bass and treble controls and individual RF stages on both FM and AM. A specially designed separate chassis incorporating the audio amplifier and power supply is carefully matched to the tuner for maximum efficiency. Parallel push-pull output in nn inverse feedback circult assures plenty of reserve power with utmos an inverse leedback circult assures plenty or reserve pow wh urmos Idelity. Other components are the (E) Wobster Model $356-27$ 3-speed record changer with 2 GE reluctance cartridges, (G) GE Model SI201D specker and D) self-powered pre-amplifier. The complete package is thoroughly tested before shipment and includes all necessary inter-connectiong cables, plugs and jacks for immediate installation. Operates on $105-125$ volts, $50 / 60$ cycles AC. For additional information see pages $17,42,46$ and 48.
COMPLETE PACKAGE NO. 3. (D-E-G-H)
30N21402-Ready To Install.
180.60

## HI-FI PACKAGE NO. 4

Everything you need for an excellent high fidelity radio and record installation is contained in this outstanding custom package. In order to assure flawless AM and FM radio reception and superb tone reproduction of the finest llawless AM and FM radio reception and superb tone reproduction Moder innest symphonic recordings, we selected the "hard-1o-beat" Meissner Model 9-1093
tuner and amplifier (i), the Altec Lansing Model 6038 15 " Hi-Fi speaker with tunor and amplifier (1), the Altec Lansing Model 6038 $15^{\circ}$ Hi-Fi speaker with
special multicellular horn (J), and the popular Webster Chicago Model $356-27$ special multicellular horn (J), and the popular webster Chicago Model $356-27$ reluctauce plug-in cartridges. All units have been pretested and matched o assure perfect operating efficiency. The chassis is equipped with a built-in proamplifier for GE reluctance and magnetic pickups. Extromely sensitive and selective tuner, plus the powerful 18 -watt push-pull amplifier brings in staticless FM reception and strong, clear standard broadcast programs with utmost fidelity over the audible range between 50 and $15,000 \mathrm{cps}$. Components are supplled with all inter-connecting cables, plugs, tubes, cartridges and needles. For operation on $105-125$ volts, $50 / 60$ cycles AC. For additional information and speciflications on the above components, eee pages 16,42 and 46 .

COMPLETE PACKAGE NO. 4 (I-I-E)
30N21403-Ready To Install.
289.13



## the greatest values in sound



Your savings on Lafayette sound syatems do not begin or end with our lower prices. Most of your raving is in the counsel and help you get before and after you buy. Lafayette engineers consider your problem, whether you buy in person or by mail, with thoughts like these: "What are your basic requirements?" (not "How much sound system can we sell?") ..."Can you still use part of your present system?"..."Can we design a system flexible enough to expand later, if it becomes necessary ?" They are out to prove to you: WHEN YOU BUY FROM LAFAYETTE YOUR DIVIDEND IS OUR SERVICE!


Lafayette Systems range in size from 8 to 75 watts, and include portable and mobile units. Lafayctte Systems are designed to give highest value per dollar, yet are rated conservatlvely to allow a good safety factor. Every Lafayette

Have enough power to do the job THE "QUIET" COLUMN in the chart gives you the required wattage for installation with low noise levels, such as funeral homes, hospitals, quiet offices and warehouses.

The "normal" column covers installation where normal room noise is encountered, as in small restaurants, large offices, light or medium manufacturing and residential areas.

THE "NOISY" COLUMN gives required wattage for locations with very high noise levels, such as heavy manufacturing (including boiler factories, preumatic riveters, steel mills), large stadiums, outdoor street advertising and announcing.

System carries the 1 year guarantee shown on this page. And with Lafayette, you are sure of getting the performance listed in the specificatlons.


Accessories The choice of microphones, speakers, and other accessories is determined partly by the requirements of the system, partly. by what you desire to spend. Crystal mikes are least expensive and are satisfactory for most general spplications; the new Ceramic mikes, although somewhat more expensive, are more suitable where there are wide changes in temperature or high humidity. Dynamic mikes are more rugged, and are a good investment in the higher-priced field. Microphone fidelity should be consistent with the amplifier frequency range. Lafayette's skilled sound engineers will be glad to advise you and help you whether you choose one unit-or a complete system-without charge. Do not hesitate to call or write.

Choose an amplitier with enough wattage for your purpose. Determine seating capacity or room volume in cubic feet for indoor systems, or area in square feet for outdoor systems. Then refer to the chart below for recommended wattage.

|  | Area Coverage |  | Required walts |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Capacity | Indoor: | Out doors | Quiet | Normal | Noiny |
| 750 | 280,000 ru. ft. | $15.000 \mathrm{sq} . \mathrm{ft}$. | 7.8 | 11.25 | 15 |
| 1500 | $600,000 \mathrm{cu} . \mathrm{ft}$. | $30,000 \mathrm{sq} . \mathrm{ft}$. | 15 | 22.8 | 30 |
| 3000 | 1,200,000 cu. ft. | $60,000 \mathrm{cq} . \mathrm{ft}$. | 50 | 45 | 10 |
| 4500 | $1.800,000 \mathrm{cu} . \mathrm{ft}$. | 90,000 m. ft. | 45 | 67.5 | 90 |
| 6000 | $2,400,000 \mathrm{cu} . \mathrm{ft}$. | $120,000 \mathrm{eq}, \mathrm{ft}$. | 60 | 90 | 120 |
| 7500 | 3,000,000 cu. ft. | 150,000 mq. ft . | 75 | 112.5 | 150 |
| 9000 | $3,600,000 \mathrm{cu} . \mathrm{ft}$. | 180,000 $\mathrm{sc}_{\text {c }} \mathrm{ft}$. | 90 | 185 | 180 |

Speakers should be selected so that their total wattage rating is alwoys slightly more than the rated output of the amplifier. It is better to use several speakers of lower wattage to distribute the sound than to blast it at high volume from one high-power speaker.

## Cafayette 8-WATT QUALITY SOUND AMPLIFIER

## 8-Watt Rmplifior Speaificatlons

POWER OUTPUT . . . . . 8 watts at $5 \%$ distortion- 12 watts peak OAIN AND INPUTS

FREQUENCY RESPONSE
CONTROLS.
TUBES USED
OUTPUT IMPEDANCE POWER CONSUMPTION DIMENSIONS

Phono $75 \mathrm{db}, 1 / 2 \mathrm{meg}$
(3) Microph $10,000 \mathrm{cpe} \pm 2 \mathrm{db}$
(3) Microphone, Phono, Tone 6L6G, 6SC7, 5Y3 4 and 8 ohms its 60 cycle AC
$.7^{\prime \prime} \times 10 y^{\prime \prime} "^{\prime 2} 5 \%^{\prime \prime}$

8 watte normal and a full 12 watts peak output! $\mathbf{5} \%$ distortion is scarcely audible at the 8 watt level). Designed especially for users requiring a high-quality, small audience coverage amplifier. Frequency response ts flat ( $\pm 2 \mathrm{db}$ ) from 50 to $10,000 \mathrm{cps}$. Tone control for adjustment of response to any accoustical condition. Separate controls for microphone and phonograph allow smooth lading and blending of musical background and voice announcements. Circult blending of musical background and voice announcements. Clrcuit
includes inverse feedback for improved quality and reduction of includes inverse feedback for improved quality and reduction of
hum and distortion. Illuminated control panel permits easy control adjustment in the darkest room.
2N157-With tubes and plugs-Shpg wt. 12 lbs.
22.95


# Lafayette 8-WATT SINGLE \& DUAL SOUND SYSTEMS 

## DUAL SPEAKER PORTABLE

Never before has so much value been brought together in one complete. 8-watt sound system! Expertly engineered to the highest standards, and especially destgned for store demonstrators, carnival and circus barkers, lecturers, masters of ceremony and others requiring small audience coverage up to 800 persons. Strong, compact construction makes carrying easy from one location to another.
Here are matched units-complete with everything you need to operate a quality public address syatem. The simple plug arrangement mates Installation and operation, last and easy, Lafayette's 8 -watt amplitior is quaranteed for one full year and covers replacement or repair of any quaranteed tor one full year and covers replacement or repair of any detects in materials and workmanship. Separate microphone and phonograph inputs and controls permit use of recorded music as a background ior announcements. This feature adds a protessional smoothnoss to your
presentations. Alf co mponents are mounted in a single portable carrying presentations. All components are mounted in a single portable carrying case measuringlixloynd the and covered in handsome simulated rawsection of the two-plece case. Included also is a Shure Model 710A crystal microphone on a 6 -inch desk stand with 7 feet of cable and plug. The amplifier fits into case for carrying. 70 feet of cable ( 35 feet for asch unit) is attached to the speakers and is ready to plug into the amplifier. Complete 8 -Watt Dual Portable System with amplifter, tubes, speakers, microphone, siand, cables and case.
2N184-Shipping Weight 30 lbs .
44.95

## SINGLE SPEAKER PORTABLE

Similar to above system but with aingle speaker and $35 . \mathrm{ft}$. cable mounted n case.
2N180-Shipping Weight 27 lbs
39.95

## DUAL SPEAKER INDOOR SYSTEM

Engineered for use in small areas such as clubs, restaurants, small halls, churches, shools, offices, call systems, soles meetings and similar applications. Also practical for use in voice, diction, music and public spesking classes to familiarize students with microphone technique. Cen be used with any record changer or player for a combination paging and music syitern in stores and falking commercial displays. Bullting tone music systern in stores and talking commercial displays. Bullt-ln tone control of the amplifier has oxtromely broad variation to meet your preterence and the acoustics of diferent speaker locatione. This is a com-
plete sound system-ready to operatel Consiste of an 8 -watt amplifier plete sound system-ready to operatel Consiste of an 8 -watt a mplifier koid wall baffles, 35 - ft , cable and plug attached to each speaker. A Shure 710 A crystal microphone on 6 -Inch desk stand with 7 -ft. mike cable and attached plug, all tubes and instructions. For $105-125$ volti, $50 / 60$ cycles AC.
2Nis5-Shipping Weight 40 lbs
44.95

## SINGLE SPEAKER INDOOR SYSTEM

Save money! Buy this smaller, economy system if your audiences total leas thian 400 perwons, Similar to dual system described above, but with a single 8 -inch speaker mounted in one wall boffle, and 35 -ft cable altached.
2N187-Shipping Weight 34 lbs
34.98

Above systems avallable for 220V. AC with atep down Iransformer.
MICROPHONE FLOOR STAND. Top quality adjustable stand with pasitive grip friction clutch that tirmly locks telescoping unit. Adjusts from $35^{\circ}$ to $68^{\circ}$. Chrome plated uprighte on $10^{\circ}$ diameler black wrinkle finish base. "/ " -27 male threads for attaching to microphone. 14N22042-shipping weight ig ibs . . . . . . . . . . . . . . . . . . . . . . . . 4. .s?

# afayette 15-watt SOUND SYSTEMS 

## PORTABLE MODEL

Herés a complete portable P.A. or music system packed with the most modern features and priced to please the with the mo3t mosern teatures and priced to please the modest budget. Sets up in a tew minules-ready to operate. No technical knowledge necessary. The system is ideal for
lectures, sales meetings, auctions, for travelling dance lectures, sales meetings, auctions, for travelling dance pull amplitier has three input channels-1 wo for crystal, dynamic or other high impedance microphones, and another or record player or radio tuner. The inverse leedbeck leature eliminates hum and distortion. Separate bass and treble controls permil variation of tone to individual taste, and also reduce undesirable feedback due to adverse on location" condilions. Amplifier is fused for complete protection against breakdown
All components are carefully matched to assure ercellent periormance and trouble free operation. The complete pystem includes two 12 -inch high fidelity GE PM speakers, system includes two 1 -inch high itdelity GE PM speakers, of 30-10,000 cycles, and a sturdy telescopic floor stand. Each speaker is mounted in one section of the strong, compact labrikoid covered case. 70 teot of epeaker cable ( 35 feet lor each unit) and 20 teet of microphone cable with attached plug are also included. Dimensions of the case while cloeed: $141 / 4 \times 18 \times 23^{\prime \prime}$. Operates on $105-125$ volts, 60 cycles AC. Complete 15-Watt Portable System with Tubes, Amplitier, Dual Speakers, Microphone, Floor Stand, Cables, Case and Instructions. 2N188-Shpg. Wt. 80 lbe.
74.95

Same system as above but with the Shure Model 55 moving coil dynamic mike for better pickup and less foedback. 2N194.
Amplifier Available for 220 V . AC operation by means of atep down transiormer.

## 15-WATT <br> PERMANENT INDOOR SYSTEM

It's easy to set up a Lafayette P.A. system in small dance halle, school auditoriums, churches, gymnasiums, etc. This economy indoor system gives you excellent coverage where the area is no greater than 20,000 square leet. Everything is included for immediate instollation and operation-even cables and plugs are already atiached to apeakers and microphone for fast. simple assembly. You recelve a high quality I5-watt amplitier (see specifications below), two GE high tidelity 12 -Inch PM speakers mounted in iwo handsome each unit), an Astatic IT30 microphone with 20 feet of cable and an adjustable microphone stand. For $105-125$ volts, $50 / 60$ cycles AC.
Complete 15.Watt Permanent Indoor System as described above including tubes. Same syatern as 2 N195, but with Shure Model 55 moving coil dyramic microphone.
2N196...................

## PHONOGRAPH ACCESSORY TOP

The top panel of the Lafayette 15. Watt Amplifier can be removed and replaced by another panel housing a 3 -speed phono motor, turntable and cryatal pickup for playing standard 78 and the new 45 and 334 RPM records. A lono life needle gives true reproduction ol classical and popular music. All connections are made at the rear of the cabine for prolection.
Operates on 110 volte, 60 cycles AC.
15.75


## 15-Wat A mplifter Specifications

OUTPUT
CHANNELS
GAIN
BASS TONE CONTROL
TREBLE TONE CONTROL
HUM AND NOISE
TREOUENCY RANGE
OUTPUT LOAD IMPEDANCESS
TUBES USED
LINE DRAIN
DIMENSIONS
2N189-Amplifier only with tubes. Wt. 27 Ibs.


## CARNIVALS

## afayette 30-watt SOUND SYSTEMS

## POWERFUL PORTABLE MODEL

Lalayette's latest 30 wott portable syatem meets the major portion of all sound applications. It is the Ideal rental system for the publio address user, as well as a most versatile combination for thealres, ouditoriums, school gyms and dance halle where exceptional tone quality and moderately high usable power are roquired. This modern, streamined systom is complete in every detail and surpasses anything oftered to dato.
The amplifior has three input channels with individual gatn controle for noiseless mixing and fading: two high impedance microphone inpuls ond one high impodance phonograph inpul. The separate bass and treble compen. sators insure complete control of tone for individual preferonce and varying acoustical conditions. A pair of $6 L 6$ tubes In a loodbock regulatod push pull circuit deliver 30 watts undistorted power. All connecting loads and cables between amplifier, microphone and speakern have been simplifled to permit fost and eary installation and removal.
Included with this complote systom are two heavy duty, 25watt GE 12 -inch PM speakers which assure full range reproduction of vole or music withoul distortion, o Shure Model 707A-20 high impedance cryatal microphone on on adjuetable floor sland with 20 feet of cable and attached plug, on attractive, two-saction fabrikoid carrying case measuring $18 \times 141 / 5 \times 23^{\circ}$ (with speskers ond amplifier mounted in posttion), 70 teet of speaker eable and attached plugs ( 35 foet toe each untt) already connected. Unit fused ogainst burnout. Complote 30 -Waff Portabte Sound Syotem with amplifter, tubes, microphone and floor stond, two opeakers, cables, case and instructions. Nothing else to buy-ready to operatal
2N197-Shipping Woight 80 lbe
97.50

Similar to above except with Shure Model 55 moving coil dynamic microphone. 2N251.
30.watt Amplifier and Tuben only.
aN250-Shipping Woight 27 lba.
84.80

## 30-WATT INDOOR SYSTEM

This is the permanent sound system especially designed for lerge halls, churches, school gymnasiums, night clubs, oudicoriuma plua a wide variely of installations requiring modium power. The heavy duty puach pull amplifier and Shure Model 707A-20 crystal microphone qive exceptional performance, free from hum and distortion. I wo handeame walnut Hinishod wood woll bafleo provide oorrect acoutice for the fwo 25 watt GE PM spookera. 35 foel of cable and attached plugs are supplied with each speaker unit. A telescopic microphone floor stand adjustable from $35^{\circ}$ to $68^{\circ}$ completes the equipment included with this outstanding eound system.
Complete 30 . Wott Indoor System with amplifier, tuber, two speaters, microphone and floor stand, wall baffles, cables and instructions . . . ready to install and operato.
$2 \mathrm{Nas2}$ Shipping weight 78 lbs.
97.50

Similar to above except with Shure Model 55 moving coil dynamic microphone.
$2 N 263$.
122.80

Above systems avallable for 220 V . AC oferation with atep down transformer.

## ACCESSORY PHONOGRAPH TOP

The top panel of the 30 watt amplifier can be removed and replaced by a substtilute panel housing a 3 -speed phonograph motor, turntable and crystal pickup for playing the standard 78 RPM and now 45 and 33 K PPM long playing records. This aptional equipment, for sither the portoble or indoor system described on this page, provides falthful neproduction of recorded music for all occeasions. The panel is pertoratod beneath the turntable to give maximum voniliaUlan. All connections are located at the reor of the cabinet for protection. For $110 V_{6}, 60$-cycle AC. $2 N 1$ O3-Shipping Welght 9 lbs .
15.75


## 30-WaH Amplifor Specifications

OUTPUT
CHANNELB
GAIN
日ABS TONE CONTRÓL
TREBLE TONE CONTROL
30 watts (4) $5 \%$ or leas distortion, 40 watte Peak
2 Mikes and 1 Phono or 1 Mike and 2 Phonos

HUM AND NOISE.
FREOUENCY RANOEE TUBEs U8ED
OUTPUT LOAD YMPEDANOZS DIMENEIONS.
30-watt Amplitior and Tubes only. aN250-Shipping Woight 27 lbe.

Microphono inputs 120 db , Medium goin inputs 70 db
(9) Minimum gives 10 db oittenuation (on 70 or ......... (as Marimum gives flat respones or (G) Min. Gives 15 db ottenuation (a) $10,000 \mathrm{cp}$ one controls at max. pon.; mike channols down to 60 db
 2-6S57, 1-6SF5, 1-6SC7, 2-6L6G, 1-5V4G i4" $\times 83 j$ "x $93 j$ "; with phono top $111 /{ }^{\prime \prime}$ " high
 SOUND SYSTEMS For Sound Truck \& Indoor Use 6 Volts DC or 110 Volts AC
Really two sound systems for the price of onel Plenty of power for any job-elther modile or indoor. Operates from any \&-volt storage battery or regular 110 -volt, 60 -cycle AC line at full 25 watts from elther supply. Switching from one voltage to the other is automatic-
inerely change the plugs at the rear of the amplifier; nothing to get out of order and cause a burn out. Indoors and out, in any weather, this deluxe moblle system is perfect for rallies, fairs, parades and regular P.A. work. Equipped with rugged, all-weather hermetically sealed prolectors and driver units.
OUTPUT....
$\qquad$ RESPONSE $50-10.000 \mathrm{cps} . \pm 2 \mathrm{db}$. GAIN. Microphone 125 db . Phono 78 db . CONTROLS Two Microphones, Phono, Tone (Separaie ON-OFF swlich) SWITCHES $\qquad$ ON-OFF AC, ON-OFF Phono Motor,

Standby Battery Saver Switch
POWER CONSUMPTION $\qquad$ AC: 120 watts, 6 -volt; DC: 22 amps. THAEE INPUTS.

2 Microphone, 1 Phono PHONO
(2) 6SF5, (2) 7N7, (2) 6L6G 5V4G

DIMENSIONS
Built-in with ON-OFF switch
$12^{\prime \prime}$ wide, $10^{\prime \prime}$ high, $11^{\prime \prime}$ deep
Universal mountings permit placing projectors on top of sound truck, field tripods, speaker platforms, roofs or towers to carry sound clear and strong to point desired. Speaker lines and microphone cable disconnect readily by means of plugs so that enfire system can be amplifier is the battery saver switch which allows you to cut off the plate voltage on 6 -voli DC operation, thereby saving current during idle periods. The amplifier top is equipped with a built-in phonograph motor, turntablo, crystal pickup and ON-OFF switch for playing standard 78 RPM records. Lafayette's one year guaranteo on the amplifier is your assurance of satizfactory service. Complete 25-Watt Mobile System includes amplifier with tubes for 6 -volt DC and 110 volt AC, two 20 -inch high efficiency University Type PH projectors
with driver unile and 35 teet of cable attached to each horn, Shurt 505 C hand microphone with push-to-talk switch and cable, plugs ane the phonograph unit. The entire system is delivered ready for operation. $\qquad$
Complete Mobile System similar to above except with Shure Model 707A-20 microphone instead of the 505C. plus an adjustable floor stand.
2N25S-Shlpping Weight 98 lbs, $\qquad$ 159.95

2N-w att Amplifter only with 78 RPM Phono Top. 2N348-Shipping Weight 45 lbs.
22N20020-Car Top Horn Carrier-Shpg. Wi. 8 lbs.

YOUR SOUND PROBLEM SOLVED
Lafayelte Sound System Engineers will design or recommend sound systems in sizes other than those shown here. Send us your detailed requirements... for help in making the proper selection of mobile sound equipment.
(1) uarantee ALL LAFAYETTE MOBLLE SOUND SYSTEMS ARE FULLY GUARANTEED FOR ONE YEAR

## Caftayette

## DELUXE 60-WATT OUTDOOR SOUND SYSTEM

Lofayette has gone all out to give you a high powered sound system with outstending fine quality features to take care of every type of outdoor application: in ball parks, skating rinks, large auditoriums, stadiums, carnivals and armories. Esfectally large auditoriums, stadiums, carnivals and armories. Esfecially engineered to delliver tremendous power without distortion or loss of tone clarity. This result is achieved through the use of two
807 high power output tubes in place of the conventional 6L6s. 807 high power output tubes in place of the conventional 6L6s.
In addition, four 20 -inch University type PH reentrant reflez In addition, four 20 -inch University type PH reentrant reflex profectors, and 25 -watt driver units step up the elfleiency of this system to such an extent as to make it equivalent to 90 watts in other systems. With these non-resonant storm-proof loudspeakers you can direct sound over long distances in the open air to cover exactly the areas you desire The horns are supplied with 140 feet of speaker cable ( 35 feet for each unit) and universa) brackets to permit mounting on rools, light towers, walls or under eaves of buildings. The high gain, heavy duty amplifier has three inputs: 2 microphone channels and 1 phonograph channel. Its advanced circuit desion features the newest devel opments for outsfanding performance at maximum elficienc opments for outsianding pertormance at maximum elficiency case is finished in neutral green with silver control panel. For 110-115 volts, 60 cycle AC. Complete 60 -Watt Sound Sysiem includes amplitier with tubes, four 20 -inch weather.proo projectors, lour 25 -watt driver units, Astatic JT- 30 crystal mike with cable, adjustable floor atand, plus all necessary connectors and plugs. Entire system shipped ready to set up and operate. aN257-Shipping Weight
229.25

Complete 60 -Watt System similar to above except with Shure Model 55 mike.
MNass-Shipg. We. 150 lbe
257.50
60. Watt Amplifier and Tubes only
$2 N 162$--Shpg. Wi. 60 lbs
Available for 220 V . AC operation with step down transformer.


OUTPUT

## Specifications - 60 Watt Hi-Power Amplifier

and ARA \& INPUTS... 2 Mike Channels 120 db , Phono Channel 85 db FREQUENCY RANGE.................... $2 \mathrm{db}, 30 \cdots 12,000 \mathrm{cps}$ OUTPUT IMPEDANCE. $4,8,15,83$ and 333 ohms -70 and 140 volte TONE CONTROL. ........." "Selectone" Frequency Range Selector TUBES USED.........2-6SF5, 1-6SL7GT, 2 -807, 1 -6VGGT plus

HUM AND NOISE LEVEL HNE DRAIN $1-5 \mathrm{Y} 3 \mathrm{GT}$ and $1-5 R 4 \mathrm{GY}$ rectuiers $120 . . . . .62 \mathrm{db}$ below 60 watte DIMENSIONS
$.17^{*}$ wide. 11 k " deop. 946 "high
60-Walt Ampittier and Tubes only.
aN162-Shpg. Wt. 60 Ibs.
79.38

Here's an all-purpose, low power outdoor system to take care of your P.A. installations in small ball parks, picnic ground or school gymnasiums, Ready to instalt . . . easy to operatel It uses a heary duty 30 watt amplifier with two individually controlled high impedonce raike inputs and one phonograph input. Sepsrato bass and treble controls provide wide variation of tone and adjustment for difterent acoustical conditions. Also featured are push pull 6L6s in an inverse feedback circuit to eliminate hum and distortion
Complete 30 -W att Outdoor System includes amplifier with tubes, two $20^{\prime \prime}$ projectors (Universit Type PH reflex) with 35 foet of cable and plug attached to each, two 25 . watt driver units, Shure cable and plug attached to each, two 25 watt driver units, Shure
$707 \mathrm{~A}-20$ crystal microphone on an adjustable floor stand with 20-ft cable and plug.
2N259-Shipping Weight 88 lbs.
134050
Complete System similar to above except with Shure Model 55 mike.
2N260-Shpg. Wt. 88 lbs
164.45

Accessory Phonograph Top. optional equipment for above amplitiers. 3 -speed motor, turntable and crystal pickup. Playe 331,45 and 78 RPM records.
15.75

## 30-Watt Amplifer Specifications

OUTPUT
30 watts (a) $5 \%$ or leas distortion, 40 watt Peak

CHANNELS 2 Mikes and 1 Phono or 1 Mike and 2 Phonos
INPUT IMPEDȦHOESS. GAIN.
........ All channels are high impodence Microphone inputa 120 db , (c) 3 megohms Medium gain inputs 70 db , (e) 5 megohms BASS TONE CONTROL. ........ ©s) Maximum qives flat responne or TREBLE TONE CONTROL......9 Maximum gives flat response or HUM AND NOISE. (4) Minimum gives 15 db attenuation @ 70 cps . Tone controls in mazimum posilion: Microphone channols 60 db below 30 watts

## FREOUENCY RANGE

 OUTPUT LOAD IMPEDANCES
 30. watt A mplifier and Tubes only.

2N250-Shipping Welaht 27 lbs .
54.50

## MASCO MUSICAL INSTRUMENT PORTABLE AMPLIFIER SYSTEMS

## MASCO 5-WATT ECONOMY MODEL

A complete musical inslrument omplitier system in one lightweight portable case. Ideally sulted for musicians, singers, lecturers, circus barkers and other entertainment applicalions. High quality amplitier and large heavy duty $8^{\prime \prime} \mathrm{PM}$ speaker insures bell-clear musical reproduction Full 5 walts audio output at less than $5 \%$ harmonic distortion for powertul room filling volume. Extremely low hum level assures quiet operation. room tilling volume. Exiremely low hum level assures quiet operation.
Dual channel inputs accommodate any standard electronic instrument Dual channel inpute accommodate any standard electronic insitrument
pickup or microphone; single volume control for simplitiad operation. plekup or microphone; single volume control for simplitiod operation. cations. Hardwood carrying case it sturdily construclad and attractively covered in two-tone blue and gray tabrikold. Complete with tubes. Shpg. Wi. 15 lbs . $2 \mathrm{~N} 338-33.00$ less $2 \%$ cash discount
32.34 POWER OUTPUT. 5 watte ot less than $5 \%$ harmontc distortion INPUTS........................itable for mike or instrument pickup INPUTS
FREOUENCY RESPONSE. . . . . . . . . . . . . $\pm 2 \mathrm{db} 100$ to 8000 CPS ROWER GAIN RESPONSE

POWER GAIN

## TUBES

FUM LEVEL
POWER CONSUMPTION DIMENSIONS.

6SL7GT, 6VGGT, $6 \times 5 \mathrm{GT}$ (Roctifler) 60 db helow output level of 5 watts 30 wats at 117 volte, 60 CPS

## MASCO 18-WATT DELUXE MODEL

Desianod for the discriminotuna musician, this new 18 watt mustic amplifier olters all the latest leatures for the linest musical instrument reproduction. Individual bass ond troble controle vary the overtones from crisp. cleor "hight" to rich mellow "lowe." Amplifier's oxclunive circuit design provides 18 walts of oudio output al less than $5 \%$ harmonic distortion. Heany duty $12^{\circ}$ speaker mounted in acoutitically doeigned caso given ilielike raproduction and eiliminates tales harmonics. Frequency responsee $\pm 2 \mathrm{db}$ from 50 to $12,000 \mathrm{cps}$. Three inst:uments or microphones, or any combination may be used sepparately or simultennoousily by meana of three separate volume controls. Volce and mutic may be comblned with individual volume control of each. Sturdy hardwood case, covered in twotone blue and gray fobrikodd. Complete with tubes. Shpg. Wt. 36 lb. 2N339-97.50 leas $2 \%$ cosh discount.
$\mathrm{Net}^{2} 95.55$
18. Watt Amplifior Speelfications

POWER OUTPUT 18. PEAK POWER. INPUTS

18 watts at less than $5 \%$ distortion 18 watts at less than $5 \%$ distortion Three: Instrument or microphone FREOUENCY RESPONSE. .................... $\pm \mathrm{db} 50$ to $12,000 \mathrm{CPS}$ POWER GAIN, TUBES HMM LEVEL POWER CONSUMPTION VOLTAGE DIMENSIONS
 62 db below output level of 18 watt $105-125$ volts 60 cycles 117 volts ..15\%"x9\% " $18 \%^{\prime \prime}$ high

## MUSICAL CONTACT MICROPHONES

Hi-impedance pickup deaigned for use with any musical instrument. Easily installed withoat apecial strings or chances. The brilliant rounded tone resultina from the use of these plekups far exceed the power of the musical instrument alone. Easy to insiall; will not mar purfaces. \&-toot cable.
4.65

N13746 (A) Less voiume control. Shpg. wt. 4 libs.


MASCO 12-WATT MUSICAL INSTRUMENT AMPLIFIER

A new streamlined desian case incorporates the latest sound engineering echniques to dive you this unusually fine munical instrument amnlifier. Perfect for use by sololists, orchestras, masters of curemony, elc. 12 watts andiatorted output delivered through a 10 -inch heavy duty matched poater, asuures encellent reproduction tones all volume levels
 Hum-iree, simultaneous use of two instruments or two microphones. Fingertip control while playing is conveniently provided on ton of the attractive blue and gray case-volume. tone and With Tubes-Shpg. Wt. 22 lbs.
$2 \mathrm{~N} 343-49.50$ les. $2 \%$ cash discount.

Net 48.51
12. Wett Rmpllfier Specificatione

POWER OUTPUT. . . 12 watts with less than $5 \%$ harmonic distortion NPUTS. Two-sultable for microphone or musical instrument pickup FREOUENCY RESPONSE POWER OAIN.

HUM LEVEL (2) 6SL7GT, (2) 6V6GT, SY3GT (Rectifter) $\ldots .62 \mathrm{db}$ below an output level of 12 watts DIMENSIONS

## MASCO 35-WATT PORTABLE SOUND SYSTEM

The powerful Masco 35 -watt complete portable system is designed to give maximum etficiency and performance in o wide range of applications. It is ideally sulted for use in chopels, recreation halis. side shows, campaigns, night clubs, carnivals, orchestras and various announcing uses. The entire systom is easy to carry and set up-amplifier, apeakers, microphone and cables are all housed in one campect portable case. Many importont leatures and relinements are bullt into the excellently desic nsd high tidelity amplifier. Separate bass and treble equalizer controls make it possible to atientuate or accentuate the high or low frequencles without affecting the opposite frequency range. Four input channels-three mikes and one phono, each with individual volume control, provide extreme versatility. The output is tapped ot various impedances to match any spoaker or speaker combination; selector switch permite easy adjustment. Excelient frequency rerponse is flat within $\pm 2 \mathrm{db}$ from 50 to $15,000 \mathrm{cps}$ for superb reproduction of voice and music. Other "extras" include electronic mixing, humfree operation, negative feodback and o slanted tront panel with convenient "Dial-glo" indirect lighting. Amplitier is housad in attractively styled all-metal cabinel finished in blue and gray

Complete Masco 35-Watt Portable System includes amplifier with tubes, two heavy duty, 25 watt Jensen 12 -Inch PM speakers for equal), each with $25 . \mathrm{ft}$. cable and attached plug, Astatic IT-30 semidirectional crystal mike with $12 \cdot \mathrm{ft}$. cable and connectors and a tine two-section case of solid, non-resonant construction, finished in woter-repellent blue labrikotd. Amplitier mounted on "slide. eosy" boord. Shipped ready for installation and-operation. Shpg. easy board
WL 63 lbe.
2N300-158.07 less $2 \%$ cash discount. ........Net 154.9 Masco Modol MA-35N Amplitier only, with Tuber. 2N303- 93.00 less $2 \%$... Shpq. Wt. 32 lbs ....... 81.14 2N304-Set of Mike and Speaker plugs for sbove
2.13

Meaco Model MA-35RCN Amplifor-Uses the same chassis described above for the MA-35N armplifier but has a builtifin automalic record changer top. With tubes. Will not it in poriable case. Shpg. Wt. S2 libs cash discount unt. . ........ . . . 2N308-Sel of Mike and Speaker plugs for above.

## MASCO 25-WATT MOBILE SOUND SYSTEM

MASCO 25 watt Amplifer Specifications
POWER OUTPUT. . 25 watts, less than $5 \%$ distortion, 40 watts Peak INPUTS FREQUENCY RESPONSE POWER GAIN CONTROLS. . ......... Six: 3 microphone, Phono, Bass, Treble Separate Motor Switch and Battery.eaver Switch TUBES. 4-6I7, 1-6SL7GT, 1-6SC7, 2-6L6G, 2-724 (rectifiers) OUTPUT IMPEDANCES........ 4, 8, 15, 125, 250, 500 ohms HUM LEVEL, AC 64 db below output of 25 wsts POWER CONSUMPTION.AC: 145 watts @ 117 V (Includes phono molor). DC: 23 Amps 6 V (battery) (includes phono motor) VOLTAGE.......105-125 V, 60 cps AC or $6 \mathrm{~V} D \mathrm{DC}$ (storage baltery)

It's portable . . It's mobile . . it operates on etther 117 volt. 60 -cycle AC or 6 voli DC storage batiory. A rugged and powerlul.system especially diesigned for sound truck and other outdoor applications. especialy designed tor sound truck and other outdoor applications. election campaigns, police and fire department rescue work, troveling 30
road shows, bathing beaches and other locations where AC power is Una vallable.
The heart of this complete system is the new high quality amplifier with phonograph top. It operates with equal efficiency on AC or battery. BC operation is ripple-free, assuring undistorted sound. Battery-saver witch shuks off vibrator during intermissions; reduces battery drain to a minimum. Extra heavy duty dual vibrator maintatns sleady voltage and irequency. Four input channels for three mikes and one phono nre provided, each with a seporate volume control.
Complete 25 . Watt Mobile System includes phono top amplifter with tubes, two University Type SMH reflex profectors, each with $35-\mathrm{ft}$ coble and attached plug, two 25 -watt driver units, and Shure Model 505C microphone and coble
2N344-Shipping Weight 118 lbs
179.69

MASCO MODEL MC-25PN. 25 Watt Mobile Amplitier with phono top. Shipping Weight 44 lbs . With tuber.
an332-108.00 less $2 \%$ cath discount . ......... Net 105.84 MASCO MODEL MC-25RC. 25. Wat Mobile Amplifier with tubes and record changer lop. Shpg. Wi. S2 lbs.
2N333-155.00 less $2 \%$ cash disceunt. 151.90. 2N341-Connector Kit tor MC.25PN \& MC-25RC Amplifiers .. 1.50

race tracks:


Specincations, MASCO 50 -Wat Amplifion
POWER OUTPUT. . 50 Watts, Class AB-I-less then $3 \%$ distortion 70 watts
PEEAK POWER...

 $16^{6}$ wide $\$^{105}$ deap

SPDER OUTPUT 75 Wathe Class AB-2
 MOMEREONSUMPTion.
POUERGE. Doutansions

These two po werful high fidelity amplifiers answer the need for top quality pertormance in large commercial and Industrial P.A. Installations. They are suitable lor heavy duty service covering auditoriums, rinks, etc. wherever numerous speakers are negulred. Other fixad system applicallons such as paging and announcing in steel mills, drydocks and heavy construction lobe make these superb instruments excallent for speolal custom jobe requiring tremendous power and good clarity. Both units feature tour mike inpute and one phono input with separate controls for each, Individual bass and treble equalizers and full electranic mixing of all channele. It remote control operation fis desired, used in this ampltier provides independent or simultaneous operation of two mike channels up to 2,000 feet. MASCO MODEL MA-5ON. 50-Watt Amp, and Tubos. Wt. 2 1 Nbs .
2N309-111.00 lese $2 \%$. Not 108.78 MASCO MODEL MA. 50 NR . S0 W. Amp. \& Tubes. Wt. 41 lba 2N310-114.00 legs $2 \%$.......... For remole use. Net 111.72 MODEL RCB, Remote Control Boz for MA-50NR. 2N313-Shipping Weight 3 lbe. . . . . . . . . . . . . . . . . . . . . . 9.00 MASCO MODEL MA-75N, 75-W. Amp. \& Tubes. Wt. 63 lbs . 2N311- 135.00 lese $2 \%$. 100.FI. Cable \& Plugs for Romote Control Box. 2N314-Shipping Woight 2 lbe . . . . . . . . . . . . . . . . . . . . . . 7.08 2N312-Connectors for above amplifiers. . . . . . . . . . . . . . 2.88

MASCO
50 and 75-WATT BOOSTERS

Specifications, MASCO 50-Wat Booster Amplifer
OUTPUT: 50 watt, Class AB-1, less than $5 \%$ distortion. PEAK POWER: 70 watts. INP UTS; 500 ohms bolanced or unbalanced line. FREOUENCY RESPONSE: $\pm 2 \mathrm{db} 50$ to 15,000 çw. POWER GAIN; 46 db . CONTROLS: master gain and separate ON-OFF switch. TUBES: (2) 6SN7G4, 24 (4) 500 ohm. HUM LEVEL: 60 db below output level of 50 watts. POWER CONSUMPTION: 125 watts at 117 volts. VOLTAGE: $105-125$ volte,


Specincalions, MASCO 75-WaH Booster Amplifier
OUTPUT: 75 watta, Class AB-2, less than $5 \%$ distortion. INPUTS: 500 ohms balanced or unbalanced line. FREQUENCY RESPONSE: $\pm 2 \mathrm{db}$ 50 to $15,000 \mathrm{cps}$. POWER GAIN: 47.3 db . CON (2) 6V6GT, (4) 6L6G. 5 eparate (2) 5V4G rectifters. OUTPUT IMPEDANCES: 8, is, 60,125 . 250 ohms. HUM LEVEL: 68 db bolow output level of 75 watts. POWER CONSUMPTION: 250 watt at 117 volt. VOLTAGE: $105-125$ volte, 60 oycles. CABINET: Steel, gray hammertone finish; 17x12x84, high. 2N320-Set of pluge for 50 \& 75 -Watt Amplifier. $\qquad$


## MASCO 28-WATT SCHOOL SYSTEM AMPLIFIER Easy To Install... Modest in Price

Educational institutions, hospitals, clubs and hotels find this excellent sound systern amplifter a valuable addition to their equipment when used in conjunction with an external microphone, phonograph or radio. Especialiy designed to provide efficient control and diatribution of radio programs. phonograph music, lectures and paging to any number of rooms up to 36 , singly, in groups, or all af the same time. Calls may originate trom any room to the master unit when proper interconnecting cable is used. Other features include an indicator for correct volume level, separate volume controls that permit adjustment of calls, and two. way conversallon 10 simplity communlcation. Shpg. Wi. 37 llib. With 2N324-6-room Model 110.70 -less $2 \%$ 2N328-12-room Model 113.70-less $2 \%$ 2N326-18-room Model 116.70 -less $2 \%$ aN327-24-room Model 119.70 -less $2 \%$ 2N345-36-room Model 137.70-less $2 \%$

* We can supply radio. phonograph and microphone attachments to tt your requirements with the School System Amplifier.

Specifications for School System Ampliner

OOWER OUTPUT PEAK POWER PEAK PO

## FREOUENCY RESPONSE

 POWER ORIN CONTROLS28 watts, class AB-1 at less than $5 \%$ distortion External Microph......................... 40 waths

TUBES ................. $\pm 2 \mathrm{db} 50$ to 15.000 CPS ... Separate in and out volume controls; Function selector, "Talk-listen," Master Call, Stats; Function UBES . . . . . 6SC7, 6SL7GT, 6SN7GT, 2-616G 6U5, 5V4G (rectitrol OUTPUT IMPEDANCES. 80 ohm balanced ine, constant voltage HUM LEVEL. ............64 db bolow output level of 28 watt POWER CONSUMPTION.................... 145 walle at 117 volts VOLTAGE CABINETS (Metal).
iss- warts at 117 volts Brown Hammertone. $16^{\circ} \times 9^{\prime \prime} \mathrm{g}^{\prime \prime} \times 13^{\prime \prime}$ high


## MASCO DUAL-SPEED $16^{\prime \prime}$ TRANSCRIPTION PLAYER

Model TLS.16. This new delure model transcription player features a dual apoed motor and two pickup arms each with the GE variable reluctance cartridge and long playing needle. The player is also reluctance cartridge and long playing needle. The player is also ecuipped with a buill-1n pre-amplifier unit. Ideal for reproduction of $16^{*}$
transcriptions as well as the new microgroove records used by broadtranscriptions as well as the new microgroove records used by broad-
casting studios, advertising agencies, lecturers and theatrical oflices. casting studios, advertising agencles, lecturers and theatrical oftices. An external speed regulator adjusts the heavy-duty motor to play 78
or $331 / 310$ and $12^{\prime \prime}$ records. A wide range frequency response 5 watt or $331 / 510$ and $12^{\prime \prime}$ records. A wide range frequency response 5-watt amplifier includes individual bass and treble equalizers that permit accurate tone settings. Separate microphone and phono inputs are provided. The powerful, tine quallty $10^{\prime \prime}$ PM speaker is mounted in the removable cover of the case which serves as an excellent baffle. Sloped-front control panel with drop-leal protecting piece, maties adjustments easior and faster. Handsome, brown alligator tabrikold portable case measures $174 / x^{2} 22 \times 10 \% \%^{\circ}$ closed. For $105-125 \mathrm{~V}$., 60 cycles AC. With Tubos. Shpg Wt. 48 lbe
With Tubes. Shpg Wt. 48 lbe
Net 17.14
Model TP16AL. Same as above but with crystal cartridges in the dual
pickups. Shpg. Wt. 431 lbs.
$35 N 22670-108.80$ less $2 \%$
pickups, Shpg. Wt. 43 lbs.
$35 \mathrm{~N} 22670-108.80$ less $2 \%$
Net 106.62

## UNIVERSITY "POWERMIKE" SOUND SYSTEM

Here is a new, complete voice-amplitied sound system that has no vacuum tube amplifier. It operates on any 6 -volt batiery (standard dry cells or storage) and delivers $11 / 2$ watts of undis. lotied audio power. The Powermike is an extremely rugged carbon microphone, designed to qive troublefree performance over years of use. This compact, portable sound system covers small crowds or projects sound up to 100 feet. It can he used any place... instantly. Merely press the button switch and talk. Gives excellent voice reproduction in such applications as electioneering, dispatching, announcing and paging, building construction, fire lighing, railroad platiorms, etc. A etgarette !ighter adaptor may be plugged into the dashboard of an automobile for tmmediate 6 -voli avallability. Polarity can be disregarded since the outer container of the Powermike is isolated from the wiring. Frequency response: $100-5000$ cycles. Output impedance $2-4$ ohms. In addition to the microphone, the system includes a waterproof, unit-driven reflex speaker mounted on the battery housing, and a $6-\mathrm{fi}$. cond.
2N426-Shipping Weight 8 lbs. 20N20710--Hot Shat Battery for above. Wi. $101 / 2 \mathrm{lbs}$.
35.28

# NEW MASCO "Con-fer-phone" INTERCOM SYSTEMS 




## MASTER TO REMOTE 5-STATION SYSTEM

-ON-OFF Swltch and Volume Control on Master Station

- Two-Way Conversation Possible with kenote
- Separate Press-To-Talk Swltch on Remote and Master Units
- Kemote Calls to Master ...Privacy Assured

Here's a popular type intercoin system with a single master station that has provision for five remote stations. Especially adaptable for industrial and commercial use - In plants, schools, offices and wherever there is need for private in-ter-office conversation between a chief executive and a maximum of five subordinates. The master station includes a press-to-talk switch, station selector, volume control and ON-OFF switch for instant contact between it and the five stations...elther all at once or any selected one. Press-Totalk feature on remote stations permits it to originate calls to the master and at the same time assures privacy of conversation. Clear, natural volce reproduction. Both units are versation. Clear, natural volce reproduction. Both units are enclosed in matching unbreakable cast aluminum hous ings inished in attractive wainut hammertone. Dimensions: $65 / 8 x$
$71 / 8 \times 5^{1 / 4}$. Shpg. Wt of mester, 6 lbs ; the remote, $31 / 4 \mathrm{lbs}$. $7.1 / 8 \times 51 /{ }^{\prime \prime}$. Shpg. Wt of
For 110 volts AC or DC.
Type JM5-Master Station, Complete with Tubes.
$2 \mathrm{~N} 391-22.50$ less $2 \%$ cash discount............Net..... 22.05 Type JR-Remote Stalion.
2N392-7.65 less $2 \%$ cash discount...............Net............. 7.50 3-Conductor Cable for above Intercom System. 19N16148-Per 100 ft...1.26................Net, Per ft......... $11 / 28$


MASCO MODEL JMR 2-WAY SYSTEM

- Easy To Install and Operate
- Complete - Nothing Else To Buy

A complete two-station intercom system witn one master and one remote. Ideal as baby "nurse or for communication between any two points. Includes 50 foet of 3 -conductor cable and complete instructions for easy installation. Plug into light socket, connect the two stations with the cable and it's ready to operate. The master has its own volume control, ON-OFF swltch and press-to-talk switch. Remote station also has a press-totalk switch for originating its own call and to provide privacy if desired. Units are suitable for use as a two-way paging system. Unbreakable cast alumbnum housings finished in walnut hammertone. Size: $65 / 8 x$ $71 / 8 \times 514^{\prime \prime}$. For 110 volts. AC or DC. U/L approved. Complete system with tubes and cable. Shpg. Wt. 10 lbs.
2N389-25.50 less $2 \%$ cash discount...........Net.... 24.99
Type JMRW-Same as above except units finished in white. 2N390-27.00 less $2 \%$ cash discount............Net............ 26.46 Additional cable for the above systems.
19N16134-Per 100 ft ...1.76................Net, Per ft......... . 02

## MASCO ALL•MASTER INTERCOM SYSTEM

- No Cross Talk
- Instant Selection of One
or All Niaster Stations
- Press-To-Talk Switch - Unbreakable Cast Alumlnum fiousing

For less leg work and fast action, here's a flexible, modern system that features a total of six master stations. Provides instant communlcation between a master and five other masters. Eacth unit can converse two-way with any or all masters in the system. They all have a press-to-talk switch, station selectot and volume control with ON-OFF switch. The specially designed 3 -tube amplifiers and matching $A 1$ nico $V$ PM speakers give sharp, clear reproduction of volce with ample sensitivity. Dimensions: $65 / 8 \times 71 / 8 \times 51 /{ }^{\prime \prime}$. For 110 volts, 60 cycles AC. U/L approved. Shipping Weight 6 lbs.
Type 1 M5. Complete Master Station With Tubes.
2N393-22.50 less $2 \%$ cash discount....Net, Each...22.05 7-Conductor Cable for use with as many as six master stations.
19N16093-Per 100 ft... 7.20.............Net, Per ft............. . . 08 5-Conductor Cable for use with as many as four master statlons
19N16091-Per 100 ft...5.40..............Net, Per ft............. . . 06


## 6 OR 12-STATION PUSH-BUTTON SYSTEM

A deluxe intercom system that can be installed as a Master-To-Master-To-Remde Intermix System, a Mas-ter-To-Master or Master-To-Remote installation. Master and remote units can be intermixed. Femotes can originate calls. Individual or group conversction is possible, Units have press-lo-talk switch and volume controls; press-to-talk and "dictate" position on mas. ter stations. Walnut hammertone enamel case. 110 volts, AC or DC operation. Shpg. Wi. 8 lbs. 12-Station Master Unit
2N395-40.77 less $2 \%$ cash discount..... Net........... 39.95 6 -Station Master Unit
2N394-34.77 less $2 \%$ cash discount.... Net................. 34.07
Type JS-6 Kémote Station. With 6-position master selector
and call switch. Shpg. Wh. $31 / 4$ lbs.
2N398-11.97 less $2 \%$ cash discount.....Net................. 11.73
Type JS Remote Station with Call Swltch
2N397-8.40 ess $2 \%$ cash discoun $\qquad$
Type JL Remote Station less call switch \& selector
2Ni396-7 65 less $2 \%$ cash discount.....Net.........................
.. 7.50
19N16134-Master-to-JL-Remote cable....................... . 02/ft
19N20867-Master-to-JS or JS6-Kemote shiclded cable .04/ft
Note: To connect Master to Master use one pair of twisted for each master in the system.
3-Pair for 2 or 3 Masters.
19N16138-Per ft. .05................... 100 ft........................ 4.12
6-Pair for up to 6 Masters.
19N16140-Per ft. .07..........
$13-\mathrm{Pafr}$ for up to 12 Masters.
$19 \mathrm{~N} 16180-\mathrm{Per}$ ft. . 20................... 100 ft...................... 18.00


## RCA <br> R RECEIVING TUBES

We stock both of the leading national brands. Your guarantee of line Tubes may be assorted to get quantity prices. You will be given the quality is backed by two of the most tamous names in the field of elec. tronics, RCA and GE. All tubes dre quaranteed for six months excepl benefit of any price reductions becoming effective after the publication against burnouts and breakage.

There is a $5 \%$ additional discount on lots of 50 or more assorted RCA or GE tubes.

| Tube Type | List Price | NET EACH |  | Type Tube | $\begin{aligned} & \text { List } \\ & \text { Price } \end{aligned}$ | NET EACH |  | Tube Type | List Price | NET EACH |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lots 19 | Lots 10 |  |  | Lots 19 | Lots 10 |  |  | Lots 19 | Lots 10 |
| OA2 | 3.20 | 1.79 | 1.69 | 5Y4G | 1.50 | . 84 | . 79 | 6L6G | 2.00 | 1.62 | 1.54 |
| OA3/VR75 | 2.65 | 1.48 | 1.40 | 523 | 1.80 | 1.01 | . 95 | 6 LT | 2.40 | 1.34 | 1.27 |
| OA4G | 2.65 | 1.48 | 1.40 | 524 | 2.65 | 1.48 | 1.40 | 6L7G | 2.90 | 1.62 | 1.54 |
| OC3/VR105 | 2.65 | 1.48 | 1.40 | 643 | 3.20 | 1.79 | 1.69 | 6N7 | 2.40 | 2.34 | 1.27 |
| OD3/VR150 | 2.65 | 1.48 | 1.40 | 6A4/LA | 3.20 | 1.79 | 1.69 | 6N7GT | 2.40 | 1.34 | 1.27 |
| OY4 | 4.80 | 2.68 | 2.54 | 6A6 | 2.65 | 1.48 | 1.40 | 697 | 2.00 | 1.12 | 1.06 |
| OZ4 | 1.65 | . 92 | . 87 | 6 67 | 2.00 | 1.12 | 1.06 | 6 676 | 1.80 | 1.01 | . 95 |
| OZ4G | 1.65 | . 92 | . 87 | 648 | 2.00 | 1.12 | 1.06 | 697GT | 1.80 | 1.01 | . 95 |
| 143 | 2.20 | 1.23 | 1.16 | 6A8G | 2.00 | 1.12 | 1.06 | $6 \mathrm{R7}$ | 2.65 | 1.48 | 1.40 |
| 1A4P | 3.90 | 2.18 | 2.06 | 6A8GT | 2.00 | 1.12 | 1.06 | 6R7GT | 2.65 | 1.48 | 1.40 |
| 1A5GT | 1.80 | 1.01 | . 95 | 6AB5 6N5 | 2.65 | 1.48 | 1.40 | 657 | 2.65 | 1.48 | 1.40 |
| 146 | 3.20 | 1.79 | 1.69 | 6AB7/1853 | 3.20 | 1.79 | 1.69 | 657G | 3.20 | 1.79 | 1.69 |
| 1A7GT | 2.00 | 1.12 | 1.06 | 6AC5GT | 2.90 | 1.62 | 1.54 | 6S8GT | 2.65 | 1.48 | 1.40 |
| 1B3GT/8016 | 2.65 | 1.48 | 1.40 | 6AC7/1852 | 2.90 | 1.62 | 1.54 | 6547 | 1.65 | . 92 | . 87 |
| 184P | 3.90 | 2.18 | 2.06 | 6AD7G | 3.20 | 1.79 | 1.69 | 6SATGT | 1.65 | . 92 | . 87 |
| 185/25S | 3.20 | 1.79 | 1.69 | 6AF6G | 2.65 | 1.48 | 1.40 | 6S87Y | 2.40 | 1.34 | 1.27 |
| 1C5GT | 2.20 | 1.23 | 1.16 | GAG5 | 2.65 | 1.48 | 1.40 | $65 C 7$ | 2.00 | 1.12 | 1.06 |
| $1 \mathrm{C6}$ | 3.20 | 1.79 | 1.69 | 6AG7 | 3.20 | 1.79 | 1.69 | 6SF5 | 1.65 | . 92 | . 87 |
| 1 CTG | 3.20 | 1.79 | 1.69 | 6AH6 | 3.90 | 2.18 | 2.06 | 6SF5GT | 1.80 | 1.01 | . 95 |
| 1D5GP | 3.90 | 2.18 | 2.06 | 6AK5 | 3.90 | 2.18 | 2.06 | 6SF7 | 2.00 | 1.12 | 1.06 |
| 1D7G | 3.20 | 1.79 | 1.69 | 6AK6 | 2.40 | 1.34 | 1.27 | 6SG7 | 2.00 | 1.12 | 1.06 |
| 1D8GT | 3.90 | 2.18 | 2.06 | 6AL5 | 2.00 | 1.12 | 1.06 | 65H7 | 2.20 | 1.23 | 1.16 |
| 1E5GP | 3.90 | 2.18 | 2.06 | 6AL7GT | 2.65 | 1.48 , | 1.40 | 6517 | 1.65 | . 92 | . 87 |
| 1F4 | 2.65 | 1.48 | 1.40 | 6405 | 2.00 | 1.12 | 1.06 | 6SJ7GT | 1.65 | . 92 | . 87 |
| 1F5G | 2.65 | 1.48 | 1.40 | 6A Q6 | 1.80 | 1.01 | . 95 | 6SK7 | 1.65 | . 92 | . 87 |
| $1 F 6$ | 3.90 | 2.18 | 2.06 | 6A97GT | 2.20 | 1.23 | 1.16 | 6SK7GT | 1.65 | . 92 | . 87 |
| 1F7G | 3.90 | 2.18 | 2.06 | 6AS7G | 6.75 | 4.53 | 4.53 | 6SL7GT | 2.40 | 1.34 | 1.27 |
| 1G4GT | 2.65 | 1.48 | 1.40 | 6AT6 | 1.50 | . 84 | . 79 | 6SN7GT | 2.20 | 1.23 | 1.16 |
| 1G5G | 2.65 | 1.48 | 1.40 | GAUG | 2.00 | 1.12 | 1.06 | 6SQ7 | 1.50 | . 84 | . 79 |
| 1G6GT | 2.65 | 1.48 | 1.40 | 6AV6 | 1.50 | . 84 | . 79 | 6SQ7GT | 1.50 | . 84 | . 79 |
| 1H4G | 2.20 | 1.23 | 1.16 | 6846 | 3.20 | 1.79 | 1.69 | 6SR7 | 1.80 | 1.01 | . 95 |
| 1H5GT | 1.65 | . 92 | . 87 | 685 | 3.20 | 1.79 | 1.69 | 6557 | 1.80 | 1.01 | . 95 |
| 1H6G | 3.20 | 1.79 | 1.69 | 6B6G | 2.20 | 1.23 | 1.16 | 6517 | 2.65 | 1.48 | 1.40 |
| 1/6GT | 3.20 | 1.79 | 1.69 | 6B7 | 3.20 | 1.79 | 1.69 | 6527 | 2.20 | 1.23 | 1.16 |
| 1L4 | 2.00 | 1.12 | 1.06 | 6B8 | 3.20 | 1.79 | 1.69 | 6T7G | 3.20 | 1.79 | 1.69 |
| 1LA4 | 2.65 | 1.48 | 1.40 | 6B8G | 3.20 | 1.79 | 1.69 | 678 | 2.90 | 1.62 | 1.54 |
| 1LAG | 2.65 | 1.48 | 1.40 | 6BA6 | 1.80 | 1.01 | . 95 | 6U5/6G5 | 2.00 | 1.12 | 1.06 |
| 1LB4 | 2.65 | 1.48 | 1.40 | 68E6 | 1.80 | 1.01 | . 95 | 6U7/G | 1.80 | 1.01 | . 95 |
| 1LC5 | 2.65 | 1.48 | 1.40 | 6BF6 | 1.65 | . 92 | . 87 | 6V6 | 3.20 | 1.79 | 1.69 |
| 1LC6 | 2.65 | 1.48 | 1.40 | 6BG6G | 4.80 | 2.68 | 2.54 | 6V6GT | 2.00 | 1.12 | 1.06 |
| 1LD5 | 2.65 | 1.48 | 1.40 | 6BH6 | 2.00 | 1.12 | 1.06 | 6W4GT | 1.80 | 1.01 | . 95 |
| 1LE3 | 2.65 | 1.48 | 1.40 | 68J6 | 2.00 | 1.12 | 1.06 | 6W7G | 2.65 | 1.48 | 1.40 |
| 1LH4 | 2.65 | 1.48 | 1.40 | $6 \mathrm{C4}$ | 1.65 | . 92 | . 87 | $6 \times 4$ | 1.50 | . 84 | . 79 |
| 1LN5 | 2.65 | 1.48 | 1.40 | $6 \mathrm{6C5}$ | 1.65 | . 92 | . 87 | $6 \times 5$ | 2.65 | 1.48 | 1.40 |
| 1N5GT | 2.00 | 1.12 | 1.06 | 6C5GT | 1.65 | . 92 | . 87 | 6X5GT | 1.50 | . 84 | . 79 |
| 1P5GT | 2.65 | 1.48 | 1.40 | 6C6 | 2.00 | 1.12 | 1.06 | 6Y6G | 2.40 | 1.34 | 1.27 |
| 195GT | 2.65 | 1.48 | 1.40 | 6C8G | 3.20 | 1.79 | 1.69 | 627G | 3.90 | 2.18 | 2.06 |
| 1 R 4 | 2.65 | 1.48 | 1.40 | 606 | 1.65 | . 92 | . 87 | 62Y5G | 2.20 | 1.23 | 1.16 |
| 1R5 | 2.00 | 1.12 | 1.06 | 6D8G | 3.20 | 1.79 | 1.69 | 7A4/XXL | 1.80 | 1.01 | . 95 |
| 154 | 2.40 | 1.34 | 1.27 | $6 E 5$ | 2.20 | 1.23 | 1.16 | 745 | 1.80 | 1.01 | . 95 |
| 155 | 1.80 | 1.01 | . 95 | $6 F 5$ | 1.65 | . 92 | . 87 | 7 7A6 | 1.80 | 1.01 | . 95 |
| 1174 | 2.00 | 1.12 | 1.06 | 6F5GT | 1.65 | . 92 | . 87 | 747 | 1.80 | 1.01 | . 95 |
| 175GT | 2.65 | 1.48 | 1.40 | 6F6 | 2.00 | 1.12 | 1.06 | 748 | 1.80 | 1.01 | . 95 |
| 104 | 2.00 | 1.12 | 1.06 | 6F6G | 1.65 | . 92 | . 87 | 74 Cl | 2.20 | 1.23 | 1.16 |
| 105 | 1.80 | 1.01 | . 95 | GF6GT | 1.65 | . 92 | . 87 | 7B4 | +1.80 | 1.01 | . 95 |
| 1 V | 2.20 | 1.23 | 1.16 | $6 F 7$ | 3.20 | 1.79 | 1.69 | 785 | 1.80 | 1.01 | . 95 |
| 2 A3 | 3.20 | 1.79 | 1.69 | 6F8G | 3.20 | 1.79 | 1.69 | 786 | 1.80 | 1.01 | . 95 |
| $2 A 5$ | 2.20 | 1.23 | 1.16 | 6G6G | 2.65 | 1.48 | 1.40 | 787 | 1.80 | 1.01 | . 95 |
| $2 A 6$ | 2.65 | 1.48 | 1.40 | 6H6 | 1.65 | . 92 | -. 87 | 788 | 1.80 | 1.01 | . 95 |
| 287 | 2.65 | 1.48 | 1.40 | 6H6GT | 1.65 | . 92 | . 87 | 7 CS | 1.80 | 1.01 | . 95 |
| 2 ES | 2.65 | 1.48 | 1.40 | $6 J 5$ | 1.50 | . 84 | . 79 | $7 \mathrm{7C6}$ | 1.80 | 1.01 | . 95 |
| 2 V 3 G | 5.25 | 2.93 | 2.93 | 6J5GT | 1.50 | . 84 | . 79 | $7 \mathrm{C7}$ | 1.80 | 1.01 | . 95 |
| $2 \times 24$ | 4.35 | 2.43 | 2.30 | $6 J 6$ | 2.90 | 1.62 | 1.54 | 7E6 | 1.80 | 1.01 | . 95 |
| 3 LFA | 2.65 | 1.48 | 1.40 | 6.7 | 2.00 | 1.12 | 1.06 | 7 7E7 | 2.20 | 1.23 | 1.16 |
| 304 | 2.20 | 1.23 | 1.16 | 6.J7G | 2.00 | 1.12 | 1.06 | $7 F 7$ | 2.20 | 1.23 | 1.16 |
| 395GT | 2.40 | 1.34 | 1.27 | 637GT | 2.00 | 1.12 | 1.06 | 758 | 2.65 | 1.48 | 1.40 |
| 354 | 2.00 | 1.12 | 1.06 | 6K6GT | 1.50 | . 84 | . 79 | 7G7/1232 | 2.65 | 1.48 | 1.40 |
| $3 \mathrm{~S}_{4}$ | 2.00 | 1.12 | 1.06 | $6 K 7$ | 1.65 | . 92 | . 87 | 7H7 | 2.00 | 1.12 | 1.06 |
| ${ }_{5 T 4}$ | 3.90 1.50 | 2.18 | 2.06 | 6K7G | 1.65 | . 92 | . 87 | 737 | 2.65 | 1.48 | 1.40 |
| 5U4G | 1.50 | . 84 | . 79 | 6K7GT | 1.65 | . 92 | . 87 | 7 L 7 | 2.20 | 1.23 | 1.16 |
| 5 V 4 G | 2.40 | 1.34 | 1.27 | 6 K 8 | 2.40 | 1.34 | 1.27 | 7N7 | 2.20 | 1.23 | 1.16 |
| $5 W^{4}$ | 2.65 | 1.48 | 1.40 | 6K8G | 2.90 | 1.62 | 1.54 | 707 | 1.80 | 1.01 | . 95 |
| SW4GT | 1.65 | . 92 | . 87 | 6K8GT | 2.40 | 1.34 | 1.27 | $7 \mathrm{F7}$ | 2.20 | 1.25 | 1.16 |
| $5 \times 4 \mathrm{G}$ | 1.80 | 1.01 | . 95 | 6L50 | 2.65 | 2.48 | 1.40 | 757 | 2.65 | 1.48 | 1.40 |
| 5 Y 3 GT | 1.05 | . 59 | . 56 | 6 L 6 | 3.55 | 1.98 | 1.88 | TV7 | 2.65 | 1.48 | 1.40 |

# RCA and GE RECEIVING TUBES 

| Tube Type | $\begin{aligned} & \text { List } \\ & \text { Price } \end{aligned}$ | NET EACH |  |
| :---: | :---: | :---: | :---: |
|  |  | Lots 19 | Lots 10 |
| 7W7 | 2.65 | 1.48 | 1.40 |
| 7X7/XXFM | 2.65 | 1.48 | 1.40 |
| $7 \mathrm{Y4}$ | 1.80 | 1.01 | . 95 |
| 724 | 1.80 | 1.01 | . 95 |
| 10 | 3.90 | 2.18 | 2.06 |
| 1247 | 3.20 | 1.79 | 1.69 |
| 12A8GT | 2.00 | 1.12 | 1.06 |
| 12AH7GT | 2.65 | 1.48 | 1.40 |
| 12AL5 | 2.00 | 1.12 | 1.06 |
| 12AT6 | 1.50 | . 84 | . 79 |
| 12477 | 2.90 | 1.62 | 1.94 |
| 12AU6 | 2.00 | 1.12 | 1.06 |
| 12AU7 | 2.40 | 1.34 | 1.27 |
| 12AV6 | 1.50 | . 84 | . 79 |
| 12AW6 | 2.65 | 1.48 | 1.40 |
| 12AX7 | 2.40 | 1.34 | 1.27 |
| 128A6 | 1.80 | 1.01 | . 95 |
| 128D6 | 2.00 | 1.12 | 1.06 |
| 128E6 | 1.80 | 1.01 | . 95 |
| 12 C 8 | 3.20 | 1.79 | 1.69 |
| 12F5GT | 1.80 | 1.01 | . 95 |
| 12H6 | 1.80 | 1.01 | . 95 |
| 12J5GT | 1.50 | . 84 | . 79 |
| 12J7GT | 2.00 | 1.12 | 1.06 |
| 12K7GT | 1.65 | . 92 | . 87 |
| 12K8 | 2.40 | 1.34 | 1.27 |
| 12Q7GT | 1.80 | 1.01 | . 95 |
| 12547 | 1.65 | . 92 | . 87 |
| 12SA7GT | 1.65 | . 92 | . 87 |
| $125 C 7$ | 2.20 | 1.23 | 1.16 |
| 125F5 | 1.80 | 1.01 | . 95 |
| 12SF7 | 2.00 | 1.12 | 1.06 |
| 12SG7 | 2.00 | 1.12 | 1.06 |
| 12SH7 | 2.20 | 1.23 | 1.16 |
| 12517 | 1.65 | . 92 | . 87 |
| 12SJ7GT | 1.65 | . 92 | . 87 |
| 12SK7 | 1.65 | . 92 | . 87 |
| 125K7GT | 1.65 | . 92 | . 87 |
| 12SL7GT | 2.40 | 1.34 | 1.27 |
| 12SN7GT | 2.20 | 1.23 | 1.16 |
| 12597 | 1.50 | . 84 | . 79 |
| 12SQ7GT | 1.50 | . 84 | . 79 |

Federal Miniature Selenium Rect.
 Designed to last the life of the set. Instant starting and low operating temp. 2 soldering terminals. Rectifiers may be connected as a doubler to supply 250 . from 3450 A and 438 D 3428 A designed for television.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | MA | List Price | Each | Lots/6 Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 37N10558 | 402D3452A | 65 | 1.10 | . 65 | 58 |
| 37N10559 | 402 D 3150 A | 75 | 1.30 | 76 | 68 |
| 37N10561 | 403D2625A | 100 | 1.60 | 94 | 84 |
| 37N10562 | 403D2787A | 150 | 1.95 | 1.15 | 1.03 |
| 37N10563 | 404D2705A | 200 | 2.25 | 1.32 | 1.19 |
| 37 N10564 | 404D3450A | 250 | 2.50 | 1.47 | 1.32 |
| 37N10557 | 438D3 328 A | 500 | 3.80 | 2.23 | 2.01 |

AIII
Raythean Sub-Miniature Tubes
Extremely campact, flat tubes. Lower voliage batteries can be used because of the low filament drain. Tubes can be ether coldered or plugged into socket Types with (*) use 5 -prong socket; ( $\dagger$ ) 6 -prong; and ( $\ddagger$ ) 7 -prong.

| Stock No. | Type No. | Each |
| :---: | :---: | :---: |
| 37N24961 <br> 37N24963 <br> 37N24965 <br> 37N24967 | $\begin{aligned} & \text { 2E32* } \\ & \text { 2E36 } \\ & \text { 2E42 } \\ & \text { 2G22 } \end{aligned}$ | $\begin{aligned} & 1.56 \\ & 1.88 \\ & 1.56 \\ & 1.56 \end{aligned}$ |
| Hearing Aid Tubes |  |  |
| 37N24968 37N 24969 37N24970 37N24972 | $\begin{aligned} & \text { CK502AX } \\ & \text { CK503AX } \\ & \text { CK505AX } \\ & \text { CK507AX } \end{aligned}$ | $\begin{aligned} & 1.88 \\ & 1.88 \\ & 1.88 \\ & 1.88 \end{aligned}$ |
| $\begin{aligned} & \text { 37N24973 } \\ & \text { 37N24974 } \\ & \text { 37N24976 } \end{aligned}$ | CK510AX CK512AX* CK522AX* | $\begin{aligned} & 3.15 \\ & 1.88 \\ & 1.88 \end{aligned}$ |


| Tube Type | $\begin{aligned} & \text { List } \\ & \text { Price } \end{aligned}$ | NET EACH |  |
| :---: | :---: | :---: | :---: |
|  |  | Lots 19 | Lots 10 |
| 12SR7 | 2.20 | 1.23 | 1.16 |
| 1223 | 2.65 | 1.48 | 1.40 |
| 1444 | 2.65 | 1.48 | 1.40 |
| 1445 | 3.90 | 2.18 | 2.06 |
| 14 A 7 | 2.20 | 1.23 | 1.16 |
| 14AF7/XXD | 2.20 | 1.23 | 1.16 |
| 1486 | 2.20 | 1.23 | 1.16 |
| 14B8 | 2.20 | 1.23 | 1.16 |
| 14 C 7 | 2.20 | 1.23 | 1.16 |
| 14E6 | 1.80 | 1.01 | . 95 |
| 14 F 7 | 2.20 | 1.23 | 1.16 |
| 14 F 8 | 2.65 | 1.48 | 1.40 |
| $14 \mathrm{H7}$ | 2.20 | 1.23 | 1.16 |
| 1457 | 2.65 | 1.48 | 1.40 |
| $14 \mathrm{N7}$ | 2.65 | 1.48 | 1.40 |
| 1407 | 2.20 | 1.23 | 1.16 |
| 14R7 | 2.20 | 1.23 | 1.16 |
| 19 | 3.20 | 1.79 | 1.69 |
| 1978 | 2.90 | 1.62 | 1.54 |
| 24 A | 2.20 | 1.23 | 1.16 |
| 2546 | 3.20 | 1.79 | 1.69 |
| 25 L 6 | 3.20 | 1.79 | 1.69 |
| 25L6GT | 1.65 | . 92 | . 87 |
| 2525 | 1.50 - | . 84 | . 79 |
| 2526 | 2.20 | 1.23 | 1.16 |
| 2576GT | 1.35 | . 75 | . 71 |
| 26 | 1.80 | 1.01 | . 95 |
| 27 | 1.50 | . 84 | . 79 |
| 30 | 2.00 | 1.12 | 1.06 |
| 31 | 2.65 | 1.48 | 1.40 |
| 32 | 3.55 | 1.98 | 1.88 |
| 33 | 3.20 | 1.79 | 1.69 |
| 34 | 3.20 | 1.79 | 1.69 |
| 35 | 2.00 | 1.12 | 1.06 |
| 35 A5 | 1.80 | 1.01 | . 95 |
| 3585 | 2.00 | 1.12 | 1.06 |
| 35L6GT | 1.65 | . 92 | . 87 |
| 35W4 | 1.25 | . 70 | . 66 |
| 35 Y 4 | 1.80 | 1.01 | . 95 |
| 3523 | 1.80 | 1.01 | . 95 |
| 35Z4GT | 1.50 | . 84 | . 79 |
| 3525GT | 1.25 | . 70 | . 66 |
| 36 | 2.65 | 1.48 | 1.40 |

RCA AND GE TV PICTURE TUBES


| RCA No. | GE No. | Type | Each |
| :---: | :---: | :---: | :---: |
| 36N24911 |  | 5BP4 | 22.50 |
| 36N24912 | 36N24680 | 5 TP 4 | 59.40 |
| 36N24915 |  | 7DP4 | 23.80 |
| 36N24922 | 36N24682 | 7JP4 | 16.88 |
|  | 36N24683 | 8 AP4 | 16.50 |
| $36 N 24917$ |  | $9 \mathrm{AP4}$ | 57.60 |
| 36N24918 | 36N24684 | 10 PP 4 | 27.50 |
|  | 36N24685 | 10FP4 | 33.25 |
| 36N24919 |  | 12 AP 4 | 66.00 |
|  | 36N24688 | 12 KP 4 | 36.45 |
| 36N24923 | 36N24689 | 12 LP4 | 34.40 |
| 36N24924 | 36N24690 | 16 AP4 | 55.88 |

## Sylvania IN34 <br> Diode Detector

 $\square$ 를
Efficient HF operation to 100 MC . Use in TV recelvers as second detector or DC resistor, in FM circuits as frequency discriminator. $1 /{ }^{\prime \prime}$ 29N13858-Single Diode IN34...... 29N13859-Dual Diode IN35.

Cinch Sockets For Sub-Miniature Tubes
For hearing adds, radio controlled model alrplanes, etc. Molded form, mica-filled, low-loss bakelite with silver plated beryllium copper contacts. 5 -prong sockels fit 4 -prong tubes.

| Stock No. | Type No. | Contacts | Each |  |
| :---: | :---: | :---: | :---: | :---: |
| $13 N 1316$ | $2 H 5$ |  | 5 | .22 |
| $13 N 11117$ | $2 H 6$ |  | 6 | .23 |
| $13 N 13118$ | $2 H 7$ |  | 7 | .24 |


| Tube Type | List Price | NET EACH |  |
| :---: | :---: | :---: | :---: |
|  |  | Lots 19 | Lots 10 |
| 37 | 1.80 | 1.01 | . 95 |
| 38 | 2.20 | 1.23 | 1.16 |
| 39/44 | 2.65 | 1.48 | 1.40 |
| 41 | 1.65 | . 92 | . 87 |
| 42 | 1.65 | . 92 | . 87 |
| 43 | 1.65 | . 92 | . 87 |
| 45 | 1.65 | . 92 | . 87 |
| 4523 | 1.80 | 1.01 | . 95 |
| 4525GT | 1.80 | 1.01 | . 95 |
| 46 | 2.65 | 1.48 | 1.40 |
| 47 | 2.40 | 1.34 | 1.27 |
| 50 | 3.90 | 2.18 | 2.06 |
| 5045 | 2.20 | 1.23 | 1.16 |
| 50B5 | 2.00 | 1.12 | 1.06 |
| 50L6GT | 1.65 | . 92 | . 87 |
| 50 Y 6 GT | 1.80 | 1.01 | . 95 |
| 53 | 2.65 | 1.48 | 1.40 |
| 55 | 2.20 | 1.23 | 1.16 |
| 56 | 1.80 | 1.01 | . 95 |
| 57 | 2.00 | 1.12 | 1.06 |
| 58 | 2.00 | 1.12 | 1.06 |
| 59 | 3.55 | 1.98 | 1.88 |
| 70L7GT | 3.90 | 2.18 | 2.06 |
| 71 A | 2.00 | 1.12 | 1.06 |
| 75 | 1.65 | . 92 | . 87 |
| 76 | 1.65 | . 92 | . 87 |
| 77 | 1.65 | . 92 | . 87 |
| 78 | 1.65 | . 92 | . 87 |
| 79 | 2.65 | 1.48 | 1.40 |
| 80 | 1.15 | . 64 | . 61 |
| 81 | 3.90 | 2.18 | 2.06 |
| 82 | 2.65 | 1.48 | 1.40 |
| 83 | 2.65 | 1.48 | 1.40 |
| 83 V | 3.20 | 1.79 | 1.69 |
| 84/624 | 1.80 | 1.01 | . 95 |
| 85 | 2.20 | 1.23 | 1.16 |
| 89 | 2.20 | 1.23 | 1.16 |
| 117L7/M7GT | 3.90 | 2.18 | 2.06 |
| 117N7GT | 3.90 | 2.18 | 2.06 |
| 117P7GT | 3.90 | 2.18 | 2.06 |
| 11723 | 1.50 | . 84 | . 79 |
| 11726GT | 2.40 | 1.34 | 1.27 |

## LAFAYETTE SPECIAL

Fully Guaranteed High Ouality TV Picture Tubes at Real Rock Bottom Prices

| Slock No. | Type No. | Each |
| :---: | :---: | :---: |
| 36N24980 | 10BP4 | 23.95 |
| 36N24981 | 12 LP 4 | 29.95 |
| 36N24983 | 15AP4 | 43.50 |
| 36N24984 | 16FP4 | 44.70 |

DUMONT

| Slock No. | Type | Each |
| :---: | :---: | :---: |
| 36N24954 | $120 \mathrm{~N}_{4}$ | 34.75 |
| 36N24955 | 12 RP 4 | 34.00 |
| 26N24956 | 15 DP 4 | 53.50 |
| 36N24953 | 20BP4 | 222.75 |

RCA SALES PROMOTIONAL AIDS
Free promolional aids when ordered with tube quantitles shown.

| Stock No. | $\begin{aligned} & \mathrm{RCA} \\ & \text { No. } \end{aligned}$ | Description | Each | No. Tuhes |
| :---: | :---: | :---: | :---: | :---: |
| 23N19963 | RC-15 | RCA Tube Mantal. | . 35 | 10 |
| 23N19986 | PG-101 | Powerand Gas Tube Manual. | . 10 | 5 |
| 23N19984 | 1275-D | Tube Char. Booklet. | . 10 | 5 |
| 23N18801 | 2F366 | Triple Pindex. | . 75 | 20 |
| 23N18800 | 1 F9940 | RCA Resistor Code Pencil. | 1.49 | 50 |
| 23N18807 |  | RCA Dumny Cartons. |  |  |
| 23N18806 | 2F420 | Service Decal. | Free |  |

# INDUSTRIAL-TRANSMITTING-SPECIAL PURPOSE TUBES 

RCA and GE tubes are manutactured with the most modern, high-precision equipment, and are pretested to insure long trouble free service. They are fully guaranteed by the world's two larget manulacturers.

As one of the largest distributers of RCA and GE tubes, we carry a complete stock of industrial, transmitting, and special purpose tubes. If the particular type that you want is not listed please write for a quotation.

| RCA |  | Type | GE |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Each |  | No. | Each |
|  |  | OB3/ | 36N24568 | 1. |
| 36N24803 | 2.25 | 1 C 21 |  |  |
| 36N24804 | 29.00 | 2 C 40 | 36N24572 | 29.00 |
| 36N24805 | 29.00 | 2 C 43 | 36N24573 | 29.00 |
| 36N24806 | 2.00 | 2D21 | 36 N 24574 | 2.00 |
| 36N24807 | 5.10 | 2E24 | 36 N 24575 | 5.10 |
| 36N24808 | 3.85 | 2 E 26 | 36 N 24576 | 3.85 |
| 36N24811 | 5.80 | $3 \mathrm{B25}$ |  |  |
| 36N24812 <br> 36N24813 | $\begin{aligned} & 12.50 \\ & 15.00 \end{aligned}$ | 3 C 23 3 D 22 | 36N24580 | 12.50 |
|  |  |  |  |  |
| 36 N 24943 36 N 24944 | $\begin{aligned} & 24.50 \\ & 37.50 \end{aligned}$ | $\begin{aligned} & 4 \mathrm{E} 27 \\ & 4-250 \mathrm{~A} \end{aligned}$ |  |  |
|  |  | /5D22 |  |  |
| 36 N 24945 36 N 24946 | 48.00 | 4X150A |  |  |
| 36 N 24946 36 N 24814 | 110.00 | 4 X 500 A |  |  |
| 36N24814 | 27.50 | 4-125A | 36N24582 | 27.50 |
|  |  | /4D21 |  |  |
| 36N24815 | 1.50 | 5R4GY | 36N24583 | 1.50 |
| 36N24816 | 1.75 | 6AG7Y |  |  |
| 36N24818 | 8.05 | 614 |  |  |
| 36N24886 | 159.50 | 7 C 24 |  |  |
| 36N24819 | 1.95 | 109 |  |  |
| 36N24820 |  |  | 36N24588 | 13.75 |
| 36N24885 | 115.00 | 204A | ........ |  |
| 36N24821 | 13.75 | 211 | 36N24589 |  |
| 36N24822 | 4.30 | 801 A | 36 N 24590 | 3.75 |
| 36N24823 | 4.75 | 802 | 36 N 24591 | 4.75 |
| 36N24947 | 24.25 | 803 |  |  |

## RCA PHOTO TUBES

Noted for their high quality and long operating life. High vacuum and gas filled type. No grid.

| Stock No. | RCA Type | Each |
| :--- | :--- | :--- |
| 36N24925 | 1P21 | 50.00 |
| 36N24926 | 1P22 | 14.75 |
| 36N24927 | $1 P 28$ | 15.50 |
| 36N24928 | 1P29 | 2.95 |
| 36N24929 | $1 P 37$ | 2.85 |
| 36N24930 | $1 P 39$ | 1.85 |
| 36N24931 | $1 P 40$ | 1.85 |
| 36N24932 | $1 P 41$ | 2.80 |
| 36N24933 | $1 P 42$ | 5.70 |
| 36N24843 | 868 | 2.50 |
| 36N24848 | 917 | 3.50 |
| 36N24849 | 918 | 3.10 |
| 36N2450 | 919 | 3.50 |
| 36N24851 | 920 | 4.15 |
| 36N24852 | 921 | 2.05 |
| 36N24853 | 922 | 1.95 |
| 36N24854 | 923 | 2.05 |
| 36N24855 | 925 | 2.40 |
| 36N24856 | 926 | 2.90 |
| 36N24857 | 927 | 2.50 |
| 36N24858 | 929 | 1.50 |
| 36N24859 | 930 | 1.65 |
| 36N24860 | $931 A$ | 9.75 |

RCA CATHODE RAY TUBES
Incorporate all the recent improvements in material and design

| RCA |  | Type |
| :---: | :---: | :---: |
| No. | Each |  |
| 36N24905 | 10.55 | 2AP1A |
| 36N24906 | 9.60 | 2BP1 |
| 36N24907 | 14.25 | 3AP1A |
| 36N24908 | 14.50 | 3KPI |
| 36 N 24909 | 22.50 | 5BP1A |
| 36N24910 | 23.25 | 5 CPIA |
| 36 N 24913 | 17.75 | 5UPI |
| 36N24914 | 30.75 | 7 CPI |
| 36N24895 | 32.25 | $7 \mathrm{CP4}$ |
| 36N24920 | 15.50 |  |
| 36N24921 | 47.50 | 5527 |
| 36N24934 | 85.00 | $1816 \mathrm{P}_{4}$ |

[^1]| RCA |  | Type | GE |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Each |  | No. | Eac |
| N24948 | 17.50 | 80 |  |  |
| N24824 | 13.50 | 805 | 36N24592 | 13. |
| 36N24949 | 34.25 | 806 |  |  |
| $\begin{aligned} & 36 N_{24825}^{3} \\ & 36 N 24826 \end{aligned}$ | $2.50$ | 807 | 36N24593 | 2.50 |
|  |  |  |  |  |
| N24827 | 4.00 | 809 | 36N245 | 4.00 |
| 36N24828 | 14.50 | 810 | 36N2459 | 14.50 |
| 36N24829 | 3.30 | 811 | 36N24597 | 3.30 |
| 36N24830 | 4.05 | $8: 2 \mathrm{~A}$ | 36N24598 | 4.05 |
| 36N24831 | 16.00 | 813 | 36N24599 | 16.00 |
| 36N24832 | 14.25 | 81 |  |  |
| 36, 24833 | 6.90 | 815 | 36N24601 | 6.90 |
| 36N24834 | 1.65 | 816 | 36N24602 | 1.30 |
| 36N24835 | 12.50 | 826 | 36N24603 | 12.50 |
| 36N24836 | 13.75 | 828 | 36N24604 | 13.75 |
| 30N | 16.25 | 829B | 36N24605 | 16.25 |
| 36 N 24838 | 12.90 | 832A | 36N24606 | 11.75 |
| 36N24887 | 49.50 | 833A |  |  |
| 36N24896 | 9.00 |  |  |  |
| 36N24839 | 5.80 | 837 | 36N 24607 | 4.75 |
| 36 N 24840 | 4.35 |  |  |  |
| 36N24888 | 2.00 | 843 |  |  |
| 36N24841 | 13.75 | 845 | 36N24609 | . 75 |
| 36N24889 | 138.00 | 849 |  |  |
| 36N24890 | 209.00 | 857B |  |  |
| 36N24891 | 11.50 | 865 |  |  |
| 36N24842 | 1.95 | 866A |  | 1.95 |
| 36N24844 | 8.20 | $872 A$ | 36N24612 | 8.20 |
| 36 N 24845 | 12.75 | 878 |  |  |
| 36N24846, | 1.85 | 884 | 36N246 | 1.85 |

RCA TELEVISION CAMERA TUBES
High-quality camera tubes designed and built to meet the rigid requirements of Television broadeasting.

| Stock No. | Type No. | Des | Eac |
| :---: | :---: | :---: | :---: |
| 36N24935 | 2P | Im | 1200 |
| 2938 | 5655 | Image Orthicon | 1300.00 |
| N24937 | 5769 | Image Orthico | 1200.00 |
| 36N24900 | 5820 | Image Orthico | 1200.00 |
| 36N24938 | 1848 | iconoscope | 500.00 |
| 36N24939 | 1850-A | Ico |  |
| 36N24921 | 5527 | Iconoscope | 47.50 |
| 36N24940 | 2 F 21 | Monoscope | 105.00 |
| 36N24941 | 5 FP 4 | Mosopo |  |
|  |  | KInescope | 41.75 |

TV TRANSMITTER AMPLIFIER TUBE
Designed and engineered to meet exacting specifications. Please specify desired channel when ordering.
36N24942 | Model RCA 8D21 | 1300.00

## SYLVANIA SPECIAL PURPOSE TUBES

 Sylvania special purpose stro-
botron tubes are used in the botron tubes are used in the
measurement of speed of revolving machinery and studying them while in motion. No Filament voltage is required.
The Electrollash tube, when used with suitable equipment, provides a brilliant flash of daylight intensity with a duration of only $1 / 5000$ seconds. Permits sharp clear shots of all subjects, day or night. Good for 10,000 flashes. Trigger tubes are used to control high voltage required for photoflash tubes, welders, etc.

| No. | Type | Each |
| :---: | :---: | :---: |
| 36N24990 | 1D21/SN4 Strobot | 0 |
| 36 N 24992 | R-4350 Strobotr | 12.00 |
| 36 N 24993 | R-4330 Electroflash | 15.80 |
| N24994. | R-4340 Electroflas | 45.00 |
| N24995 | OA5 Trigger T | 4.40 |
| 96 | X-6090 lonization | 2.00 |

## THEATRE EXCITER LAMPS

For Sound-on-Film. 31/8* long. 1" dia. Single-contact bayonet base No. Type Volts Amp. Ea.



| RCA |  | Type | GE |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Each |  | No. | Each |
| 36N24847 | 2.00 | 885 | 36N24615 | 2.00 |
| 36N24861 | 5.65 | 954 | 36N24629 | 5.65 |
| 36N24862 | 3.60 | 955 | 36N24630 | 3.60 |
| 36N24863 | 6.30 | 956 | 36N24631 | 6.30 |
| 36N24864 | 3.75 | 957 | 36N24632 | 3.75 |
| 36N24865 | 6.25 | 958A |  |  |
| 36N24866 | 7.40 | 1603 | 36N24634 | 7.40 |
| 36N24867 | 3.00 | 1612 | 36N24635 | 3.00 |
| 36N24892 | 2.05 | 1614 |  |  |
| 36N24868 | 6.60 | 1620 | 36N24636 | 6.60 |
| 36N24893 | 2.15 | 1621 |  |  |
| 36N24869 | 2.30 | 1622 | 36N24637 | 2.30 |
| 36N24870 | 4.05 | 1623 | 36N24638 | 4.05 |
| 36N24871 | 4.00 | 1624 | 36N24639 |  |
| 36N24872 | 2.65 | 1625 | 36N24640 | 2.65 |
| 36N24873 | 1.85 | 1626 |  |  |
| 36N24874 | 1.40 | 1629 | 36N24642 | 1.40 |
| 36N24875 | 3.10 | 1851 | 36N24643 | 2.90 |
| 36 N 24876 | 1.85 | 2050 | 36N24644 |  |
| 36N24878 | 7.40 | 8005 | 36N24646 | 7.40 |
| 36N24894 | 8.20 | 8008 |  |  |
| 36N24879 | 15.50 | 8012A | 36N24647 | 15.50 |
| 36N24880 | 10.30 | 8013A | 36N24648 | 10.30 |
| 36N24897 | 22.00 | 8020 |  |  |
| 36N24898 | 10.00 | 8025A |  |  |
| 36N24881 | 3.10 | 9001 | 36N24649 | 3.10 |
| 36N24882 | 2.50 | 9002 | 36N24650 | 2.50 |
| 36N24883 | 3.10 | 9003 | 36N24651 | 3.10 |
| 36N24884 | 1.60 | 9006 | 36N24652 | 1.60 |

## RCA SPECIAL RED TUBES

Spectally designed for critical industrial applications. 10,000 hour life. Sturdy construc. tion, uniformity and stability. Specifications similar to 6SL7GT, 6SN7GT and 6SI7 re. spectively. Send for tree RCA Red Tube Bullespectively. Send for tree RCA Red Tube Bulle-
tin. RCA SRB-1002 tin, RCA 5RB-1002
23N19926.

| Stock No. | RCA Type | Each |
| :---: | :---: | :---: |
| 36N24904 | 5691 | 7.75 |
| 36N24933 | 5692 | 7.75 |
| 36N24902 | 5693 | 6.40 |

## GE INDUSTRIAL TUBES IGNITRONS

High peak current gas-filled tubes with mercury pool cathode. Supply heavy current for use in spot or seam welding. Use in place of rotating machinery for changing AC to DC.

| No. |  | G-E Type |
| :---: | :---: | :---: |
| 36N24776 | GL-415 | Each |
| 36N24777 | FG-271 | 74.00 |
| 36N24778 | FG-235A | 110.00 |
| $36 N 24779$ | FG-258A | 241.00 |

## GE THYRATRONS

Grid-controlled gassous discharge rectifior tubes with one or more grids to control the starting of the plate current. Run D-C motors directly from AC lines and hold desired motor speed constant.

| Stock No. | G-E Type | Each |  |
| :---: | :---: | :---: | :---: |
| 36N24784 | FG-97 |  | 22.00 |
| 36N24785 | FG-17 | 1.00 |  |
| 36N24786 | FG-27A | 21.00 |  |
| 36N24787 | FG-33 | 21.00 |  |
| 36N24788 | FG-57 |  | 19.50 |
| 36N24789 | FG-95 | 23.00 |  |
| 36N24790 | FG-105 | 48.00 |  |
| 36N24791 | FG-172 | 65.00 |  |

## GE PHOTOTUBES

Gas-filled and high-vacuum type. No grid.

| No. | G-E Type | Each |
| :---: | :--- | :--- |
| 36N24780 | P.J22 | 2.20 |
| 36N24781 | P-J23 | 2.50 |
| 36N24782 | IP29/F401 | 2.95 |
| 36N24783 | GL-441 | 4.50 |

Television Pictures Tubes Are on Page 35

## PILOT LAMPS AND SOCKETS

FULL-VIEW NEON PILOT LIGHT


Plastic head, bullt-in resistor for 110 volts. Uses NE5I neon bulb. Head unscrews to replace $7 / 16^{\prime \prime}$ in front of panel. With mitg. nut and washer, threaded $11 / 16-27$.
10N14181-Red Hd. 10N14182-Amber Hd. 10N14183-Opal Hd.
Any color above, Each.
88

## I" ENCLOSED PILOT LIGHT

Single unit socket assombly unaffected by heat. Porcelain and brass. For standard S6 lamp. emovable from front of panel. Single $1^{\prime \prime}$ mtg. Faceted jewels. U.L. Iisted.


10N14140-Red Jewel. 10N14141-Green Jewel. Either type
944

## MINIATURE PANEL LIGHT



For panel mitg. S.C. Min. Bay. Base. Mis.in $1 / 3^{4}$ hole. With $12^{\prime \prime}$ lead, nut and washer.-
10 N6436-Each. ...................... $38 \%$

## RELIANCE POLISHED CHROME BULL'S-EYES

Takes candelabra base bulbs type S-6. For panels up to $1 / 2^{\prime \prime}$ thick, $1^{\prime \prime}$ diameter glass jewel with set of 4 color discs-red, green, amberand white. Jewel bezel.
10N14174-Each. 10N14175-As above, with Red or Green facetod 1



## $1 / 2^{\prime \prime}$ AND $1 / 4^{\prime \prime}$ JEWEL PILOT BRACKETS

For amplifiers, transmitters, etc. All have faceted jewels, highly polished nickel plated steel brakets. Standand jewelled brackets have $3 / 2^{\prime \prime}$ jewel requiring a $7 / 16^{7}$ mounting hole. Jumbo brackets have a $8 / /^{\prime \prime}$ jewel, requiring a $11 / 16^{\circ}$ hole. Avallable with Candelabra 110V. Miniature Bayonet and Screw base sockets.

| Base Type |  | Green | Ea. 1 | Red |  | Amber 1Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assembly with | Min. Screw | 10N6433 | 19t | 10N6432 |  | 10N6434 194 |
| 1/2" lewel. | Min. Bay. | 10N6456 | 19t | 10N6454 | 19t | 10N645819 |
| Brackets. | Candelabra | 10N6427 | $21+$ | 10 N 6426 | 21p | 10N6428 21 t |
| Assembly with | Min. Screw | 10N6330 | 35¢ | 10N6331 | 35t | 10N6332 35 t |
| 3/4" Jewel | Candelabra | 10N6333 | 38¢ | 10N6334 | 35 k | 10 N 6335 35c |
| RUBBER DIAL LIGHT |  | NTAL |  |  |  |  |
| For miniature in hard. | and can reach |  |  |  |  |  |

PORCELAIN RECEPTACLES FOR NEON GLOW LAMPS


Mounting hole spacing all types is
10N13387 requires $11 / 16^{\prime \prime}$ socket holo in addition to mig. hole.


## 2-CONTACT CAND. BAY. METAL SHELL SOCKETS

(A) Base Mtg. Type: Bakelite base.
 screw terminals. $1-7 / 16 \times 1-5 / 16^{\prime \prime}$

10N13332-Base (B) Flush Me........ 48 plus mitg. holes $11 / 4$ "apart. 10N13389-Flush.


## 5

PILOT LIGHT SOCKETS MINIATURE, CANDELABRA, BAYONET BASE


## GIANT I" JEWEL BRACKETS

1" diameter faceted jewels. Candelabra takes 3 or 6 watt 110 volt bulb.

| Color | Candelabra Base | Miniature Base | Bayonet Base | Each |
| :---: | :---: | :---: | :---: | :---: |
| Red <br> Opal <br> Green <br> Amber | 10N6403 <br> 10N6321 <br> 10N6322 <br> 10N6323 | 10N6404 10N6324 10N6325 10N6326 | 10N6405 10N6327 10N6328 10N6329 | 594 |

## GE NEON GLOW LAMPS



For use in test instruments. On DC, only negative electrode glows. All except $1 / 2$-watt types operate on 105-125 volts AC or DC and require minimum starting voltages (approx.) 65 on AC, 90 on DC. $1 / 2$-watt minimum starting voltage 105 -recommended for AC only. Clear glass ex-

| Stock No. | Watts | NE No. | Bulb | Base | Start AC | Volts DC | Each | $\begin{aligned} & 10 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 N 12266 | 1 | NE30 | G10 | A | 60 | 85 | 40¢ | 3.60 |
| 10N1226? | 2 | NE34 | S14 | A | 60 | 85 | $50 ¢$ | 4.50 |
| 10 N 12263 | 2 | NE34 | Sl4 | A | 60 | 85 | 506 | 4.50 |
| 10N12276 | 3 | NE40 | S14 | A | 60 | 85 | 60¢ | 5.40 |
| 10N12264 | , | NE45 | T41/2 | B | 65 | 90 | 40¢ | 3.60 |
| 10N12215* | 1/25 | NES! | T314 | C | 65 | 90 | 10¢ | . 90 |
| 10N12216* | 1/25 | NE2 | T2 | D | 65 | 90 | $8 ¢$ | . 72 |
| 10N12268* | $1 / 4$ | NE48 | T41/2 | E | 65 | 90 | 35 | 3.15 |
| 10N12269* | $1 / 2$ | NE29 | G10 | E | 105 |  | 45d | 4.05 |
| 10N12270* | , | NE32 | G10 | E | 60 | 85 | 45t | 4.05 |
| 10N12271* | 2 | NE26 | S14 | F | 60 | 85 | 65d | 4.95 |
| 10N12209* | $1 / 4$ | NE7 | T41/2 | D | ... | 70 | 314 | 2.79 |

Basen: A: Standard Edison. B: Candelabra screw. C: S.C. Min. Bay D: Wire terminals. E: 2-Cont. Bay. F: Sk. D.C. Bay. Cand.
genuine ge.mazada pilot light bulbs

|  | ${ }^{2}$ |  |  | Both pilot and flashlight type bulbs are listed below. 6-8 volt bulbs are for 6.3 voltrecelvers. Bead colors aid in recenvers. Bead coliors aid inidenting bulb types. G-E Mazda bulbs are standard in most makes of radios. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tubular Bulb, Miniature Screw Base (A) |  |  |  |  |  |  |
| Stock No. | Type | Bead Color | Volts | Amp | Each | 10 For |  |
| 10 |  |  | 2.0 | 06 | 15 | 99 d | 8.91 |
| 10N |  |  |  |  | $10 ¢$ |  |  |
| 10N12254 | 40 |  | 6 | 15 | $10 ¢$ | 67 | 5.94 |
| 10N12252 | 46 | Blue | 6 -8 | 25 | 10 d | 67 ct | 5.94 |
| Tubular Bulb, Miniature Bayonet Base (B) |  |  |  |  |  |  |  |
| 10N12260 |  | White |  |  |  |  |  |
| 10N12259 | 49 | Pink | 2.0 | . 06 | 156 | 996 | 8.91 |
| 10N12217 | 1490 | Whit | 3.2 | . 16 | 11 ct | $73 ¢$ | 6.57 |
| 10N122 | 44 | Blue | a | . 25 | 10c | 678 | 5.94 |
| 10N1228 | 47 | Brow | 6.8 | 15 | 10¢ | 67 c | 5.94 |
| 10N1221 | 313 | No Bead | 28 | 17 | 288 | 1.98 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 10N12261 | 51 |  | 6.8 |  | 8 8 |  | 4.41 |
| 10N12285 | 55 | White | 6.8 | 40 | 8 ¢ | 49\% | 4 |

## FLASHLIGHT AND MISCELLANEOUS BULBS

G.31/6 (C) is smail round. G.41/2 is loe. round. TL-3 (E) is lens bulb. P-31/2 (not illustrated) is pre-focused miniature flange type bulb.

| Stock No. | Type | Bulb | Bead Color | Volts | A mps. | Ea. | $\begin{gathered} 10 \\ \text { For } \end{gathered}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10N12200 | 13 | G-31/6 | Green | 3.8 | 30 | $10{ }^{\text {c }}$ | 67 e | 5.94 |
| 10N12201 | 14 | G-31/2 | Blue | 2.5 | 30 | 10\% | 67 ct | 5.94 |
| 10N12202 | 605 | G-41/2 | Brown | 6.0 | 50 | 11 e | 73 e | 6.59 |
| 10N 12203 | 222 | TL3 | White | 2.2 | . 25 | 10¢ | 67 c | 5.94 |
| 10N12204 | 112 | TL-3 | Plak | 1.1 | 22 | 104 | 67 ¢ | 5.94 |
| 10N12205 | 233 | G. 31 | Purple | 2.3 | 27 | 10¢ | 67¢ | 5.94 |
| 10 Nl 2206 | PR2 | P.31/2 | Blue | 2.4 | . 50 | 14 e | 93 c | 8.37 |
| 10N12207 | PR3 | P-31/2 | Green | 3.6 | . 50 | 14. | 936 | 8.37 |
| 10N12208 | 263X | G-31/9 | Blue | 2.6 | . 30 | 10 c | 66 et | 5.94 |
| 10N12219 | 1446 | G-312 | No Bead | 1.2 | 20 | 15 é | 996 | 8.91 |

120-VOLT PILOT LAMPS
$110-120 \mathrm{~V}$. pilot lights for replacements.

| Stock No. | Type | Description | Watts | Each |
| :---: | :---: | :---: | :---: | :---: |
| 10N12257 | S-6 | Candelabra baso | 6 | 16 d |
| 10N12210 | S-6 | DC Bay. base | 6 | 26 |
| 10N12211 | S-6 | Candelabra base | 3 | 25 |
| 10N12212 | S-6 | DC Bay base | 3 | $35 ¢$ |
| 10N12213 | T.61/2 | Candelabra base | 10 | 16 é |
| 10N12275 | C-7 | Cone-shape frost. Candelbra base | 7 | 11\% |
| 10N12280 | C-7 | Cone-Shape clear |  |  |
| 10N12272 |  | Tubular Candel. base | 7 4 | 118 |

## FRONT REMOVABLE

 JEWEL BRACKETMounts in "110" hole. $1 / 2$ " jewel removeable; bull can be replaced from

| Min. Screw Base | Min. Bayonet Base | Color | Esch |
| :---: | :---: | :---: | :---: |
| 10N6416 | 10N6408 | Red |  |
| 10 N 6418 | 10N6410 | Armber | 29 |
| $10 N 6417$ $10 N 6425$ | $10 N 6409$ $10 N 6411$ | Green <br> Opal | 274 |

## SHURE MICROPHONES AND ACCESSORIES



MODEL 55 - "UNIDYNE"
SuperCardiold, uni-directionel moving coil dynamic, with new "Shure Uniphrase" princ1ple. For public address and recording. Flat response from 40 to $10,000 \mathrm{cps}$. Impedance response irom 40 to $10,000 \mathrm{cps}$. Impedance lection of Low Medium or High impedance. lection of Low. Medium or High impedance. -56.8 db . into $150-250$ ohms, and -57.5 db . into 35,000 ohms. Tilting head adjustment. Complete with 25 ft . of cable and connector plug. Shpg. Wt: $41 / 2$ lbs.
14N13689-List Price $\$ 67.50$. Net 39.69

## MODEL 556 "BROADCAST"

Super-Cardiold type unl-directional moving coil dynamic microphone. Uni-directional characteristic obtained by "Shure Unlphase" principle. Especially designed and tested to meet the requirements of the broadcast studio. Random nolse pickup reduced $73 \%$. Spring suspended in case to reduce mechan ical vibration pickup. Frequency response
from 40 to 10,000 cps. Switch at rear of cose for selection of Low. Medium ar of case pedance. Output $-56^{\circ} .1 \mathrm{db}$ at $35-50$ hms -56.8 db . at $150-250$ ohms and -57.5 db a 35,000 ohms. Tilling head adjustment with 7 ft . cable and connector. Shipping Welght: $41 / 2$ pounds. 14N13562-List Price $\$ 92.50$. Net 54.39

## MODEL 51 "SONODYNE"



High output, semi-directional pressure dynamic microphone. For general purpose use with public address systems, amateur transmilters, general communications, recording and paging systems. Operates on the principle of moving coil element in a magnetic fleld. Peak-free frequency response from 60 $10,000 \mathrm{cps}$. Selector switch at front of case for choice of outputs, -53 db . at $35-50$ ohms, -52.5 db . at $150-250$ ohms or -52.0 db . at high-impedance. Rich pearl Gray finished case, designed to provide improved acoustl cal pertormance and modern appearance. Complete with 20 ft . of cable and one cable
connector. Shpg. Wi: 5 lbs.
14 N13432-List Price $\$ 39.75$..Net 23.37

## MODEL 7rOA - "REX"



Semi-directional. Low-cost, dependable, handheld, crystal mike. Ideal for Hams, P.A. systems and as replacement for home recording unlis. Excellent volce reproduction. Frequency response 60 to 6000 cps . Output -50 db . Burgundy red metalic finish. With stand adapter and 7 -ft cable.
Shpa. Wt. Shpg. Wt. $11 / 2 \mathrm{lbs}$.
14N13627-List Price $\$ 10.00$.
5.88

4N13628-As above, but with "ON-OFF" switch.
7.06

## MODEL 707 A CRYSTAL MIKE

Semindirectional. High-impedance, mechanically isolated, moisture proofed Bimorph crystal. Suitable for amateur phone transmitters, P.A. equipment and call sysiems. Good response for general voice and music reproductlon. Output -51 db . Pearl mray finish and chrome qrille. With $7-\mathrm{ft}$. cable. Shipping
Weight $1 / 4 \mathrm{lbs}$.
14N13630-List Price $\$ 14.50 \ldots$ Net.. 8. 53 As above, but Weight: 2 ibs. 14Ni3430-List t Price $\$ 16.00 \ldots . .$. Net.
9.41


MODEL 737 A "MONÖPLEX"
Uni-directional. Super Cardiod wide-range crystal, dlaphragm type, allows highly satis iactory operation under adverse conditions conventional mikes would be useless. High impedance. Excellent for high quality P.A., communications, recording, etc. Response 60 to $10,000 \mathrm{cps}$. over wide range angle at front. Output -54 db . With $20-\mathrm{ft}$. cable and connector; swivel head. Satin-chrome finlsh. Shipping Welght: 4 lbs.
14 N13431-List Price $\$ 39.75$.. Net 23.37

## MODEL 768 LAPEL MICROPHONE

Designed for public address, lecturing, portable transmitters and all general uses for intelliqible reproduction of speech. Heavy lapel clip at rear or case permits user to move freely and have both 40 to $6,000 \mathrm{cps}$. High-Impedance. Frequency response 40 to $6,000 \mathrm{cps}$. High-Impedance.
High frequencles accentuated for maximum clarity. Pressure ture sealed Grapholl Bimorph crystal. Output -57 db . Dla $1-7 / 8 \%$. With lapel clip, 25 ft . cable. Shpq. Wt: 1 lb . 14N13638-List Price $\$ 27.00$.

# ASTATIC - ELECTRO-VOICE - TURNER - AMPERITE MICROPHONES <br> ASTATIC T-3 CRYSTAL MIKE 

Highly practical for studio set-ups, with amateur rigs, intercom systems, P.A. installations and quality recording purposes. Microphone head can be tilted for semi- or nondirectional use. Output level -52 db ; frequency response substantially uniform from $30-10,000$ cycles. Supplied with interchangeable plug and socket connector, and 25-ft cable. Attractive all chrome finish. Shpg. Wi: 3 pounds.
14N13670-List price $\$ 27.35 \ldots$ Net.. 16.08 Model GT-3. As above with Grip-to-Talk Stand. Shpg. Wt: 5 lbs. I4Ni3525-List Price $\$ 32.85 \ldots$ Net.. 19.32

## ASTATIC "VELVET VOICE" CRYSTAL MIKE



Model 200. Convertible type, high impedance unit providing wide range response. Detachable base makes it easy to use as a desk, hand or floor stand mike to meet practically every need. Output level -52 dbi response $30-10,000 \mathrm{cps}$. Beautiful gold finish case and handle with bright chrome grille. 15-ft shielded cable. Shpg. Wi: $11 / 2$ lbs.
14 Ni3364-List Price $\$ 13.95 \ldots$ Net... 8.20
Model 200-S. As above but with ON-OFF switch. Shpg. Wt: 1/2lbs.
14N13365-List Price $\$ 15.00$...Net....... 8.82


## ASTATIC MULTI-UNIT MIKE

Model WR-40. A specially designed high quality mike, recommended for studio, P. A. and recording purposes. Due to a special interior design this microphone is practically transparent to sound waves and cannot be acoustically overloaded. Able to handle up to $200-\mathrm{ft}$. cable with negligible loss of output. Substantially flat frequency response up to 10,000 cycles. Output level -56 db. Bright chrome finish with satin chrome grille. Supplled with $25-\mathrm{ft}$. cable. Shipping Welght: 4 lbs .
14N13425-List Price $\$ 43.25 \ldots$ Net... 25.43

## ELECTRO-VOICE CARDAX MIKE



Model 950. Moisture-sealed crystal element. High impedance, cardioid microphone with new Mechanophase principle provides true cardiold uni-directional pickupand relativeyhigh gain. Selector switch varies response for hi-fidelity sound pickup or extra crispness of speech. Output -57 db . on flat curve, -48 db . on $\mathrm{r}\{\mathrm{sing}$ curve. Compact rugged construction for indoor or outdoor use. Tilling head. Built-in on-off switch. Satin chromium finish. With $20-\mathrm{ft}$. cable, plug. Shpg. Wt: 4 lbs.
14N13720-List Price $\$ 39.50$.. Net.
23.23

ELECTRO-VOICE "MERCURY" CRYSTAL MIKE
Model 911-20. Adds smartness and utillty to economical P.A. and paging systerns, recording equipment, ham rigs. Substantially lat response, $50-8000 \mathrm{cps}$. with an output level of -50 db . Can be used with any standard amplifier using high impedance input. High capacity crystal fully enclosed for greater moisture protection. Tiltable head; ON-OFF switch. With 20-ft. cable and built-in connector. Durable satin chromium inish. Shpg. Wi: $31 / 2 \mathrm{lbs}$.
14 N13447-List Price $\$ 24.00$..Net. . 14.11

## "MERCURY" DYNAMIC MIKE

Model 611-20. Features exclusive "acoustalloy" - withstands. high humidity and temperature extremes. Response 50-8000 cps, substantially tlat output -53 db . Matches any input: $\mathrm{HI}-\mathrm{Z}, 50,150,250$ or 500 ohms. ON-OFF switch; illtable head. 20-ft cable and built-in connector. Finished in satin chromium. Shpg. Wt: 4 lbs.
14 N 13448 -List Price $\$ 31.00$
18.23

## LAFAYETTE-CONCORD CONTACT MIKES



Excellent volce performance, especially suited for amateur, home recording and P.A. systems. Output level -52 db providing ample reserve for use with high gain amplifiers. Supplied complete with concentric cable connector, wood handle, interlocking metal base and 15-ft cable. Wood handle can be removed and mike used on floor stand. Substantially flat response. Opalescent gray finish with bright chrome grille. Shipping Weightr 4 lbs.
14Ni3427-List Price $\$ 16.95 \ldots$..Net......9.97

## ASTATIC CERAMIC MIKE

Model JT-30-C. Fine general purpose, high fidelity mike for hams, communications work and P.A. systems. Tough plezoelectric ceramic element cuts danger of accidental shocks, stresses and the effects of heat and humidity. Frequency response 30 to 10000 aps Output Frequency response 30 to 100 cps. Output level -62 db . Adaptable to all existing hook ups wlthout change. Heavy interlocking base. Opalescent gray finish with chrome grille. Complete with $15-\mathrm{ft}$ cable and concentric cable connector. Shpg. Wt: 4 lbs.
14N13428-List Price $\$ 16.15 \ldots$ Net....... 9.50


## ASTATIC CRYSTAL MIKE

Model K-2-S. Small size, dual diaphragm type crystal mike with switch. Twice the usual cacrystance permits correspondingly longer cable. pacitance permits correspondingly longer cable. productio overclled smool production; excellent for conference recording on tape or wire, P.A. installations and general applications where quality performance is required. Output level -62 db . Bright chrome finish. Equipment includes plug and socket connector, and $25-\mathrm{ft}$ cable. Shlpping welght: $21 / 2$ pounds.
14 N13423-List Price $\$ 32.85 \ldots$ Net.... 19.32

## TURNER PROFESSIONAL DYNAMIC MIKE

Model U9S. Saddle tilts 900 for semi or nondirectional use. Response 40-9000 cps. Output -52 db . Gun metal finish. With $20-\mathrm{ft}$. cable and connector. Swlich gives choice of $50,200,500$ ohms or high 1 mpedance . Shipping Welght: 5 lbs.
Shipping Weight: 5 libs.
23.52

## TURNER DYNAMIC MIKE

Model 22D. Highimpedance. For amateurs, call and paging systems. $90^{\circ}$ tilting head permits semt-or non-directional operation. Quality Alnico magnet. Response $70-9000$ Quality Alnico magnet. Output - 54 db . Chrome in in is h. $7-\mathrm{ft}$ cable and connector. Shipping Weight: cable and 21/2 pounds.
14N13751-List Price $\$ 25.50$..Net.
14.99

## TURNER SHOCKPROOF CRYSTAL MIKE

Model 22X. Mechanically shockproof mounting; high quality, humidity protected crysial. Has automatle barometric compensator. Same design and characteristics as Model 22D except output of -52 db . Shpg. Wt: $21 / 2 \mathrm{lbs}$.
14 N 13750 -List Price $\$ 20,00$............Net.
11.76

## AMPERITE KONTAK MIKES



Falthfully reproduce the vibrations of any musicalinstrument. Molsture-proof rubber case. Response 40-6000 cps. Without volume control -40 db . $1^{\prime \prime} \times 3^{\prime \prime} \times 1^{\prime \prime}$. 15 ft . cable. ShipWeight: 2 lbs .
14 N $13675-$ High-Impedance. List Price $\$ 12.00$..Net. 7.06 With volume control $-30 \mathrm{db} .3^{\prime \prime} \times 1^{\prime \prime} \times 5 / 8^{\prime \prime} .25 \mathrm{ft}$. cable. Shipping Welght 2 lbs.
14N13690-High Impedance. List Price $\$ 18.00$..Net....... 0.58
14N13687-Strap for flat top guitars............................... 59 .
"KF" Foot Volume Control, Provides smooth control of volume by footaction. Is ft. cable. Shpg. Wt, 4 lbs.
14N13663-High Impedance. List Price $\$ 18.00$..Net........ 10.58

## MICROPHONE STANDS AND ACCESSORIES


(A) LAFAYETTE FLOOR STAND

Smooth actlon adjustments from 35" to 64". Positive grip friction clutch firmly locks stond against slipping or sudden dropping. Full chrome uprights on gray shrivel inish base, $10^{*}$ dicmeter. $5 / 8^{\prime \prime}-25$ ihread. Shipping weight 9 pounds.
14N22047-List Price 8.25
4.69
(B) NEW ATLAS *SLEEVE ACTION" FLOOR STAND Niodel MS12S. Adjust height of stand from $35^{\prime \prime}$ to $65^{\prime \prime}$ - automatically. Slight downward pressure on "sleeve-action" control permits telescoping section to be lowered. To raise, control permits telescoping section to be lowered. To raise,
grasp at any point hand merely extend. Cannot creep or
change position change position without actual pressure. Full chrome up-
rights on gray shrivel base, 10 diameter. $5 / 8^{\prime \prime}-27$ thread. rights on gray shrivel
ShippIng Welght 12 lbs.
14N22085-List Price 16.00.
9.41
(C) ATLAS ALL CHROME FLOOR STAND

Mode M1S $11 \mathrm{C}_{\text {, Del }}$ Dure type stand adjusts easily and securely from $3^{\prime \prime}$ to $65^{\prime \prime}$. Full chrome ilisish on tubing and base as sures lititime waar; $10^{\prime \prime}$ dicmeter. Shipplng welght 12 pounds. $5 / 8^{\prime \prime}-27$ threád.
14N22084-List Price 11.00 ..........Net.................. 6. 6. 47
(D) BANQUET MIKE STAND

Becutuful polished chrome finish uprights on gray wrinkle base. Helght adjustable from $13^{\prime \prime}$ to $2212^{" \text { ". Rubber ring } 1 n^{-}}$ sulation covers entire $8^{\prime \prime}$ base to prevent silipping. Shipping Welght 4 lbs.
14N13536-List Price $\$ 6.75 . . . . . . . .$. Net.................... 3.97

## LAFAYETTE-CONCORD FIXED DESK STAND

## $6^{\prime \prime}$ high. Chromium tube. $6^{\circ}$ diameter black

 wrinkle base. $5 / 8^{\prime \prime}-27$ male threads for attaching to microphone. Shpg. Wt. $21 / 3$ lbs. 14N13539. $\qquad$ 1.25Atlas Adiustable Desk Stand Newly designed two-section teloseoplc stand. Easily adjusted from $8^{\prime \prime}$ up 1013 " Chromilum Iinished heavy duty $5 / 8^{\circ \prime}$ and $7 / 8^{\prime \prime}$ tubing. Gray base, 6 " dia. Shpg. Wt. 4 lbs . 14N13537-List Price 4.50 ....Net.... 2.65


## SPECO "MAX-MIXER



For adding and mixing two additional microphones than provided for by regular amplitier input. No complicated connections, just plug into mike jack of amplifier. Has three individually controlled highimpedance inputs. With 6 It. cable connector and phone plug adaptor. Shipping Welight $21 / 2 \mathrm{lbs}$. 14N13642-List Price 18.95..Net.. 11.14

## BABY BOOM ARM

Quickly and easlly attached to any standard floor stand. Has Universal swivel for adjusting and locking into position. Adjustable for welght of any mike. Length of the $\mathrm{rm} 32^{\prime \prime}$.
14N 22060.

## BRACKET CLAMP

Com be used directly as microphone support, or with the baby boom arm Clamps to overhanging edge of table or plano. Chrome finish.
14N13371-6" Long. ...........Net.. $\qquad$ ne h. 1.76 MIKE FLANGES, EXTENSION RODS Widely used for neat inconsplcuous Wermanent mounting on desk top permanent mounting on desk top pulpit and amateur rigs. Fits all
standard $5 / 8^{\circ}-27$ mikes. Available in male or female types. Base dlameter $1 / 4^{\prime \prime}, 3$ mounting holes with $7 / 8^{\prime \prime}$ mounting centers. Extension rods male on both ands.
14N13350-Male Flg.. $30 \$ 14$ N13351-Female Fig. $30 \$$
14N13352-6"Ext. Rod..44\& 14N13353-12* Ext. Rod.... 59 MIKE ADAPTERS
Adapts special fittings to stondord stands.
14N13367-5/8"-27 female to $1 / 2^{\prime \prime}$ male threa
(RCA)....
44
14N13368-1/8 ${ }^{\circ}$ female pipe to $5 / 8^{\circ}-27$ male. . 29
14N13369-1/4n long, 5/8 ${ }^{\text {- }}$ 27 male running thread............... 15 14N13370-5/8n-27' female to $5 / 8^{n-27}$ female coupling..... 29 年

## 

SINGLE CONTACT
MIKE CONNECTORS AMPHENOL SERIES 75
Polished chrome plated brass fittings with $5 / 8-27$ threads
A. Type $75 \mathrm{MC1F}$. Female with coupling ring.
$26 \$$
B. Type $75-\mathrm{MC} 1 \mathrm{M}$. Male- fits bove connector. 13N13360-Each.

27 C. Type 75-PC1M. Male, nonshorting, chassis mount. Fits MCiF. 13N13361-Each.......... 184

D



E

D. Type 75-5P-PC1M. Same as PCIM but with floating center contact.
13N13385-Each.........
26
D. Type 75-CL-PC1M Like 75-SP-PC1M except closed circult type.
13N13268-Each.........
$26 \%$
E, Type 75-MC 1F-A. Angle ype, remale connector coupling ring; use with PCIM

13N13277-Est
$59 \$$
F. Type 75-MC1P. Adaptor. Connects $75-\mathrm{MClF}$ to standard phone plug.

294


## SINGLE AND DOUBLE PIN CONNECTORS AMPHENOL SERIES 80

Metal shells are heavily plated. Bakelite elements; screw type coupling rings. Shells may be utilized for second canductor. For cable up to $1 / 4$ " diameter.

## SINGLE CONDUCTOR

 80M. Male (B)13N13286-E
80F. Female (A)
426
13N13287-Each........ 42 \$
Female Chassis connector. Mounts in a single $5 / 8^{\prime \prime}$ hole (C).

13N13288-80C.......... 26申


## THREE AND FOUR CONTACT CONNECTORS AMPHENOL SERIES 91

Polarized shells. For use on $5 / 8^{\prime \prime}-27$ stands. With cable clamps. Spring cord protector. Interchangeable bakelite elements. Coupled, $23 / 4 \times 7 / 8^{\prime \prime}$. Coupling ring on male.

3-CONTACT CONNECTORS 91-MC3M. Male (A) 13N13489-Each...
91-MC3F. Female (B)
13N13490-Each......... 65 Female Chassis (C) $13 / 16^{\prime \prime}$ hole.
13N13396-91-PC3F.
.324


Microphone Switch Type 75-MC1s. Attaches between male and female of any of the 75 series connectors. Push to talk permanent connection.
nection.

ICA SHIELDED 3WAY

## MICROPHONE PLUG

Barrel made of nickel plated brass. Fully insulated bushlng.
13N $13519-$ Each......... $85 \$$
As above but with bakellte As above but with bakelite 13N13521-Each.......... 5\%

FLEXIBLE GOOSENECK
Attaches to any microphone stand. Can be used where moderate adjustment is required. 5/8*-27 thr male and female ends. Chnome finish. $13^{\prime \prime}$ long.
14N13372-
1.47

# UNIVERSITY PROJECTORS, DRIVERS, SPEAKERS 



## UNIVERSITY REFLEX PROJECTORS

High efficlency exponential air column type proiectors. Heavy-gauge all metal spun horns. Incorporate design features that in-
sure superior acoustic results. Non-resonant sure superior acoustic results. Non-resonant rubber rims with each unit. Will handle
walls output. With universal "U" type mounting bracket. Battleship grey finish waterproofed for outdoor use. Less drivers. Overall lengths listed below are with driver unit installed.

| No. | Model | Dia. | Length | Cutofi | Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N20049 | PH | $20^{\prime \prime}$ | 19" | 150 cyc. | 12 | 17.05 |
| 22N 20047 | LH | $25.5^{\prime \prime}$ | $22.5^{\prime \prime}$ | 120 cyc . | 18 | 26.17 |
| 22N20046 | SMH | 15.5" | $16^{\prime \prime}$ | 200 cyc. | 8 | 14.41 |
| 22N21362 | GH | 30" | 29' | 85 cyc. | 101/3 | 35.28 |



## UNIVERSITY PAGING SPEAKERS

Intercommunicator "booster" speaker has high projecting power. Clear sound outpu overcomes factory noises. Use as "Talk Back" speakers In intercom systems. High sensitivity permits initiating or answering calls at a distance. With adjustable mtg. bracke?

| No. | Type | Watt. | Imp. | Freg. | Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N19349 | MIL | 3 | 8 | 400-9,000 | 5 | 14.70 |
| 22N21322 | MIL | 3 | 45 | 400-9,000 | 5 | 15.43 |
| 22N19348 | 1B8 | 12 | 8 | 300-10,000 | 7 | 19.11 |
| 22N24015 | CR | 18 | 16 | 250-6,000 | 11 | 24.70 |

## CAR-TOP HORN CARRIER

For all horn type speakers and baffles used In mobile PA work. Watemproof plywood and angle Iron construction, 4 suction cups and gutter hooks with adjustable
 straps included. Size: $8 \times 461 / 2^{\prime}$ Easily and quickly attached or removed. Will not mar car finish. 22N20028-Shpg. Wt. 8 lbs.

## MODEL 2YC CONNECTOR

For connecting two-driver units to any trumpet. 22N21305-Shpg. Wt. 3 lbs.

## UNIVERSITY DRIVER UNITS

Phenolic diaphragm; Alnico magnet. Hermetically sealed. MA25 recommended for single speaker systems. $41 / 8^{\prime \prime} \mathrm{Dx} 33 / 4^{\prime \prime} \mathrm{H}$. SAHF effective in locations where noise level is high. $41 / 2^{\prime \prime} \mathrm{Dx} 43 / 4^{\prime \prime} \mathrm{H}$. PA-30 and PA-30C have built-in line matching ransformers $165,250,500,1000,2000$-ohm ransformers 165, 250, $500,1000,2000$-ohm erminals. Constant voltage taps $30,20,10$ $5,21 / 2 \mathrm{~W}$. permit 3 db . changes with each step. PA-30 maintains high varying intensity levels over long periods. PA-30C for broad casting chime music from church steeples $63 / 4 \mathrm{D} \times 63 / 4^{\prime \prime} \mathrm{H}$.


| No. | Type | Range | Watts | Ohms | Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N21307 | MA-25 | 90. 6,000 | 25 | 16 | 4 | 14.70 |
| 22N21308 | SA-HF | 90-10,000 | 25 | 16 | 6 | 21.76 |
| 22N21363 | PA-30 | 80-10,000 | 30 | 16 | 6 | 29.40 |
| 22N21364 | PA-30C | 70-6,000 | 30 | 16 | 6 | 32.34 |

## UNIVERSITY COAXIAL SPEAKER

Model WLC. Specially designed for outdoor installations with maximum protection aqainst rain and other adverse weather conditions. Consists of $12^{\prime \prime}$ treated cone speaker, 25 -watt unit driven tweeter and built in crossover network. Speaker enclosed in large volume, infinite baffle providing necessary loading for clear, low frequency reproduction. Corrosion-resistant, all metal construction. Adjustable " U " bracket permils easy horizontal and vertical positioning. Response $50-10,000$ cycles. Impedance 8 ohms. Power 25 watts. Crossover 1,000 cycles. Dia. $331 / 2^{\prime \prime}, 20^{\prime \prime}$ depth. Attractive baked Gunmetal finish.
22 N 21370 -Shpg. wt. 70 lbs.
117.60


## LINE MATCHING TRANSFORMER

Designed for use with University speakers in indoor or outdoor installations. Housed in water tight enclosure with die cast mounting bracket which acts as combined support for both the transformer and speaker. Easily mounted on the " $U$ " bracket of any trumpet with clamp provided, or serewed on any surface.

| No. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $22 N 5899$ | Type | $\frac{\text { Pri. Imp. }}{5402}$ | $\frac{\text { Sec. Imp. }}{250-500-1000-1500-2000}$ | $\frac{\text { Watt }}{4-8-16}$ |$\left|\frac{\text { Each }}{25}\right| 1.76$

## MODEL PMA ADAPTOR

For mounting trumpet on pipe fitting. 22N21306-Shpg. Wt. 3 lbs.

## UNIVERSITY TWEETERS - FILTERS AND ADAPTOR



## UNIVERSITY TWEETER ADAPTOR

Model 4407. Converts any 12 -inch conventional Model speaker to coaxtal type when used with type speaker to coaxial type when used with model 4405 high pass inter tisted below. Consists of model 4401 single tweeter, aluminum housing, mounting bar and all necessary hardware. Response 2,000 to $15,000 \mathrm{cps}$ $3^{\prime \prime}$ Deep.
22N21329-Shpg. Wt. 6 lbs.
14.70

## UNIVERSITY SINGLE AND DUAL TWEETERS



Provides efficient and aconomical method of extending upper register to obtain high fidelity speaker response. Reproduces irequencies between 2000-15000 cps. Recommended for FM or $\AA M$ sets, transcription reproduction and broadcast studio monitoring. Easily wired. Requires high pass filter, 440 listed below.
Model 4401, 6-watt single tweeter. Converts the speaker of the average radio or phono amplifier to a high fidelity system. Impedance 12 ohms. Size: $4 \mathrm{~V}^{\prime \prime} \mathrm{Wx} 258^{\prime \prime} \mathrm{H} \times 5^{\prime \prime} \mathrm{D}$. 22N21323-Model 4401, Single type. Wt. 4 lbs.
11.76 Model 4402. 12-watt, dual tweeter, For home and wired music systems, auditorfums, etc. Impedance 6 to 8 ohms. Size: $9 \sqrt[1]{2^{\prime \prime}} \mathrm{z}^{-}$ 25/8" $5^{\prime \prime}$
22N21324-Model 4402, Dual type. Wt. 6 lbs..
23.52

## UNIVERSITY HIGH PASS FILTER



Model 4405. For use with models 4401, 4402 and 4407. Makes possible connection of tweeters to the voice coil terminals of any P.M. or fleld excited speaker without creating an electrical unbalance. Includes HF volume control. Low frequency cutolf approximately 2,000 cycles. Size: $3 \frac{312^{\prime \prime} \times 21 / 4^{\prime \prime} x 21 / 2^{\prime \prime}}{}$ 22N21328-Shpg. Wt. 2 lbs..................5.88

## TWEETER AND FILTER IN CABINET



Model 4404. Self-contalned
4404. Self-contained

12-watt tweeter housed in attractive walnut cabinet. Includes 4402 tweeter and electrical equilvalent of 4405 filter. Fre quency response 2,000 to $15,000 \mathrm{cps}$, Ideal for use where limitations prevent the use of built-in tweeter. $6-8$ ohm im
$2,000 \mathrm{cps}$. Size: $111 / 2^{\prime \prime} \mathrm{W} \times 33 / 4^{\prime \prime} \mathrm{H} \times 61 / 2^{\prime \prime} \mathrm{D}$. 2,000 cps, Size: $11 \mathrm{~L} / 2 \mathrm{~W} 33 / 4$
22N21366-Shpg. Wt. 10 lbs.
35.28

## DUAL TWEETER AND FILTER



Model 4408. Designed for wide range reproduction requiring cutoff as low as 600 cycles. Recommended for two and three-way speaker systems, concert halls, theatres and auditoriums. Feaspeaker systems, concert halls, theaires and audiroriums. Features cobra horn of one piece aluminum casting flared to provide maximum vertical and horizontal dispersion; also has bakelite diaphragms, Alnico 5 magnets and aluminum voice colls. Re-
sponse 600 to $15,000 \mathrm{cps}$, Impedance 16 ohms. Power 6 watts. sponse 600 to $15,000 \mathrm{cps}$.
Size $53 / 4^{\prime \prime} \mathrm{H} \times 73 / 8^{\prime \prime} \mathrm{W} \times 111 / 8^{\prime \prime} \mathrm{D}$.
22N21367-Shpg. Wt. 8 lbs
16.17

Model 4409. Similar to above, 25 watt power.
22N21368
23.52

Model 4410. Cross-over network for above. Aluminum housing. insures proper attenuation rate at 600 cycle cross-over.
22N21369-Shpg. Wt. 4 lbs .

# HIGH FIDELITY SPEAKERS \& CABINETS ALTEC LANSING HI-FI UNITS 



MODEL 605
SPEAKER CABINET
Beautiful, hand-rubbed hardwood speaker enclosures that provide balanced, frequency response. Simple, yet. attractive style hamonizes with any fine furntture and adds a note of extra becuty to the room. A truly subbecuty to the room. A truly subwith attractive metal grille and watching cloth. Excellently dematching cloth. Excelently deelther $12^{*}$ or $15^{\prime \prime}$ speakers. Ald joints are glued and reinforced with scréws to eliminate the danaer of vibratlons and reverberations. The interior is lined with moisture resistant, sound absorbing materlal to prevent side reflections. Overall dimensions: $38^{\prime \prime}$ high $x$ $30^{\circ}$ wide x $16^{\prime \prime}$ deep. Shipping Weight 149 lbs . Model 605 A for $15^{\prime \prime}$ speaker; Model 605 B for $12^{\prime \prime}$ speaker.
22N21340-....
22N21341—... $\qquad$ .Model 605A in Walnut 22N21342- $\qquad$ Model 605A in Mahogany Model 605B in Walnut 22N21343-. $\qquad$ Model 605B

ANY TYPE. EACH
135.00


## MULTICELLDIA-CONE SPEAKER

model 603E. Large $15^{\prime \prime}$ cone for true bass reproduction. Metal diaphraqm for high frequency coverage. Multicellular horn gives smooth distribution over a wide angle - $60^{\circ}$ horizontally. 400 vertically. Dia-cone principle re. produces frequencies over 2000 cycles from an aluminum diaphracm secured directly to a $3^{\prime}$ voice coll corm. Volce coil impedance 8 ohms. Has large Alnico $V$ permanent magnet. Power rating 25 watts. $7^{\prime \prime}$ deep. 6300 22N19395-Shpg. Wt. 21 lbs...63.00

## MODEL 600B DIA-CONE

Economically-priced, high quality 12" speakerusing the Diotone principle of high irequency reproduction from a metal diaphragm. Highly efficient...llght weight... small space reguirement. Ideal for home use, sound reinforcement systems and industrial applications. $3^{*}$ volce coil, with an impedance of 8 ohms, made from edgewound flat aluminum wire. Power rating 20 watts. Depth 51/."
22N19394-Shpg. Wt. 15 1bs
38.00

## MODEL 400B DIA.CONE

Lower priced 8" speaker of exceptionally high efficiency, especially desirable when used with ams amplitier that delivers only 5-6 watts. Small size. lightweight, using the Dia-cone principle of high frequency reproduction from a metal diaphragm. ldeally suited for portable, compact uses requiring high output and top quality. Volce coil impedance 8 ohms; power rating 12 watts . 5/8" deep.
 22N19393-Shpg. Wt. 7 1bs............. 18.00

15* DUPLEX SPEAKER
Model 604B. This new, improved twoway speaker system is the standard professional unit in the sound induse iry wherever top quality is demanded. Large 15" low frequency speaker plus incomparable high frequency multicell unt covers from 30 to 16 , 000 cps. with essentially flat response. Dellvers $60^{\circ}$ horizontal and 400 vertical smooth distribution. Includes a matching 1000 -cycle cross-over net work with adjustable high frequency controls for perrect crossover between low and high frequency anplifier output impedance $8-16$ ohm; required amplifier output impedance 80 watts. 16 hms . ower rating 30 watts. Speaker depth $111 / 8^{\prime \prime}$. Shipping Welght 48 lbs.
22N19392-With Crossover Network.
143.00


HIGH QUALITY SPEAKERS

## 15" CINAUDAGRAPH CINAXIAL



CIN-15B. Economical and space-saving 15-watt speaker that qives fine reproduction from 55 to $15,000 \mathrm{cps}$. Designed for FM, television and all uses requiring finest reproduction over the widest Irequency range. Easily connected to all home recelvers having, high frequency unit. Bridging network is bullt-in; no controls are required. Alnico $V$ magnets. Shlpping Weight: 15 pounds.
22N19381- $\qquad$ 27.93

CIN-12A. Similar to above but $12^{\prime \prime}$ size with $3^{\prime \prime}$ high irequency unit. 10 watis. Shpg. Wi. 10 lbs .
22N19364-.
16.17

## GE S 120 1D SPEAK ER



A deluxe 12" Alnico V PM unlt recommended for use with public address systems and replacement in home radios. Rated at 25 watts undistorted power. The latest speaker design developments have been incorporated into this model to assure brilliant frequency response over an extended range. We have supplied thousands of these fine speakers for custom installations. 8 -ohm, aluminum base instalcoll; molded cone. Equipped with universal transformer mountings. Plated finish. transformer mountings. Plated
22N19352-Shpg. Wi. 9 Ibs.....
.17 .35

## 8" RMC HYPER-MAG

A low cost replacement speaker of unusual quality. Has a center dorne parabolic projector for broad high frequency response. Uses a new magnel designed for linear response from 100 to $10,000 \mathrm{cps}$. Input impedance $4-5$ ohms. Undistorted power raling 12 - 15 watis. Ondistorted power raling ${ }^{102-15}$ watis. $31 / 3^{n}$ deep.
22N19399-Shpga Wi. 3 lbs.....
8.35

NEW! UNIVERSITY HI-FI COAXIAL Model 6201. A leading 12" cacoxial $^{*}$ speaker capable of the iinest life-like performance, with response from 50 to 5.000 cycles. It handles the undiswatts output of amplifiers up to 20 watts and is fecommended for every high quality application in home radio, phonograph, FM and TV equipment. The unit includes a low frequency section which incorporates a seamless molded cone with a $2^{\prime \prime}$ volce coll wound on a duraluminum suspension. The shallow, curved shape of the cone eliminates interference to the tweeter and provides clean, low frequency reproduction. An Alnico $\checkmark$ magnet is used on both low and high frequency sections. A dividing network and high frequency tone controls are iro cluded in an external housing. Adequate cable length is attached to the high frequency attenuator for panel mounting to permit proper balance of lows and highs. Input impedance $6-10$ ohms. Depth 7X"。
22N19382-Shpg. Wt. 8 lbs.
39.98

RCA HI-FI $15^{\circ}$ COAXIAL
Model 515S1. A heavy duty, highly efficlent unlt that gives two-speaker performance. Excellent for custom or professional installations requiring high fidelity at moderate cost. Two coaxially mounted units, one for low frequenctes and one for high frequencles. Frequency response essentially flat from 40 to $12,000 \mathrm{cps}$. Power rating 25 watts. Input impedance 16 ohms. Uses 21 b . Anico $V$ magnet. 22N19383-Shpg. Wt. 18 lbs..
30.87


## HIGH FREQUENCY ADAPTOR

 Masco HI-FI unit provides a simple and economical method of obtaining real high frequency response from your present speaker. No illter network or additional space requirizd. Unit actually becomes partol the cone speaker. Response over. 15,000 cycles. Impedance ponse over. unlts in series) 6-8 ohms. Power rating 8 in serits. $5 / 4^{\prime \prime}$ diameter $\times 25 / 8$ ohe deep. Supplied complete with mounting screen for $12^{\prime \prime}$ speaker.22N19384-Shpg. Wt. 3 lbs.
14.41


# TRU-SONIC HI-FI SPEAKERS \& ENCLOSURES 

## $15^{\prime \prime}$ SUPER COSPIRAL SPEAKER

Model 102FR. 20 watts power handing capacity. Seamless, molded curvilinear cone for lowest frequencles, and Silver Spiral differential diffuser give more ex tended range and greater efficiency than any single volce coll speaker. Repro ducing range 30 to 14,000 cycles; $11 a 1$ +5 db from 50 to 9500 cps . Uses $4-1 \mathrm{~b}$ $\overline{\text { powerful Alnico } V \text { magnet. Sultable for }}$ outputs from 8-16 ohms nominal impedance. Depth behind mounting pamel, 8 , Shipping Wt. 30 lbs .
22N21386....
52.92

## 12* COSPRIAL SPEAKER

Model P22FR. Similar construction to above but $21 / 2-1 \mathrm{lb}$ magnet and frequency range from $40-14,000 \mathrm{cps}$; power capacity 15 watts.
22N21313-Shipping Weight 28 1bs..
41.16


## 10" HI-FI SPEAKER

Model 100. An economy model high 11 delity unit for limited space installations. Full range frequency response from 70 to $8000 \mathrm{cps} \pm 5 \mathrm{db}$; useable range 50 to $11,000 \mathrm{cps}$. Input impedance $6-12$ ohms: power capacity 8 watis. Alnico $V$ magnet welghs
22N21388-Shpg. Wt. 14 lbs.
29.40

STEPHENS 2-WAY SPEAKER SYSTEM For those who damand a superb hi-fi speaker installation. Rich, resonant bass notes with crisp, vibrant highs to produce a smooth, extended response from 35 to $14,000 \mathrm{cps} \pm 5 \mathrm{db}$. This is a complete wide range speaker system including an $800-\mathrm{cycle}$ crossover netincluding an 800-cycle crossover network. Model driver with $4.2-1 b$ Alnico $V$ magnet, driver with $4.2-1 b$ Alnico magnet,
Model $P-15$ high frequency unit, and 814 H 4 cell H.F. Hom. Input impedance is 10 to 20 ohms; input power 20 watts. $18^{\prime \prime}$ wide, $27^{\prime \prime}$ high, $14^{1 / 2^{\prime \prime}}$ deep. Can be used for conversion of existing speaker and radio installations, or as a new job with the deluxe cabinets shown elsewhere on this page.


22N21375-Model 409. Shipping Weight so lbs....... 117.60 Model 414. Two-Way Speaker System described above in Model 511 modern mahogany cabinet (See opposite column). 22N21376-Shipping Weight 120 Ibs.
Mode1 412. As above in bleached mahogany cabinet. 2N21377. Model 413. As above but in Model 516 modern low-boy mahogany cabinet (see opposite column). 22N21378-Shipging Welght 130 lbs. Mod 410 As abdve but in Model 515 modem low-boy bleach. 20 . 8 nahogry cabinet mahogany cabinet. .......................................... 205.80 22N21380-814-Hi 4-cell HF hom. Shpg. Wt. 12 lbs.........18. 37 P-15 HF Driver. 20 watts. $1 / 4 \mathrm{lbs}$ Alnico V magnet. Shipping Weight 151 bs . 22N21310..

18.37

## 15" LOW FREQUENCY DRIVER

Model PS2LX. Bullt to the most exacting standards of precision engineering, this Low Frequency driver unit is designed for use in separate two-way speaker systems. It employs a top guality 4 pound Alnico $V$ permanent magnet to istics: 20 watt power capacity, input impedance 16 ohms. istics: 20 wat power.
22N21312-15 $1 / 8^{*} \times 81 / 8^{*}$.
47.04

## 15* COAXIAL SPEAKER

Model 106AX. Designed for highest quality custom installations, monitoring for broadcast stations, and motion plcture reproduction. Recognized as the standard of excellence by which other speakers are judged. Combines in a sinqle assembly a new low resonant, low frequency unit of the cone type, and a high frequency reproducer of the multicellular type with a complementary crossover net work. Frequency response 35 to 12, 000 cps. $\$ 5 \mathrm{db}$; usable range 20 to 15,000 cps. Handles power input o 20 watts; 1200 -cycle crossover frequency. Wide anqle high frequency dispersion $400 \times 800$. Input impedance 16 ohms. The speaker also features a $61 / 2-1 b$ Alnico $V$ magnei. Bafile opening, $131 / 2^{\prime \prime}$; depth behind the mounting parnel, $101 / 2$
22N21387-Shipping Weight 35 lbs

REFLEX CABINETS
Model 511. Here is a truly tine modern mahogany cablnet
 constructed of the finest ve neers by mester craftsmen and hand-rubbed to a smooth rich finish. Beautiful, simple design blends with the best interior decorations. Acoustically perfect for $15^{\prime \prime}$ speakers; uses the bass-phase-inverted reflex method of low end reinforcement. The attractive grille is polished, vi-bration-proof brass, lacquered for extra protection. Accomo dates the two way speaker system and coaxial speakers described on this page. Dimensions: $24^{\prime \prime}$ wide, $32^{\circ}$ high, $17 "^{\prime \prime}$ deep. Weight 70 lbs.
22 N 21383 $\qquad$ 76.44

Model 510 . Same as above except bleached mahogany fin!sh. 22N21382..........................76.44

## MODERN "LOW-BOY" CABINETS

Model S16. Mahogany. Functional beauty comblned with precise acoustic 'design marik this striking speaker cabinet as an outstanding example of effective styling. Two sturdy offset base supports raise the major portion of the cabinet to create an effect of classic simplicity. Fine, handrubbed mahogany veneers are used throughout. A deluxe custom
 quality furniture piece the decorative schemes of the finest homes and professional studios. The intertor has been deslgned on the true bass re. flex principle of reproduction, It brings out the full capacity of high fidelity speaker systems. Accomodates the two-way of high ildelity speaker systems. Accomodates the two-way wide, $291 / 2^{n}$ high, $18^{\prime \prime}$ deep.
 $\qquad$
Model 515. Same as above except bleached mahogany finish. 22N21384..


12" AND 15" SPEAKER BAFFLES Finished and unifished baffles for high fidelity speakers. Carefu! acoustic design assures excellent performance. Constructed of $1 / 2^{\prime \prime}$ ply-
wood, with speaker mount ing board, screws, tacks and special grille cloth. Dimension's of $12^{\prime \prime}$ cabinet: $231 / 2 \times 331 / 8 \times 125 / 8^{\prime \prime} ;$ shpg. wt.
30 lbs. $15^{\prime \prime}$ size: $25 \times 331 / 4 \times 135 / 8^{\prime \prime} ;$ shpg. wt. 35 lbs.
22N22067-12" Unfinlshed.. 16.25
22N22068-12 ${ }^{\circ}$ Tan Leatherette.19.25 22N2206S-15* Unilinished....... 19.25 22N22066-15" T an Leatherette.22.50
JENSEN BASS REFLEX ENCLOSURES
Economical, yet durably constructed of impregnated composition material. Finished in hammered brown lacquer. Designed especially for Jensen speakers but suitable for other makes.
B151. For $15^{\prime \prime}$ speaker. $30^{3}$
$121 / \mu^{\prime \prime}$
$22 N 18998-S h p g . ~ W t . ~$ 3 lbs... 34.47
B121. For $12^{\prime \prime}$ speaker. $28 \frac{1}{2} \times 22 \frac{1 / 4}{} \times$ 22N189
22N1899'6-Shpg. Wt. 34 lbs......... 29.08
B81. For $8^{n \prime}$ speaker. $22^{1 / 4} \times 18 \times 9{ }^{\prime \prime}$.
22N18994-Shpg. Wt. $241^{1 b s . . . . . . . . .20 .58 ~}$


## JENSEN DELUXE ENCLOSURES

 Handsome, beautifully tinished bass reflex cabinets constructed of selected woods and hand-rubbed to a lustrous walnut tinish. Distinctive styling, combined with perfect acoustical design make these fine enclosures ideal for home or professional installations. Has contrasting bronze wire grilla. Accomodates Jensen or other high fidelity speakers listed in this catalog.
D151. For $15^{\circ}$ speaker. $31 \% \times 27 \% \times$ $133 / 8^{n}$.
22 N 18946 -Shpg. Wt. $50 \mathrm{lbs...5} 50.64$ D121. For $12^{\prime \prime}$ speciker.
22Ni8945-Same Size \&i Welght....50.64

## JENSEN SPEAKERS



## STANDARD PM SPEAKERS

A complete line of replacements for radio receivers, low power public address systems and intercommunication equipment. Highly efficient Alnico $V$ magnets insure maximum life. All mpdels supplied less transformers. For a complete listing of output transformers to use with these speakers, look below
P. H. SPEAKERS

| Stock No. | Model | Size | Watts | v. C. <br> Ohms | Output Trans. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N18960 | P 4.X | $4^{\prime \prime}$ | 2.0 | 3.4 | E | 2.44 |
| 22N18952 | P 5-X | $5^{\prime \prime}$ | 2.5 | 45 |  | 2.91 |
| 22N18988 | P 5.X | 5" | 2.5 | 3-4 | E | 2.53 |
| 22N19016 | P525-V | 51/4" | 4.0 | $3-4$ | D | 3.23 |
| 22N18969 | P6.W | 6 | 3.5 | 3-4 | E | 3.32 |
| 22N19017 | P7-U | $7{ }^{\prime \prime}$ | 5.5 | 3-4 | D | 4.67 |
| 22N18970 | P8-U | $8{ }^{\prime \prime}$ | 6.0 | 3.4 | D | 4.91 |
| 22N19018 | P8-V | $8^{\prime \prime}$ | 5.0 | 3-4 | D | 4.29 |
| 22N19076 | P8-St $\dagger$ | $8{ }^{\prime \prime}$ | 8.0 | $6-8$ |  | 7.60 |
| 22N19019 | P69.V | 6x9" | 5.0 | 3.4 | D | 4.65 |
| 22N19020 | P69-T | $6 \times 9$ " | 7.5 | 3-4 |  | 5.64 |
| 22N18971 | Plo-T | 10" | 8.0 | $6-8$ |  | 6.26 |
| 22N18972 | P12-T | 12" | 9.0 | 6-8 | C | 6.97 |

$\dagger$ Extra heavy magnet

## UNIVERSAL OUTPUT TRANSFORMERS

Universal tube transtormers match V.C. to 4500, 7000, 10,000 and 14,000 ohms. Universal line transformers match V.C. to 500,1000 , 1500 and 2000 ohm lines. All have $6-8 \mathrm{ohm}$ secondaries except las four which are $3-4$ ohms.

| No. | JENSEN | Application | Watts | Term. | Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N19026 | ZX-1007* | Univ. Tube | 25 | Pintip |  | 5.73 |
| 22N19027 | 2Y-2005 | Univ. Line | 25 | Pintip | A | 5.73 |
| 22N19025 | 2X-1005* | Univ. Tube | 16 | Pintip | B | 4.23 |
| 22N19024 | 2Y-2003 | Univ. Line | 16 | Pintip | B | 4.23 |
| 22N18965 | ZX-1002* | Univ. Tube. | 10 | Pintip | C | 2.94 |
| 22N18964 | ZY. 2002 | Univ. Line | 10 | Pintip | C | 2.94 |
| 22N19031 | 2P.1024* | Univ. Tube | 61/2 | Solderlug | D | 1.53 |
| 22N19028 | 2Y. 4002 | Univ. Line | 315 | Pintlp | D | 1.97 |
| 22N19029 | 2P-1023 | Univ. Tube | 315 | Solder lug | , | 1.26 |
| 22N19030 | Z.L-2021 | Univ. Line | 612 | Solderlug | E | 1.26 |

*All primary windings center tapped.

## VOLUME LEVEL CONTROLS



L-pad type controls that are highly satisfac. tory for controlling volume in speaker circults All models come complete with pointer knob and escutcheon


PM CONCERT SPEAKERS


Use in all types of radios, phonographs, public address equipment and the Jensen Bass Reflex enclosures and cablnets. All models less output transformer. Transtormers listed in opposite column.

| No. | Model | Size | Watts | V.C. | Trans. | Wt. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N19075 | P 8-R | 8" | 9 | 6-8 | C | 4 lbs . | 8.97 |
| 22N19073 | Plo-R | 10" | 10 | $6-8$ | B | 5 lbs. | 10.88 |
| 22N19077 | P12-R | 12" | 12 | 6.8 | B | 7 lbs . | 11.47 |
| 22N19071 | P12-Q | 12" | 13 | 8 | B | 9 lbs . | 16.32 |
| 22N19069 | P12-N | 12" | 15 | 8 | A |  |  |
| 22N19078 | P15.Q | 15" | 14 | 8 | B | 15 lbs . | 21.76 |
| 22N19079 | P15-N | 15" | 20 | 8 | A | 17 lbs. | 32.34 |

## EXTENDED RANGE SPEAKERS

ALNICO V PM speakers providing high fidelity performance up to $10,000 \mathrm{c}$. p.s. designed for monitoring in broadcast stations for replace. ment and modernizing units for F.M. and TV receivers for radio-phono combination, etc. Less output transtormers.

| Stock No. | Model | Size | Watts | V.C. | Output trans. | Shpg. Wt. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N19021 | P 5.TX | $5{ }^{\prime \prime}$ | 4 | 3-4 | E | $31 / 2 \mathrm{lbs}$. | 4.70 |
| 22N19035 | P 6.TX | 6 ' | 5 | $3-4$ | D | 4 lbs. | 5.29 |
| 22N18948 | P 8-SX | $8{ }^{\prime \prime}$ | 7 | $6-8$ | C | 5 lbs. | 8.35 |
| 22N19000 | P12-SX | 12" | 9 | 6.8 | B | 6 libs. | 10.58 |
| 22N19036 | P12-OX | 12** | 12 | 8 | B | 7 lbs . |  |
| 22N19037 | P15-QX | 15" | 14 | 8 | B | 9 lbs . | 21.76 |
| 22N18999 | P15-NX | 15" | 18 | 8 | A | 10 lbs . | 33.66 |

## 'SPEECH-MASTER"

Model AP-10. Desk type PM speaker employs Peri-Dynamic principle. For desk or wall mitg. Has "tilt" adjustment, sturdy base. Dustproof, fully enclosed. Internal bracket for $1 / 2 \times 1 / 2^{\prime \prime}$ transformer included. Handsome gray hammered finish with satin chrome trim. Complete with base, swivel bracket plus $36^{\circ}$ cord; 4 ohm voice coil; will handle 5 watts. Height 6\%"; Diameter $5^{\prime \prime}$ :
22N18929-Shpg. wt. 6 lbs.
9.70 Model AP-11. Similar to above, but less
base and swivel bracket. Mounts in $4.27 / 64^{\prime \prime}$
cutout. 22 N 18930 -Shpg. wt. $4 \mathrm{lbs} . . . .$. . 8.17

## NEW JENSEN HI-FI SPEAKERS

## 15' HI-FI COAX SPEAKER

With New Wide-Angle Acoustic Lens Model H-510. Unsurpassed for the most critical applications including professional sound use, broadcast monitoring and home entertainment systems. Wide-angle acoustic lens gives clean, realistic and essentially constant reproduction of highs over entire room. New Annular Diaplane low-frequency, radiator gives increased smoothness of response. Alnico V PM magnetic structure. Impedance 16 ohms . Po werrating 30 watts. Integral frequency division system provided. (See listing of adjustable H-F control network). Depth $9^{9} 1^{\prime \prime}$; baffle opening $13{ }^{\circ}$. Shipping weight 25 lbs

## 15" HI-FI COAXIALS



Model K-410. This new high efficiency speaker is recommended for custom installations and professional application requiring best reproduction quality. Exceptionally smooth, wide range response from low frequency radiator and new high frequency unit. Input impedance 16 ohms; rated at 25 watts maximum. Integral frequency division system provided (for adjustable H.F. control network see opposite column). Depth $9^{\prime \prime}$; baffle opening $131 / /^{\text {". . Shpg. }}$ Wt. 22 lbs.
22N19039-List \$94.25.
Model K-310. Similar to above except 55.42 at 20 W. maximum. Shpg. Wt. 20 lbs . 22N 19040 -List $\$ 56.25$.

## 12" HI-FI COAXIAL

Model K-210. Compact and low cost speaker for modernizing radio receivers, phonographs and TV sets. Provides high fidelfty reproduction of high and low frequencies. Equipped with built-in bridging type frecuency division system. Impedance 8 ohms; 12 walts. 22N19042
. Shpg. Wt. 16 lbs... List 33.40. . 19.64 "L" type variable control for above, with escutcheon and bar knob.
22N 19043

## A-110 CONTROL NETWORK

Provides adjustable level and high frequency range controls for Models H-510, K-410 and K-310 speakers. Mounts directly on speaker housing with plug-In connecon speaker impedance 16 ohms. Complete with tions. Impedance cables, knobs and screws. plag, cables, knobs and screws.

## Impedance-Adjusting Transformers

Deslgned to provide two alternate input impedances for Models H-510, K-410 and K-310 speakers. Plugs into socket on speaker termina! panel. Switch selects Imp. Model T-101. 4 and 8 ohms.
22N19046. . Shpq. Wt. 2 lbs
Model T-102. 500-600 and 250 ohme.
22N19047.
Model T.103, 10,000 \& 5000 ohms C.T.
7.06

22N19048.......................... . . . . . . . . 7.06


## WALL BAFFLES-CASES-SPEAKERS



## WALNUT WALL BAFFLES

Beautilully polished walnut bafle for Deluxe sound systems. Frieze grille cloth. 22N21325-6-inch. 22N21326-8-inch. 22N21327-10-inch. 22N20051-12-inch.

## FABRICOID BAFFLES



Efficient enclosed speaker baffles with correctly angled front faces to provide coverage over a wide area. Sturdlly buill of selected wood. Brown leatherette covered. Average shlpping weight 6 pounds.

| Stock No. | Speaker | H. W. D. | Each |
| :---: | :---: | :---: | :---: |
| 22N20060 | $6^{*}$ | $81 / 2 \times 71 / 2 \times 43 / 4$ | 1.69 |
| 22N20042 | $8{ }^{\circ}$ | $101 / 2{ }^{1} 9 \times 61 / 2$ | 2.10 |
| 22N20055 | $10^{*}$ | $14 \times 12 \times 8 / 2$ | 3.15 |
| 22N20056 | $12^{*}$ | $15 \times 14 \times 10$ | 3.38 |

PORTABLE REFLEX SPEAKER ENCLOSURE


Insures periect bass response. Designed to form twoplece portable carrying case for two $12^{\circ}$ speakers. Compact, easy-to-carry style. Attractively covered in Tan simulated rawhide leather with contrasting Brown grill cloth. Includes recessed receptacles to guard connectors ogainst damage. Strong carrying connectors against damage. Strona carrying
handles. Overall Size: $1914^{\circ}$ wide, $211 / 4^{\prime}$ handles. Overall S high, and $14^{\circ}$ deep. 2 lbs
22N22055--Shpg. wt. 25
14.50

CARRYING CASE FOR AMPLIFIER, 12" SPEAKERS


Holds two $12^{\prime \prime}$ speakers plus amplifier. Amplifier bolts to panel-slides in or out of case quickly and easily. Holds any amplitier up to $14^{*}$ wide $x 14^{*}$ deep $x 11^{*}$ high. Firm comer construction with metal corner shields. 4 snap locks. Made of $3 / 8^{\prime \prime}$ thick plywood covered with Tan simulated rawhide leather. Overall Size: $163 / 4$ "wide, $243 / 4$ "high, $145 / /^{*}$ dee
11.95

## CARRYING CASE FOR AMPLIFIER, $8^{\prime \prime}$ SPEAKER

Case holds both amplifier and an $8^{\circ}$ speaker at the same time. Heavy plywood construction with handsome tan simulated rawhide leather covering and carrying handle. Firm corner consiruction affords double protection. Four sturdy snap locks hold case securely closed. Overall protection. Four sturdy snap locks hold case securely closed. Overall 22N22053-Shpg. Wi. 10 lbs.

## CASE FOR AMPLIFIER AND 2 SPEAKERS

Same as above except for amplifier and two 8 -inch speakers. Size: $13 \times 10^{5 / 6} \times 17^{\prime \prime}$.
22N22054-Shipping Weight 10 lbs
7.50


## DUAL SPEAKER CASE

Houses two speakers up to $12^{\circ}$ in dilameter. Opens into two holves, each serving as an efficient bafle. Sturdy plywood with strong handle, black leatherette covering. Metal bumpers top and bottorn. Plated snap lock fasteners (two each bottorn. Plated snap lock tasten side). Size, closed. $9 \times 141 / 4 \times 221 / 4$
22 N 22062 -Shpg. wt. 13 lbs .
6.45

Single speak
$14 \times 141 / 491 / 4$
$14 \times 141 / 4 \times 91 / 4$.
$22 N 22061-5{ }^{\prime \prime}$.
4.15

## QUAM ALNICO V PM

 SPEAKERSAlnico $V$ magnet provides maximum performance with minimum weight pertormance with minimum weight. High conversion factor. 3.2 ohm V.C.
Less Trans. $3^{1 / 2^{\circ}} 4^{\prime \prime}, 5 \frac{1}{4}$ are square.

| Stock No. | Dia. | Wattage Nor. Peak |  | Alnico V Magnet wt. | Depth in. | Shpg. Wt. Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N19306 | $31 / 2^{\prime}$ |  | 2.5 | .68 oz . | 119 |  | 2.35 |
| 22N19311 | $4{ }^{\circ}$ |  | 3.0 | 1.0 oz . | 23/6 |  | 2.50 |
| 22N19310 | 4 " | $21 / 2$ | $33 / 4$ | . 68 oz. | $21 / 4$ |  | 2.35 |
| 22N19314 | 5 |  | 3.5 | 1.0 oz | 26/6 | 1 | 2.62 |
| 22N19313 | 5 ' | 3 | $41 / 2$ | . 68 oz. | $2 \%$ |  | 2.47 |
| 22N19304 | $51 / 4{ }^{\prime \prime}$ |  | 4.0 | 1.0 oz | 259 | 1 | 2.74 |
| 22N19316 |  | 4 | 6 | 1.00 oz | 25 | 11 | 2.82 |
| 22N19317 | 61/2* |  | 5.0 | 1.47 oz . | $2 \%$ |  | 3.06 |
| 22N19324 |  |  | 6.0 | 2.15 oz | $2^{21 / 10}$ | $\frac{1}{1}$ | 4.27 |
| 22N19319 | $8{ }^{\prime \prime}$ | 6 | 8 | 2.15 oz. | 33/8 | 2 | 4.23 |
| 22N19300 | $4 \times 6$ |  | 3.5 | .68 oz . | 16/6 | 3/4 | 2.62 |



GE PUBLIC ADDRESS SPEAKERS
Aluminum base voice coils provide higher wattage output and will not warp. Molded cones assure high fidelity and brilliant frequency response. Plated finish protected by new Lusteron treatment. Assembled with universal transformer mounting brackets. All have 8 -ohm V.C.

| Stock No. | Model No. | Dia. | Alnico V Magnet Wt | Wattage | Shpg. Wt. | Coast Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22N19350 | S1218D | 12' | 6.8 | 12 | 7 | 10.00 |
| 22N19351 | S1203D | 12 ' | 9 | 25 | 8 | 12.05 |
| 22N19352 | S1201D | 12. | 14.5 | 25 | 9 | 17.35 |

## GE REPLACEMENT SPEAKERS

Alnico $V$ magnets, aluminum foil base voice coils, molded cones universal transformer mounting brackets. 3.2 ohm voice colls.

| Stock No. | Type | Size | Magnet |  | Cost Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Watts Wt. |  |  |  |  |
| 22N19354 | S400D |  | 4 | 1.3 | 2.50 |  |  |
| 22N19355 | S525DS625D | $\begin{aligned} & 4 \\ & 51 / 4 \end{aligned}$ |  |  | 2.79 |  |  |
| 22N19356 |  | $61 /{ }^{\circ}$. | 4 | 1.3 | $3.23$ |  |  |
| 22N19357 | S6S0D | $61 / 2^{\circ}$ | 4 | 2.98 | $3.97$ |  |  |
| 22N19358 | S800D S1000D | $8^{8}$ | 8 12 | 6.8 | 8.97 |  |  |
| 22N19359 | S1200D |  | 12 | $\begin{aligned} & 6.8 \\ & 1.47 \end{aligned}$ | $\begin{aligned} & 9.70 \\ & 9.70 \\ & 4.41 \end{aligned}$ |  |  |
| 22N19363 |  | $6^{\prime \prime} \times 9^{\prime \prime}$ | 8 |  |  |  |  |
| LAFAYETTE-CONCORD PM SPEAKERS |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| High quality permanent magnet speakers. High permeability Alnico V magnets used for utmost efficiency. One-piece seamless cones, plated metal frames. Voice coll impedance 3.2 ohms up to $8^{\prime \prime}$ size, 6.8 ohms for $10^{\circ}$ and $12^{\prime \prime}$. All supplied less output transformer. |  |  |  |  |  |  |  |
| Stock No. | Dia. Inches | Watts |  |  | Depth | Wt. | Each |
|  |  | Nor. |  | Peak |  |  |  |
| 22N1915S | , | 2 |  | 4 | $11 /{ }^{\circ}$ | 1 | 1.75 |
| 22N19268 | 3 | 2 |  | 4 | 11.2 | 2 | 1.75 |
| 22N19257 | 4 | 2 |  | 4 | 125 ¢\%" |  | 1.45 |
| 22N19269 | - 5 | 3 5 |  | 5 7 | $179{ }^{19}$ | 3 | 1.50 2.35 |
| 22N19270 | 8 | 7 |  | 9 | 310 | 4 | 2.55 |
| 22N19290 | 10 | 9 |  | 11 |  | 6 | 4.45 |
| 22N19272 | 12 | 10 |  | 12 |  | 7 | 6.45 |
| 22N19258 | $4 \times 6$ | 3 |  | 5 | $178^{\circ}$ |  | 1.65 |

## LAFAYETTE-CONCORD FIELD COIL SPEAKERS

Ideal tor general replacement in AC-DC radios, amplifiers and intercommunications systems. Frequency response from 100 to 4500 cps . when properly baffled. Seamless molded one-plece cones. 3.2 ohms V.C.

* Tapped at 300 ohms.
$\dagger 6 \mathrm{~V}$ Auto.

| Stock No. | Dia. | Ohms | Watts | Wt. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 22N19279 | 3 | 450 | 2 | 3 | 1.68 |
| 22N19115 | 4 | 450 | $21 / 2$ | 3 | 2.34 |
| 22N19261 | 5 | 6 volt $\dagger$ | $21 / 2$ | 3 | 2.49 |
| 22N19262 | 5 | 450 | $21 / 2$ | 3 | 2.39 |
| 22N19263 | 5 5 | 3000 1800 | $21 / 2$ | 3 3 | 2.39 2.43 |
| 22N19117 | 6 | 6 volt $\dagger$ | 312 | 4 | 2.92 |
| 22N19118 | 6 | 1000 | $3{ }^{3}$ | 4 | 2.92 |
| 22N19119 | 6 | 1800* | $31 / 2$ | 4 | 2.92 |
| 22N19121 | 8 | 1000 | 4 | 6 | 3.63 |
| 22N19124 | 8 | 1800* | 4 | 6 | 3.63 |
| 22N19292 | 8 | 2500 1000 | 8 | 6 | 3.63 |
| 22N19125 | 10 | 1000 |  | 9 | 5.83 |
| 22N19126 | 12 | 1000 | 12 | 9 | 6.81 |

TELEVISION REPLACEMENT SPEAKERS
22N19277-4"x6". 60-ohm field; 3.2 V. C. $21 / 2 \mathrm{~W}$. Wt. $11 / 2$ Ibs.
2.70

## AUTOMATIC RECORD CHANGERS

NEW 3-SPEED MARKEL CHANGER


- Plays Both Sides
- Plays All Speeds

Model 75. The changer that does everything that the most expenslve changers ever did-and morel Automatically plays all speeds-33-1/3, 45 , 78 RPM ${ }^{\prime \prime}$ all sizes$7^{\prime \prime} 10^{\prime \prime} 12^{\prime \prime}$ records...P I US BOTH SIDES of all 10 and 12 " records, in sequence and automatically...without turning them naticaly...wiour furning them music without music without touching the re cord changer! Handles twelve $12^{\prime \prime}$ and twelve $10^{\prime \prime} 33-1 / 3$ RPM records, twelve 10 or ten 1 " $^{4} 78$ RPM records on one or both sides. Also plays stack of fifteen $7{ }^{\prime \prime} 33-1 / 3$, or ten 45 RPM or twelve 78 RPM records on one side, automatically. Unit is equipped with two interchangeable playing heads and semi-permanent needles. Automatlc shut-off on last record of stack of 10 or $12^{\prime \prime}$ records. Improved push-off post ellminates chipping or crack ing of records. Operates on $115 \mathrm{~V} ., 60$ cycles AC. Dimensions: $151 / 4 \times 143 / 4 \times 10^{\prime \prime} \mathrm{hlgh}, 7^{\prime \prime}$ above and $3^{\prime \prime}$ below mtg. plate. Shipping Welght: 23 lbs.
34N22463-List Prlce $\$ 109.50$...........Net.................69.76
Same as above except without wood finish cabinet base. List Price $\$ 99.50$
34N22464..................................................................... 63.39

VM 3-SPEED RECORD CHANGERS


Model 406GE. Plays all sizes and speeds automatically. This changet will do any of the flay 2 RCA 45 RPM or Columbia 33-1/3 RPM $7^{\prime \prime}$ records; $10^{\prime \prime}$ or $12^{\prime \prime}$ or intermixed; separately or intermixed; 10 or 12 78 RPM separately or intermixed, and all automatically. Shuts off after last record. Uses a plugin type arm supplied com plete with two GE reluc-
tance cartridqes and shells. 12 spiders also included to adap the overslzed hole on the RCA 45 RPM records so they can be played automatically; A GE pre-amp is required. Size: $13-3 / 16 \mathrm{~W} . \times 12 \%$ L. x $7 / \mathrm{K}^{\prime \prime} \mathrm{H}$. Shpg. Wt: 18 lbs .
34N22468-List Price $\$ 63.15$.
....Ne
37.14

## VM MODEL 4060GE CHANGER

Same as the 406GE described above except mounted on an attractive base $15 \times 15 \times 10^{\prime \prime}$. Wt: 19 lbs . 34N22469-List Price $\$ 66.15$.. . Ne
38.91

## V.M MODEL 406 CHANGER

Simllar to 406 GE except with standard arm and erystal eartridge Instead of reluctance iype. No pre-amp requilred. Dimensions: $13-3 / 16^{\prime \prime} \mathrm{W} . x 121^{\prime \prime}$ L. $x 71^{\text {n }} \mathrm{H}$. 34N22470-List Price $\$ 59.50$. $\qquad$ 33.22

## VM MODEL 4060 CHANGER

Same as 406 except mounted on attractively finished base. Dimensions: $15 \times 15 \times 10$ ". 34N22471-List Prlce $\$ 59.50$. $\qquad$ 34.99

## 45 RPM RECORD SPIDERS

Adapts center hole for standard size spindles. 34N20 1

10 for..

## RECORD CHANGER CABINET

This sturdy record cabinet makes a handsome addition to any room. Constructed of beautiful straightgrained walnut veneers. Panel will If Webster 356,256 and 156 . Twin hinge top. Satin-smooth inish. 22N19425-Shpg. Wt. 12 Lbs... 14.95 As above with blank panel
$22 \mathrm{~N} 19426 . . . . . . . . . . . . . . . ~$
14.95


SEE YELLOW SECTION FOR PORTABLE CARRYING CASES

## WEBSTER-CHICAGO 3-SPEED CHANGER

Mode1.356-27. Plays all makes, all sizes and all speed records - automatically. Three speed swltch makes the chanqeover to 78 ,
45 and $33-1 / 3$ RPM, fast and elfortless. Designed for use with GE reluctance cartridges. Lightwelght arm makes it unnecessary to adjust weight when shifting from standard to LP records.
 After last record, pickup arm, returns to rest except on 7 " records which keep repeating. Shock mounted motor assembly assures smooth, quiet operation at any speed. Supplied with 10 spiders for insertion in center of 45 RPM records. Dimensions of motor board: $141 / \mathrm{x}$ $141 / 4^{\prime \prime}$. Helght above plate $5-5 / 8^{\prime \prime}$; below the plate, $2 \% / 4^{\prime \prime}$. Unit requires the GE pre-amp and cartrldges listed below. Shiprequires Weight: 18 lbs .
34 N22465-List Price $\$ 43.00$. Less Cartridges -Net. 27.37 $G E$ long playing cartridge for above changer 34N 13485 -List Price $\$ 9.95$ With Needie....Net........... 5.85 Same as above, but for standard 78 RPM records.
34 N 13500 -List Price $\$ 9.95$. With Needie.....Net....... 5.85 GE self-powered pre-amp. Shpg. Wt. 2 lbs.

NOTE: For Full Descriptions On Above See Page 48.

## WEBSTER-CHICAGO 3-SPEED CHANGER

Model 356-1. Similar to Webster model 356-27 except arm is supplled with standard crystal cartridge with tandem needle. No pre-amp required. Shpg. Wt. 18 lbs
34N22466-List price $\$ 51.75$.
Net.
32.91

## WEBSTER-CHICAGO 3-SPEED CHANGER

Model 346-1. Same specifications as Model 356-1 except measures $12 \times 12 \%$ ". Helaht above plate $5-3 / 32{ }^{\prime \prime}$; below the plate, $2-5 / 32^{\prime \prime}$. Shipping Weight: 15 lbs.
34N22467-List Price $\$ 46.50$.
.Net..
29.62


## Model 77-1.

 an entirely new reco-deven" is designed to play 45 or $33-1 / 3$ RPM 7 records automatically. Simple in design, yet incorporates such features as veloclty trip, 3 -second change cycle. smooth, controlled tone arm action and no record slippage. The physical dimensions of this model changer makes it interchange-able with other current 45 gPM record changers, including exact duplication of mounting holes. Mounting dimensions of the baseplate: $10-1 / 8 \times 7-1 / 8^{\prime \prime}$. Shpg. Wt: 11 lbs. 34N22603-List Price $\$ 27.50$


#### Abstract

........... Net. .


17.52

## WEBSTER SINGLE SPEED CHANGER

Mode1 156-27. Provides automatic playing of ten $12^{\prime \prime}$ or twelve $10^{\prime \prime} 78$ RPM records. Shuts oft automatically after the last record. Home recordings or "Inside out" records up to $12^{\prime \prime}$ size can be played manually. Smooth running, heavy duty, 4 -pole motor operates on 110 volts, 60 cycles Ac. Suppled with mounting template, instruction manual and hardware, for mouniting on $5 / 8^{\prime \prime}$ board. Dimenslons of motorboard: $14 \times 14^{\prime \prime}$. Helght above plate $6^{\frac{1}{2} 2^{\prime \prime}}$; below plate, $2^{1 / 2^{\prime \prime}}$. Complete with GE cartridge and needle. Only pre-amp required. Shipping Weight 18 lbs .
34N22502-List Price $\$ 44.50$
.Net...
26.58

## WEBSTER SINGLE SPEED CHANGER

R.fodel 156-1. Same as Model 156-27 described above except with standard crystal pickup. No pre-amp required. Shipping Weight: 18 lbs. 34N22500-List Price $\$ 38.50$...........Net................. 24.52

## WEBSTER SINGLE SPEED CHANGER

Modei $146-1$. Simllar to Model $156-1$ except does not shut off
automatically. Size: $12 \times 12^{n} .5-3 / 32^{n}$ above plate; $2-5 / 32^{\prime \prime}$ automatically. Size: $12 \times 12^{\prime \prime}$. $5-3 / 32^{\prime \prime}$ above plate; $2-5 / 32^{\prime \prime}$
below plate. Allow additional $1 / 2^{\prime \prime}$ front, side and rear for $12^{\prime \prime}$ below plate. Allow additional $1 / \mathrm{m}^{\prime \prime}$ fr
34N22501-List Price $\$ 34.75$.
. Net.
.22 .12

## METAL BASES FOR WEBSTER CHANGERS

Brown wrinkle finish. Moutiting brackets welded in place. Felt feet. Shipping Weight: 5 lbs .
34N22355-F or Models $146,246,346$
3.12

34N22356-For Madels 56, 156, 256 \& 356

# PHONO MOTORS \& RECORD ACCESSORIES 

## 45-78-33 1/3 RPM PHONO MOTOR



GI Model TS. Compact, triple-speed motor with powerful 2-pole, rim drive. Suitable for every installation requiring dependable performance at low cost. Light weight construction; smooth, quiet operation. Even running at all speeds. Fan cooling permits use in partially closed cabinets. Employs two idenilical Neoprene belis for 45 and $331 / 3 \mathrm{RPM}$ speeds. 78 RPM speed obtained directly from rotor shaff, Speed requlated by simple external lever. Size: $31 / 8^{\prime \prime} L \times 21 / 4$ Wx2 9/16"D below mounting plate. Complies with Underwriters Laboralory requirements. Complete with turntable, mounting plate and speed indicator dial ready for installamounting plate 215 V.cycle AC.
34 N 22457 -Shpg. wt. 4 lbs
List Price 10.85 . 6.51


ALLIANCE 3-SPEED MOTOR
Plays $331 / 3,45$, and 78 RPM records. Turntable shaft equiped with $11 / 2^{\prime \prime}$ removable center disk to accommodate new RCA 45 RPM records. Speed change control permits instantaneous engagement of proper idler for desired speed. Quiet, dependable operation assured by rubber-shock-mounted friction type motor. Mounting centers $41 / 2^{\prime \prime} \times 33 / 8^{\prime \prime}$. Depth below base mitg. plate $21 / 8^{\prime \prime}$ 110 V., 60 -evcle AC.

List Price 10.95
6.44

## 3-SPEED PHONO-RECORDER ASSEMBLY



Model GI-R85-L. Employs dual purpose plckup cartridge and external speed change adjustment for 78 RPM and $331 / 3 \mathrm{LP}$ records. Special spring furnished for changing $331 / 3 \mathrm{RPM}$ to 45 RPM. Cuts record up to $10^{\prime \prime}$ at 160 lines/inch and plays records up 0 12". Convenient depth of cut adjustment. Dynamically balanced 4-pole motor. Compensating switch operated by speed change dial. Size: $15^{\prime \prime} \mathrm{W} \times 111 / 2^{\prime \prime}$ front to back; $23 / 4^{\prime \prime} \mathrm{H}$ above base plate; $37 / 8^{\circ}$ below lower edge of base plate. $115 \mathrm{~V} ., 00$-cycle AC. 35N22459-Shpg. wi. 17 lbs.

List Price 53.50. 32.10

## DUAL SPEED PHONO MOTORS



## 78 \& 33 1/3 RPM'S

Compact, low-cost dual speed rim-drive units with external lever type speed change control. Same size as present single speed motors.
Model DM. 78 and $331 / 3$ RPM two-pole motor with $9^{\prime \prime}$ iurntable and mounting noter New stable rubber belt rim drive plate. New stable rubber bell rimirive. For 110 volts
weight 4 lbs.

34N22571-List Price 10.75
6.45 Model DR. Deluxe 78 and $331 / 3$ RPM shielded two-pole motor with $10^{\prime \prime}$ turntable. 2-diam. motor shaft rim drive
11.10

## 45 \& 33 1/3 RPM'S

GI Model DS. Compact, rim drive, 2 -pole motor. 45 RPM speed obtained from rotor shaft. Employs Neoprene belt for $331 / 3$ RPM speed. Simple external lever controls speed. Dimensions: $31 / 8^{\prime \prime} L x$ ${ }^{\text {speed }}{ }^{1 / 4^{\prime \prime}} \mathrm{W} \times 29 / 16^{\prime \prime} \mathrm{D}$ below mounting plate. Complete with turntable and mig . plate ready for installation. $115 \mathrm{~V} ., 60$-cycle AC. 34 N 22455 -Shpg. wt. 4 lbs ...

List Price 10.75. 6.45

## DUAL SPEED 45-33 1/3 RPM PHONO MOTOR

GI Model DV. Deluxe rim drive, 2 -pole motor with a simple and positive mechanism for shifting from one speed to the other. Speed change accomplished by means of an external push-pull lever. Special mechanism raises and lowers entire idler assembly, disengages the idler wheel from the 2-diameter motor shaft and moves idler wheel from one diameter to the other. Size: $6^{\prime \prime} \mathrm{L}$ $\times 55 / 8^{\prime \prime} \mathrm{W} \times 25 / 9^{\prime \prime} \mathrm{D}$ below mounting plate. Complete with $10^{\prime \prime}$ turntable and mitg. plate. 115 -volt, 60 -cycle AC.
34N22456-Shpg. wt. $61 / 2 \mathrm{lbs}$.
List Price 18.50.
11.10

## CONSTANT SPEED MOTOR

Model CX. Gear Drive. 78 RPM. Selfstarting induction type. Fully enclosed hellcal cut gears in oil. Fan cooled. $41 / 4 \times 41 / 8 \times 31,6^{\prime \prime}$ doep. For 110 V., 60 cycles. $10^{\prime \prime \prime}$ turntable.

34 N22525-Wi. 10 lbs .
…...................
List Price 14.25
8.55

Model CX 3. $331 / 3$ RPM.

1. 10 lbs.
8.60

## RIM DRIVEN MOTOR

GI Model LX. Insulation between motor and mounting plate, and motor and turntable for quiet operation. Otl-less bronze bearings. Two-pole high speed motor. 78 RPM, 110 V .60 cycles AC only. 9 T.T. Shpg, wi. 5 lbs.


Model LX3. Two-pole $331 / 3$ RPM motor with $9^{\prime \prime}$ turntable. 34N22573-Shipping welght 5 lbs.

List Price 8.004 .80 Model LX45. 45 RPM. Rim drive, 2.pole motor with $9^{\prime \prime}$ turntable. 34N22454-Shipping welght 4 lbs

## PHONO OSCILLATOR

Elmeo Model 110. For use with all types of phonos. Compact, well bullt unit. Tunes from 550 to 1200 KC . Completely wired and ready for use. Attractive grey wrinkle finish. Supplied complete with phono-iack, 117N7 tube, antenna copl and orating instructions. For 110 -volt AC-DC operation.
AC-DC operation.
$34 N 22460$-List Price 9.95 ....................... 5.85

## ICA RECORD PLAYER SWITCH

Used for quickly connecting record players, FM and Television attachments into the audio amplifier of radio receivers. Provides change over from radio to record players without introdueing hum. Cuts out radio on phono 9N12699-Shpg.
1.32
 3-SPEED STROBOSCOPE
Easily and accurately checks turntable speed of $331 / 3,45$, and 78 RPM phono motors. For 50 and 60 cycle. 34 N 200

## IYRIC RECORD CARRYING CASE

Stores fifty ten-inch records safely and conveniently. Smooth, rounded corners, streamlined design with welded seams protect your records from scratches, dusi and warpage. records from scras and aircraft aluminum Extra strong steel and aircraft aluminum combined in constructon to lom a very ligh and durable case. Handy indexing system uses numbered tabs and dividers. Sturdy snap-lock fastener, rubber cushions and leather carrying handle. Finished in two tone brown ripple enamel. Shpg. w

### 4.33

 34N21885-List Price 6.50.

## RECORD CASE

A fitting companion to any record player or phonograph. Rugged case is finished In fine phonograph. ther Brass fittings, plastic handle. simulated learher. Brass for thisty 10 -inch commercial or home records. With lab index. $111 / 4 \times 111 / 4 \times 41 / 2^{\prime \prime}$. 34 N 21873 -Shpg. wt. 3 lbs...................2. 49 ach, lots of three 3 . 2.25

## HARMONY RECORD RACK

Holds up to fifty 10 or 12 in . records. Steel frame has sheathed wire dividers. 34N21874-Shpg. wt. 2 lbs.
1.50
 Why risk broken and scratched records When you can safely file fifty $10^{\prime \prime}$ or $12^{\prime \prime}$ records in only 12 inches of table or shelt steel base and separators, keeping your records in perfect condition. Handy indexing system included helps you iocate any record in a for music lovers. 34N21894-List Price 3.50
2.33

## STANDARD ALBUMS

Attractive maroon covers. 12 pockels. Opens Attractive Index inside cover. Shpg. wt. 2 lbs. 34N21890-10-inch size... 34N21891-12-inch size.

## 78c



## DELUXE RECORD ALBUMS

Padded brown swirl leatherette. 12 pockets. Padens flat. Gold embossed Gothic design on Opens Beautiful in appearance, unusually back. Beautitul in Shppearance, ${ }^{\text {sturdy }}$ construction. Shpg. wi. 3 bs. 34N21888-10-inch size
34N21889-12-inch size...................................... 1.33

# PHONO PICKUPS - ARMS-CARTRIDGES-PREAMPS 

## SHURE CRYSTAL PICKUPS


#### Abstract

STANDARD AND MICROGROOVE  duction of new widerange position. Excellent repro"Vertical Drive" cartridge makes possible true tracking of both standard and fine-groove records with a heedle force of only 7 grams. Output level at $331 / 3$ RPM is 1.0 V .; at 45 RPM .85 V .; at 78 RPM 1.1 V . Frequency response to $6,000 \mathrm{cps}$. Die-cast aluminum arm scientifically curved for best tracking angle. Equipped with $.0027^{\circ \prime}$ Osmium and .001" Sapphire replaceable needles. Shpg. wt. 12 oz. 34N 13511 -List Price 16.25 Each 9.55


(A) Model 901 A. For standard 78 RPM recordings. Same "Vertical Drive" principle as above. Tracks with a force of only 7 grams. Frequency response to $6,500 \mathrm{cps}$. Output level 1.1 V . Constructed of diecast aluminum, scientificallyacurved for best tracking angle. Sapphire replaceable needle. 34N 13510 -Shpg. wt. 12 oz..

List Price $11.75 \mathbf{6 . 9 1}$
(A) Model 901MG. For use with $331 / 3$ and 45 RPM fine-groove recordings. Frequency response to $10,000 \mathrm{cps}$. Equipped with $.001^{\prime \prime}$
Sapphire replaceable needle. Needle pressure: 5 gms . Output level 1.0 Volts. Vertical drive cartridge. 34 N13509-Shpg. wt. 12 oz.
7.50

(B) Model 9008. Muted Stylus Type for home or coin phonos. Overcomes nolse and distortion. Has specially designed muted Osmium needle for longer record life-needle retracts when too much force is applied to cartridge. Low mass aluminum tone arm is designed for maximum, faithful tracking. Needle torce is low loz.; output voltage 1.8. Peak-free wide frequency response. 34N13419-Shipping weight 1 lb .
6.17
(C) Model 93A. "Glider" Type Pickup-Lightweight, seplacement for fickups. Takes up to $12^{\prime \prime}$ records. High 1.8 volts output with response
34 N13417-Shipping weight 8 oz .
Model 96A. "Glider"
34 N 13508 -Shipping weight 13 oz .


List Price 7.50
4.41

## List Price 8.505 .00 <br> GE TRANSCRIPTION ARM

 Model FA-21-A. Designed to mount the GE Variable Reluctance Cariridge above. Used by broadcasting stations and those desiring the inest quality reproduction of lateral transcriptions and records. Mass of the transcription arm reduced to the minimum polnt through use of special design and magnesium alloy for moving parts. Low friction assured by precision cone fype bearings. turntable to the edge of the mounting surface is at least $15^{\prime \prime}$ 34N13514-Shpg wt. 1 lb....40.18 Model RWP-001. Counterweight adapts above for L.P 34 N 13515
3.77


## PICKERING CARTRIDGE REPRODUCER

Designed to give the highest quality seproduction of records and transcriptions. Will fit into almost any arm-"Keystone Clip" mounting permits adaptation to a large variely of arm shapes and sizes. Requires pre-amp equalizer listed below. Includes
sapphire stylus with tip radius of 0.0027.

## 34N13493-Model S-120M

9.90 . 24.90 34N13494-Model D-120M, with Diamond Tlp. 6. 0

MICROGROOVE Cartridge, for new Long-Play records.
.36 .00 34N13495-Model D-140-S, with Diamond Stylus. 34N13498-Model S-140-S, with Sapphire Stylus
Bracket for mounting Pickering cartridge in Webster Model 1456 Bracket for mounting Pickering cartridge in Webster Model 356
three speed changers. No charge with order.
$34 \mathrm{~N} 13503-$ For $\mathrm{S}-120-\mathrm{M}$ and D-120-M 34 N13503-For S-120-M and D-120-M
Model 125R. Equalizer-amplifier. Designed for use with Pickering Cartridge Reproducers above. Compensates for average recording characteristics and raises output voltage as high as that obtainable from crystal pickups. Easily installed. Operates from power supply of amplifier or radio set. Normal HF characteristics flat to $15,000 \mathrm{cps}$; filter cuts off above $4,000 \mathrm{cps}$ at 20 db /octive.


Fig. A. Model RPX041. Variable Reluctance carrsdge with seplaceable needle. Provides smooth, wide range reproduction, of both conventional and long playing records. Low mechanical impedance. Small size and light in weight. Unaffected by widely varying temperature and humidity conditions. Reproduces entire usable range. Output: 12 millivolts at 1000 cycles. Pre-ampliffer listed below is required between pickup and input. Size 1 15/32 $\times 3 / 4 \times 9 / 16^{\prime \prime}$. For L.P. ( $331 / 3$ \& 45 RPM) secords. (Complete with replaceable needle.
34N13485-List Price 9.95
Each 5.85
Model RPX040. Same as above but for standard 78 RPM
Complete with replaceable needle.
34N 13500 -List Price 9.95.
5.85

34 N108-Replaceable needle for L.P. cartridge.
. 2.06 34N107-Replacement needle for Standard cartridge ..................2.06 Fig. B. GE Pickup Arm, with either standard or L.P. cattridges above. Plays 10 or 12 records. Can be used with any nonautomatic record player. Factory balance for proper stylus pres sure, which can be adjusted if desired. Simple to install. Single
hole mounting. $24^{\prime \prime}$ lead, mounting rest and mounting template hole mou
supplied.
34N13502-List Price 15.95....................with L.P. cartridge 9.38 34N13501-Llst Price 15.95 ...... with Standand cartridge ........ 9.38 Fig. C. Model UPX-003. Self Powered Pre-Amplifier for above cartridges and pickups. Uses 1-6SC7 tube in equalizing circuit, plus rectifier. Includes input jack, $14^{\prime \prime}$. output lead with phono plug. 115 V., 60 -cycle AC. $35 / 9 \times 35 / 8 \times 33 / 4^{\prime \prime}$
34N 13473 -List Price 15.95 . Shpg. wt. 2 libs..... With tube 9.38 Model SPX-001. As above, less rectiffer. Obtains filament and plate voltage from receiver or amplifier. 34N 13465 -List Price 9.90...
5.82

## BROADCAST CARTRIDGE

Model RPX-046. GE Broadcgst type cartridge. Less needle. 6.73
$34 N 13479$
Model RPJ-004. Diamond Stylus. .001" radius. Stylus pressure 6-8 grams. For long playing records. 34 N 128
16.17

Model RPJ-003. Diamond Stylus. Radius .003". Stylus pressure $3 / 4-11 / 4$ oz. for 78 RPM records. 34N109
16.17

## ASTATIC PICKUPS

## STANDARD AND MICROGROOVE

Model 6D. Crystal. For standard and long playing records. Re sponse 50 to 7.000 cps . Output voltage 1.2 V . at $78 \mathrm{RPM} ; 0.9 \mathrm{~V}$. at $331 / 3$ and 45 RPM. Needle pressure 8 grams. Equipped with precious metal and sapphire stylus tips in reversible cartridge. Dark brown finish.
34 N13512-Shpg. wt. 2 lbs.
.List Price 15.90
9.35


## MICROGROOVE PICKUP

Model 507L-92-33. For use with $331 / 3$ and 45 RPM long playing range $50-10,000 \mathrm{cps}$. 1.6 volts output. Needle pressure 10 grams . Needle not included. Opalescent gray finish. 34N13513-Shpg. wt. 1 1/8 lbs.

4.70

## ASTATIC TONE EQUALIZER

For use between crystal pickup and amplifier. Has 4 positions: Bass, Med., Hf., Off. Single hole mounting. Dimenstons: $2^{\prime \prime} x 3 / 4^{\prime \prime}$
34 N13475-Shpg. wt. 1 lb.........................


## PHONO PLAYBACK \& RECORDING NEEDLES

All the needles listed below are 3 -millimeter radius for use with standard 78 RPM recordings except where otherwise specified. Long playing and microgroove needles are 1 -millimeter radius, designed


## NEW MICROGROOVE NEEDLES OSMIUM AllOY TIP

Designed for new, long-playing and microgroove
records. $3 / 10$ offset shank for hifidelity, softer
tone.
$34 \mathrm{Ni} 120-.001^{\text {" }}$ radius........................

## SAPPHIRE AND RUBY POINTS

Full tone needies for new long playing and micro: groove records. Good for 5,000 plays. 3/10" oiftset shanl for softer tone. 001 radlus.
$34 \mathrm{~N} 121-$ Sapphire Point. ............
89 34N 122 -Ruby Point

## SAPPHIRE TIP STRAIGHT NEEDLE

Designed for the new lightwetght pickups and the new Long-Play records. $001^{\circ}$ radius. 89c


## JEWEL-TIPPED OFFSET-SHANK

 NEEDLES

PERMANENT TYPE PHONO NEEDLES
Sapphire Tip Needle. Guaranteed for 8,000 plays. Tapered duraluminum shatt completely plays. Iapered duralominam Precision ground and pollshed point For tone arms with less and polished point. 34N117-List price 1.00 Lots of 24

59c
Ruby Jewel Tip Needle. 12,000 plays. Double bend tapered shaft absorbs shock. Dlamond polished tip. Lots of 20, each

## STANDARD JEWEL-TIP NEEDLES

Duotone Durpoint-ofiset type, plays up to 4000 records. 34N443. Walco Tru-Trac-sapphire point, plays 5000 records. 34N170.

## WEBSTER TANDEM REPLACEMENT NEEDLES

| Singly 4.00 ea . Lots of 102.00 ea . Osmium. For models 356 and 346 changers. <br> 34N178............................. 4.00 ealy Lots of 102.00 ea. Sapphire. For models 356 and 346 changers. <br> 34N179...................... Singly 5.00 ea. Lots of 102.50 ea. |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

for use with the new Columbla $331 / 5$ and RCA 45 RPM recordings. Precision made for best reproduction of all types of recordings. For exact replacement types see listings on cartridge page 50 .

LONG LIFE PLAYBACK NEEDLES


1. Preciaus Metal point needle with offset shank. For maximum record sides without changing.
34N199.
88c
2. Rellance 4000 play needle. Plastic case. Low surface nolse
34N443. .................................................
3. Permo Point 2000 play needle with potented preciaus metal elliptical point. Standard for coin machines.

50c
3. Reliance Permanent Point Needles, 2000 plays.

34N165.
39c
4. Fidelitone "Floating Point" needle filters record scratch. 3 to 6 months average use ( 1000 or more sides). Platinum point. Ideal for changers.

50c
4. Deluxe Fidelitone "Floattng Point" needle. As above, but good tor 5000 plays.
34N478.
Each 1.00
9. Presto transcription metal alloy needle. Long life, high-fidelity. Semi-permanent selfslubricating point. 40 to 50 hours on standard records, longer on home recordings.
34 N 236

69c
11. Sapphire Tipped Playback Needle! Permanent needle-plays 2000 commerctal records with minimum wear. Excellent frequency acteristics. A real value.
1.15

## STANDARD PLAYBACK NEEDLES

9. Red shank needles for acetate recordings. Individually shadow
tested, $\mathbf{3 4 N 4 3 3 - P a c k a g e ~ o f ~} 100$.
Each 4.c
10. Filter point highly polished surgical steel needle. Shadow tested. Low surface noise. $10-15$ plays.
34 N 209 -Package of 10 Each 8c

10 sides.
34N430A-Package of 10 .
8 c
34 N 430 B -Package of 25.
Each 15c
11. RCA steel phonograph needles.

34N153-Full Tone (Pack of 100).
$34 \mathrm{~N} 160-$ Extra Loud (Pack of 100)
15c
10 Packages assorted......................
34N357-Package of 6 .
$25 c$
10 Packages
1.80
9. Green Shank shadowgraphed needles.

Good for 12 plays each.
34N432 - Package of 100 .............................. . Each 4. C
10. RCA Red Seal needles, designed for Red Seal records. 30 e

34N10 Package of 50
. 2.00

## RECORDING NEEDLES

5. Lapped edge sapphire cutting needle for acetate discs. Precision cut jowel for low surface noise and highest fidelity. Over 5 hours cutting life

Each 3.23 35N19
5. Like above, but with Long Shank to tit Presto Professional and Brush
cuting heads
$35 N 198 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$
3.45

35N198.
discs. About
6. Sapphire cutter ground to W. E. spec. For acetate discs. About
io hours life. Can be resharpened.
Each 4.25

35N196.................................
Each 4.25
6. Steel cutting needle for acetate; individually ground and lapped. Flattened shank
35N 439-Package of 3
39 c
7. Stellite cutter fer acetate discs. Extremely quiet. Cuts hundreds of sides; can be resharpened.
1.18

35N337.............................................................
25 10-in discs.
35N348-Package of 4.................................... Each 59c
8. Alloy cutter for scetate; harder than steel. Polish while they cut.

Hand lapped.
3SN434A-Package of 5
Each
95c
3SN 434 B-Package of 10 .

# CARTRIDGES-RECORDING DISCS 

CRYSTAL PICKUP REPLACEMENT CARTRIDGES,
Replacement units with accompanying needles for all standard makes of crystal pickups as recommended by manufacturers. Precision made and individually tested.


* With precious metal needle.
$\dagger$ With sapphire needle. $\ddagger$ With nylon needle.
With special brackets for RCA 45 RPM changers.


## REPLACEMENT NEEDLES FOR ABOVE

3:N106--Precious metal tip for LT models. .
34N101-Precious metal tip for Model OTM.
3:N114-Nylon needle for Model Nylon-1-J.
34N138-1 Mil sapphire for U.J cartridge.
34N138-3 Mil sapphire for U.78.I cartridge

## - DOUBLE NEEDLE TURNOVER CARTRIDGE



34N13847

Type LQD-J. Fits changers using a furnover type cartridge. 7 grams pressure for long playing; 15 grams for standard. OutSapphire tipped needles. 5.59 Type LOD-IJ. Same as above except with lront bracket lor turnover knob used on
changers.
5.59

| REPLACEMENT NEEDLES FOR ABOVE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 34N102-3 Mil sapphire tipped needle for 78 RPM records.. 1.47 <br> 34N137-1 Mil sapphire tipped needle for-LP reconds........... . 1.47 |  |  |  |  |
|  | RCA |  | - |  |
| Stock No. | Model | Pressure | Output | Each |
| 34N215 | 31050 | 2.7 oz. | 1.5 V . | 2.52 |
| 34N249 | 37158 | 3 oz . | 1.5 V V. | 2.82 |
| 34N277 | 33217 | 2.7 oz . | 1.5 V . | 2.52 |
| 34N280 | 33122 | 2.7 oz . | 1.5 V . | 2.52 |
| 34N13424 | 31156 | 3 oz . | 1.5 V . | 2.85 |
| 34N13979 | 38610 | 2 oz . | 1.5 V . | 3.33 |

## WEBSTER

Model C2 $2 / 2$ oz pressure: output 20 V 34N13976-Flange mount.

## REPLACEMENT CARTRIDGES FOR WEBSTER-CHICAGO CHANGERS

Type V 47. For Webster 356-1 changer.
34N13708.
Type V 42.2. For Webster $256-1$ and 246 changers 34N13709.
4.12
4.12

## RCA MAGIC TONE CELL KIT



Maqic Tone Cell with "Silent Sapohire" semipermanent jewel up needle for high-fidelity reproduction. Output volts $11 / 2$. Includes Magic tone cell, silent sapphtre jewel point and hardware.
34N13960-Each
4.12


## SHURE CARTRIDGES

Reversible cartridge for playing 78, 331/5 and 45 RPM. "Vertical Drive construction. needle chuck rotates on vertical axis. Meets needs of high needle point compliance and fidelity for microgroove records. Response to 6000 cps . Output 1 V . Pressure 6 grams.
Type W22A. With 1 Mil and 3 Mil sapphire needles. 34N13713.
Type W22AB. With I Mil sapphire and 3 Mil osmium.

## LEVER TYPE

| Stock No. | Model | Pressure | Output | Each |
| :---: | :---: | :---: | :---: | :---: |
| 34N13985 | W57A | 3808. | 1.6 V. | 3.26 |
| 34 N 13987 | W58A | 314 oz . | 1.6 V | 3.26 |
| 34N13988 | W59A | 1 oz . | 2.5 V . | 3.26 |
| 34 N 13993 34 N 13835 | W56A | $13 / 808$. 1808 | ${ }_{1.3}^{4.3 \mathrm{~V}}$ | 3.91 2.02 |
| 34 N 13400 | W53MG* | $\begin{array}{ll}1 \\ 6 & \mathrm{oz.} \\ \mathrm{gr} .\end{array}$ | 1.0 V | 5.00 |
| 34N13836 | W56R | 1 oz . | 4.3 V . | 4.41 |

*With Osmium needle.


* With 1 Mil Sapphire needle. $\dagger$ With 3 Mil Sapphire needle.
$\ddagger$ With 3 Mil Osmlum needle. For RCA 45 RPM changer.


## REPLACEMENT NEEDLES FOR ABOVE

34N105-1 mil Osmium needle for W53MG.
1.18

3 mil sapphire needle for W6OA and all "Vertical Drive" Cartridges. 3 mil. Osmium needle for W60B, W6iB, W6SB and all "Vortical Drive" Cartridges.
34N104.
34N174-1 mil sapphire for all ivertical Drive ii types............... . . . 88

## RECORDING DISCS

PRESTO "ORANGE SEAL" PRESTO "GREEN SEAL"

Sturdy aluminum base coated
with Presto's spectal compound -have low surface noise and long-playing life.

| No. | Size | Fach | Lots 10 Each | Lots 50 Each |
| :---: | :---: | :---: | :---: | :---: |
| 35N11960 | $6{ }^{1} 2^{\prime \prime}$ | 26 c | 23c | 2 lc |
| 35N11961 | $8^{\prime \prime}$ | 37e | 33 c | 30c |
| 35N11962 | $10^{\prime \prime}$ | 56 c | 50c | 45c |
| 35N11963 | 12" | 75c | 66 c | 60 c |

## AUDIODISCS "YELLOW

## LABEL'

For amateur, school or home use. Acetate coated on aluminum base. Doublè-sided and labeled on both sides.

| No. | Size | Fach | lots of 25 Earh |
| :---: | :---: | :---: | :---: |
| 35N11990 | $8{ }^{\prime \prime}$ | . 70 | . 42 |
| 35N11997 | $10^{\prime \prime}$ | 90 | . 54 |
| 35N11998 | 12" | 1.50 | . 90 |
| 35N11999 | $16^{\prime \prime}$ | 2.70 | 1.62 |

## RECORDISC "ORANGE Label"

Admirably sulted to the average type of amateur transcripition. Bond base, professional nitrate coated.
35N11969—Pkg. of $66 V_{2}^{\prime \prime} .54$ 35N11970-Pkg. of $68^{\circ} \quad .90$ 35 N11971-Pkg. of $610^{\circ} \quad 1.26$
RECORDISC "RED LABEL"
Professional quality. . $021^{*}$ thick aluminum base with mirror-like nitrate finish.

| No. | Size | Each | 5 for |
| :---: | :---: | :---: | :---: |
| 35N11972 | 61/2" | 20 c | 90 |
| 35N11973 | $8{ }^{\prime \prime}$ | 27 c | 1.20 |
| 35N1 1974 | $10^{\prime \prime}$ | 40c | 1.80 |
| 35N11975 | $12^{\prime \prime}$ | 53c | 2.40 |

Finest grade-aluminum base with special compound. Used by lahoratoires to demonstrate the capabilities of recording equipment. Thickness: .052".

| No. | Size | Fach | $\left\lvert\, \begin{gathered}\text { Lots } 10 \\ \text { Fach }\end{gathered}\right.$ | $\begin{aligned} & \text { Lots } 30 \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 35N11992 | 12" | 1.35 | 1.20 | 1.08 |
| 35 N 11967 | 1314* | 1.68 | 1.50 | 1.35 |
| 35N11993 | $16^{\prime \prime}$ | 2.44 | 2.17 | 1.95 |

## AUDIODISCS "RED LABEL"

For professional use. Acetate coated on smooth aluminum base. Double.sided with 3 drive pin Double sided with 3.
holes. $054^{\circ}$ thickness.

| No. | Size | Each | Lots of 25 Fach |
| :---: | :---: | :---: | :---: |
| 35N11989 | $8{ }^{\text {* }}$ | . 80 | 48 |
| 35N11994 | $10^{\prime \prime}$ | 1.15 | . 69 |
| 35N11995 | 12" | 1.85 | 1.11 |
| 35N11996 | $16^{\prime \prime}$ | 3.40 | 2.04 |

## RECORDISC "PURPLE LABEL"

Similar to Red Label, but with lighter weight aluminum base, and mirror-like nitrate caat.

| 入io. | Size | Each | 5 for |
| :---: | :---: | :---: | :---: |
| 35N11945 | $612^{\prime \prime}$ | 14 c | . 60 |
| 35N11946 | 8 " | 20 c | . 90 |
| 35N11947 | $10^{\prime \prime}$ | 30 e | 1.35 |

## RECORD RENEWERS

For acetate records. Cleans, lu-
bricates, protects etc.
$35 N 15300-2-\mathrm{oz}$. bottle.... 2.
For commerclal records.
35N15301-2-oz, bettle......29c

## INVERTERS - POWER PACKS - GENERATORS

CORNELL-DUBILIER CONVERTERS


Provides smooth, dependable operabion of radios, amplifiers, intercoms and other H.P.F. appliances. Delivers 110 -volt, 60 cycle AC from 6, 12 and 110 -volt DC power sources. Completely RF filtered for broadcast short wave and FM Models 6R5, 6R10, $12 R 8$ and 12RU15 feature 4 way adjustable load control switch. Model 110 R 10 , includes 3 -way control terminal board. Phantom switch can be added to Model 110R25.

| $\begin{aligned} & \text { Stoek } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \mathrm{DC} \\ \text { Input. } \end{gathered}$ | Watts |  | $\underset{\mathrm{L}}{\text { Size }}$ | Shpg. <br> Wt. | List Price | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Int. | Cont. |  |  |  |  |
| 21N17285 | 6125 | 6 | 55 | 50 | 6\% $4 \times 73 / 4 \times 3$ | 12 | 41.95 | 24.67 |
| 21 N17286 | 6R10 | 6 | 125 | 100 | 7x129/3812 | 19 | 59.50 | 34.99 |
| 21 N17287 | 12R8 | 12 | 120 | 80 |  | 12 | 41.95 | 24.67 |
| 21N17288 | $12 \mathrm{RU15}$ | 12 | 200 | 150 | $7 \times 12^{5} \mathrm{cz7} \mathrm{~m}^{\prime \prime}$ | 22 | 78.95 | 46.42 |
| 21 N17289 | 110 R 10 | 110 | 150 | 100 | $63 / 8{ }^{3} 3 \times 5{ }^{1 / 3 n}$ | $10^{1}$ | 39.95 | 23.49 |
| 21N17290 | 110RA15 | 110 | 200 | 150 | $61 / 8 \times 71 \times 51 /{ }^{\prime \prime}$ | 121/2 | 48.75 | 28.66 |
| 21N1729 | 110R25 | 110 | 300 | 250 |  | 221/2 | 61.9 | 38. |

C-D REPLACEMENT VIBRATORS

| Stock No. | Type No. | Repl. For Model | List Price | Eacb |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 21N6039 } \\ & \text { 21N6040 } \end{aligned}$ | $\begin{aligned} & 3103 \\ & 4123 \end{aligned}$ | $\begin{aligned} & \text { 6R5 } \\ & 6 R 10 \end{aligned}$ | $\begin{aligned} & 10.65 \\ & 1+.85 \end{aligned}$ | $\begin{aligned} & 6.26 \\ & 8.73 \end{aligned}$ |
| 21 N6041 | 1315 | $\begin{aligned} & \text { 110R10 } \\ & \text { 110RT25 } \\ & \text { 110RA15 } \end{aligned}$ | 10.65 | 6.26 |
| 21N6042 <br> 21 N 6043 <br> 21N6044 | $\begin{aligned} & 3077 \\ & 3077 \mathrm{~V} \\ & 3079 \end{aligned}$ | $\begin{aligned} & \text { 110RTI5 } \\ & \text { 110RT25 } \\ & 110 R T 35 \end{aligned}$ | $\begin{aligned} & 12.65 \\ & 15.65 \end{aligned}$ | $\begin{aligned} & 7.44 \\ & 9.20 \\ & 9.91 \end{aligned}$ |

C-D MOBILE MOUNTING BRACKETS

| Stock No. | Type No. | For | List Price | Each |
| :---: | :---: | :---: | :---: | :---: |
| 21N6045 <br> 21N6046 | $\begin{aligned} & 3164 \\ & 3165 \end{aligned}$ | $\begin{aligned} & \text { 6R5, 12R8 } \\ & \text { 6R10, 12RU15 } \end{aligned}$ | $\begin{aligned} & 1.95 \\ & 1.95 \end{aligned}$ | $\begin{aligned} & 1.15 \\ & 1.15 \end{aligned}$ |

## C-D PHONO MOTOR CONVERTERS

Model 110 PA5. For operation of automatic and manual


Supplles filtered, 110 -volt, 60 -cycle AC power from 110 volt DC source. Hammered enamel finish. Has leads for permanent wiring instailation. Output 75 volt-ampere intermittent, 50 volt-amperes continuous duty
8.77

Model 110PB5. Same as above but with cord, plug, recaptacle and slide switch. For external connection.
ATR STANDARD \& HEAYY DUTY RADIO INVERTERS
This newly developed line of DC to AC inverters is especially recom mended for aperating AC Radios. Public Address Systems, Amplifiers, etc., from DC voltages. Extremely well filtered to insure interlerence. free all-wave radio reception. All models listed below have 110 volt. 60 cycle AC output. Standard models measure $83 / 6 \times 9 \times 51 /{ }^{\prime \prime}$ ", shipping wt., 19 lbs. Heavy duty model measures $61 / 2 \times 111 / 4 \times 81 / 2^{\prime \prime}$, shipping wt. 30 lbs .


| No. | DC Volts Input | Watts |  | Cost |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Int. | Cont. |  |
| 21 N17242 | 6 | 85 | 75 | 29.37 |
| 21 N17243 | 12 | 125 | 100 | 29.37 |
| 21N17244 | 32 | 150 | 100 | 29.37 |
| $21 N 17245$ | 110 | 250 | 150 | 29.37 |
| 21N17246* | 110 | 325 | 225 | 42.63 |
| 21 N17247 | 220 | 250 | 150 | 33.52 |

VIBRATORS FOR ABOVE
21N6048 For 6V models

## 21N6049 For 110 V model

## KATO GAS-ELECTRIC PLANTS

Filtered, shielded, compact and lightweight consistent with good engineering practice to insure rugged durability and power output. Both models illustrated provide 115 volts 60 cycles AC at the rated wattages for continuous duty, and the first model shown also provides 150 watts at 6 volts DC for charging batteries. Both use air-cooled
 A. Portable units. 500 watt unit has 1 h.p. single-cylinder engine, 600 watt unit has 1.4 th.p. single-cylinder engine. Will run 6 to $61 / 2$ hours on 1 gallon of gasollne. Units have start and stop push buttons. With cutout. DC ammeter, charging control resistor, battery cables. One 6 -voit storage battery required for starting (not supplied). Model No. 23HAB4. Rated at 500 watts. 21N19819
Weighs 170 lbs.
164.80 A. ModelN
21N19820Weighs 200 ibe
201.60
B. Model 26HAB4. Heavy duty unit. 1000 watts continuous duty output. Single-cylinder, 4 -cycle. 2.4 h.p. engine. Runs 41/2 hours on one gallon 21N19821
Weighs 295 lbs
264.00

## CORNELL-DUBILIER TV CONVERTERS

Specially designed to meet the critical power conversion requirements of TV. Delivers 110 volt 60 cycle $A C$ from 110 V . DC power source. RF filtered for broadcast, short wave, FM and TV. Model llortis features "phantomswitch" and TV freq. control. 110 RT25 features frequency control and Du Add plug-in construction for the addition" of "phantomswitch."


110RT35 Fully automatic power conversion and "phantomswitch."

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Watts |  | SizeL |  | Shpg. Wt. Lbs | List <br> Price | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Int. | Cont. |  |  |  |  |  |
| 21 N 17239 | 110RT15 | 250 | 150 |  | 121/x7 $\times 2{ }^{\text {a }}$ | $16^{3 / 4}$ | 65.00 | 38.22 |
| 21N17293 | 110RT25 | 300 | 250 |  | 123 \% $\times 813^{\prime \prime}$ | 2212 | 69.95 | 41.13 |
| 21N17235 | 110RT35 | 500 | 350 |  | 14x8918 | 40.15 | 119.50 | 70.27 |

## C-D "PHANTOMSWITCH"

Model 3155. For use with models 110 R25 and 110 RT25. Self contained plug-in unit. No wiring necessary. Automatically turns converter on or off with tion of switch on the AC equipment. 21 N17295-List 14.50
8.53

## C-D BATTERY ELIMINATOR-CHARGER

Model 110BA6. Provides 6-volt DC power from $110 \mathrm{~V} ., 60 \mathrm{cycle} A C$ source. 60 watts continuous output. Built-in voltmeter and ammeter provide accurate, visible adjustment of output voltage. 7 -position switch gives choice of 4,5,6,7,8,9 or 10 amps. Ideal for testing auto radios and charging batteries. Size: $75 / 8^{\prime \prime} W_{x} 121 / /^{\prime \prime} L \times 81 / 2^{\prime \prime} \mathrm{H}$. 21N17292 Shpg. Wt. 16 lbs. - List 54.95 .. $\mathbf{3 2} 21$


Model 110BA12. Supplies 6 and 12 V. DC for servicing and testing auto, truck and boat radios and appliances, 120 walt continuous output. Built-in ammeter and voltmeter. 7 step switch from 8 to 20 amps. at 6 V . or 4 to 10 amps at 12 V . Hammered enamel ínish. Size: $75 \mathrm{~s}^{\circ \prime} \mathrm{Wx}$ $13^{\prime \prime} \mathrm{Lx} 81 / 2^{\prime \prime} \mathrm{H}$.
$21 \mathrm{~N} 17294-$ Shpg. Wt. $241 / 2 \mathrm{lbs}$-List 85.50
50.27

## BROOKS PHONO-MOTOR INVERTERS

Provide an efficient and economical method for the operation of AC phono motors in DC areas.
Model Z-1. Standard type. Will operate any standard 115 volt AC, 60 cycle, record player or changer on DC current. 9.95 Model Z-2. AC-DC swlich type. For use with any record player or changer. Can used on elther AC or DC without disAC or DC as desired.
 21N17299.
10.95

## MALLORY VIBRAPACKS

Flexible, heavy-duty vibrator power supplies for supplying high voltage direct current from a storage battery or similar DC source. for use with receivers, amplifiers, fransmitters, etc., in
marine, vehicular P.A., aircraft, police car, fire truck and similar applications. Four vollage output in 25 volt steps. Compact and light in weight (average shipping weight is approx. 10 lbs. .).
High efficiency reduces drain on batteries.


NOTE: Two types are listed, self-rectifier and tube rectifier. " $B$ " minus is at ground potentials in the self-rectifier types. Use the tube rectifier type for applications where " $B$ " minus should not be grounded.
Type VF-223 Filter--For all single unit packs where utmost hum

| No. | Type | Vitg. | Output Voltage | Outpu | Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21N6059 | VP | 6.0 | 250 | 60 ma. | Self-Reet. | 17.64 |
| 21N6090 | VP-55 | 6.3 | 125-150-175-200 | 100 m | Self-R | 12.94 |
| 21N6094 | VP-552 | 6.3 | 225-250-275-300 | 100 ma . | Self-Rect. | 15.43 |
| 21N6091 | $V P-553$ | 6.3 | 125-150-175-200 | 100 m | Tube Rect. | 14.41 |
| 21N6095 | $V{ }^{\text {P-5 } 54}$ | 6.3 | 225-250-275-300 | 100 m | Tube Rect. | 16.90 |
| 21 N 6066 | VI | 6.3 | 300 | 200 | ube Rect. | 30.58 |
| 21 N6067 | VP-557* | 6.3 | 400 | 150 ma . | Tube Rect. | 30.58 |
| 21 N 6092 | VP-G.556 | 12.6 | 225-250-275-300 | 100 ma . | Self-Rec | 16.90 |
| 21N6068 | VP-F558 | 32.0 | 225-250-275-300 | 100 m | Tube Re | 18.3 |

- Special Dual Packs for bigh output. Output vitg. not adjustable.
$\dagger$ Filtered. Requires no filter.
Type VF-223 Filter-For all single unit packs where utmost hum suppression and voltage requiation is required. 21N6060.


## REPLACEMENT VIBRATORS FOR VIBRAPACKS

| No. | Vibropacks | Ty pe | Each | No. | V'packs | Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27N6062 | VP-551, 552, 540 | 725 | 4.56 | 27N6064 | VP-G556 | G-725 | 5.32 |
| 27N6063 | VP-553, 554, 555 $\dagger, 357 \dagger$ | 825 | 3.67 | 27N6065 <br> †Two ni | VP-F558 rators req | F-826 <br> ired. | 4.12 |

## BURGESS BATTERIES

STANDARD DRY BATTERIES
For radio or laboratory use．Suffix letters of battery numbers denote type of terminal．PI－plug－in；SC－spring clip；all others have screw terminals except＊with strap terminals，t tapped at $223 / 4$ volts；tapped at $3,43 / 2,16$ and $221 / 2$ volts．

| Cat． <br> No． | Burgess Type | Volt | Size | $\left\lvert\, \begin{gathered}\text { Shpg } \\ \text { Wt．} \\ \text { Lbs．}\end{gathered}\right.$ | Pkg． | Net Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Sgle <br> Lots |  |


| 20N19822 20N19832 20N 19824 20N19831 20N19825 20N 19829 20N19861 20N20683 20N 19865 20N 19826 20N19862 20N19863 20N20682 | $21308 \mathrm{PI} \dagger$ <br> 21308SC $\dagger$ <br> $10308 \mathrm{PI} \dagger$ <br> 10308SC $\dagger$ <br> $2308 \mathrm{Pl} \dagger$ <br> $2308 \mathrm{SC} \dagger$ <br> 5308 <br> X30X <br> Z30NX <br> 5156PIH <br> 5156SC <br> 4156 <br> A15ST＊ | 45 <br> 45 <br> 45 <br> 45 <br> 45 <br> 45 <br> 45 <br> 45 <br> 2212 <br> 221／2 <br> 22的 |  |  | $\begin{array}{r} 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 10 \\ 6 \\ 10 \\ 10 \\ 10 \\ 10 \\ 6 \end{array}$ | 3.41 3.41 3.26 3.26 2.38 2.38 1.65 2.86 1.98 1.39 1.39 1.00 1.18 | 3.10 3.10 2.96 2.96 2.16 2.16 1.50 2.60 1.80 1.26 1.26 .91 1.07 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ＇${ }^{\text {C＇，BATTERIES }}$ |  |  |  |  |  |  |  |
| 20N 19868 <br> 20N19866 <br> 20N19827 <br> 20N19867 <br> 20N20686 | $\begin{aligned} & 5540 \\ & 5360 \\ & 2370 \mathrm{PI} \\ & 2370 \mathrm{BP} \\ & \mathrm{B3BPX} \end{aligned}$ | $71 / 2$ $41 / 3$ $41 / 2$ $41 / 2$ $41 / 2$ |  | $\begin{array}{lll} 1 & & \\ 1 & 3 / 2 \\ 1 & \\ 1 & 1 / 2 \end{array}$ | 10 10 10 10 6 | .74 .39 .62 .62 .84 | .67 .35 .56 .56 .16 |
| ＇$A$＂＇BATTERIES |  |  |  |  |  |  |  |
| 20N20680 <br> 20N20679 <br> 20N 19844 <br> 20N20685 <br> 20N20611 <br> 20N20678 <br> 20N20681 | $\begin{aligned} & \text { F4BP } \\ & 2 \mathrm{~F} 2 \mathrm{BP} \\ & \mathrm{~F} 2 \mathrm{BP} \\ & \mathrm{B2BP} \\ & 422 \\ & 2 \mathrm{FBP} \end{aligned}$ $44$ | 6 3 3 3 3 $11 / 2$ $11 / 2$ |  | $\begin{aligned} & 2 \\ & 13 / 2 \\ & 1 \\ & 1 / 2 / 2 \\ & 1 / 4 \end{aligned}$ | 10 10 10 6 10 10 10 | .56 1.05 .53 .48 .23 .53 .66 | .51 .95 .48 .44 .48 .60 |

＂A＂and＂B＂BATTERIES FOR HEARING AIDS

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | BurgessNo． | Volts | Shpg． | Size | $\stackrel{\mathrm{Std}}{\mathrm{Std}}$ | Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Sinqle | $\begin{aligned} & \text { StI. } \end{aligned}$ |



STANDARD＂B＂BATTERIES

| 20N20693 | XX22E | 33 | 7 oz ． |  | 10 | 1.23 | 1.12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N20694 | XX30E | 45 | 7 oz． |  | 20 | 1.45 | 1.32 |
| 20N20677 | U10E | 15 | 2 oz. |  | 20 | ． 62 | 56 |
| 20N20676 | U15E | 221／2 | 21／20z． | 1x900131／${ }^{\prime \prime}$ | 20 | ． 78 | 71 |
| 20N20675 | U20E | 30 | 3 oz ． | $1 \times 2 / 8 \times 2{ }^{17} 0^{\prime \prime}$ | 20 | ． 95 | 86 |

IGNITION－LANTERN－TELEPHONE BATTERIES

| Stock No． | Burgese No． | Volts | Shpg． Wi． | Size | Std． Pkg． | Prica Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Single | Sid． Pkg． |
| N19 |  | 11／2 | 13／2lbs． | $23 / 7 \times 25 / 5 \times 4^{5} / x^{\prime \prime}$ | 20 | 51 | 46156 |
| ON19846 | 4F2H | 3 | 3 lbs ． | $29 \times 3110 \times 55^{5}$ | 8 | $99 \%$ |  |
| 20N19837 | 4F4H | 6 | $7 \mathrm{lbs}$ |  | 6 | 2.38 | 2.16 |
| 20N19838 | F4H | 716 | $\frac{1}{8} / \mathrm{llbs}$ | $256258 \times 3{ }^{\prime \prime}$ | 20 6 | 584 3.06 | $521 / 26$ 2.78 |
| 20N19839 20N19841 | 4F5H | 71／2 | 8 lbs． |  | 6 | 3.06 3.51 | 2.78 3.19 |



## FLASHLIGHT CELLS

No．1，2，and Penlite cells－superior quality bat－ teries consiructed for intermittent use in lanterns and flashlights．
20N20621－No． $1_{2}$ Cell．Size： 1 3／8x1＂． 20N20622－No． 2 Cell．Size $23 / \mathrm{Fzl}^{3} / \mathrm{K}^{4}$ Either above，each 20N20623 Penlite cell． $21 / 8 x^{33} / 4$

STANDARD BATTERY PLUGS
Fit all batteries above with Pl after their numbers．Will also fit similar make batteries．With fahnestock clips for cable．

| Stock No． | Type | Volt． | E． | $\left\lvert\, \begin{aligned} & \text { Lots } \\ & \text { of } 10 \end{aligned}\right.$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 45 | d | 81 |
| 20N20592 | 3 prong | 416 | 104 | 0 |
| 20N20593 | 5 prong | 221／2 | 16 é | 1.44 |

PORTABLE BATTERY PLUGS



| Stock No． | $\begin{aligned} & \text { I1- } \\ & \text { lus. } \end{aligned}$ | Deso． | Ea． | $\begin{gathered} \text { Lots } \\ 10 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| 20N20590 | 4 | 2－prg．＂A＂ | ． 03 | ． 27 |
| 20N20595 | 6 | 2－prg．＂A＂ | ． 03 | ． 27 |
| 20N20596 | 6 | 3－prg．＂B＂ | ． 04 | ． 36 |
| 20N20597 | 7 | 4－prg．＂AdB＂ | ． 05 | ． 45 |
| 20N20598 | 8 | 2－prg．＂A＂ | ． 03 | ． 27 |
| 20N20599 | 9 | 4－prg．＂AdB＂ | ． 05 | ． 45 |
| 20N20585 | 10 | 3－prg．＂A＂ | ． 05 | ． 45 |
| 20N20586 | 11 | 4－prg．＂AdB＂ | ． 04 | ． 36 |
| 20N20588 | 12 | 4－prg．＂Ad ${ }^{\text {P }}{ }^{\text {＂}}$ | ． 05 | ． 45 |
| 20N20589 | 13 | 4－prg．${ }^{\text {a }}$ AdB＂ | ． 05 | ． 45 |
| 20N20594 | 14 | 5－prg．＂AkB＂ | ． 07 | 63 |

SNAP FASTENER TERMINALS
 Same battery terminals as used for Eveready types 430 ， $435,455,467$ ；Burgess type XX－45 and XX30 midget bat－ teries．Sturdy，well－made terminals．Male and female units sold separately．
20N11733－Male Snap Fastener．
20N11734－Female Snap Fastener．
Any above，Ea．44．Lots of 10， 32

| Stock No． | Burgess No． | Volts | Uses Plug No． | $L \times W^{\text {Size }} \times H$ | WILL REPLACE |  | Shpg． Wt．， Lbs． | Std． Pkg． | Price <br> Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Ever． eady | Ray－o． Vac． |  |  | Sgle． | $\begin{gathered} \text { Std. } \\ \text { Pkg. } \end{gathered}$ |
| 20N19854 | 2 F | $11 / 2$ | 5 | 217 白 $\times 1510 \times 4^{2}$ 价 |  |  | 1 | 6 | ． 43 | ． 39 |
| 20N19850 | 4 F | 113 | 5 | $25 / 8 \times 28 / 8 \times 4{ }^{31} \mathbf{6}^{\prime \prime}$ | 742 | P94A | 2 | 12 | ． 75 | ． 68 |
| 20N20625 | 2R | 112 |  | $2^{5} 16 \times 1{ }^{\prime \prime}{ }^{\prime \prime}$ |  |  | 4 oz | 192 | ． 07 | ． 065 |
| 20N20610 | G3 | 412 | 4 | $4 \times 15 / 5 \times 415 / 4{ }^{\prime \prime}$ | 746 | P83A | 2 | 12 | ． 56 | ． 51 |
| 20N19842 | F4P1 | 6 | 8 | $25 / 1 \times 25 / 7 \times 4^{4}{ }^{3}$ |  | P694A | 2 | 12 | ． 73 | ． 66 |
| 20N20613 | 2F4L | 6 | 8 | $330 / 0 \times 1 / 6 \times 1011 /{ }^{\prime \prime}$ | 747 | P698L | 4 | 6 | 1.43 | 1.30 |
| 20N19843 | G5 | $71 / 2$ | 10 | $38 / 8 \times 2^{1 / 16043} 100^{\prime \prime}$ | 687 | P85A |  | 6 | ． 85 | ． 77 |
| 20N20626 | T5 | 71.3 | 8 |  |  |  | $11 / 4$ | 6 | ． 96 | ． 87 |
| 20N19851 20N20628 | ${ }_{4 F}^{6 F}$ | 1111 | 5 |  | 743 | P96A | 3 <br> 3 | 6 18 | ． 99 | ． 93 |
| 20N20628 | 4FL | 112 | 5 |  |  | P94L | 3 | 18 | ． 69 | ． 63 |
| 20N20629 | F3 | $4{ }^{41 / 2}$ | 4 |  |  |  | $11 / 2$ | 6 | ． 56 | ． 51 |
| 20N20630 | 24 | 6 |  |  | 724 |  | $1 /$ | 24 | ． 39 | ． 35 |
| 20N20631 | B5 | 715 | 10 | 37／0x ${ }^{37} / 6 \times 2^{13} \mathrm{~m}^{\prime \prime}$ |  |  | ，2 | 10 | ． 74 | ． 67 |
| 20N20632 | C5 | 71／2 | 10 |  |  | 751C | 3 | 6 | 75 | 68 |

## PORTABLE＂B＂BATTERIES

| 20N20627 | XX45 | 671／2 | p．o | $2^{3}$ | 467 | 4367 |  | 2 | 74 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N20612 | A 30 | 45 |  | 3910x21／4x46 |  | 430P | 3 | 6 | 1.65 | 1.50 |
| 20N20614 | B30 | 45 | 6 |  | 762 | P5303 | 3 | 12 | 1.82 | 1.85 |
| 20N20616 | Z30 | 45 | 6 |  | 738 | P7R30 | 2 | 6 | 1.92 | 1.75 |
| 20N20617 | M30 | 45 | 6 | $30.6 \times 18 / 4 \times 511^{\prime \prime}$ | 482 | P5S30 | 4 | 12 |  | 1.40 |
| 20N20615 | XX30 | 45 | snap－on |  |  |  | 12 oz． | 12 | 1.28 | 1.16 |
| 20N20634 | K45 | 673／2 | snap．on | $2^{21 / 0 x 196}{ }^{17}$ | 457 |  | ， | 12 | 1.64 | 1.58 |
| 20N20633 | N60 | 90 | snap－on | $3^{21 / 6511 / 4 \times 311 / 0^{\prime \prime}}$ | 490 |  | 1／4 |  | 2.28 | 2.07 |

COMBINATION PACKS FOR PORTABLES AND FARM USE


## （2GR）BATTERIES－MALLORY CHARGERS

## RCA FLASHLIGHTS

RCA Modol RT22RIP．Prefocused for maximurn spot．Silver－plated zinc parabolio rellector．Rust resistant，nickle plated，drawn steel barrel．Pre－set bulb．Uses two VSOOI or No． 2 batteries．
20N20570
806

RCA Model LU0101P．Chromium plated brass case．Variable focus adjustment． 3．position roller switch．Uses 2 VSOOI or number 2 cells．

95c
RCA PENLITE，LU020 Chrome plated brass barrel；durable spring clip；positive slide switch；bulb guard．Uses LS034 batteries． 20 N20572．

95c

## MICRO－LITE GLOW TIP

$\square$Minlature flashlight with tip that glows all night after switch is oft，without using battery． Brass case with phosphorescent plastic tip． Uses 1 penlight baltery． 20N20563－Each

605

## SELENIUM BATTERY ELIMINATORS



For＂$A$＂and＂$B$＂battery replacement in portable and farm radios using 4－7 tubes．Converts such sets or operation from 110 v ． 60 cycles AC．Provides completely filtered and hum tree reception，Uses no tubes．Easy to install．Universal sockets for all type battery plugs．Delivers 1.5 v ．＂ A ＂and 90 v ． B．＇ $21 / 8 \mathrm{~m}^{4} 1 / 2 \times 63 / 4$
$21 \mathrm{~N} 15708-\mathrm{Shpg}$ ．wt． $5 \mathrm{lbs} . .$.
9.85

As above，but uses tube rectifier．
8.82

GE TUNGAR BULBS FOR CHARGERS
 inators，etc．

| Cai，No． | Type | Amp． | GE No． | Each |
| :---: | :---: | :---: | :---: | :---: |
| 21N21901 | B |  | 12X825 | 3.31 |
| 21N21902 | C | 2 | 206501 | 3.31 |
| 21N21904 | B | 5 | $20 \times 672$ | 4.41 |
| 21N21903 | D | 6 | 189049 | 3.67 |
| 21N21911 | D | 15 | 217283 | 7.35 |

## GE TUNGAR－TYPE BULBS

21N21907－Type B， 2 amp．WL 2 lbs．．． 2.25 21N21906－Type C， 2 amp ．Wt． $2 \mathrm{lbs..}$. 21 N21908－Type D， 6 amp ．rating．

2 lbs.
21N21909－Type $D_{1}$ is amp．rating．
Wt． 2 lbs．
4.50

## HYDROMETER

Live red rubber bulb and nozzle；beaded float．
$33 c$

## BIAS CELLS AND HOLDERS

Biases high gain amplifiers． 20N6424
20N6420－Holder for 1 cell 20N6421－Holder for 2 celle 20N6422－Holder for 3 cells 20N6423－Holder for 4 cells


## INSTRUMENT PANEL PLUG FOR BATTERY CHARGERS

Permits charging of batteries through cigar ofte lighter receptacle．Plug fits into lighter receptacle on instrument panel． 6 ＂lead connect to clips on leads of chargers． 21N15689－Shpg．Wt． 6 oz．

RCA BATTERIES TO FIT ANY APPLICATION

| Stock <br> No． | Type <br> No． | Volts | Size <br> Inches | Sim．to <br> Burgess | Std． <br> Pkg． | Shpg． <br> Wt． | List <br> Price | Singly <br> Each | Std． <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

PORTABLE＂A＂BATTERIES

| 20N20709 | VS036 | ， | 23／6x16 | 2R | 48 | 1／4 | ．121／2 | 09 | ． 08 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N20703 | VS004 |  |  | 4F | 6 |  | ． 95 | ． 14 | ． 68 |
| 20N20712 | VS005 |  | $3^{18} / 6 \times 13 / 655 / 8$ | 4FL | 5 | $11 / 2$ | ． 90 | ． 69 | ． 63 |
| 20N20704 | V 5007 | $11 / 2$ | $3^{15} 16 \times 2{ }^{6 / 3} \times 4^{1 / 06}$ | 6 F | 4 | 2 | 1.25 | ． 96 | ． 88 |
| 20N20705 | VS008 | $11 / 2$ | $37 / 8 \times 17 / 4 \times 103 / 4$ | 8FL | 6 | 3 | 1.75 | 1.35 | 1.23 |
| 20N20706 | $\checkmark 5002$ | $41 / 2$ | 4x1768411／5 | G3 | 6 | $11 / 4$ | ． 75 | 58 | 53 |
| 20N20707 | VS009 | 6 | $25 / 8 \times 256841 / 6$ | F4P1 | 6 | $13 / 4$ | ． 95 | ． 73 | 67 |
| 20N20708 | VS011 | 6 | $37 / 81^{1}$ 俰 $103 / 4$ | 2F4L | 6 | 3 | 1.75 | 1.35 | 1.23 |
| 20N20711 | VS003 | $71 / 2$ | 37／825 $5 / 8 \times 49 / 6$ | G5 | 5 | 3 | 1.10 | ． 84 | ． 77 |

PORTABLE＂B＂BATTERIES

| 20N20715 | VSO14 | 45 | $3^{7} / 4 \times 21 / 4 \times 4^{9}$ | A 30 | 6 | 2 | 2.15 | 1.65 | 1.50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N20716 | VS013 | 45 | 3916x ${ }^{18} 16 \times 51 / 2$ | M30 | 12 | 21／4 | 2.00 | 1.54 | 1.40 |
| 20N20717 | VS012 | 45 | 41／8×25／8×5 $/ 10$ | B30 | 6 | $23 / 4$ | 2.35 | 1.81 | 1.65 |
| 20N20719 | VSO15 | 45 | $3 \pm 21 / 4 \times 4$ | Z30 | 10 | $11 / 4$ | 2.50 | 1.92 | 1.75 |
| 20N20720 | VS05S | 45 | $2^{21}$／ra $\mathrm{x}^{31}$／19311／6 | XX30 | 12 | 3／4 | 1.65 | 1.27 | 1.16 |
| 20N20718 | VS016 | 671／2 | 25／8×33／4×18／6 | XX45 | 12 |  | 2.25 | 1.73 | 1.58 |
| 20N20713 | V5090 | 90 | $3^{41}$ 佂 $13 / 8 \times 33 / 4$ | N60 | 12 | 3／4 | 2.95 | 2.27 | 2.07 |

## PORTABLE＂A－B＂BATTERY PACKS

| 20N20714 | VS018 | 71 | 105／6x37／6x $41 / 8$ | G6M60 |  | $71 / 4$ | 5.50 | 3.85 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N20730 | VS019 | 71／2－9．90 | $91 / 2 \times 231843$ | F6A60 | 6 |  | 5.50 | 3.85 |  |
| 20N20721 | VS046 | 6.75 | $125 / 623 / 4 \times 41 / 8$ | G4850 | 6 | $61 / 2$ | 4.95 | 3.45 |  |
| 20N20731 | VS047 | 9.90 | $13598 \times 4916 \times 23 / 4$ | G6B60 | 6 | $81 / 4$ | 5.50 | 3.85 |  |
| 20N20728 | VS050 | 6．71／2－75 | $89 \times 21 / 4 \times 311 / 6$ | T5250 | 6 | 4 | 4.50 | 3.15 |  |
| 20N20732 | VS054 | 11／2．90 | $10 \times 23$／10x ${ }^{3}$ | 6TA60 | 5 | $61 / 2$ | 5.50 | 3.85 |  |
| 20N20733 | VS057 | 71／2－9－90 | $936 \times 2$ \％ $6 \times 31 / 4$ | T5260 | 6 | $41 / 2$ | 5.50 | 3.85 |  |

FARM＂A＂BATTERIES

| $\begin{aligned} & 20 \mathrm{~N} 20122 \\ & 20 \mathrm{~N} 20123 \end{aligned}$ | $\begin{aligned} & \mathrm{VSO} 24 \\ & \mathrm{VSO} 25 \end{aligned}$ | $3^{11 / 2}$ | $\begin{aligned} & 7^{111 / 1 x^{28} \times 2 \times 7} \\ & 11_{16}^{11} \times 4 \times 6 \end{aligned}$ | $\begin{aligned} & 20 \mathrm{~F} \\ & 20 \mathrm{~F} 2 \end{aligned}$ | 1 | $14^{71 / 2}$ | $\begin{aligned} & 3.30 \\ & 5.50 \end{aligned}$ | $\begin{aligned} & 2.31 \\ & 3.85 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## FARM＂B＂BATTERIES

| 20N20724 |  | 45 |  | 10308P | 4 | 113 | 95 | 2.95 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N20725 | VS026 | 45 | 81／6x $3^{3} 1 / 10 \times 7$ | 2308PI | 6 | 8 | 2.88 | 2.16 |

## FARM＂A－B＂BATTERY PACK



## NDUSTRIAL BATTERIES

| 20N20734 | VS 102 | $221 / 2$ | 13 | 4156 | 10 | 11 | 1.80 | 1.38 | 1.26 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N20735 | VS106 |  | $2110 \times 2$ 11／0x4310 | 4FH | 10 | 11／2 | ． 70 | ． 50 | ． 465 |
| 20N20736． | VS 112 | $221 / 2-45$ | 41／8×25／8353／3 | 5308 | 5 | $31 / 2$ | 2.15 | 1.65 | 1.50 |
| 20N20137 | VS114 | 221／2－45 |  | 230NX | 10 | $11 / 2$ | 2.58 | 1.98 | 1.80 |
| 20N20738 | VS130 | $11 / 2-3-41 / 2$ | $4 \times 17$ 价 $3^{7}$ 何 | 2370 BP | 10 | 1 | 81 | ． 62 | ． 56 |
| 20N20139 | VS131 | $221 / 2{ }^{*}$ | $41 / 8 \geq 21 / 2 \times 31 / 6$ | $5156 S C$ | 5 | 2 | 1.80 | 1.39 | 1.26 |
| 20N20726 | VS028 |  | 23／8x 18 ／10 $27 / 8$ | 5360 | 10 |  | ． 50 | ． 38 | ． 35 |
| 20N20127 | VS029 | 71／2＊＊ | $318 / 6 \times 1 / 8 \times 31 / 8$ | 5540 | 10 | 3／4 | ． 95 | ． 73 | ． 67 |

## FLASHLIGHT BATTERIES

| $\begin{aligned} & \text { 20N20100 } \\ & \text { 20N20701 } \\ & \text { 20N20702 } \end{aligned}$ | $\begin{array}{\|l} \text { VSOOI } \\ \text { VSO33 } \\ \text { VSO34 } \end{array}$ | $\begin{gathered} 11 / 2 \\ 11 / 2 \text { (baby) } \\ 11 / 2 \\ \text { (penlite) } \end{gathered}$ |  | 2 | 480 100 | 1／4oz． | ． 10 | .07 .07 | ． 065 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 115x | 1 |  |  |  | ． 07 | ． 065 |
|  |  |  | $2 x^{27} / 6$ | 2 | 120 | $1 / 2 \mathrm{Oz}$ ． | ． 075 | ． 06 | ． 05 |

## MALLORY MAGNESIUM－COPPER SULFIDE RECTIFIERS

Replacements for Battery Chargers，Elimipators，Pin－ball Machines，etc． All metal construction．Ruggedly assembled under high pressure to withstand severe vibrations and shock．Withstands temperatures from $-90^{\circ}$ to $+265^{\circ} \mathrm{F}$ ． ＂Self－healing＂rectifying film protects against accidental damage due to voltage surge．IB8R can be used for reversing the direction of HO model trains and 1B12R for $O$ gauge trains．

| Stock No． | Type No． | AC Volt． Input | DC Volt． Output | Cont． Amps | Used In | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $21 N 10543$ | IB4R | 3.6 | 1.7 | 1.5 | GTC Battery Elim． | 1.21 |
| $21 N 10544$ | IB8R | 7.2 | 3.4 | 1.5 | GTC Battery Elim． | 1.44 |
| 21N10545 | ［B12R | 10.8 | 5.2 | 1.3 | Elec．Fence Supply | 1.65 |
| 21N10546 | ［B12Cl］ | 10.8 | 5.1 | 3.2 | Mallory 3C，6AC4 | 3.21 |
| 21 N10547 | F16C3 | 14.4 | 6.8 | 3.9 | Mallory 5535 | 4.50 |
| 21N10548 | 1516CB7 | 14.4 | 6.6 | 6.0 | Mallory 5S35B，6AC6 | 4.76 |
| 21N10549 | F24H1P | 21.6 | 10.4 | 4.8 | Pin Ball Machines | 5.03 |

## TEST EQUIPMENT SECTION

Here is a representative selection of famous make, top quality test equipment for radio, television and industrial use. In addition to these latest, popular models, we can also supply any make not listed here, from our large inventory or on special order. Write for complete manufacturer's specifications.

## TIME PAYMENTS ON YOUR TEST EQUIPMENT

You can take advantage of our liberal Time Payment Plan. Now, you can pay for this equipment on convenlent monthly payments while you use 1t. Write us for terms on the particular instruments you want.

## TUBE AND SET TESTERS

## RCP MODEL 802NA TUBE AND SET TESTER



Compact service shop ready to take out on the job. Tests all recelving type tubes. Jack for noise test. 4/2" meter with large "Good-BadDoubtiful" section for tube testing. Easily read figures for set testing battery test. Tests paper, mica and electrolytic condensers for leakage. electrolytic condensers for leakage.
Ranges: $0-10 / 50 / 500 / 1000$ volts Ranges: $0-10 / 50 / 500 / 1000$ volts DC milliammeter ohms per volt. DC milliammetor 0-1/10/100/1000 ma. 0-10 amperes. Ohmmeter 0-500/
$5000 / 100,000$ ohms. $1 / 10$ megohms. 100,000 ohm range battery operated. Decibel measurements from -8 to +55 db . Output meter $0-10 / 50 / 500 / 1000$ volts. Hardwood case with compartment and self-latching cover, battery and test leads, $100-130 \mathrm{~V}$., 60 -cyc. AC. $121_{4}^{\circ} \times 12^{\prime \prime} \mathrm{x}$ $51 /{ }^{\prime \prime}$. Shipping Weight: $111 / 2 \mathrm{lbs}$. 25N21587...
58.31

## RCP "DYNOPTIMUM" TUBE TESTER

Model 322A. Easy to operate.
 Exclusive 'Dynoptimum' cirfor complete tube check. Perfor complete tube check. Permits accurate checking of wide cluding the new miniature and cluding the new miniature and sub-miniature recelving types.
Provisions for checking IndiviProvisions for checking Individual sections of multi-purpose tubes. Neon indicator lamp for quick testing of short and leakage between elements. Jack provided for headphone tests of tube noises. Operates on $100-130$ volt, $50-60$ cycle AC power supply. Model 322A is housed in handsomely styled open face steel cabinetwith sloping panel. $51 / 4 \times 121 / 4 \times 7{ }^{\prime \prime}$ 25N21599-Shipping weight 11 lbs .
37.19 Model 322 AP. Sane electrical characteristics as above, but housed in steel carrying case with detachable cover. 25 N 21600 -Shipping weight 13 lbs.
41.1


## STAR TUBE CHECKER

Model TE-1. Compact, precisionbullt tube tester. Light weight for portable or workbench use. Separate switching for each pin of each socket so any heater or plate voltsocket so any heater or plate voltage ican be applied. Checks 570
different tubes including new noval. different tubes including new noval.
Crackle finishmetal case. $9 \times 7 \times 31 / 2^{\circ}$. Crackle finishm.
Shpq. Wt: 6 lbs .
25N21554....
29.95

## HICKOK TUBE AND SET TESTER

Model 534 B Mutual conductance tester - checks all recelving-type
 tubes under operating conditions. Special switch enables checking useful tubelife. Scale reads directly in micromhos - important in televlsion where weak, but ordinarily passable tubes cause fuzzy plc. tures. Rollchart. Multi-tester ranges: AC-DC V $0-20 / 200 / 500 /$ ranges: AC-DC $1000 / 5000$ DC 20,000 ohms/volts. 10005000 DC 20,000 ohms/volts, AC 1000 ohms/volt; ohms 0.1 ohms to 100 megs in 3 ranges; DC MA $0-5 / 20 / 200 ; 0-50$ microamps; Capacitance . 00001-150 mid. Checks condensers. Checks inductance to 100 Henrios. DB from -10 to +50 db .110 V .60 cycles. $17 \times 18 \times 81 / \mathrm{h}^{\mathrm{n}}$.
25N21452-Shpg. Wt: 35 lbs.
169.20

Model 533P - as above, less set testing features. 25N21457 - Tube Tester. Shpg. Wt: 34 lbs.
133.20

Model 536 . Portable Tube and Set Tester. All the features of Model S34B plus additional accuracy, dependability of part1cular interest to the exacting technician and laboratory engineer. Separate line voltage meter.
25N21458 - Portable Tester. Shpg. Wt: 38 lbs.
20400 DC milliamps 0/1/10/100/1000; DC amps 0/10; Ohms 0/500/ 5000 ohms, $0 / 0.1 / 1 / 10$ megohms: Output meter $0 / 10 / 50 / 500 /$ 1000 volts. Decibel meter -8 to +55 db on 4 ranges. Natural Oak portable case. With test leads and instructions. $13^{\circ} \mathrm{x}$ $91 / 2 \times 5^{\prime \prime}$.For $105-135 \mathrm{~V}$., $50-60 \mathrm{Cyc}$. AC.
83.25

## RCP MODEL 8573 SERVISHOP

 Similar to above except incorporates RCP Model 805 B Tube and Set Tester which has roll chart and gives more exten-sive testing features. $A C$ and $D C$ volt ranges and output volt slve testing features. AC and DC volt ranges and output volit ranges up to 5000 V . Resistance readin
reading ranges to $+69.161 / 2 \times 12 \% \times 51 /{ }^{\circ}$. 25N215SI - Shipping Weight: 17 lbs.
97.95

## NEW HICKOK MODEL 600 TUBE TESTER



Dynamic mutual conductance dype tester of unexcelled accuracy, reads directly in micromhos. Ranges: 0-3000-6000-15000. The only accurate dependable test for tubes, used by tube manufacturers in their own labs. Tests future life and gas content of tube under actual operating conditions. Operating voltages, including DC qrid blas, are applied to every element. Signal is applied to control grid and meter reads AC component in plate current. Detects more weak tubes. Checks all latest types, including television. Attracively designed sturdy case in durable, red leatherette. Bracket in cover holds line cord Size: $71 / 2 \times 11 / 4 \times 16 \%{ }^{\prime \prime}$ 25N21612 - Shpg. Wt: 21 lbs.
126.00 Acom Adaptor for the above Tube Tester
25N21613..
4.95

## SUB-MINIATURE TUBE ADAPTOR FOR ALL HICKOK TUBE TESTERS. <br> 25N21614 <br> 3.60

NEW JACKSON CHALLENGER TUBE TESTER


A low cost, high quality instrument for the serviceman who needs an extra instrument, Includes famous dynamic testing method which prodynamic testing method which provides tube tests under actual use conditions. Tests over 700 types including TV rectifiers and sweep tubes. Has built-in roll chart. Makes nolse and short tests. Features a combination push-button, rotary switch element and voltage selection.
25N21690.
45.81

## TUBE AND SET TESTERS

## PRECISION TUBE AND SET TESTERS



Model 620-P. Newly designed to provide general purpose test of lubes and circuits of radio recelvers. Complete portable service laboratory, tests all modern tube types. Dual short check sensitivity free-point 10 element and short check lever selection. Individual tests of multi-section tubes. Built-in roll chart. Checks radio $\mathrm{A}, \mathrm{B}$, and C batteries under load. Circuit tester ranges: 5 AC , $D C$ and Output ranqes: $0-12 / 60$ $300 / 1200 / 3000$ volts of 1000 ohms/volt; DC curren 120 mA . $1000 / 100 \mathrm{M} / 10$ megs.; Decibels -12 to $\$ 64 \mathrm{db}$. Comes in hardwood portable carying case. Size: $12 \times 13 \times 6^{\prime \prime}$
$25 \mathrm{~N} 21662-$ Shpg. wt. 21 lbs.
92.22

Model 654P. Same as Model 620P excent following ranges: DC V. $0-12 / 60 / 300 / 1200 / 6000,20 \mathrm{M}$ ohms/volt; AC V. same as DC at 1000 ohms/volt; Output Volts same as AC V; DC current $0.120 \mathrm{mlcracmps}, 0-1.2 / 12 / 120 \mathrm{MA}, 0-1.2 / 12 \mathrm{cmps}$; Ohms $0-6,000 / 600 \mathrm{M} / 60$ meg.; Dectbels $-20^{\prime}$ to +70 db . $12^{\prime \prime} \times$ $13^{\circ} \times 6$.
25 N21664-Shpg. wt. 19 lbs
104.27

Model 612-P. Tube and Battery Tester. Features same as model 620-P, but less set testing features.
$25 \mathrm{~N} 21663-\mathrm{Shpg}$. Wt. 17 lbs.
68.11

## SUPREME TUBE AND BATTERY TESTER



Model 589-A. Easy-to-read full view scale, portable case. Unlversal floating filament circult provides for testing old, new and future tubes. Neon lamp checks open circuits and leakage between elements. Built-in roll chart carries full tube setling data. New tube selling data supplied for one year at no extra charge. Tube tester has 18 hlavoltage. Correct plate loads for all lubes. Jacks provided for use of headphones for checking nolsy, loose and bad connections. Checks $A$ and $B$ batteries under normal load "Replace-Good" scale. New type luggage carrying case, "Replace-Good" scale. New type luqgage carrying case, plastic hardware and leather carrying handle. Gray wrinkle panel. For $110-133$ volts, 50-60 cycles. Overall size: $11-1$ ) $\times 8-7 / 8 \times 5-3 / 8^{\prime \prime}$.
$25 \mathrm{~N} 21753-\mathrm{Shpg}$. wt. 10 lbs .
53.75


Model $10 \cdot 20-\mathrm{P}$. Mutual conductance tube tester with new "Elec tronamic teature, plus multirange Volt-Ohm-Milliameter and Battery Tester. The Electronamic eature checks fubes over complete path of operation. Tests all modern tube types. Free point lever element selection and interelement short checks. Tests radio $A, B$ and $C$ batteries under load. Built-in roll chart. Push-button operated circult tester. Ranges: $6 \mathrm{AC}-\mathrm{DC}$ and output ranges. $0-6 /$ $12 / 60 / 300 / 1200 / 3000$ at 1000 ohms/volt; DC Current $0-600 \mathrm{ml}$ croamps, $0-6 / 60 / 300 / 1200 \mathrm{MA}$ and $0-12$ amps; Ohms $0-1000$ 100,000 ohps and $0-1 / 10$ megohms Decibel -20 to 464 db . With batterles and test leads. $131 / 4 \times 171 / 66^{3 / 4}$. 25N21659-Shpg. wt. 23 lbs. $\qquad$ 117.40 Model $10-54-$ P. Same as above except DC voltage ranges are 20,000 ohms/volt; Cusrent ranges $0-60 / 120$ microamps, 0 $1.1 / 12 / 120 / 1200 \mathrm{MA}$, and $0 / 12$ amps; Resistance ranges $0-6000 / 600,000$ ohms and $0-6 / 60$ megohms; 6 Dectbel ranges -20 to 70 db .
25N21605-Shpg. wt. 23-1bs.
131.71

Model 10-12-P. Tube and Battery Tester. Has same features as Model $10-20-\mathrm{P}$, but less set tesiling features. 2SN21658-Shpg. wt. 21 lbs .
94.18

## EMC MUTUAL CONDUCTANCE TUBE TESTER



Model R200 BP. For the first time a mutual conductance tube tester with complete flexibility, at an unbelievably low price. Checks mutual conductance on a calibrated micromho scale as well as on a "Reject-Good" scale. $41 / 2$ " meter. Checks lubes for gas content, shorted and open elements. Sufficient plate current to check both mission and mutual conductance Flexible switching permits ali lesting tubes ching permits all lion of the regardless of locaCheck ballasts and vila base. and balasts and voltage reg ulators. Bullt-1n roll chart. Fused on front panel. Portable carrying case, 121/2x18x51/2 25 N 21616 -Shpg. wt. 20 lbs.
67.13 Model R200 BC. Same as above, but housed in at stylod sloping counter cabinet. $14 \times 111 / 2 x 5^{\prime \prime}$ 2SN21615-Shpg. wt. 17 lbs.
63.21

## CONDENSERS TESTERS



## SPRAGUE TO-3 TEL.OHMIKE

Speedy check locates open, intermittent, or shorted condensers without removing them from the circuit. Direct reading dial. color sures . 00001 to $2,000 \mathrm{mfd}$. in 4 ranges, power factor from 0 to $50 \%$ at 60 cycles, 0 to 2,500 meqohms insulation resistance. 2.5 ohms insulation resistance.
ohms to 25 megohms in 3 resistance ranges, and $D C$ voltage in ance ranges, and $D C$ voltage in milllamperes measured to 75 MA . In three ranges. Capacity and power fact or of electrolytic condensers measured with rated polarizing voltage applied. Electrolytic leakage measured $\ln M A . a^{\prime \prime}$
$13 \% \times 10 \times 5$.
$25 \mathrm{~N} 21787-\mathrm{Shpg}$. wt. 15 lbs .
59.70

JACKSON CONDENSER TESTER


Model 650-A. Push-button control gives fast, positive range selection for capacity and leakage test of electrolytic, paper or mica condensers. 4 ranges: 00001 to 1000 mfd . Scale expander provides two scale ranges for each push-button range. Maglc Eye* assures positive indications for both capacity and leakage tests. New principle gives positive leakage indication without bother of counting flashes or other inaccurate methods. Test voltages:
$20,100,200,300,400$, or 500. Measures power factor on direct reading scale. Range callbrated from 0 to $60 \%$. Dimensions:, $8 \frac{1}{2} \times 8 \frac{1}{2 \times 6 \%}$. 25 N2 1654-Ship. Wt. 12 lbs.
53.41

## CORNELL DUBILIER TEST EQUIPMENT


C.D "BF-50" ANALYZER Wein bridge with visual "eye" and power supply for leakage and insulaIIon tests. Measures paper, mica, alt and electrolytic condensers, from .00001 to 240 mfds. Measures power factor, tests for shorts. With tubes. Wginut poriable case, $612^{\prime \prime} \times 12^{\prime \prime} \times$ 25N2 1727-Shpg. wt. 11 Lbs. 41.80


## C-D "BN" CAPACITOR BRIDGE

Measures accurately and quickly all capacitors between .00001 and 50 mids. Wein bridge circuit, with visual "eye" to indicate balanced condition. Direct reading scale. Uses $12 A 7$ and 6AF6G. Indicates power factor, shorts. $3-5 / 8^{\prime \prime} \times 5^{\prime \prime} \times 3^{\prime \prime}$. For 110 volt, 60 cycles.
$25 \mathrm{~N} 21728-5 \mathrm{ppg}$. wt. $4 \mathrm{lbs} . .19 .50$

## C-D CAPACITOR DECADES

Use with "BN" Capacity Bridge. Calibration chart with each. Rating: 600 volt DC; 220 volt AC; Tolercmces available: $\$ 3 \%$ or $\$ 5 \%$. Bakeltte case. $3-5 / 8 \times 5 \times 3^{n} .4 \mathrm{lbs}$.

## 25 N 21729 - To . 011 mfd . in Each

 $25 N 21730$ - To steps $15 \%) 8.3$ mita 25N21730 - To 1.1 mid. In $25 \mathrm{~N}^{0} \mathrm{mfd}$. steps (5\%).......8.33 25N21751 - Same except $3 \% \ldots .11 .76$ 25 N 21731 - To 10 mfd in 1.0 mfd. steps $(5 \%) \ldots .17 .15$ 25N21752-Scme except 3\%....19.11
## FM-TV SWEEP SIGNAL GENERATORS

RCA TV SWEEP GENERATOR


Model WR-59A. Frequency modulated TV sweep alignment generalor - generates signals of fundamental frequency on all ranges 12 TV RF chanmels, picture and sound 1 F , video ( $100 \mathrm{KC}-10 \mathrm{MC}$ ) picture If 12 bands: 5-15 MC \& 20-30 MC), standard FM Interme diate $(10-11.5 \mathrm{MC})$, and spare 25 40 MC channel. Sweep width continuously variable. Output cable termination will match balanced or unbrilancedlines. Unit develop a sweep frequency signal for a scope; a phasing controlline provided. Return-trace blanking produces zero reierence inne for measurement of instantaneous voltages. Output impedance: RF, 150-0-150 ohms; IF and Video, 100 ohms. Output voltage. 1 V . on all frequency ranges. Operates on $105-$ 125 volts, $50 / 60$ cycles AC. Blue-gray finished case measures $10 \times 131 / 1 \times 71 / 2$. The unit is supplied complete with RF and $1 F /$ VF output cables.
25N21669-Shpg. Wt: 35 lbs.
325.00

RCA TELEVISION CALIBRATOR


Model WR-39A. A rugged, portable service instrument that includes a morker signal generator, a dual crystal standard and a heterodyne frequency meter with bullt-in audio amplifier and speaker for zero beat indication during scale callbration. This precision signal bration. generates marker frequencles for alignment of TV and FM recelvers. The marker VFO operates on fundamentals. Continuous coverage frequency ranges: 4 bands from 19 to 110 MC and 2 bands from 170 to 240 MC . Two crystal oscillators are provided: primary standard operates at 2.5 MC and modulating standard af. 25 MC . Output impedance 100 ohms; output voliage. 1 RMS. Blue-gray Hammerold $f$ inish case measures
10 m $131 /$. Operates on $105-125$ Volts, $50 / 60$ cycles AC $10 \leq 131 / 2 x 71 / 2{ }^{\circ}$. Operates on $105-125$ Volts, $50 / 60$ cycles AC
Shpg. Wt: 22 lbs . 25N21689
250.00

## JACKSON TV-FM SWEEP GENERATOR



Model TVG-1. Complete, self-con tained lest instrument that requires only addition of as oscil lograph for visual alignment of TV and FM radios. Coverage: ${ }^{2}$ 216 MC in 3 ranges: $2-12 \mathrm{MC}$, $22^{\circ}$ $108 \mathrm{MC}, 174-216 \mathrm{MC}$ all on funda mentals. Designed for accurate alignment of RF, Oschlator, if and Trap Circuits. Sweep Width adjustable from 100 KC to 12 MC Bullt-in marker generator and cry stal calibrated oscillator. 400-cycle modulation. Accurately callbrated large dial with range coding for easy identification. TV channels and FM band clearly marked. For $105-125$ V., $50 / 60$ cycles AC. Finished in attractive two-tone grey
and red case measuring $121 / 2 \times 7 / 2 \times 19 \%$ Supplied with coaxiand red case measuring $121 / 2 \times 7 / 2 \times 19{ }^{\circ}$. Supplied w 25N21693-Shipplag Wt: 38 lb
215.60

## SILVER FM.TV SWEEP GENERATOR



Model 911. Deslgned specifically for visualaliqnment of wide band IF and RF amplifiers in FM and TV recelvers when used with any good oscilloscope. Unit includes two bullt-In crystal marker oscillators individually adjusted to exactly and 5 MC . Markers are essential to correct alignment of TV recelver, $v i d e o$ IF cimpliffers. Amplitude of markers is variable to provide proper "pip" strength for circuit under test. Coverage: 2 through 226 MC in 3 ranges ( $2-77 \mathrm{MC}$; 60-154 MC; 151-226 MC) - no band switching required. This feature is achieved by a fixed frequency ing required. Thilator that beats its 114 MC signal with output of a 37. 112 MC VFO to produce irequencies for al output mpedance voltage variable from 0 to $1 / 2 \mathrm{~V}$. maximumi output mpedance. variable from 5-125 ohms. FM sweep variable from $0-10$ MC Supplied complete with tubes marker oscillators, coaxial cables, ground clip lead, and 6-it AC
on $105-125$ vol is, $50 / 60$ cycles AC.
on 105-125 volis, $50 / 60$ cycl
$25 N 21546$-Shpg. Wt: 14 lbs.
78.50

MORE FM-TV SWEEP SIGNAL GENERATOR ON
LOWER HALF OF FACING PAGE


Model 610A. A new model universal TV generator that replaces separate sweep generator, marker generator and crystal callibrator used in or dinary TV testing. Supplies signal to visually align a TV set to any of 12 chomnels from 44 to 216 MC . Frequency range $10-250 \mathrm{MC}$, directly callbrated on dial and readable to
$.5 \%$ accuracy. Variable sweep width $0-15 \mathrm{MC}$. Sweep frequency ranges: 0-40 MC, 35-75 MC, 75-115 MC, is $0-230 \mathrm{MC}$. Self-contained markers ( $20-30 \mathrm{MC}$ and $30-40 \mathrm{MC}$ ) readable directly on dial to . 05 MC . Special generator included provides IF frequencies. Standby switch shuts off all B+ so generator tubes can be kept on. Output voltage: 75 V . maximum. Blue Hammertex finish case with satin chrome finish panel $14 \times 161 / 2 \times 8^{\prime \prime}$ Shipping Weight: 31 lbs.
25N21456
195.00

## HICKOK MICROVOLT SIGNAL GENERATOR



Model 292X. New popular priced generator covers both upper changenerator covers both upper chan-- on fundamentels. Fundamental frequency coverage: Bands A through G, 125 KC to 110 MC ; Band $\mathrm{H}, 150$ 220 MC. Modulated and uinmodulated output calibrated from 1 to 100,000 microvolis. Self-contained crystal oscllletor circult has front pomel jack permitting crystal vutputs from 250 KC to 20 MC on fundamentals; and to 250 MC on harmonics. Modulation fixed at 400 cycles; AF output $0-2$ volts. Wired for optional plug-in type crystal ( $152-162 \mathrm{MC}$ ) formobile band coyarage. May be externally modulated from $15-10,000$ cps. A self-contalned db meter ( $-10 \mathrm{t} 0+38 \mathrm{db}$ in 3 ranges). For 115 solts $50 / 60$ cycles. Blue lacquered steel case $14 \times 161 / 2 \times$ 8". Wi: $^{\prime \prime} 9$ lbs. Less Crystals.
25 N 21450.
195.00

## HICKOK TV CROSS HATCH GENERATOR



Model 620. New, crystal controlled linearity pattern generator forrapid servicing in borderline areas where broadcast reception is unpredictable. Provides means for checking and aligning horizontal and verifeal linearity and drive controls, horizontal and vertical width, height and hold controls, horizontal AFC circuits. Stable video pattern consis is of 12 vert!video par and or 9 hor 12 vert cal lines and 8 or 9 horizontal lines for faster alignment and trouble shooting. Checks relative receiver sensitivity. Out put frequencies: 4 chonnels, $2-5$ inclusive; only one is necesscry for servicing. For $105-125$ V., 60 cycles AC. Blue hammertex steel case.
25N21611-With Test Leads.
.144 .85


## FM-TV SWEEP GENERATOR

Newly designed model embodies the latest in englneering de sign, precision accuracy and simplicity of operation. Complete FM \& TV frequency coverage of 2 to 227 MC on 3 bands. Sweep width 500 KC to 10 MC . Dial calibrated directly in frequency, no mental calculations necessary. Maximum output 500,000 mlerovolts. Bullt-in power line filter. Generator output can be used either Frequency Modulated or pure RF. Steel cabinet finished in gray wrinkle enamel. 105-125 volts $50-60$ cycle AC.
25N21736-Shpg. Wt: 16 the
34.95


Precision Sweep Signal Generator
Model E-400. Specifically engineered for TV and FM. Dlrect reading from 2 to 480 MC in 7 bands without skip. Harmonically calibrated from 240 to 480 MC . Narrow and wide band sweep0 to 1 MC and $0-10 \mathrm{MC}$ are continuously adjustable. Wide range phasing control for horizontal sweep. Has ing control fitiple crystal marker-cal-built-in multiple crystal marker-calMC and 2 MC crystals of $.01 \%$ accuracy supplied. 6-Position rotary band switch eliminate coll switching. $61 / 2^{\prime \prime}$ etched alumInum 1500 point vernier tuning dial. Portable copper plated case with aluminum panel. Size: $101 / 2 \times 12 \times 6^{\prime \prime}$. Complete with 2 crystals and test cables.
$25 \mathrm{~N} 2170 \mathrm{l}-\mathrm{Shpg}$. Wt: 18 lbs
.122 .21

## AM-FM SIGNAL GENERATORS

## SILVER FM/AM SIGNAL GENERATOR



Elght fundamental ranges direct trequency calibrated to $1 \%$ accuracy. 90 KC through 170 MC . RC' audio oscillator provides 400 cycle AM modulatlon, variable trom 0 to nearly $100 \%$. FM 90 KC through 210 MC with bulli-in electronic FM sweep varlable from 0 to 500 KC . Output continuously variable from less than 1 mi variable to omer 1 volt. Metered output dual variable and 4 position ladder attenuators; com plete multiple shiclding, 4 section line illter, colls mounted In rotary turret. 10: 1. vernier dial. Permits desígn and service of $A M$ and $F M$ recelvers by cural, meter or visual allqnment methods. Complete with $105 / 125$ volt, $50 / 60$ cycle built-in mans-isolating power supply, tubes, output cable and terminal box, 6 ft . cord and plug. Size: $123 / 8^{\circ}$ long, $73 / 8^{\prime \prime}$ high, $53 / 8$ deep. In grey steel cabinet wh leather carry ing handle. Shpg. Wi: 14 lbs .
25N21542
116.50


## PRECISION MODEL E2OOC

Units are individually hand calibroted to better than $1 \%$ on all 8 bands which range from 88 KC . to 120 MC . Fundamentals to 30 MC . Direct reading, no charts needed. Larqe full vision $6 \frac{1}{2}$. noglare dial with a $0-1000$ point vemier scale allowing direct reading to one part in loon. 400 cyele sine-wave audio osallator provides modulation and exshielded transformer and AC line is RF tiltered. $0-100 \%$ modulation controlmore than imples signal utlisty. 110 -volt, $50 / 60$-cycle Slack ripple tuntshed, heavy gouge portable steel case. 101/2x12×6". Shpg. Wt: 20 lbs. 25N21715.
65.90

NEW JACKSON TEST OSCILLATOR


Model 106. Standard AM type for tesung AM and FM sets. Also as a marker qenerator Aor AM, FM and TV sweep gerer AOM, FM and TV sweep genfrom 100 KC to 32 MC . Ham from 100 KC to 32 MC . Har
montes 28 MC to 120 MC .' monscs 28 MC to $120 \mathrm{MC}$. . T wocircuit attenuator tor controlmodulated signal or straight CW. Accu racy: $1 / 2$ of $1 \%$.

25N21692
49.50


## HICKOCK FM-AM GENERATOR

Model 288X. High degree of accuracy for servicing $A M, F M$ and television equipment. Fundamentalsused throughout entire range of 100 KC to 110 MC on AM output and 100 KC to 160 MC on FM output. Variable cudio output: 0-15 KC is produced by heterodyne type oscillator. Decibelmeter provides convenient means of measurlng power and voltage and detemining resonance in allanment work. A 100 KC and 1000 KC crystal controlled signal, accurate to $0.01 \%$ unmodulated or modulated at 400 cycles is avallable. By using hamonics of the crystal controlled osclllator accurate slonals to 125 MC are obtaned in multiples of 100 KC and 1000 KC . Complete with all tubes, necessary cables, instruction manual. For 110 volts, $50 / 60$ cycles. $14 \times 161 / 2 \times 80^{\circ}$. Satin manual. For 110 volts, $50 / 60$ cycles. $14 \pi 161 / 288^{\circ}$. Satin
chrome tinish panel and blue baked lacquer finlshed case. chrome tinlsh pan
Shpg. Wt. 30 lbs.
25N21455...

## AM SIGNAL. GENERATOR



Here is a low-priced, precision manufactured product for laboratory echnicians and radio servicemen. An extremely stable signal generator covering long wave, broadcast and short wave frequencies. RF from 100 $K C$ to 25 MC in six bands of fundamentals and 19 MC to 75 MC in two bands of hamonics. Internal modulatlon of 440 cps variable from 0 to $100 \%$. New RF and AF oscillators of highly stable design. Operates stons: $8 \times 10 \times 12^{\circ}$. See adjolaing page for companion FM TV Sweep Generctor. Shpg. Wt: 19 lbs.
34.95


## SILVER GRID DIP ADAPTOR

## New, tubeless electronic device al-

 lows direct measurement of all tuned circuits: RF, IF, etc., quickly and simply without the recelver being tumed on. Checks all oscillators. antenna systems, transmitters, trap circults-without mechanical coupling. Determines value of all colls and condensers. Requires no power supply or tubes; two simple connectlons permit quick attachment to any slignal generator, Coverage: 100 KC brated plug-in colls. Supplied with phone jack, colls and probe.25N21536
34.95

## TRIPLETT FM-TV GENERATORS \& MARKERS

TV-FM SWEEP GENERATOR Model 3434 . A new sweep signal qenerator with bullt-in makers for complete TV \& FM servicing. Precision enqlineered and designed for continuous coverage to 240 MC . Matker trequency for If 19.5 to 40 MC : tor RF and Osclllotor 57-240 MC: can be used simulianeously for faster identification of proper bandpass of curves. Marker has both plp and absorpuon dip control. Sweep center trequency in 3 ranges: $0-60$
MC. $60-120 \mathrm{MC} .120-240 \mathrm{MC}$. Etlecuve vartable sweep widit 500 KC to 12 MC . 400 -cycle modulation on both crystal and marter trequenctes; 400 -cycle audio. Provistion tor aystal markers up to 216 MC (pluq-in crysials not supplied). Black enamel metal case with suede Unish measures is $3 / 8 \times 11 \times 81 /{ }^{\prime \prime}$ Hes leather handle. For $105-115$ volls, $50 / 60$ cycles $A C$. Ship. wi: 28 lbs. 25N21621-Complete with Leads and Tubes........
146.51

marked with channels marker wenerar can as well as frequency. An extemal through the panel connector. Metal case circult under test through the panel connector. Metal case, with blgck suede Has Has leather hande and copper plated feet for better grounding. Fiple with leads and Tubes.
25N21622....
Tubes.

## TV-FM SWEEP GENERATOR

Mode! 3435. Here's a low cost, high quality sweep stgnal generator designed espectally for the service engineer who has his own provision for an external marker (any good AM generator). Provides continuous romqe coverage to 240 MC for all TV cartier and IF frequencles. Sweep center frequency on three ranges: $0-60 \mathrm{MC}$, $50-120 \mathrm{MC}, 120-240 \mathrm{MC}$ Continuously 120 MC , $120-240 \mathrm{MC}$. Conunuously variable sweep width elfectuve from 500 KC to 12 MC , with

## TV-FM CRYSTAL MARKER

Model 1236. Companion unst for model 3435 above receives power by plugging into jack of 3435 . Provides marker frequencles of crystal controlled accuracy quencles of erystal controlled accuracy tor TV and FM. IF or RF requirements. Coverage up throing 19 MC on crystal fundamentals: up through 216 MC on crystal harmonics. For faster checking of bandpass characteristics of curves merely throw the switch to the desired crystal. Metal case, with black suede baked-on encunel tinish mecsures 7 7/8 $x \quad 6 \quad 5 / 8 \times 65 / 8^{\circ}$. Has metal handle. Shipping Welght 7 ibs.
25N21623-Less Crysial
.19 .11

## VACUUM TUBE VOLTMETERS

McMURDO SILVER VOMAX UNIVERSAL VTVM
 Model 900A. Completely new design. True VTVM. Meter $100 \%$ protected for all voltage, db and resistance overloads. 24 DC voltage ranges fincluding polarity reversal) $0-3 / 12 / 30 / 120 / 300$ ) 1200 dt 51 megohms input resistance, $0-7.5 / 30 / 75 / 300 / 1200 / 3000$ at 126 meqohms, $\& A C, A F, I F, R F$ ranges 20 cycles thru $100 \mathrm{MC} ; 0-3 / 12 / 30 / 120 /$ $300 / 1200$ at input resistance of 20 meg $/ 7 \mathrm{mmid}$. 6 resistance ranges of $0-2 \mathrm{~K} / 20 \mathrm{~K} / 200 \mathrm{~K} / 2 \mathrm{meg} /$ 20 meg $/ 2000$ meg. using internal battery. $3 / 120$ ranges -12
to +50.6 DC ma ranges $0-1.2 / 30 / 120 / 300 / 1200$ ma and 12 amps. Automatic voltage regulation. Single knob zeros meter for all ranges and functions. Uses 6AL5, two 6ARS and 6X4 rectifier. Shielded probe. $105-125$ V., $50-60$ cycles AC. $123 / 8 \times 73 / 8 \times 53 / 8{ }^{\prime \prime}$.
25N21544 - Shpg. Wt. 14 lbs.
68.50

## MULTIPLIER PROBE FOR VOMAX VTVM



Converts Models 900 and 900 A Vomax VTVM to a TV Kilovolimeter. Safe, direct meter readings from $1 / 10$ volt to 30,000 volts DC. Heavy duty methacrylate construction bullt for long life and hard usage. Attaches ensily and readily with plug-in tips. Eachunit has been thoroughly tested in use assuring safety of operation.
$25 \mathrm{~N}_{2} 1545$
9.95

## ELECTRONIC DESIGN $V$ T VOLT-OHMMETER



Model 100. Extreme care in matching and choice of component parts has resulted in a high quality test Instrument. DC ranges: $0-3 / 10 / 30 / 100 / 300 / 1000$ volts at constant input resistance of $11,000,000$ ohms. Accuracy $\pm 3 \%$. AC ranges $0-10 / 30 / 100 / 300 /$ 1000 volts. $1000 \mathrm{ohms} /$ voltsensitivity with accuracy of $\pm 5 \%$. Electronic ohmmeter ranges: $10 / 1000$ megohms. Complete with signal tracer probe, test leads, batteries. Case Size: $95 / 8 \times 6 \times 43 / 4^{\prime \prime}$. $110-120$ V. $50-$ Size: 9 . AC. x 6 x . Wt .11 ibs .
60 cyc. AC
25 N 21710
52.50

Ediprobe. Use with any VTVM. Permits use of high resistcycles through 100 MC without loading circuit. 25N21703 - Shpg. Wt: 2 lbs.
.7 .00

## VACUUM TUBE VOLT-OHM-CAP ACITY METER



Electronics Measurements Model 300. New Electronic input with resisiance of 1 to 30 meqohms/volt on DC. 1000 ohms/volt on $A C$ with full wave tube rectification;
Ranges: $D C$ volis $0-3 / 10 / 30 / 100 / 300$; 1000 : AC volts $0-10 / 30 / 100 / 300 / 1000 ; 6$ resistance ranges from 2 ohms to 1000 megohms. Capacity in 4 ranges 000025 mid. to 20 mld . Zero center position for allqning FM discriminators. Open-fuce model - comes complete with test leads and ohmmeter battery. Overall Dimensions:
$9 \times 6 \times 4^{\prime \prime}$.
25N21679-Shpg. Wt: 51/2 lbs.
38.71 Model 300-P. In portable case with cover, test leads. 25N21680-Sh.fg. Wt: 61/2 lbs.............................................. 43.61 High Frtquency Probe. Enables measurements up to 100 MC .
25N2 1681 -Shpg. Wt: 3 lbs.....................................................

## HIGH FREQUENCY KILOVOLTYST



New, high voltage VTVM-and Ohmmeter with high frequency probe for TV servicing. DC Kilovolis: $0-101 / 30 \mathrm{M}$ volis: AC Ranges:
$0+10 / 30 / 100 / 300 / 100 \mathrm{C}$ volts; DC $\begin{array}{ll}0-10 / 30 / 100 / 300 / 100 \mathrm{Cvolts} ; & \text { DC } \\ \text { Ranges: } & 0-3 / 30 / 100 / 300 / 1000\end{array}$ Ranges: $0-3 / 30 / 100 / 300 / 1000$
volts: RF Voltage Range: $0-3 /$ voltsj RF Voltage Range:
$10 / 30 / 100$ volts: 3 Ohmmeter Ranges: $0.1 \mathrm{M} / 10 \mathrm{M} / 100 \mathrm{M}$ ohms, $0-1 / 10$ megs and $0-1000$ megs. Maximum drain of 20 mi croamps at 10 and 30 KV . RF frequency response: 300 cycles to 300 MC . RF input impedance 1 megohm/
3.4 mmfd. Features completely shockprool resistance multiplier block able to withstand 50,000 volts; improved high frequency signal tracing probe; advanced type Alnico 5 sev-en-inch meter, tilted lor easy reading; separste high and low voltage tést leads. Bridge amplifié circult meter individually callbrated for use with sef of test leads, DC leads, RF probe and batteries. Hiyh voltage test leads also provided. For 110-120 volis, $50 / 60$ cycles AC. Housed in copper colored steel case measuring $12 \times 6 \times 9$ ". Shipping Wt.
25N21517-Complete with High Frequency Probe.
150.00

## RCA VOLT OHMYST

Model 195-A. Consiant protection against meter burn-out. Ranges: $0-5 / 50$ $100 / 500 / 1000$ DC volts at input impedance of 10 megohms; $0-5 / 10 / 50 / 100 /$ $500 / 1000 \mathrm{AC}$ volts on linear scale; 0 $1000 / 10,000 / 100,000$ ohms $/ 1 \mathrm{meg} / 10$ megs. 100 megs. by using internal source of 3 volis. Frequency response source of 3 volis. Frequency response of 30 cyc. to 100 KC . Inpul mped, 200 M ohms plus 170 mmid . $-5 / 10 / 50$ volts. -20 to 62 db . (1MW across 600 ohm line) FM alignment indicator. New style easily read meter in Groy stee! case. With ohmmeter battery and test leads. Overall Size: $9-5 / 8 \times 6-3 / 8 \times$ 63/4". Shpg. Wt: 14 lbs.
25N2177 1....................... 79.50


WV-65A. Same as above model except battery operated. AC voltmeter is 1000 ohms/volt and reads DC milliamps to 300 in five ranges. Also 0-10 amps DC. Batteries last up to 10 months with normal use. Has isolaing resistor in DC probe for measurement of DC voltages in high impedance AC circults. Complete with batteries and leads.
25N21776-Shipping Weight: 10 lbs
.59.50

## RCA MASTER VOL TOHYMST



Type WV-95A. Measures DC current and volts, $A C, A F$, and $R F$ volts, capacity, and resistance. Burnout protected. $2 \%$ accuracy. DC volts $0-5 / 10 /$ $50 / 100 / 500 / 1000$ at 11 megohms; AC volts $0-1 / 5 / 10 / 50 / 100 / 500 / 1000$ at 5 $0-5 / 10 / 50 / 100$ using diode probe (not furnished) flot from 30 cycles to 250 MC. DC current $0-10 / 100$ microamps $1 / 10 / 100 \mathrm{MA}$ / 10 amps . Resistance $0-1000 / 10,000 / 100,000$ ohms, $1 / 10 / 100$ meqs; Capacity .000005 mid . to 1000 mid . in six ranges. Gray metal cabinet. Dimensions: $10 \times 13 \frac{1}{2} \times 7 \frac{1 / 2 " \prime}{2}$. For operation on $105-125$ volts $50-60$ cycles AC only. Comes complete with test leads and operating instructions. Shipping Weight 20 lbs.
152.50


RCA crystal probe for converling DC circuit of any Voltohmyst to read AC cated directly on DC scale. 25N21775 - Shpg. Wt: 2 lbs.
8.95

## RCA MULTIPLIER PROBES



Extends DC voltage range of RCA Volt-Ohmyst 195, 195A and Chanalyst 170A to 30,000 volts. Measures DC voltages in TV sets, X-ray machines and other high voltage devices. Useful in measuring output voltage of pulse-operated and RF power supplies and other high resistance voltage sources.
15.95

Same as above but for all other model RCA Vollohmysts and
Chanalysts.
25N21697-
. 15.95

## HICKOK LABORATORY VTVOM

Model 209A. Measures any resistance, from 30 cycles to 300 MC , DC voltages, RMS and peak to peak voltage found in radio recelvers. Some ranges have both zero left and zero center scale for discriminator alignment. Ranges: AC \& DC volis $0-3 / 12 / 30$ i 120/300/1200. Input impedance is megs DC, 12 megs/6mnfd AC; DC MA $0-3 / 12 / 36 / 120 / 300 / 1200$. Capacsty $0-10,000 \mathrm{mnid}$ in 2 ranges, $0-1000 \mathrm{mid}$
 in 5. Inductance 50 mh to 100 hy . by
use of conversion chart. Resistance (2) $6 \times 5$, OD $3 / V R 150$, plus 9006 in high frequency probe. Chrome finfshanel metal cabinet of blue hammertex 14 x $161 / 2 \times 8^{\prime \prime}$. For $105-125$ volts, $50 / 70$ cycles AC. Complete with probes, batterles and tubes.
25N21459-Shpg. Wt. 25 lbs.
119.40

Model 203. Same as above but in portable case $9 \times 11 \times 9^{\prime \prime}$ less high frequency probe. Does not have zero cdnter scales or read peak to peak voltage. Neasures AC up to 50 MC . 25N21453-Shipping Weight 17 1bs................................ 89.40 PR30 PROBE. Voltage multiplier probe. Increases range of either of above to 30,000 volts DC.
25N21461-.
. .10 .80

## MULTITESTERS

SIMPSON MODEL 260 PORTABLE TESTER


Black bakelite roll top safety case prevents injury or damage to meter or tester. Accurate full scale readIngs. Ranges: Volts $A C$ and $D C$ $2.5 / 10 / 50 / 250 / 1000 / 5000$ at 20 , 000 ohms/volt DC and 1000 ohms/ volt AC. Output AC volis $0-2.5 / 10$
$150 / 250 / 1000 / 5000$, amperes $0-100$ milliamps $0-10$ / $100 / 500$. DC amps 0-10. De 0-10/ In five ranqes from -10 to 52 db Resistance $0-2000 / 200,000$ dbs and $0-20$ megohms, center scales $12 / 1200 / 120 \mathrm{~K}$. All ranges controlled by a single rotary switch. Polished black case with roll-10p cover. $51 / 2 \times 7 \times 3^{\prime \prime}$. With test leads. 25N21578-Shipping weight 3 lbs .
45.03

Same as above, but less roll-too case features.
$25 N 21713$-Shiping
25N2i713-Shipping welght $3 \mathrm{lbs} . . . . . . . . . . .$.
.38 .17

## TRIPLETT MODEL 630 MULTITESTER

Black molded plastic case with $\$ 1 / 2$ Inch Red-Dot 50 microampere meter movement. Ranges: $0-3 / 12 / 60 / 300 /$ volt. $0-3 / 12 / 60 / 300$ at 20.000 ohms/ at 5,000 ohms $/ V$. Direct reading of six decibel ranges from -30 lo 470 db . $0-60$ DC microamperes. $0-1,2$, $12 / 120$ DC sistance: $0-1000 / 10$ dC amperes. Resistance: $0-1000 / 10,000 / 1$ meg/100 meg. with centre scales of $4.4 / 44 / 4.4$ $\mathrm{K} / 440 \mathrm{~K}$. Condenser in serles with AC voltage ranges. Single rotary switch. $3-7 / 32 \times 51 / 2 \times 7 / 2^{\prime \prime}$. With batteries and lest leads.
25 N 21493 -Shipping welght $6 \mathrm{dbs} .$.
36.75

Black leather carrying case. Space for accessories.
25N21620-Shipping weight 3 lbs.........................................
Multiplier probe to read up to $12,000 \mathrm{~V}$ DC on above. 25N21494-Shlpping weight $2 \mathrm{lbs} . . . . . . . . . . . . . . . . . . . .$.
14.21

25 N 21495 -Shipping welght 2 lbs . $12,00 \mathrm{~V}$ DC on above
19.11

## TRIPLETT LAB MODEL 630A MULTITESTER

A new, deluxe model multitester simllar to the Triplett 630 described above, but designed for laboratory use. This ilne instrument features a hand drawn, mirrored scale for taking readings that are accurate to $1 \%$. Further accuracy is assured through the use of special resistors with a tolerance of only $51 / 2 \times 71 / 2 \mathrm{n}$. Complete with mastic case measures $3-7 / 32 \times$ $51 / 2 \times 71 / 2{ }^{n}$. Complete with batterles and test leads. 25N21499.
46.55

## CHICAGO MULTITESTER

Model 371. Strictly g DC meter, its ranges are as follows: $0-3 / 15 / 30 / 300$ volts. $0-25 \mathrm{mlllf}$ amperes and a resistance scale of 0 to 10 , 000 ohr.s. Operates on 2-flashilght cells, Included. 1-7/8" $\times 2 \frac{1 / 4 "}{}{ }^{\prime \prime} \times 3-7 / 8^{\prime \prime}$.
25N21504-Shpg. wt. 3 lbs
5.14

Model 312. For both AC and DC volts: $0-25$ $50 / 125 / 250$; Milliamperes; $0-50$; up to 100 . 000 olims. Black bakelite case. $25 \mathrm{~N} 21505-\mathrm{Shpg}, \mathrm{wt} .3 \mathrm{lbs} \ldots \ldots . . . . . . .6 .67$

SUPERIOR MODEL 670 SUPERMETER


Combinalion voltohm milliammeter plus capacity reactance. Inductance and decibel measurements. Includes a special GOOD-BAD scale for checking the quality of electrolyilc condensers at a test potential of 150 Volts. Ranges: DC Volts: 0 to $7.5 /$ $15 / 75 / 150 / 750 / 1,500 / 7,500$ Volis.
AC Volis 0 to $15 / 30 / 150 / 300 / 1500$ 3000 Volts. Output Volts: $0-15 / 30$ 150/300/1500/3000 Volts. DC Current: $0-1.5 / 15 / 150 \mathrm{Ma} 0$ to $1.5 \mathrm{~cm}-$
peres. Reslstance: $0-500 / 100,000$ ohms 0 to 10 Megohms. Capacity. .001-.2 Mid. .1-4 Mid. (Quality test for electrolytics). Reactance: 700 to 27,000 Ohms, 13,000 Ohmis to 3 Megohms. Inductance: 1.75 to 70 Henries, 35 to 8,000 Henries. Dectbels: -10 to 18 , 110 to $+38,130$ to +58. Rugged, crackle-finished sieel cubinet. Complete with test leads and cperating insiruction. Size $51 / 2 \times 71 / 2 \times 3$ ". For 110 Volts, 60 C A5. 25 N 2169 b -Shipping weight 5 lbs.
27.83
$25 N 21690$--In portable cartying case.
35.03


PRECISION SERIES 85 TESTER
Six AC, Output and DC voltage ranges: $0 / 3 / 12 / 60 / 300 / 1200 / 6000$; DC ranges at 20,000 ohms per volt, AC and output at 1000 ohms per volt. 6 DC current ranges: $0-120$ microamp, 0/1.2/12/120 MA: 0/1.2/12 Amp. Resistance ranges: $0-6000 / 600 \mathrm{M}$ ohms $0 / 6 / 60$ megs. 6 DB: -26 to +70 db . Rotary range selectors for all standard tunctions. In molded bakellie case with plastic handle. Dimensions: $5 \frac{1}{2} \times 7-1 / 8 \times 3^{\prime \prime}$. Complete with ohmmeter batteries and test leads.
$25 \mathrm{~N} 21650-$ Shipping weight 6 lbs
37.97

Series 80. 1000 ohms/volt, 10 meg. res, 400 microampere meter
25N21651-Shipping weight $6 \mathrm{lbs} .$. $\qquad$
Custom leather case for Sertes 80 and 85 testers.
25N21652-Shipping welight $2 \mathrm{lbs} . . . . . . . . . . . . . . .$.

NEW TRIPLETT 666R MULTITESTER


Model 666R. A new, precision manufactured pocket tester that provides a complete laboratory for voltage, resistance and direct current checking. Beautlful streamline design with flush panel controls. RED-DOT HIfetime quaranteed 3 , meter, $0-200 \mathrm{mi}$ mcroamps. AC \& DC Volis: $0-10 / 50 /$ $250 / 1000 / 5000$ at 1000 ohms/volt. DC MA: $0-10 / 100$ and $0-1 \mathrm{mmp}$. at 250 MV . Ohms: $0-3000 / 300,000$ and at 250 MV . Ohms: $0-3000 / 300,000$ (cen-
ter scale $20 / 2000$ ); $0-3$ megs (center ter scale $20 / 2000$ ); $0-3$ megs (center
scale 20,000 ohms). Enclosed, moldscale 20,000 ohms). Enclosed, moldretains contact allgnment permanently. Resistors, shunts, rectifler, betteries all housed in single unlt molded base: ditect connections without cabling eliminate possiblitty of shorts. Four jacks at top of panel take care of all normal testing. Supplied complete with battertes, $50^{\prime \prime}$ test leads, clips and plugs. Size: $3-1 / 16 \times 5-7 / 8 \times 2-9 / 16 \%$. Weight: $1 / 1 / 2 \mathrm{bs}$. with Instruction Book.
23N21497.
24.01

## TRIPLETT MODEL 666HH MULTITESTER

Slmilar to Model 666R described above except for $0-200 \mathrm{ml}$ croamp meter and following differences in ranges: $0-10 / 100$ DC milliampere range and $0-2000 / 400,000$ ohms with $12 /$ 2400 center scale. Has no megohm or DC amp. ranges. All from two banana jacks special 5000 . jack. Supplled complete with batteries, $50^{\prime \prime}$ test leads, clips and pluqs. 25N21576..
21.56

Black leather carrying case for Triplett Models 666R or 666 HH tester
25N21577...................................................................... 4.65

## TRIPLETT ELECTRIC ANALYZER



Model 625 NA. Multi-ranqe, dual sens!tivity. $6^{*}$ meter with mirrored scale. Ranges: DC volis $0-1.25 / 5 / 25 / 125$; $500 / 2500$ at 20,000 ohms/voll 0-2.5/ $10 / 50 / 250 / 1000^{\circ} / 5000$ at 10,000 ohms/ volt. AC volis $0-2 / 5 / 10 / 50 / 250 / 100 /$ 5000 at 10,000 ohms/volt. DC microamps $0-50$, DC milliamps $0-1 / 10 / 100 /$ $1000, D C$ amps 0-10. Resistances 0 2000/200,000 ohms/40 meas. DB ges 30 to 469 db . Portable case, size ges $1 / 2 \times 21 / 2^{\circ}$. With test leads.
12 lbs .
44.10

25 N 21475 -Shpg. wt. 12 lbs.
.
Black leather carrying case.
25N21476-Shpg. wt. 1 lb....
5.39

## RCP MODEL 447 MULTITESTER



1000 ohms/volt. DC volis: $0-5 / 50 /$
$250 / 500 / 2500$. DC ma: $0-1 / 10 / 100$ ? 1000. DC amps: $0-1 / 10$. AC volts: $0-10 / 100 / 500 / 1000$. Ohms: $0-500 /$ 100 M 1 Meg . DB -8 to +55 db . Output ranges same as AC volts. Open-face hardwood case, tesi leads, battery. $3 \times 81 / 2 \times 5^{\prime \prime}$.
25N21722-Shpg. wt. 4 lbs .17 .59
Model 447P. in portable hardwood
25N21721-Shpg. wt. 5 lbs.....21.51

## OSCILLOSCOPES

## DUMONT 5-INCH OSCILLOSCOPE



Model 208B, Calibrated removable scale. Frequency range: Y-axis, $\pm 10 \%$ from, 2 to 200 sinusoldal cycles $Y$-axis, 2000 times; $X$-ax is, 43 times. Deflec tion sensitivity: maximum Y-axis . 01 RMS volts/Inch; maximum X-axis . 5 RMS volts/ inch. Direct deflection plates 21 and 22 RMS volts/inch, $Y$-axis and $X$-axis respecRMS volts/inch, $Y$-axis and $X$-axis respecvariable range from 2 to 50,000 cycles. Black wrinkle enamel finished steel case with leather handle. Size: $141 / 4 \times 8 \% x$ $191 / 2^{\circ}$. For 110 volis, $40 / 60$ cycles. Uses SLP I tube
25N21782 - Shipping Welght: 67 lbs.
285.00


DUMONT 5-INCH OSCILLOSCOPE
Model 274A. Amplified Sweep Circult over continuous range from 20 to 50,000 cycles. Input impedance: Horizontal, 5 megohms: Vertical, 1 megohm. Deflec tion sensiluvity: Max. vertical 0.65 RMS volVin.; horizontal 0.65 RMS volU/in. Input signal may be applied to the vertical plates elther directly or through the vertical amplifier through a switch provided on the front panel. Intemal modulation of the horizontal beam is provided for by a separate terminal. Horizontal amplifiermayteswiched toelther sweep
signal. All-metal case 4 nished in black circuit or external signal. Ali-metal case unished in black wrinkle enamel. Leather handle. With scope tube qrid safety plate. For 115 volis 50-60 cycles. $14 \times 8-5 / 8$ Shipping Welght: 35 lbs .
25N21774..
.124 .50

## HICKOK 5-1NCH OSCILLOGRAPH

Model 505A. Wide band vertical amplifier from 30 cycles to 1 MC . Horizontal amplifier 10 cycles to 50 KC . Deflection sensi-
 tivity 03 volts RMS/inch on veracal. ${ }^{2}$ RMS/Inch on horizontal direct. Input impedance is 1 megohm, 25 mm . on vertical and 4 megohm, 25 mmf . on horizontal. Bullt-in Wide and Narrow-Band FM oscillator, 3range frequency compensated attenuator network. Demodulator permits modulated RF slgnal to be viewed. Signal tracer phone jack. Self-contained mixer circult for FM output with any good slgnal generator. Return trace eliminator speeds up FM and AM alignment. Modulation circuit permits internal or external FM oscllator moduld. Dimensions: $14^{\prime \prime} \times 11^{n} \times 19^{\circ}$. Ship ping Welght: 35 lbs .
25N21451.
179.00

## HICKOK 5-INCH OSCILLOGRAPH

Model 195B. Sinusoldal sweep with phasing control. Wide range sweep circult oscillator. Deflection sensitivity, Vertical: . 03 volts RMS; inch, direct 15 volts AMS/inch. Horizontal:. 15 volts RMS/inch, direct 20 volis RMS/inch. Vertical amplifier 30 cycles to 1 . MC. Horizontal amplifier 10 cycles to 50 KC . All input ter minals at front of panel for convenience. Input impedance: Vertical: 1 meg., 25 mmf . Direct: 2.2 meg . Horizontal: 4 meg. 35 mmf . Direct: 2.2 meg. Light shield and calibrated screen. Blue Hammertex steel cabinet with metal handle. $105-125$ volts, $50-70$ With tubes. Shpg. Wi: 30 lbs .
25N21594
.156 .00


## NEW RCA 5-INCH OSCILLOSCOPE

Model WO-58A. Expressly designed for servicing TV recelvers. Glves accurate presentation of synchronizing pulses, deflection waveforms and composite video signals. Step by step tracing of defective signals. Vertical cuplifier flat from 5 cycles to 2 MC . Horizontal amplifier $\pm 10 \%$ from 6 to $100,000 \mathrm{cps}$. De. flection sensitivity vertical amplifier: 0.5 peak to peak V./Inch. Input 1 mpedance : I meg/ 62 mmfd. Tilt and overshoot on square wave response, less than $2 \%$ from 30 to 0,00 cycles. Peak-to-peak voltages can be read at all times during operation. Vertical range control is graduated in sultable voltage intervals, and a calibrating voltage source is provided. Supplied with crystal probe for use in kinescope socket of set under test. SUPl Cathode-ray tube easily and quickly replaced without tools. Blue-grey Hammeroid finish case measures $131 / 4 \mathrm{x} 91 / 2 \mathrm{x} 19-13 / 32$. For $105-125$ volts, $50 / 60$-cycle AC. Shipping Weight: 40 lbs .
25N21518.
345.00


SIMPSON FM-TV GENESCOPE
Model 480. A combination sweep slgnal generator and oscilloscope that pro. vides all necessary signal sources for proper allgmment and servicing of FM and TV receivers. Equipped with high frequency crystal probe for slgnal tracing. Continuously variable attenuator. Both oscillator dials have 20-1 vernier control and 1000 division logqing scale. M oscillator ranges: 2 variable from 0 to 15 MC at a rate of 60 cps . AM oscillator: $3.5-15 \mathrm{MC}$, $15-$ 70 MC and $75-250 \mathrm{MC}$. $30 \%$ modulation at 400 cycles or unmodulated. 5 MC crystal calibrator $\pm .05 \%$; audio oscillator 400 cycles. Output impedance 75 ohms. Also features step attenuator for control of output. Handles on elther side of case facllitates carrying; Dimensions: $22 \times 14 \times 71 / 2^{\prime \prime}$. Supplied with test leads. Shipping Weight: 48 lbs.
25N21519 - With Operator's Instruction Menual.
375.00

## SIMPSON TV-FM SIGNAL GENERATOR

Model 479. Exactly the same as Model 480 described above with exception of the oscilloscope which is not included. 17 x $14 \times 71 / 3^{N}$. With Test Leads and Manual. Welght: 35 lbs.
25N21520.
245.00
 PRECISION S-INCH OSCILLOSCOPE
Model ES-500. Excellent performance, visibillity and operationa. erate cost. Meets the needs of $A M, F M$ and TV servicing work. Response, both ampllfiers, from 10 cycles to 1 MC . Linear sweep circuit 10 cycles to 30 KC plus line or external sweep. Vertical amplifier deflection sensitivity .02 volts/inch. 2 megohms input resistance and 22 mmfd capacity. Extended range horizontal amplifier with . 5 volts/inch deflection sensitivity. Also features stepattenuator plus continuously variable gain control in cathode follower input stage. $1 / 2$ meg input resistance and 20 mmfd capacity. Has sweep phasing control for sinusoldal line sweep usage; wide angle bridge circult. Heavy gauge aluminum panel with removable and rotatable light shield and mask. Black ripple steel case measures $81 / 6 \times 141 / 2^{2} \times 18^{\circ}$. Shipping Welght: 35 lbs .
25 N21521-Complete with Instruction Manual
146.51

## NEW JACKSON OSCILLOGRAPH



Model CRO-1. Here is an osclllograph that gives you wide or narrow range, and high or reduced sensitivity with the flip of a switch. This fine instrument is perfectly sulted for labs and servicemen. 4.5 MC band width for observation and measurement of pulse wave forms. Vertical amplifier .018 RMS volts/inch on norrow band; horizontal amplifier . 55 RMS volts/Inch. Input impedance 6 megs/li mmfd direct balanced; unbalanced 3 megs $/ 22 \mathrm{mmfd}$. Horlzontal amplifler 1.5 megs. Response on vertical ampliHorizontal amplifler 1.5 megs. Response on fl 20 cycles to 4 MC , easily usable to 5 MC . Saw fler 20 cycles to $4 \mathrm{MC} \pm 1.5$ dbeasily usabe in five. steps. tooth sweep irequency ${ }^{\text {Size: }} 10 \times 12 / 2 \times 15^{\mu}$. Shipping Welght: 42 lbs.
25 N2 1691
119.10


## RCP SCOPE \& SWEEP GENERATOR

Model TV90. Combines a complete oscilloscope and sweep generator into one compact unit for all TV testing, alignment and service. 45,000 able linear sweep circult from 10 to 45,000 cps., and a sensitivity of 285 RMS volts/inch verifal and 32 avs volts/anch horizontal deflection. Input resistance $1 \mathrm{meg} / 20 \mathrm{mmid}$. Sine wave response, uniform from cycles to 200 KC with 22 db . Frequency range of independent any IF frequency des ired. Band width continuously variable from . 5 KC to 7 MC. For 105-130 V., 50/60-cycle AC. Sup plied complete with tubes, probe, coaxial output cable and operating instructions. Hammertone grey case: $14 \times 8$ $\times 121 / 2^{\prime \prime}$.
.124 .95

## EICO 5-INCH OSCILLOSCOPE



Low cost quallty scope for general AM, FM and TV servicing. Deflection sensitivity: 65 V., inch full gain. Horizontal sweep ctrcuit 15 to $30,000 \mathrm{cps}$. Horizontal and vertical am-
plifiers 50 to $50,000 \mathrm{cps}$. $110-130 \mathrm{~V} ., 50 / 60$ cycles AC. $81 / 2 \times 13 \times 17^{\prime \prime}$. $30^{\circ} \mathrm{lbs}$. 25N21688-With instructions.
69.95

Same as above in Kit Form
32N24552-NOTHING ELSE TO BUY 39.95

## INDUSTRIAL \& SPECIAL TEST EQUIPMENT

## PORTABLE GEIGER COUNTER

Keleket "Snooper". Earn the $\$ 10,000$ government bonus for discovery of ore having a content of $05 \%$ U308 with this complete portable counter. Responds to radiation from radio-active materials. Designed for locating new depostis of carnotite, pitchblende, eurlie, or other radio-active materlals; Uranlum can be found even when covered with thick overburden. Highly sensitlve to both beta and gamma rays. Small and compact lt measures only $61 / 3 \times 3 \% \times 21 /{ }^{\text {n }}$. No bothersome Gelger probe is required. Only two ordinary flashlight batterles are used for power. Batlery life exceeds 50 hours. Uses single or double headphones, magnetle type, 1000 to 24,000 ohms impedance. May be connected to P.A. system for classroom demonstrations. Less phone, Shlpping Welght: 3 lbs.
25N21635.

## DUMONT ELECTRONIC SWITCH



Model 185A. Permits the stmultaneous observation, for purposes of comparison, of two ormore Independent signals on the screen of a single cathode ray osclllograph. Square wove slqnals may be used in studies of vacuum tube ampliflers and other networks over a ranqe of 10 to 500 e.p.s. Switching rate 10 2000 times per second. Input resistance 100,000 ohms. Output reststance 50,000 ohms. All controls and connections on front panel for convenlence and ease of operation. Complete with tubes. Black wrinkle finish steol cablnet. Size: $11-1 / 2^{\text {" }} \times 7-5 / 8^{\prime \prime} \times 13^{\circ}$. For operation on 115 volis, 40-60 cycles only. 25N21783-Shpg. We: 17 lbs.
105.00

## DUMONT VOLTAGE CALIBRATOR

 Type 264-A. Des!gned to measure the peak-to-peak voltage of any slgnal vlewed on any commerclal cathode-ray osclllograph. Its square-wave output is continuously variable square-wave 0 to 100 volts in 4 ranges. By throwing a selector switch, the signal to be measured or any of 4 ranges of oalibrating voltage is applied to the input of the oscillograph eliminating the need to switch leads between signal and callbraing voltage. Amplitude measurements of any part of a complex, composite waveform may be made. Range: 0-0.1; $0-1.0 ; 0-10 ; 0-100 \mathrm{~V}$. Accuracy: ${ }^{\ddagger} 5 \%$ of full scale on each ranqe. Inpul impedance: 20 mmfd . Overall dimenslons: $41 / 2^{\prime \prime} \times 8^{\prime \prime} \times 5 \frac{1}{4}$. 25N21672-Shpg. Wt: 10 tbs.
39.50

## SPECIAL

REINER TYPE " $Z^{*}$ MULTIPLIER PROBES

| Stock No. | Manulacturer | Mfrs. No. |
| :---: | :---: | :---: |
| 25 N21800 | Electronlc Design | 100 |
| 25N21800 | Reiner Electronics | 450, 451 |
| $\begin{aligned} & 25 N 21800 \\ & 25 N 21800 \end{aligned}$ | Supertor Instrument RCA Voliohmyst | $400^{\circ}$ |
|  |  | MV-65A, $165 \mathrm{~S}, 165 \mathrm{Am}$, 165 A |
| $\begin{aligned} & 25 N_{2} 1800 \\ & 25 \mathrm{~N} 21800 \end{aligned}$ | RCA RIder Chanalyst | 162, $162 \mathrm{~A}, 162 \mathrm{~B}, 162 \mathrm{C}$ |
| 25 N 21801 | Electroniclnstrument | MA-113A, 210, 221, 221K |
| 25 N 21802 | Precision Apparatus | EV-10 |
| 25 N 21803 | RCA Voltohmyst | 195, 195A |
| 25N21803 | RCA Audio Chanalyst | 170A |

YOUR PRICEE, For Each of the Above Types......... 12.69
FEILER SIGNAL TRACING PROBE


Type TS-6C. Use with any high-gain cmplifier as cudible tracer or oscilloscope or VTVM as Visual tracer. IN34 crystal. Measures
Shipping Wt: 1 lb . 25N21763.
7.50

## Hickok Crystal Demodulator Probe

Type 34. Used with any oscllloscope to trace up to 500 MC modulated RF thru any recelver from antenna post to detector or discriminator.
25N21759-Shpe. Wt: 1 tb.
.8 .40

INDUSTRIAL AND SPECIAL TEST EQUIPMENT
PLEASE NOTE: Just a neminder that our test equipment in avalable on our convenient TIME PAYNENT PLAN. Thls applies to orders for this merchandise whether listed here or not. Lafayette-Concord can obtain any plece of test equipment you desire, on special order. Write for full detalls and manufacturer's specifications on the items you want


## DUMONT 3-1NCH OSCILLOGRAPH

Model 164E employs 3 APIA tube. Amplifled sweep clrcult over continuous range from I5 to 30,000 cycles. Input lmpedance vertiis to 30,000 cycles. Input lmpedance vert1-
cally: $1,000,000$ ohms; horizontally: 800,000 cally: $1,000,000$ ohms; horizontally: 800,000 ohms. Maximum potential 400 DC volts. Doflection sensitivity: maximum vertical 0.80 r.m.s. voly in.; maximum horizontal . 065 r.m.s. volV/n. Handy deflectlon-plate ter minals avallable at rear. Frequency range: vertical and horizontal ampliflers both uniform withln $20 \%$ from 5 to 100,000 cycles. Horizontal ampllflers may be switched to amplify elther sweep circult or external signal, so that Lissajou patterns for frequency determination may be used. In black wrinkle finish steel cabinet. Plastic scope screen. For operation on 115 volts, $40-60 \mathrm{cy}$ cles. Slze: $11-5 / 8^{\circ} \times 7-3 / 8^{\prime \prime} \times 14^{\prime \prime}$.
25N21557-Shpg. Wt: 25 lbs.
124.50

## RCP HI-MEGOHM MULTITESTERS



Accurate high megohm range requires no battertes or tubes. Rectangular 4-5/8" meters provide excelient readabllity with t2\% accuracy. Output ranges correspond to the AC voltage ranges. Altractive natural finlsh, portable oak eases with leads. Case has removable hinged cover with latch remoyable hinged cover with latch
and leather handle. Dimensions: 8 and leather handle. Dimens
Model 450 AP-1 000 Ohms/Volt Meter Sensitlvity Ohmmeter: $0 / 5000$ ) 500,000, 0-50 megs; DC V.; 0-5/50/ $125 / 500 / 2500$; ACV.: $0-10 / 100 / 250 /$ 1000; DC MA: $0-2.5 / 10 / 100 / 1000 ; \mathrm{db}:-9$ to +55 .

Model $450 \mathrm{BP}-5000$ Ohms /Volt Meter Senslltvity
24.45
 1000.

25N21523...........................................................27.93
Model $450 \mathrm{CP}-20,000$ Ohms/Volt Meter Sensitivity
Ohmmeter: $0-5000 ; 0-5 / 1000$ megs; AC 6 DC voll ranges and db. same as 450AP; DC MA: $0-.1 / 10 / 100 / 1000$. 25N21524.
34.25

PROBES

## MULTITESTER HV PROBES



For all VTVM 6 Multimeters. Measures HV in TV FM x-ray. Utilize lawest range on your meter ecale, and multiply readIngs by 1000.
Increases range of any 20,000 ohms/volt multitester to 30,000 volts.
25N21804.
.10 .73
Increases range of any 5000 ohms/volimulttester to 30,000 volis.
25N21805..................................................................... 73
Increases range of any $20,000 \mathrm{ohms} / \mathrm{volt}$ multilester to 25,000 volts.
25N21806.............................................................. 10. 73
Increases range of any 5000 ohms/volt multitester to 25,000 volts.
10.73

## NEW HICKOK TV PROBE



Model TVP-1. With this probe, elrcult characteristics shown In set manufacturers service manuals com be viewed accurately without misaligning stages, especlally where capacltance in ordinary cable would produce improper plctures. In put lmpedance 25 mmid . Frequency response linear 20 cycles to 1 MC. Supplled with $4-\mathrm{ft}$. heavy duty cord and spade connectors. Light, easy to hañd le black and chrome probe25N21696.
12.00

# TEST EQUIPMENT "Build-It-Yourself" KITS 

## EICO HIGH QUALITYKITS

## OSCILLOSCOPE KIT



Model 400K. 5" oscilloscope. An indispensable aid for AM, FM and Television servicing. Horizontal sweep circult 15 to 30,000 cycles. Frequency response of vertical and horizontal amplifiers 50 cycles to 50 KC . Deflection sensitivity .65 volts per inch full gain. Input impedance 1 megohm and 59 mmfd . Provision for external synchronization, test voltage and intensity modulation. Complete with tubes: 2-6S J7, 2-5Y3, 1-884, 1-5BP1. Linear sweep with 884 gas triode. Graph screen. Slze: $81 / 2{ }^{*}$ Wx $13^{\prime \prime} \mathrm{Hx} 1^{\prime \prime} \mathrm{D}$.
32N24552-Shpg. Wt: 40 lbs
39.95

25 N2 1688-As above, but wired. Ready for use. ...........69.95


## VTVM KIT

Model 221 K . A precision type vacuum tube voltmeter kit at a price everyone can afford. $41 / 2^{\prime \prime}$ meter. All multiplier reslstors matched to $1 \%$ accuracy. DC and sistors matched to $1 \%$ accuracy. AC and Ohmmeter ranges: 2 ohms to 1000 megOhmmeter ranges: 2 ohms to 1000 meg
ohms in steps Rxl. Rxlo, Rxi000, ohms in steps Rxi, Rxi0, Rxi000, -20 to +55 db in 5 ranges. DC input iesistance 25 megohms. AC input impedance is over $11 / 2$ megohms. Size: 9-7/16x $6 \times 5$ ". Complete with tubes. 32N24540-Shpg. Wt: 10 tbs.
23.95

## H. F. PROBE KIT

Mode1 P-75K. Germanium crystal probe for visual RF sígnal tracing and measurements to over 200 megacycles. For use with the above oscilloscope or VTVM. 32N24533-Shipping Weight: 8 oz..................... 3.75

## SIGNAL GENERATOR KIT



Model 320. Features highly stable Hartley oscillator with frequency Hartley oscilator with frequency
range of 150 KC to 100 MC on 7 range of bands. Fundamentals to 34 MC . Can be modulated with pure 34 MC . Can be modulated with pure
400 -cycle audio supplied by Colpltts type oscillator included. Audto voltage can also be obtalned externally. Simple to allgn. Handsome etched panel with easy-to-read calibrations. Complete with tubes. ShipWelght: 22 lbs. 32N24562.
.19 .95

Build your own test equipment this practical, easy, moneysaving way. Excellent for schools, laboratorles, servicemen and hams. Instructions for step-by-step assembly and easy to follow diayrams, included in every kit. For other "build-it-yourself kits" see pages 125,126 and 127.

## FM/TV SWEEP GENERATOR KIT

A new standard in FM and TV sweep generator performance. Features spectal Midline capacity tuning condenser. High frequency insulation throughout. Generator output can be used as elther frequency modulated used as elther irequency modulated or pure RF. Buflt-in power line fil-
ter. Sweep width 500 KC to approxter. Sweep width 500 KC to approx-
imately 10 MC . Frequency range covered in 3-bands: 2-77 MC; 40-154
 MC; 151-227 MC. No bandswitching necessary. Tube lineup: 2-6SJ6, 2-6C4, 1-7Y4. Maximum out put $500,000 \mathrm{UV}$. For $105-125$ volts $50 / 60$-cycle AC opera tion. Complete with tubes, cables, and heavy gauge steel cablnet, battleship grey crackle finish. Dimensions: $8 \times 10 \mathrm{x}$ 12". Shpg. Wt: 25 lbs.
32N24399.
24.50

Same as above, but assembled and ready for use.
25N21736

## MULTITESTER KIT IN PORTABLE CASE

A versatile, compact test instrument
 ideal for radio recelverservicina. Equipped with $31 / 2 "$ round $0-1 \mathrm{MA}$ meter. Voltage range, AC/DC: 0-5 $50 / 150 / 500 / 1500$. Sensitivity. 1000 ohms/Volt. Milliamperes DC range: $0-5 / 50 / 150$. Ohms range: $0 / 2000 /$ $20,000 / 200,000$. Internal source 41/2 volis. Comes complete with handsome portable case. $51 / 2 \times 7 \times 31 / 2{ }^{\prime \prime}$. 32N24458-Shpg. Wt: 5 lbs
.13 .45
FEILER SIGNAL TRACER KIT


Model TS-3. Electronic "stethoscope" that gets to the heart of radio troubles in a flash. Completely portable and AC operated. Uses blased diode detector probe. Does not upset the most critical circuits. $5^{n}$ PM dynamic speaker included. Makes audible all signals - 30 cps to 120 MC - RF IF. Audio - without using special controls of tuning. Provision for output meter for silent tracing. Output connections to enable the use of an RF vacuum-tube voltmeter for visual indications. All-metal cabinet finished in handsome Brown iridescent enamel included For 115 volts, $50 / 60$-cycle. Slze: $111 / 2^{\prime \prime} \times 8^{\circ} \times 6^{\circ}$. With diode detector probe and leads.
32N24565-Shpg. Wt: 22 lbs. Complete Kit............ 22.75 25 N21778-As above, but assembled. Ready. For use...34.95

## SIGNAL TRACERS

SIGNALETTE SIGNAL TRACER


Vacuum-tube ald for signal tracing and quick check in alignment of sets. RF, IF and AF signals from 2500 cycles to 20 mc. Used for checking sensilivity. audio amplifier gain, and AVC. 25N21764-Each.
.9 .95

## SIGNAL TRACER AND TEST SPEAKER

Silver model 905 A . Effectively
PRECISION SIGNAL TRACER AC operated portable tracer. Excellent for trouble shooting AM, FM and TV sound circuits from 30 cycles to over 100 MC . Seperate channel for cudio frequencies. HF tube in probe with 3-tube high-gain amplifier makes all signals audible and does not upset the most-sensitive circult. Full control of RF-IF stage provided by variable control and resistive attenuator. Attractive metal cabinet con-
 talns built-in speaker and all controls. Complete with tubes, HF probe and test leads. 110 volt, $50 / 60$-cycle. Size: $91 / 2 \times 6 \frac{1}{2} \times 61 / 4$. $25 \mathrm{~N} 21799-$ Shpg. Wt: 11 lbs.

## FEILER APPLIANCE TESTER

Tests any appliance while in operation in a few seconds. Tells whether circult is shoried, open or has correct resistance. Unlque system of light indicators gives positive proof of condition of circuits. Operates from 95 125 volts DC and 25,50 and 60 -cycle AC. Tests any $95-125 \mathrm{~V}$. DC and 25 . 50. 60 -cycle electical applionce.
 Supplied complete with test leads, and a "Basic Course in the Fundamentals of Appliance Repair". Dimensions: $8 \times 6 \times$ 111/2"
25N21516-Shpg. Wi: 10 1bs........................................... 18.95 traces slgnals through AM, FM.
 and A.F. circults. Bullt-In 18-wati and A.F. circuits. Bullt-in 18 -watt ity $6^{\prime \prime}$ PMSpeaker. Two panel knobs glve instant cholce of 30 transiormer primary impedances. Speaker can also be used seperately. Probe frequency ranqe: 20 cycles to 300 megacycles. Amplifler frequency range: 60 to 20,000 cycles nat to $\pm 41 / 2 \mathrm{db}$. Undistorted power output: 3.4 watts. Sensltivity: 50 microvolis for 50 milliwatt output. Probe capacitance: 2 mmid. Probe input resistance: 2 megohms. For 105/ 125 volts, $50 / 60$ cycles AC. Complete with tubes, probe $\&$ prod tips, 6 -ft line cord.
25N21548-Shpg. Wt: 14 lbs
44.50

## PANEL METERS

TRIPLETT METER DIMENSIONS

$\qquad$ Flange Body Dia. *Body Depth

* Indicates overall body depth including terminals

TRIPLETT ROUND AND SQUARE CASE PANEL METERS
Incorporate finest moterials and workmanship. Molded cases, all terminals molded in. Sapphire jewels in adjustable screws. Accurate within $2 \%$.
D.C. MILLIAMMETERS-ROUND AND SQUARE CASE

|  | $\begin{gathered} 2^{\prime \prime} \text { Round } \\ 221 \cdot T \end{gathered}$ | $\begin{gathered} 2^{\prime \prime} \text { Square } \\ 227-\mathrm{T} \end{gathered}$ |  | $\begin{gathered} 3^{\prime \prime} \text { Round } \\ 321-T \end{gathered}$ | $\begin{aligned} & 3^{\prime \prime} \text { Square } \\ & 327-\mathrm{T} \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Range | No. | No. | Each | No. | No. | Each |
| 0.1 | 2SN11208 | 25N11288 | 6.76 | 25N11200 | 25N11320 | 7.74 |
| 0-1.5 | 25N11209 | 25N11289 | 6.76 | 25N11201 | 25N11321 | 2.74 |
| 0.3 | 25N11415 | 25N11290 | 6.76 | 25N11411 | 25N11322 | 7.14 |
| 0.5 | 25N11416 | 25N11298 | 5.68 | 25N11412 | 25N11323 | 6.66 |
| $0-10$ | 25N11210 | 25N11299 | 5.68 | 25N11202 | 25N11324 | 6.66 |
| 0.15 | 25N11211 | 25N11300 | 5.68 | 25N11203 | 25N11325 | 6.66 |
| 0.25 | 25N11398 | 25N11306 | 5.68 | 25N11394 | 25N11326 | 6.66 |
| $0-50$ | $25 N 11212$ | 25N11309 | 5.68 | $25 N 11204$ | 25N11327 | 6.66 |
| 0.100 | 25N11213 | 25N11311 | 5.68 | 25N11205 | 25N11328 | 6.66 |
| 0.150 | 25N11417 | 25N11312 | 5.68 | 25N11413 | 25N11329 | 6.66 |
|  | 25N11214 | 25N11313 | 5.68 | 25N11206 | 25N11330 | 6.66 |
| 0-250 | 25N11418 | 25N11314 | 5.68 | 25N11414 | 25N11331 | 6.66 |
| 0.300 | 25N11287 | 25N11315 | 5.68 | 25N11395 | 25N11332 | 6.66 |
| 0.500 | 25N11215 | 25N11316 | 5.68 | 25N11207 | 25N11333 | 6.66 |
| 0.750 | 25N11400 | 25N11317 | 5.68 | 25N11396 | 25N11334 | 6.66 |
| 0.1000 | 25N11401 | 25N11318 | 5.68 | 25N11397 | 25N11335 | 6.66 |

$0-1000$
D.C. MICROAMMETERS-ROUND AND SQUARE CASE

| $\begin{gathered} 3^{\prime \prime} \text { Round } \\ 321-T \end{gathered}$ |  |  | $\begin{gathered} 3^{\prime \prime} \text { Square } \\ 327-\mathrm{T} \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.50 | 25N11352 | 10.68 | 0. 50 | 25N11354 | 10.68 |
| 0.100 | 25N11353 | 10.68 | $0-100$ | 2SN11355 | 10.68 |
| 0.200 | 25N11434 | 8.72 | 0.200 | 25N11356 | 8.72 |
| 0.500 | 25N11435 | 8.13 | 0.500 | 25N11357 | 8.13 |

A.C. VOLTMETERS-ROUND AND SQUARE CASE

| Range | $\begin{gathered} 2^{\prime \prime} \text { Round } \\ 231 \cdot S \end{gathered}$ | $\begin{gathered} 2^{\prime \prime} \text { Square } \\ 237-5 \end{gathered}$ |  | $3^{n}$ Round $331-5$ | $\begin{gathered} 3^{\prime \prime} \text { Square } \\ 337.5 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | Each | No. | No. | Each |
| 0.5 | 25N11280 | 25N11449 | 5.68 | 25N11273 | 25N11459 | 6.66 |
| 0.10 | 25N11281 | 25N11454 | 5.68 | 25N11274 | 25N11460 | 6.66 |
| 0.15 | 25N11282 | 25N11456 | 5.68 | 25N11275 | 25N11461 | 6.66 |
| 0.25 | 25N11283 | 25N11456 | 5.68 | 25N11276 | 25N11462 | 6.66 6.66 |
| 0.50 | 25N11284 | 25N11380 | 5.68 | 25N11277 | 25N11381 |  |
| 0.150 | 25N11286 | 25N11457 | 6.76 | 25N11279 | 25N11463 | 7.74 |
| 0.300 | 25N11409 | 25N11458 | 8.33 | $25 N 11406$ | 25N11464 | 9.31 |
| 0.500 | 25N11410 | 25N11453 | 11.56 | 25N11407 | 25N11452 | 12.54 |
| 0-15-150 |  | . ....... |  | 25N11408 | 25N11465 | 13.52 |

A.C. MILLIAMMETERS

| Madel 231-S |  |  | Model 331-S |  | Model 231-S |  |  | Model 331-S |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Each | Ma. | No. | Each | No. | Each | Ma . | No. | Each |
| 25N11420 | 6.76 | 0.10 | 25N11419 | 7.74 | 25N11271 | 5.68 | 0-50 | 25N11267 | 6.66 |
| 25N11269 | 5.68 | 0-15 | 25N11265 | 6.66 | 25N11272 | 5.68 | 0.100 | 25N11268 | 6.66 |
| 25N11270 | 5.68 | 0-25 | 25N11266 | 6.66 | 25N11423 25N11424 | 5.68 5.68 | $0-250$ 0.500 | 25N11421 | 6.66 6.66 |

## D.C. VOLTMETERS

125 Ohms per Volt.

| Range | Model 221-T |  | Model 321-T |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | Each | No. | Each |
| 0-5 | 25N11247 | 5.68 | 25N11230 | 6.66 |
| 0.10 | 25N11248 | 5.68 | 25N11231 | 6.66 |
| 0.15 | 25N11249 | 5.68 | 25N11232 | 6.66 |
| 0.25 | 25N11250 | 5.68 | 25N11233 | 6.66 |
| 0.50 | 25N11251 | 5.68 | 25N11234 | 6.66 |
| 0.150 | 25N11253 | 5.68 | 25N11236 | 6.66 |
| 0.250 | 25N11254 | 6,96 | $25 N 11237$ | 7.94 |
| 0.500 | 25N11405 | 8.53 | 25N11404 | 9.51 |

D.C. VOLTMETERS

1000 Ohms/Volt Model 321-T

| Range | No. | Each |
| :---: | :---: | :---: |
| 0-10 | 25N11240 | 9.21 |
| 0.50 | 25N11241 | 9.21 |
| 0.100 | 25N11242 | 9.51 |
| 0.150 | 25N11243 | 9.51 |
| 0.500 | 25N11244 | 12.94 |
| 0.1000 | 25N11363 | 11.66 |

## D.C. AMMETERS

With internal shunt.
 Wt. 3 lbs.

## A.C. AMMETERS

| Amps. | Model 231-S |  | Model 331.S |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | Each | No. | Each |
| 0.1 | 25N11260 | 5.68 | 25N11255 | 6.66 |
| 0.3 | 25N11261 | 5.68 | 25N11256 | 6.66 |
| 0.5 | 25N11262 | 5.68 | 25N11257 | 6.66 |
| 0.10 | 25N11263 | 5.68 | 25N11258 | 6.66 |
| 0.25 | 25N11264 | 5.68 | 25N11259 | 8.66 |
| 0.30 | 25N11384 | 5.68 | 25N11429 | 8.66 |
| 0.50 | 25N11385 | 5.68 | 25N11431 | 6.66 |

Up 6 and down 10 db . Zero db at 1,73 volts, 500 ohm line, 6 -milliwatts
25N11446-Model 321-T. $3^{\prime \prime}$ dia.


SHURITE METERS
Model 550, round, with clamp. Model 950, square, flange mounted. Both models require
D.C. VOLTMETERS

| Range | Model 550 |  | Model 950 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | Each | No. | Each |
| 0-3 | 25N11052 | 1.27 | 25N11010 | 1.42 |
| 0-8 | 25N11055 | 1.27 | 25N11013 | 1.42 |
| 0.10 | 25N11056 | 1.32 | 25N11014 | 1.47 |
| 0.15 | 25N11057 | 1.37 | 25N11015 | 1.52 |
| 0.25 | 25N11059 | 1.27 | 25N11016 | 1.42 |
| 0.50* | 25N11062 | 2.74 | 25N11019 | 2.89 |
| $0-100$ | 25N11063 | 1.47 | 25N11020 | 1.62 |
| 0-150 | 25N11065 | 1.65 | 25N11023 | 1.81 |
| 0-300 | 25N 11067 | 3.18 | 25N11025 | 3.33 |
| 0.500 | 25N11068 | 3.67 | 25N11026 | 3.82 |

* Indicates high resistance meters.


## A.C. VOLTMETERS

| $0-15$ | 25N11075 | 2.30 | 25N11031 | 2.25 |
| :--- | :--- | :--- | :--- | :--- |
| 0.150 | $25 N 11076$ | 3.04 | 25N11032 | 3.18 |
| $0-300$ | $25 N 11077$ | 3.63 | $25 N 11033$ | 3.77 |

D.C. MILLIAMMETERS

| Range | Model 550 |  | Model 950 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | Each | No. | Each |
| 0.3 | 25N11109 | 1.96 | 25N11160 | 2.11 |
| 0.5 | 25N11050 | 1.81 | 25N11150 | 1.96 |
| 0.10 | 25N11100 | 1.11 | 25N11151 | 1.86 |
| 0.15 | 25N11101 | 1.32 | 25N11152 | 1.47 |
| 0-25 | 25N11102 | 1.27 | 25N11153 | 1.42 |
| 0.50 | 25N11103 | 1.27 | 25N11154 | 1.42 |
| 0.100 | 25N11104 | 1.27 | 25N11155 | 1.42 |
| 0.150 | 25N11105 | 1.27 | 25N11156 | 1.42 |
| 0-200 | 25N11106 | 1.27 | 25N11157 | 1.42 |
| 0-300 | 25N11107 | 1.27 | 25N11158. | 1.42 |
| 0-400 | 25N11108 | 1.22 | 25N11159 | 1.37 |

## D.C. AMMETERS

| $0-1$ | $25 N 11091$ | 1.27 | $25 N 11162$ | 1.42 |
| :---: | :---: | :---: | :---: | :---: |
| $0-3$ | $25 N 11092$ | 1.27 | $25 N 11163$ | 1.42 |
| $0-5$ | $25 N 11093$ | 1.27 | $25 N 11164$ | 1.42 |
| $0-10$ | $25 N 11094$ | 1.27 | $25 N 11165$ | 1.42 |
| $10-0.10$ | $25 N 11098$ | 1.27 | $25 N 11169$ | 1.42 |
| $20-0.20$ | $25 N 11099$ | 1.37 | $25 N 11170$ | 1.52 |

## A.C. AMMETERS

| $0-1$ | $25 N 11081$ | 2.30 | $25 N 11004$ | 2.45 |
| :--- | :--- | :--- | :--- | :--- |
| 0.3 | $25 N 11082$ | 2.30 | $25 N 11005$ | 2.45 |
| $0-5$ | $25 N 11083$ | 2.30 | $25 N 11006$ | 2.45 |
| $0-10$ | $25 N 11084$ | 2.30 | $25 N 11007$ | 2.45 |
| $0-50$ | $25 N 11085$ | 2.94 | $25 N 11008$ | 3.09 |

RESISTANCE METER
Direct reading 10,000 ohms, 4.5 volts.
N11078......1.76 $25 N 11071 \ldots . .1 .91$

## FLANGE FOR ROUND METERS

25N11041-23/4" Black Finish. . . . . Each 18s


MARION MULTI-RANGER METERS
Foundation meler is designed to permit the user to assemble a highly accurate Volt-OhmMilliameter. Have full 100 degree three-color scales reading $0.10,0.50,0.250,0.1000$ A.C. and D.C. Volts. 0-1, $0-10,0-50,0-500$ Milliamps. $0-500,0.100 \mathrm{M}, 0.1 \mathrm{Meg}, 0.10 \mathrm{Megohms}$. -10 to 54 decibels. Available in three sizes as listed below

| No. | Model | Size | Each |
| :---: | :---: | :---: | :---: |
| 25N10720 | $53 S N$ | $3^{\prime \prime}$ Square | 7.84 |
| 25N10721 | 55 | $45 / /^{\prime \prime} \times 41 / 8^{\prime \prime}$ | 9.80 |
| $25 N 10722$ | $57 S$ | $7^{\prime \prime} \times 84 / 2^{\prime \prime}$ | 13.06 |

## SHUNT AND RESISTOR KIT

Kit for Marion Multi-Ranger foundation meter. Consists of 14 melalized carbon film resistors and 4 Manganin wire wound shunts. Complete with schematic diagrams.
25N10719
8.16

METER RECTIFIERS



D


## ELECTROX RECTIFIER UNITS

## 5 ma of 3 volts $D C$

D. Full wave copper oxide rectifter in metal housing with four insulated 3 -inch leads. Continuous output of 5 ma at maximum of 3 volts DC. Maximum input 4 yolis AC.

25N10566..
2.59

## 20 ma at 3 volts DC

E. Full wave copper oxide sectifier in bakelite housing with five insulated 3-Inch leads. Continuous output of 20 ma at maximum of 3 volts DC. Maxinum input 4 volts AC.
25N10567
1.95

## 64 ma at 3 volts DC

F. Full wave copper oxide rectifier with five insulated 3 -inch leads. Continuous output of 64 ma at a max. of 3 volte DC. Max. irput 4.1 volts AC.
25 N 1056

ACCESSORIES


H

## BAKELITE METER BOX

G. Sturdy heavy molded plastic meter case. Will withstand rugged use without damage to case or meter. Overall dimensions $613 / 16^{\prime \prime} \times 55 / 16^{\prime \prime}$. Inside dimensions: $61 / 2 \times 5 \times 21 / 8^{\prime \prime}$. Panel mounting screw inserts are molded into case.
Shipping weight 3 lbs .
Shipping weight 3 ibs.
90 $\$$ Bakellte Panel for above. Shipping weight lib.

## RELIANCE METER CASES

H. Black crackle finish steel cases $4 \times 4 \times 41 / 4^{\prime \prime}$ high. Two ceramic insulators. Shipping welght 2 lbs. 25 N $10398-23 / 16^{n}$ dia, hole....... 1. 10 25N10399-2 $13 / 16^{\circ}{ }^{n}$......... 1.10

## AMPHENOL ADAPTORS <br> A simple way to make adaptors sultable for modernizing tube checkers and analyzers, adapting new tubes to old circults and for connections to output meter, phionograph pickup, etc. Socket tops \& bases.

| No. | Socket | Type | Price |
| :---: | :---: | :---: | ---: |
| $13 N 13085$ | (Octal) | $44-8$ | 14 c |
| 13N13086 | Loctal | $44-\mathrm{L}$ | 14 c |
| 13N13087 | 9Pin (Noval) | $44-9$ | 26 c |
| No. | Base | Type | Price |
| 13N13088 | 8 (Octal) | $50-8 \mathrm{SG}$ | 22 c |
| 13N13089 | Loctal | $44-13$ | 39 c |

## TEST LEADS AND PRODS



## PENCIL PROD KIT

Spring prongs at end of prods allow changing from spade lugs to phone ${ }^{1 i} \mathrm{p}^{2}$ or spring clips. Handles $6^{\circ}$ long, $1 / 4$ diameter. Fed and Black kinkless wire. Kit comes complete with iwo allfyator clips, two needle polnt phone tips and two tapered lugs.

25N12971-Prod Kit.
.1 .47
As above, with fixed Spring Clip Ends. 25N12882 As above, with Phone Tip End.................................
25N12883.........................................68c


ICA TEST LEAD KIT
Contains palr of test leads with $60^{\prime \prime}$ Red and Black kinkless wire one end with Insulated phone tips, other insula ted removable banana plugs. Comes in leatherettecase, complete with pair of alligator cllps, spede plugs, needle points.
25N12861-Complete kit..
2.06

WESTON TYPE TEST LEADS


5" long handles of red and black phenolic, with kinkless rubber wire. $65^{\prime \prime}$ overall length. Comes complete with molded finger grip lips with set screws.
23N12988-Per pai
1.03

## $A=5-000$

INSULATED TEST PRODS
Type A: standard solderless phone itp with knurled collor; Type B has chuck and nut to hold plain phono needle Type C has bonana plug to fit standard banana jack. Avallable in Red and Black-speclfy color.


## ICA "NO BREAK" PRODS

 Top grade insulated prods of solid brass, nickeled and covered with shockless F and covered with shockless Black. Tips are shap pointed type. Other end of $50^{\prime \prime}$ kinkless rubber wires have solderless Insulated phone tips.
23N12999-Pair.
684
As above but with standard phone tips. 25N13000-Pair $\qquad$

## ICA LABORATORY PRODS

 Contains removable phono needle chucks. Extra-long slim Black and Red handles knurled at end for easier grip. Handles are 6 inches long with 48 inch length heary duty kinkless and ex-tra-flexible rubber wire. Cholce of space or phone tips.
25N12978-Spade Tlps.......P Palr Each
25N12979-Phone Tips......Pair 826

## 15,000-VOLT TEST LEADS



Designed for high voltage TV measurements. Thick walled bakelite handles with finger guards withstand 15,000 Volt DC. 48 inch heavy cable connected to plugs.
2.94

25N15238.
SAFE.T-TESTER
Tester has spring in handle. Contact is made only when pressure is applled. 10,000 volts insulation. "" handle, $48^{\circ}$ leads. Ideal for smallspace probing. Fits standard jack.
25N15237
88


NEEDLE \& SOLDERLESS TIP PRODS Red and Black colored klnkless wire with sturdy fibre handles 4 inches long and $3 / 8$ of an inch in diameter. Type A: chucks and nuts hold plain phonograph needles. Type B contains solderless tip with long point. Both type leads are 50 ins. In length.

NEEDLE TIP PRODS (A)
No. Wire Ends
Paif
N N1 2976 - Phon
53
5N12975-Spade Lugs $\qquad$ 25N12977-Alligat or. $\qquad$

# TV \& RADIO ALIGNING TOOLS 


hex insulated nut wrench, $5^{\prime \prime}$ and $6^{\prime \prime}$ insulated driver.
 Asabove,
18N15089.

## ICA ALIGNING KIT


ghel ICA ALIGNING TOOL SET
$6^{\prime \prime}$ long, $3 / / 2^{\prime \prime}$ diameter tool with brass wrenches for $1 / 4^{\prime \prime}$ and $5 / 16^{\prime \prime}$
hex nuts, plus $7 / 32^{\prime \prime}$ screwdriver rod.
18N 15083--Set, fits logether.................................................. 3 IE

## UTE UHF ALIGNING TOOL

Amphenol polystyrene. Large end has a metal tip; small diameter end has been lengthened for TV set adjustments. 18N15075-Won't effect capacity of circuits

15c
Low capacity screwdriver for aligning superhets. $1 / 4$ " bone fibre, two nibs: one recessed, one $1 / 2^{\prime \prime}$ long. 18N 15145.
43c


## ICA S-IN-I ALIGNER KIT

Combines $1 / 4^{\prime \prime}$ and $5 / 16^{\prime \prime}$ nut wrenches, mindature blade full-size screwdriver in fountain pen size tool. 18N15082-3-pc. Set.
79

## FIBRITE SCREWDRIVER

2-ended driver for trimmer condensers.
18N15150-7/32" diameter $7^{\prime \prime}$ long.
18N15151-5/16" diameter $7^{\prime \prime}$ long.

## SOLID TUNING WAND

$6^{\prime \prime}$ rod, one end brass loaded, other core steel. Insulated.
596

## V.H.F. FLEXITUNER

Tuning wand, designed for FM, TV, and other high fidelity applications. Powdered iron core, copper slug ends. Increases, docreases inductance.
18N14977
396

## NEUTRALIZING DRIVER

Especially made for aligning coils, condensers, etc. Size: $61 / 4 \times 1 / 4^{\prime \prime}$.
$18 N 15080$.

## NEON TESTER


(1) New neon electrical tester indicates voltage from 60 to 500 volts, operating on AC or DC. Especially useful in tracing shorts, open or grounded circuits. 25N12958.
29c

## NEON CIRCUIT TESTER

(2) Shows open circults, polarity, continuity, etc. Checks fuses in circuits. Tiny neon lamp glows on 1 ma . Coded leads have phono tips. AC-DC.
25N11310-90-550 V. Tester.
596
(1) Low voltage, alligator clip leads. 25N11308-5-50 V. Tester


## TV SERVICING KIT

A compact tool kit for all TV servicing. Contains 9 tools including one each of slock numbers 15227, Big Stretch Aligner; 15228, Tran-Aligner; 15229, Slim Aligner; 15234, Tuning Wrench; 15231 Dual Aligner. 15232 Deep-Nib Aligner: 15235, Tuning Wand; 15233, Channel Tuner; also one stackpole core aligner; See copy stackpole core aligner. See copy
below for description of these below for description of these
tools. Supplied complete in leatherette case.


18N 15226.
4.09

## "BIG STRETCH" ALIGNER

For adiustment of nested iron cores of Admiral, Zenith and similar TV sets. Extra thin, $9^{\prime \prime}$ bone fiber tool with $61 / 2^{\prime \prime}$ blade. Also for RCA front onds.
18N 15227.
59c

## TRAN-ALIGNER

New, all-insulated aligning tool for standard IF and RF, and "K-Tran" midget transformers. Milled at one end, screw driver at other. $21 / 2^{\prime \prime}$ blade. Fiber handle.
18N15228- $6^{\prime \prime}$ overall.
44c
SLIM ALIGNER
Has extra thin recessed blade and slim metal shatt for cramped probing in TV receivers. For Admiral and similar makes.
18N15229-Fiber handle.

## 59c

## TUNING WRENCH

Insulated fiber with extra thin recessed blade on one end and extra thin screw driver blade on other. Tenlte handle. Designed especially for Zenith TV sets, etc.
18N 15234-43/4" long.
44c

## STUB ALIGNER

Ideal when cramped space demands short insulated tuning tool. Exposed nib for screw driver type controls not carrying high voltages. Tough tiber handle.
18N $15230-21 / 2^{\prime \prime}$ long $x 1 / 4^{\prime \prime}$ diameter.
24c

## DUAL ALIGNER

Nasrow shaft, fiber alignment tool for trimmers, IF transformers, etc. Dual purpose type with recessed screw nib on one end and metal screw driver on other.
18N 15231.

## DEEP-NIB ALIGNER

## For tuning IF \& RF shielded coils

 and trimmers. Fits under TV tubes without removing tubes. Inbes without removing fubes.18N15232-21/2" L. $\times 1 / 4^{\prime \prime}$ diam...


## TUNING WAND

Exira thin diameter to fit small coil openings in TV sets. Flexible vinylite with brass insert in one end and molded powdered iron core in other. Raises or lowers inductance. 18N15235-For Zenith TV, etc.

## ADJUSTING TOOL

For aligning all iron core tuning systems. Screw driver blade on one end, socket screw driver on other.
18N 15114.
$44 c$

## ICA TELEVISION

## "CHANNEL TUNER"

A narrow, all-insulated screw driver of machined fiber. Idea for deep, inaccessible tuning. $1 / 8^{\prime \prime}$ blade on $41 / 2^{\prime \prime}$ shaft. 18N15233-7" Long.

446


Checks any vollage from 110 to 550 volts- AC or DC, spark plugs, radio sets, appliances, etc. Distinguishes
25N12983.

## TOOLS: PUNCHES, CUTTERS \& STRIPPERS

The following pages contain groups of important tools and accessories to speed the work of active radio servicemen, hobbyists and experimenters. We offer a representative cross-section of high quality cutters,
hand and electric drills, soldering irons, wire strippers, saws, wrenches, pliers, screw drivers, plus a variety of other handy miscellaneous items made by top companies noted for their precision manufacturing.


RIVET-EYELET PUNCH SET
Hardened steel tool with cast tron holder. Hex sides on holder assures firm grip in vise. Supplied complete with rivets and eyelets. 18N15045-Set.
2.35

Rivet-Eyelet Assortment
100 assorted rivets and eyelets.
18N15066-Per Package.
.474

GENERAL PURPOSE STEEL CIRCLE CUTTERS


Provides easy, accurate method for cutting clean circular holes in brass, aluminum, steel, wood, bakelite, etc. Use whithand brace or slow sperd drill press. Heat-treated steel.

| Cat. No. | Type | Cuts Hole |  |  | Shank | Type Work | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 N 14720 | JR | 5/8 | to | 21/20 | Round | Light |  |
| 18N14711 | 4 | 7/8 | 10 | 4* | Round | Medium. | 1.30 |
| 18N14713 | 5 |  |  | 51/2m | Round | Heavy | 1.88 |
| 18N14715 | 5 |  |  | $51 / 2^{\prime \prime}$ | Square | Heavy | 1.88 |
| 18N14717 | $1 *$ | 7/8 | to | 4"' | Kound | Medium | 1.88 |
| 18N15069 | 5 | $11 / 4$ |  |  | Square | Ex.Heavy | 3.88 |

-Has extra beading cutter.
REPLACEMENT DRILLS, BLADES FOR ABOVE 18N:507U-Blade for use with 18N15069.....................35c 18N15068-Drill for use with 18Ni5069...........................35c

## AMP SHEARITE STRIPPER \& CUTTER

Three tools in one! Culs and sirips wire from sizes 22 to 10 ; cuss brass or steel machine screws without damaging threads, sizes $10-24,10-32$, $8-32,6-32$ and $4-40$. Has accurately sized stripping notches and precision threaded cutter holes plus stud size guage stamped on tool. Made of hardened steel; shock-proof plastle handle shaped in il: hand.
$3.95^{\circ}$ 18 N 15592 .


## FLEXTRON TV WIRE STRIPPER

A must for every TV serviceman's kit! Sirlps $300-0 h m$ transmission line quickly - easily clearly. Merely insert twin lead in opening at top. furn bar handle 900 and pull out stripped wire ready for use. Durable meial. 18N15591.
3.95

DELUXE COIL WINDER WITH ACCESSORIES
Easy-to-use set
winds honey comb spiderweb, or solenoid colls
of various widths and diametersequal in appearance 10 factory job. Indicator counts turns. With accessories for winding all lypes. instructions. Wt. 6 lbs.

18N14725.
4.95

## PORTABLE, EASY.TO.USE ELECTROPLATERS



Consists of $5 / 8^{\circ}$ plating brush (for all metals); po. plating compound; 1 oz. metal cleaner; 1 oz . metal polish; polishing stick: set of wires and clips; illustrated directions and notes on metals. Operates on two $11 / 2$ V . dry batteries (not incluited).
18N15359-Nickel Plating Outfit....
18N15360-Copper Plating Outfit..
18N15370-Cadmium P1ating Outfit. $\qquad$ 18N15371-Silver Plating Outfit... 1.47

EXTRA COMPOUNDS FOR ABOVE: Plate $125-175 \mathrm{sq} . \mathrm{in}$. 18N15372-Nickel Compound, 1-oz. Bottle...................37c 18N15373-Copper Compound, 1-oz. Bottle.................. 37c 18N15374-Cadmium Compound, l-oz. Bottle. 37 c
37 c 18N15375-Sllver Compound, 1-oz. Bottle........................73c. 73c

NEW MPC WIRE STRIPPER
Yardaned steel blades adjustable for wire size, avolds biting off wire. Tool cuts insulation sharp and clean, sirips
solid or stranded wire with easy pull. solid or siranded wire with easy pull. Excellent for use in hard-10-18N15403-Wire Stripper.................594

## SPEEDEX HANDY WIRE STRIPPERS

|  | Fast, pocket-size tool strips insulation easily from all types of wires and cables. Use on ends or center of wire. Will not damage solld or stranded wire. Deluxe tools stay open while wire is removed. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Size | Standard | Each | Deluxe | , |
| 14-24 $12-20$ 12 $10-18$ wire | $\begin{aligned} & 18 N 15538 \\ & 18 N 15537 \\ & 18 N 155.39 \end{aligned}$ | 3.53 | 18N15565 1 BN 15566 18N15567 | 4.70 |
| 3000 hm Twin-Lead | 18N 15587 |  | 18N15588 |  |

REPL ACEMENT BLADES FOR ABOVE 18N15596-12 to 20 Wire Size. 18N15597-14 ta 24 Rire Size. 8N15598-10 to 18 Wire Size........
$18 N 15599 \rightarrow$ Paralle1 No 18 Posj. $18 N 15599-\mathrm{Paralle} 1 \mathrm{No} 18 \mathrm{POSJ}$. 18N15595-F or 300 Ohn. Line....... 88


SPEEDEX WIRE STRIPPER KIT
Contains wire stripper 7 different blades in steel box. Handles No. 8 to No. 30 wire. Shpg. wt. 31 bs . Deluxe Stripper Kit
18N15568.
.10 .00
18N15569-StandardSiripper Kit... 8.82
QUICK STRIP INSULATION STRIPPER
Just the thing to solve the serviceman's wire siripping problems. Rapidly and cleanly strips all types of insulation from solid or stranded wire. Ali sizes from No. 12 to No. 22; also has slot to clean wire. High grade hardened steel gives years of service. Well designed, easy to
use. 18 N15059.
47 \&


## PLIERS AND SCREWDRIVERS

## KRAEUTER STANDARD PLIERS

From Kraeuters extra-quality "Standard" series-made to stand up under severe strain. Drop forged from extra high grade sieel with blue temper" IInish. These are not the lower-priced "K" 1001 s .

## DIAGONAL CUTTING PLIERS



18N14942-41/2" Length.
1.53

18N14944-6" Length.
... 2.53

## WIRE STRIPPING DIAGONAL CUTTER

As above, but with notch in blades for .062 wire and spring IIl handle.
18N14947-61/2" Length
2.42

LONG NOSE PLIERS


Side-cutting blades. Cholce of short-jaw and long-jaw needle nose types. 18N14946-5* Length Short-Jaw..
1.70 18N14945-6" Length Long Jaw........ 1.96

## ELECTRICIAN'S CUTTER



Modified iltted lap folnt, cutters.
1.79

18N 14936-8* Length..
.2 .34

## GENUINE KLEIN PLIERS

Of finest alloy tool steel Individually tempered for long-life cutting edges.
OBLIQUE $5^{n}$ CUTTING PLIERS
Wire stripping notch, lap joint. 2.75
I8NI5223-Nartow head............. 2.3
"CAN'T ROLL" CENTER PUNCH Tempered steel with large square head and knurled grip. 4-1/16" long. .325" dia. Wt: 1 lb .
I8N14999..

## . 124

BEVELED WOOD CHISELS AND CHISEL KIT Correctly proportioned bev-els-high grade heat-treated steel blades, Amberite han-
18N15513-1/4 ${ }^{n}$ Blade... $45 \%$ dles. $18 N 15514-1 / 2^{n}$ Blade... $49 \$$ dles. 18Ni5515-3" Blade......52 5 18Ni5516-1" Blade.......564 18N15517-Complete Set of 4 in CITS KIT
STANDARD HAND DRILL WITH HARDWOOD HANDLE $31 / 2$ " gear wheel meshed with small qear at $4: 1$ ratlo. $1 / 4^{\prime \prime}$ capacliy chuck with 3

1.45

## BREAST DRILL WITH 3/8" CAPACITY CHUCK

121/2: long, full-size breast plate and $31 / 2$. qear meshed with small gears of 4:1 ratio. Includes $3 / 8^{\prime \prime}$ capacliy chuck. Shipping Welght: 2 lbs.
18N14726

### 2.25



## SWIVEL HEAD HAND DRILL WITH FLAT HUB BASE <br> Works around corners! Chuck head ad- <br> Justs, locks to 7 positions, handle adjusts, locks along $180^{\circ}$ base, $1 \%^{\circ}$ chuck. Overall length $81 / 2^{2}$. <br> 18N14724-Shpg. Wt: 2 lbs. <br> 3.19 <br>  <br> \section*{AUTOMATIC PUSH DRILL}



For boring small holes in hard or soft wood and soft metals. Multiple toothed spiral and center nut operating mechanism. Chuck has 4 steel jaws to hold drills securely. Index ring gives number and dia, of drill in each handle compartment. With 8 drlll slzes: $1 / 16^{\prime \prime}, 5 / 64^{\circ} .3 / 32^{\prime \prime}$, $7 / 64^{\circ}, 1 / 8^{\prime \prime}, 9 / 64^{\circ}, 5 / 32^{\circ}$ and $11 / 64^{\prime \prime}$. Red plastic handle, nlcklé and áluminum metal parts. $9-1 / 8$ long.
18N17184-Shpg. Wt: 1 tb..
2. 57


## SCREW DRIVER SET

A new, practical tool kit conslsting of 5 tempered, ground blades and chuck with cmber handle. 3 standard screw drlver blades: $51 / 2^{\prime} \times 1 / 4^{\prime \prime} t 1 p, 3 \times 3 / 16^{\prime \prime}$ tip
 3-1/8" $\times 1 / 8^{\circ}$ t1p; 2 Phillps head chuck accomodates speclally desígned blades for positive iit. Packed in convenient leatherette tool roll. 18N14712.

98

## "ICA" FLEXIBLE SCREWDRIVER locater; finds slots of screws. L. $8^{3 / 4}{ }^{n}$. 18 18 N 15062 -Shpg. Wt. 2 lbs ....................1. 18

 POCKET SCREWDRIVERTransparent amber colored plastic handle. Tool steel blade, shockproof construction. With pocket clip.
... 104

## RATCHET SCREW DRIVER

With automatlc return. Has 5 actions: automatically drives or draws screws, left or right hand ratchet or rigid screw driver. $201 / 2^{\prime \prime}$ extended; $12-5 / 8^{\prime \prime}$ closed. 18N:4733-Welght $11 / 4$ lbs.
2.94

## GRIPPER SCREWDRIVERS

Gripper holds screw, releases instantly when scrow in drivenIdeal for tight places. Amber plasilc insulated handles with tempered steel blades.
18N14710-2x5/32 Blades 264
18N14721- $4 \times 5 / 32^{*}$ Blades............................................ $46^{6}$ 18N14709- $6 \times 5 / 32^{\circ}$ Blades.......................................... 504 18N14722-10×5/32* Blades.......................................... 524 Same as above, but for Phillips head screws. Fits all slzes. 18N14746-2x5/32" B1ades............................................ 46 18N14747-4x5/32" Blades............................................ 55 18N14748-6x5/32" Blades. .59 .

## RECESSED HEAD SCREWDRIVERS

$\sqrt{2}$
Sturdily made with sure-grip wooden handies and steel blades.

| No. | Size | Length | Cost |
| :---: | :---: | :---: | :---: |
| 18N 15251 | Up to 4 | $6-3 / 4^{\prime \prime}$ | 25 |
| 18N 15252 | 5 to 9 | $8-3 / 8^{\prime \prime}$ | 25 |
| 18Ni5253 | 10 to 16 | $11-1 / 2^{\prime \prime}$ | 33 |

## XCELITE SCREW DRIVERS

Polished chrome vanadium blades with tips ground for accurate lit in screw heads. Tough, shock-
 proof amber handles. Weight: 5 oz .

| Stock No. | Mfrs. Type | Blade Size | Each |
| :---: | :---: | :---: | :---: |
| 18N 15240 | R-144 | 4*x1/4* tip | . 59 |
| 18N15241 | R-1.46 | 6"x1/4" tip | . 62 |
| 18N 15242 | R-148 | $88^{\prime \prime} \times 1 / 4^{\prime \prime}$ tip | . 69 |
| 18N 15243 | R-1 82 | 2*x1/8* $8^{\text {2 }}$ (p | . 29 |
| 18N15244 | R-184 | 4"x1/8* 11p | . 32 |
| 18N15245 | R-186 | $6^{\circ} \times 1 / 8^{\circ} \mathrm{lip}$ | . 36 |
| 18N15246 | R-188 | $8^{\circ} \times 1 / 8^{\prime \prime} 11 p^{\circ}$ | . 39 |

4 IN 1 SCREW DRIVER
Ideal for mechanics shop and home use. Solid brass with indestructible hardened steel bits - will not rust. Master screw driver contains other 3. Welght 2 oz.

18N 14734 .

```
38
```



TAP, DRILL AND DIE SET

Useful set for handy men and model shop workers. Three $1^{n}$ dla. dies (4-36, 6-32. three taps (4-36, three taps
$6-32$, $8-32$ )
and 6-32, 8-32 and ${ }^{3}$ these taps. Tap holder and mahogany case. Shlpping Weight 3 lbs.

case,
18N 14994

## SOLDERING IRONS AND ACCESSORIES

DRAKE "Instant Heat" SOLDER GUN New, quick-action trigger solder gun for busy serVlcemen. Just press the trigger on the pistol grip handle for instant soldering heat. Durable handsome masoon plastic case, perfectly balanced for easy handling. Built-In spotliaht keeps work in slaht at all times. Deslaned with long thin tip convenlent for had-to reach and tlght corner soldering. Tip easily removed. 135 W . on $115 \mathrm{~V} ., 60$ cycle A.C. With extra $61 / 2^{*}$ soldering tip.
18N14872-Shipping Welght 3 lbs $\qquad$ 11.76

18N14873- $31 / 2^{m}$ tips. Pkg. of 4 304

DRAKE INDUSTRIAL IRONS-UNDERWRITERS LISTED 100 WATT IRON No. 600dio For switchboards, rafacturing uses. Ideal for facturing uses. Ideal for close quarters. Comes complete with 6 foot cord, stand. 3/8-
inch tip. Inch tlp.
18N15164-Shpg. Wt: 2 lbs.
4.70

18N15 152-Replacement Tip for Above............................... 73
100 WATT IRON No.
600 for light manufacturing purposes. Complete with 6 ft . cord,
"Magic Cup" stand, $3 / 8$-inch tip.
18N1555 1-Shpg. Wt: 2 lbs....................................... 4. 4. 4
18N15152-Replacement Tip for Above............................... 73
60 WATT COMPACT IRON No.
400. A small tool for tight coring 9 -inches long, weighs 9 oz. With $6-\mathrm{ft}$. cord. "Magic Cup" stond. $1 / 4$ " 1 p. 18N $14835-S h p g$. Wt: 1 lb. 3.23

18N151.57-Replacement Tip for Above................................ 35

## DRAKE DELUXE SOLDERING IRONS

| $0 \mathrm{OLCO} \longrightarrow 100$ WATT IRON No. 325. For general radio work. High quality Nichrome wire on amber mica. Nickel plated. Complete with 6 ft . cord and plug. "Magic Cup" stand, 3/8-in. tip. 18N15162-Shipping Weight: $11 / 2 \mathrm{lbs} . . . . . . . . . . . . . . . . . . .2 .24$ |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |

 For medium heavy work. Highest quality Nichrome wire on amber mica. Nichel plated. Complete with $\mathrm{G}-\mathrm{ft}$. cord and pluq, "Maqic Cup" stand, $5 / 8-\mathrm{in}$. 1ip. i8N15552-Shipping Weight: 2 lbs............
5.88

18N15153-Replacement' Tlp for Above.
...1.17

## DRAKE SPECIAL IRONS



Resistance wire on porcelain tubes
18N14892-60-Watt, Type 315 with cord, plug. Wt. 1 1b.... . 11
.53
18N14893-100-Watt, Type 316 with cord, plug. Wt. 1 1b...... 1.88
1.06

35 WATT MDGGET IRON No. 350-Only 61/2-tnches long. Element wound on mica-industrial lorns. Straight $1 / \varepsilon^{\prime \prime}$ tip, bent $1 / 8^{\circ \prime}$ tip and stand. Shlpping. Welght 1 lb . 18N15177-35 Watt Iron.
2.94

18N15178-Replacement Straight Tip.
$\qquad$
18N15179-Replacement $45^{\circ}$ Tip
.154

## HARMIC SOLDERING KIT



Contains U.L. appyd. chrome-plated 75 -watt soldering fron, steel scraper, spool of rosin core solder, stand, sandpaper. Instructlons. Wt. 3 lbs. 18N14834........ 35


The first really new idea in soldering tools. Operctes on the resistance welder principle glving high current at extremely low voltage. No more waiting for iron to heat up-merely pull the trigger when 1t's ime to solder. New type pistol grip gets you in close with a "feel" impossible to attain with conventional type trons. No bulky tip-no working in dork-spotlight lets you see where you are worklng. Tips stay tinned sol der easily, bend by hand. 100 watts on 115 volts 60 cyc. AC.
18N 15 183-Shpg. Wt. 3 lbs...
11.75

As above, with dual heat unlt ( $100-135$ W).
18N15 186-Shpg. Wt. 3 lbs. ................................ 13. 67
18N15187-Extra Long Life Tip. Pkg. of $4 \ldots . . . . . . . . .25$ 18N15188-Stud for Fastening Tip........................... 10 §


WELLER HEAVY DUTY SOLDERING TOOL
For heavier soldering, 200 W .
18N14869-Wt. 4 1bs
12.69 Dual Heat Undt (200-250 W.) 18N14870-Wt. 4 lbs......... Rigld-Tlp for above trons
18N14866-Package of Two
LENK GUN GRIP TYPE IRON


Perfectly balanced - IIghtwelght - easy to handle all-purpose soldering iron. Spring construction cushlons pressure for dellcate work, protects handle and units, keeps handle cool and insures perfect soldering, always. Has bullt-in stand that rests lron safely on work table. Contains long-life element. Supplled with 4 tips: straight, 450,900 and heavy duty. Draws 75 watts on $110-120$ volts AC or Chrome-plated over nickel and copper. Overall size: $91 / 2$ 4\%"
18 N15101-With 6 ft cord \& plug. Shpg. Wt: 1 db.........3. 26
18N15 102-125-W att Model. Shpg. Wt: 2 lbs......
.3 .2

## UNGAR ELECTRIC SOLDERING PENCIL



So tiny it can be handled as easlly as a pencill Eflicient, well-constructed, for perfect soldering jobs. Only 3.6 ounces, overall length is $7^{\prime \prime}$ for use in tight comers, hard-lo-reach places. 20 watts: heats in 90 seconds. Heatresistant plastic handle. Line cord and pluq. Operales on 110 volts AC or DC. UL approved. Uses any 11 p listed below.
18N15575-Soldering pencil, less tip. Shpg. Wt: 6 oz .
18N15576-(A) Standard Copper, tip only.........
18N15577-(B) Elkaloy A, Extra Hot, Tip only.............. Each
18N15578-(C) Elkaloy A, Chisel, Tip orly.
18N15579-(D) Eikaloy D, Pencil, Tip only.
78 18N15579-(D) Elkaloy D, Pencil, Tip only
18N15580-(E) Brass Marking, Tip only.....

## UNGAR SOLDERING SET

Ideal for hobby work. Includes soldering pencll, 3 tips, flux and brush, core solder, emery cloth.U.L. approved. 18N 15583-Wt: $6 \mathrm{oz} . . .2 .19$ Lots of 6,.......Each...... 1.65


## UNGAR ELECTRO.CRAFT BURNING PENCIL

Burning pencil forms plastic, burns designs intoleather, cork, wood and velvet. Embosses foll. Set consists of UL approved burning penc!1, 6 brass interchangeable tips, 6 colors of metallic foil, emery cloth. 18N 15582-With instructions. T. 65 Lots of 3, each.......................50 18N15585-Pkg, of 5 sheets $3^{\prime \prime} \times 5^{\prime \prime}$
foll, asst. colors.....204


## SOLDERING IRONS AND ACCESSORIES

 18N15124-No. 2Any tip.

LIghtweight iron gives soldering heat in a few seconds - at the llick List Price \$7.95.

Compact, lightweight solder Ing iron designed for light wiring, tight corners, and those really hard-to-get-atplaces. Draws 25 watts, 3/16" diameter ilp. Length' $6^{\circ \prime}$. Complete with cord and pluq.
 copper and ferrous alloys.
18N14741-3/32* diameter

## KWIKHEAT 225.WATT IRON

Heats up in 90 secionds. Sturdy, Iong-lasting, Handle stays cool. Can
handle stays cool. Can be used with tips $0,1,2,3,4,5,9$. UL approved l-year quar-
antee. For $100-125$ volis AC. Supplied complete with No. 9 tip.
8.25

## KWIKHEAT INTERCHANGEABLE TIPS



5
No. 5 is aluminum. Others ${ }^{2}$ forged Tellurium.

18N15122-No. 18N15125-NO. 3. 18 N 15127 No. 5 18N15123-No. 1..........18N15126-No. 4..........18N15165-No. 9
.Each
949
Each, in Lots of 3....................................................... 83 ,

## QUICK ACTION SOLDERING IRON

 corosive nickel-alloy tip contains heating element. No illcorrosive nickel-alloy ilp contains heating element. No insing or timning necessary: will not scale or oxidize. Modern, action. "Bucking coll" malntains soldering heat while soldering smallest wiring job up to No. 18 wire. For AC-DC.18N15 189-Welght 6 oz................................................ 5.30

## VASCO PETITE IRON



## KESTER SOLDER \& FLUX

|  | Rosin Core |  | Acid Core 3/16 ${ }^{\prime \prime}$ |  | $\begin{gathered} \text { Rosin } 1 / 16^{\prime \prime} \\ \text { Thin-Core } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Per Tin | 18N14857 | 174 | 18N14878 | 174 |  |  |
| i 1b. Spool | 18N 14858 | 1.04 | 18N14877 | 1.04 | 18N14851 | 1.07 |
| 5 lb . Spool | 18N14859 | 5.00 | 18N 14879 | 5.00 | 18N14852 | 5.15 |

Kester Paste Flux. Non-corrosive.
18N15278-2 oz. can

## NEW KESTER "Resin-Five" SOLDER

A new flux-core solder that is absolutely non-corrosive and non-conductive. The better solder for TV...all radlo and electronic parts. Easlly solders zinc, brass, nlckel plate,
$\qquad$
18N14742-3/32* diameter..... 5 lb. spool. 4.95

18N14743-1/16* dis 1.06

18N14743-1/16" diameter..... 1 lb. spool.
18N14744-1/16" diameter.....
lb. spool.
5.10

## AMERICAN BEAUTY 100-WATT IRON

No. 3138. America's
most famous iron for
those who want the
those who want the
very best! Heavily plated and polished metal parts. Length 12-7/8". 3/8" tip.
18N15171-With 6 -ft. cord and stand. Wt: 2 lbs ......... 5.36
18Ni5170-Extra tip for above.

## AMERICAN BEAUTY THERMOSTAT STAND

Adjustable themostat regulates temperature of solder ing Irons. Molded plastic body. Operates on 110 volts, AC. Comes complete with cord, plug, receptacle for Iron.
18N15169-Shipping Welght: 3 lbs


## ESICO SOLDERING IRONS

High grade elements finest mica insulation. U.L. Ilsied. For AC or DC. With cord; stand, tips.

Soldering Irons
18N14900-60 watts, 3/8* tip...... 1.73 18N14902-100 watts, 3/8 $8^{\circ}$ t1p.......2.32 18N14905-130 watts, $1 / 2^{\circ}$ tip


## ESICO 200-WATT SOLDER POT



## ERSIN MULTICORE SOLDER

Latest solder research development from secret British formula. Maximum flux action at correct solder melting point. Reduces surface tension of molten solder and metal wets rapidly. Fast melting, non-corrosive, non-sticky, non-loxic. 3 -core construction insures constant flux. Has excellent cleansing action. $40 \%$ tin, $60 \%$ lead. 14 gauge.
18N14801-1 1b. Spool................................ 22
18N14802-7 lb. Spool................................. 8.30

## RUBYFLUID LIQUID FLUX

Produces strong joints with thin film of solder on brass, tin, copper. Non-corrosive. 18N15279-3-oz. Can. Shpg. Wt. 4 oz.

NOKORODE CORE SOLDER
$30 \%$ in and $70 \%$ lead. A superior paste used for flux. Non-corrosive. No. 10 gauge. Approxi. $11 / 2 \mathrm{Oz}$. 18N14882-

## NOKORODE PASTE

Non-corroslve, fluxes all metals except aluminum withoit corroding or discoloring. Insures soldered joint at extremely economical cost.
18N15277-Per Can.

.8


COMPACT, ECONOMY MODEL

Double burner, alcohol fuel torch for heavy duty work. Adjustable for broad or needle point flame. Copper heat conductor in pressure chamber assures quick stariing. Cleanser pin included in handle. $7 \times 41 / 4 \times 21 / 3$ ". Shiping Weight 3 lbs. 18N14867
3.17

## LENK TORCH

Double barrel, self-blowing type torch for servicemen and home mechanics. Uses denatured or commerclal alcohol. Leak-proof non-clogging construction. Screw top and bottom. Slze: $6 \times 2 \times 1^{1 / 210}$.
18N14868-Shipping Weight $1 \mathrm{lb}, \ldots . . . . .1 .14$


# ELECTRIC DRILLS \& DRILL ACCESSORIES 




SET NO. M-3. 13 drills $1 / 16^{\prime \prime}$ to $1 /{ }^{\prime \prime}$ by 64 ths with Huot index. Smallest but with the most often used sizes. Shpg. Wt. $1 / 2 \mathrm{lb}$.

4.05

SET NO. M-7. Contains 7 drills $1 / 16^{\prime \prime}$ to $1 / 1^{\prime \prime}$ by 32 nds with red bakellte stand which serves as index with marked holes.
18 N $15760-$ Shpg. Wi, $1 / 2 \mathrm{db} \ldots$
2.05 SET NO. M-2. Contains 21 drills $1 / 16^{\circ}$ to $3 / 8^{\prime \prime}$ by 64 ths with Huot index. Medium size Huot index, with the extended drill size range, adding those often needed drill slzes. Shpg. Wt. $2 \frac{1}{2}$ lbs. 18N15762~.
9.81

SET NO. M-15. Contains 15 drills $1 / 16^{\prime \prime}$ to $1 / 2^{\prime \prime}$ by 32 nds with Huot index. Large size Huot, with provisions for adding 14 drills of the 64 th sizes. Most used
slzes. Shpq. Wt. 3 lbs .
18N15763-
11.21


CENTURY HIGH SPEED DRILLS SOLD SEPARATELY

| No. | Size | Each | No. | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 18N15770 | 1/16" | 21 ¢ | 18N15780 | 7/32* | 364 |
| 18N15771 | 5/64" | 21 ¢ | 18N15781 | 15/64" | 384 |
| 18N15772 | 3/32* | 23 c | 18N15782 | 1/4* | 424 |
| 18N15773 | 7/64" | 23 | 18N15783 | 17/64" | 484 |
| 18N15774 | $1 / 8{ }^{\prime \prime}$ | 234 | 18N15784 | 9/32" | 514 |
| 18N15775 | 9/64* | 24 \% | 18N15785 | 19/64" | 546 |
| 18N15776 | 5/32" | 278 | 18N15786 | 5/16" | 60 s |
| 18N15777 | 11/64" | 28 | 18N15787 | 21/64* | 65 c. |
| 18N15778 | 3/16" | 30 | 18 N 15788 | 11/32" | $69{ }^{\circ}$ |
| 18N15779 | 13/64" | 32. | 18N15789 | $3 / 8^{n}$ | 83. |

CONVERT YOUR DRILL TO A POWER-HAMMER
A highly efficlent adapior tool which converts an electric drill Into a powerful hammer. Excellent for drilling into cement, stone, brick, tile, eic. Powerfully bullt for speed and efficiency and ease of operation. Size: 6-7/16x1-1/8". Selfcontained lubrication. An adaptor tool at low cost. 18N15472-Less handle.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## BLACK \& DECKER $1 /{ }^{*}$ ELECTRIC DRILL

Sensational $1 / 6^{\prime \prime}$ drill value at a popular price. Powerful, high qualliy 2250 RPM motor equipped with 3-jaw Jacobs hex-key chuck, drills holes in steel, castiron, aluminum, brass, sheet metal, wood, plastic, etc. Also drives counter sinks, wood augers, wire brushes and numerous cleaning, sanding and polease trigger switch can be locked "ON. Strong, light die-
 cast aluminum housing fits hand. 7/8" long. For $110 \mathrm{~V} . \mathrm{AC}$ or DC.
18N 15797-Home Utility Model....Shpg. Wt: 5 lbs...
18.95

## GILBERT $1 / 4 \cdot 1 \mathrm{INCH}$ ELECTRIC DRILL

An economy model, Ideal for med $1-$
um home and shop fobs. um home and shop jobs. Has self-sion-built chuck aftached to preciin strong, die cost zinc housing with aluminum finish. Equipped with ONOFF toggle switch. Convenient ON-tol-grip handle. For 110 volis, 60 tol-grip handle. For 110
cycles AC. Shpg. Wi: 4 lbs. 18N15796-List $11.95 \ldots . .$.
8.95


DRILL CASE
Metal case, fap drill index numbered 1 to 60. Cover lifts drills for selection.

### 2.45

GREENE SAW ATTACHME
18N14702.
STEEL DRILL SET

hand electric drill for sawing, filing, peening, riveling, or embossing. Just insert shaft into your drlll chuck-needs no special skitl to operate. Smal! and compact-con get into places where ordinary into places where orreach. Case cannot easily parts-no gears or shafts to wear out. Uses broken hack saw blades. Works with any $1 / 4$ electric dril. Shipping weight: 3 lbs.

9 drills, sizes $1 / 16$ to $3 / 16$ : Expertly ground cutting steel. n strong hardwood in s
box.
18 N 14


Universal for all makes of electric drills from $1 / 4$ " capacity up. Shaft at drill end is $1 / 4$ " hardened knurled steel. Body of shaft is $1 / 2^{n}$. sultable for all standard buffs, stones, scratch brushes, etc.
18N 15094
596


## POLISHER \& SANDER KIT

Converts your electric drill Into a power polisher and sander to includes flexible l/4" adaptor sllicon carbide sanding disc, lambswool polishing bonnet pattern for cutting additional pattern for cutting additional 18N15755..
1.45

SANDING DISCS
PRG of 12 Assorted Nedium, Fine and Coarse Grit Discs 18N15795..


## HANDY, SUPER-FIBER PLUGS



Easy to anchor bolts, screweyes, etc. Safe, economical and rellable to use! Can be snipped without damage to the plug.
18N 15476-1" for $1 / 4^{\prime \prime}$ hole, 100 for 1.65

18N15477-1" for 3/8" hole. 50 for .1 .60

[^2]
# NUT DRIVERS, WRENCH SETS \& REAMERS 

XCELITE MULTI-PURPOSE YOOL KIT


Sensational new kit with patented "stay-locked" fastener In the multi-purpose handle, assures firm, positive grip on tools. Each unit snaps in easily and securely, yet can be removed by pulling on the shaft. Case is made of sturdy metal with aitractive moltled finish. Opens like a book; can be set on work bench or fastened on wall or cabinet through two holes in back of the case. Kit includes; a mult) purpose handle, $1 / 8^{\prime \prime}$ to $5 / 16^{\circ}$ reamer. $3 / 16^{\prime \prime}$ and $9 / 32^{\prime \prime}$ Xeelite screwdriver blade and nine nutarivers from $3 / 16^{\prime \prime}$ to $1 / 2^{\prime \prime}$. All tools are chrome plated. Shpg. Wt: 4 lbs.
18N15266-List Price $\$ 9.95$
5.85

## XCELITE DELUXE REAMER KITS

Designed for reaming wood, plasilc or sheet metal. Extremely hard cutting edges. Detachable handle made of unbreakable am to $5 / 16^{* \prime}$ No. $21 / 4^{\prime \prime}$ to $1 / 2^{\prime \prime}$. No. 3, 7/16" $10^{2} 11 / 16^{\prime \prime}$. RK-42 Kit. Nos, 182 reamers and handle in roll klt.
2.77
 18N15248 $\qquad$
RK-43 Kit. Nos. $1,2 \& 3$ reamers and handle in roll kit.
3.89

## XCELITE SUPER NUT DRIVER SET

Contains most popular socketsizes. PlasHe handles color coded for easy Ident1ication. Includes 7 wrenches from 3/16" to $3 / 8^{\prime \prime}$ in $1 / 32^{\prime \prime}$ steps. Made of hardened steel, carefully polished to Insure snug fil of nuts. Deep enough to hold 2 nuis at one time. Complete in lockable holder, size: $71 / 2 \times 71 / 4 \times 11 / 4^{\circ}$.
4.24

XCELITE NUT DRIVERS-STURDY, SHOCKPROOF
Time-Saving spin-type wrenches meet every need! Un-breakable--transparent amber handles insulated against 5000 volts. Extra-deep sock ets for long studs. $6 *$ long. 18N15330-for 3/16" hex nut. 18N15328-for 7/32" hex nut. 18N15331-for $1 / 4^{\prime \prime}$ hexnut. 18N 15327 -for $9 / 32$ * hex nut. 18Ni5332-for 5/16" hex nut 18N15333-for $11 / 32^{\text {nhex }}$ nut. 18 N15 334-for $3 / 8^{\prime \prime}$ hex nut. Any Above, each...........45e 18N 15335-for $7 / 16^{n}$ hex nut. 18N1\$336-for $1 / 3^{\circ}$ hex nut. Any Above, Each............69

HOLLOW SHAFT
TYPE
Extra-long hollow shaft. For Installing and removing volume controls and other panel equipment. Permits removal of nuts from volume controls with up to $5^{*}$ shafts. Ideal for nuts blocked by bolts or studs.

18 N 15344 -for $1 / 2$ nex nut. 75



## S-K WRENCH SET

Now, all-purpose wrench set for work on ignition, carburetor and redio. 18 plece kit contains reversible ratchet, bar $^{\circ} 3 / 16^{\circ}, 7 / 32^{\circ}, 1 / 4^{\circ}{ }^{\circ} 9 / 32^{n}$ and $5 / 16^{\prime \prime} 6 \mathrm{pt}^{\prime \prime} \mathrm{skts}^{\prime \prime}$, $11 / 3^{\prime \prime}{ }^{\prime \prime}, 3 / 8^{\prime \prime}$ and $7 / 16^{\prime \prime} 12$ pt. skts. and $1 / 4^{\prime \prime \prime} 5 / 16^{\prime \prime}$ and $3 / 8^{\prime \prime} 8 \mathrm{pt}$. skts. in $1 / 4^{\prime \prime}$ square drive. set is shipped in handy wrinkle finish metal box. 18N15590-Shpg. Wt: 2 lbs.
7.52


STEVENS-WALDEN "SPINTITE"
WRENCH SET
Invaluable for radio and electrical servicemen. Well made of cadmium plated steel and hardwood han-dles-designed to stand up under years of requiar use. Set includes 7 wrenches in conventent holder. W1!1 handle following size nuts: 3/16"', $1 / 4^{\prime \prime}$, $5 / 16^{\prime \prime}$. $11 / 32^{\prime \prime}$. Welght: 3 pounds.
18N 15570
3.82

## DELUXE CHUCK TYPE SPINTITE KIT



Consists of chuck type handle for use with wrench shanks, screwdrlvers and reamer. 3/16" $1 / 4^{\prime \prime}, 5 / 16^{\prime}, 11 / 32^{\prime \prime}, 3 / 8^{\prime \prime}, 7 / 16^{\prime \prime}$ and $1 / 2^{\prime \prime}$ wrench shanks; $1 / 8^{\prime \prime}$. $3 / 16^{\prime \prime}$ and $1 / 4^{\prime \prime}$ by $4^{\prime \prime}$ screw arivers; $1 / 16^{\prime \prime}$ to $3 / 16^{\prime \prime}$ Ream awl; 7 long nose, 5 diagonal culting pliers, neutralizing allgnment wrench. in leatherette oll.
18N15572-Wt. 3 lbs .
9.11

## 18N1554t-Less Pliers and neutrallzer, Wht. 2 Ibs..........5.44

STEVENS-WALDEN MIDGET WRENCH SETS
For accuratework on meters, radios and other small appliances. Consists of 8 midget hex sockets $3 / 16$ to $7 / 16^{\prime \prime}$; 3 double square sockets $1 / 4^{\prime \prime}, 5 / 16^{\circ}$ and $3 / 8^{\prime \prime}$ sizes; ratchel, hinge and spinite handles plus $6^{\prime \prime}$ long extension and sliding tee handle. Metal carrying case. Wt: 4 lbs. 18N15573-Deluxe Set Type 3100......9.44 STANDARD SET: As above less ratchet, sliding tee handles and extension. Welght: 2 pounds.


$$
\text { 18N15574-Standard Set Type } 3100 \text { A..... } 5.26
$$

RADIO WRENCH SET
Made entirely of high grade steel with case hardened sockets. Hollow handle holds screw

driver socket and ${ }^{\text {sockets: } 1 / 4^{\prime \prime}, 5 / 16^{\prime \prime}, 3 / 8^{\prime \prime}, 7 / 16^{\prime \prime}, 1 / 2^{\prime \prime} \text {. Handle and shank }}$ are $71 / 2$ long; finished in whíte nickel.
18N 15593 ....
746
RATCHET BRACE
A low-priced $10^{\circ}$ brace with Barber chuck and alligator jaws in semiboxed ratchet. Steelclad, ball bearing head. Mahogany finished hardwood handle and head: exposed metal parts nickeled and buffed 18N14732-Welght: 2 $1 / 2$ Ibs.

## GOOD QUALITY TOMAHAWK SOCKET WRENCH SET

 HEGBG Handy, compact little set for hard-toreach places. Consisis of $31 / 2^{\prime \prime}$ L hanlaled. Hexagon socket sizes: $316^{\prime \prime} 1 / 4{ }^{\prime \prime}, 5 / 16^{4} 3 / 8^{\circ}$. plafed. Hexagon socket slz$7 / 16^{n}$, and $1 / 2^{n}$. Shpg. Wt: l 1 b . 18 N 15589.

## TOOL STEEL REAMERS

Made of heat treated steel. Tapered shank has "T" handle for easy hand use. Enlarges $1 / 8 " 101 /{ }^{\prime \prime}$, holes. $5 \% "$ overall. 18N 15049

## SAMSON LEVER WRENCH

5 in 1 handy tool for all jobs-adjustable jaw makes it equally useful as pliers, locking wrench, clamp, pipe wrench, and toggle press. Instant adjustment or locking by ium of set screw. Double leverage multiplies pressure 1000 times. 18 N14986-Wt: 2 lbs.
1.25

864


3

## AUTOMATIC PUNCH

Speedy, automatic, and adjustable - a single-hand operated punch gives light or heavy impressions with just the tum of a screw. Center punch has replaceable points. $1 / \mu^{*} \times 5$.
18 N 14991.
2.55

Steel replacement point
18N14992.................... 23 \&

## 5.PIECE WRENCH SET

 New Sampson small openend wrenchset with ten different openings-no duplication of sizes. Wing-nut fastened for ease in carrying. Made of drop-forged tool steel, treated and hardened for extra sirength. $1 / 4$ to $7 / 8$ sizes-marked on shank. Wt: ] lb.18 N 14987
1.23


# TOOLS FOR THE HOBBYIST 

## NEW ELECTRIC MOTO-SAW



Lighteniny-fast-makes $\quad 7200$ strokes per minute-cuts 1 loot per minute through wood up to driven hand jig saw on the narket today. Saws the most iniricate patterns, cuts at any angle, works on assembled projects. Automatic switch in handle instantly stops, starts molor. For $50 / 60 \mathrm{cyc}$. AC. With cord and plug.
5.85


## ALL.PURPOSE VIBRO-SPRAYER



Even amateurs can produce a professional looking paint Job with this self-contained spraying unit. Specially designed to permit one-hand operation - and is complete in itself. Screw-top Jar has a 24 ounce capacity. Equally adaptable for spraying other liquids, such as light oll, insect1. cides, D.D.T., etc. as well as paint. Here is a finely made sprayer that will last for years, glving you excellent service and results. For 110 volts.
18N15619-List Price $\$ 12.95$ Dealers Cost Ea........ 9.75
Dealer's Cost Lots of
Each, 8.65
Dealer's Cost Lots of 6
Each, 7.80
 body with naval brass bearings for shaft. Complete outfit includes: 2 -speed pulley; $4^{\text {m }}$ flat face vitrifed grinding wheel; $4^{\prime \prime}$ wire scraich brush with securely held wires; $4^{\prime \prime}$ laminated cotton buffing wheel; ock tanned lecther belt complete with couplingi and one block of high grade polishing compound. 18N22399-Red Enamel Finish. Shpg. wt. 6 mbs 3.75

## MODELMAKERS VISE WITH $11 / 2 " J A W S$

Double paralle! bearas keeps Jaws alignedprevents wobbling, Insures steadiness of implement in the vise. Finer threaded worm screw provides Itghter grip, more holding surface per inch. $1 \frac{1}{2}$. Jaws open to ful? $21 /$ ". Equipped with double mountings for permanent or temporary attachment to any bench or table-edge not exceeding $2-1 / 6^{\prime \prime}$ thlck. Rust-resistant Bronze finish. Size fully closed: $5 \% / 4 \times 4 \times 2$ ".
18N 15735-Shpg. Wt: 3 lbs.................. 51 Same as above, but with larger, $21 / 2$ " Jaws. 18N15734-Sipg. Wt: 4 lbs..................... 2.55


Dirt-proof gear case with extra ong bearings assure gears being in alignment and wheel running true. All gears properly machined and meshed. Clamps on any table or bench. Adjustable tool rest for added ease ln sharpening. Baked Red enamel finish. With 5\% stone. Shpg. Wt: 4 lbs . 18N $15356 \ldots . . . .$.
2.79

## G. M. UTILITY GRINDER

A smooth running and long lasting grinder - accurately made and assembled. Completely enclosed all bright nickel plate. Extra lon bright nickel plate. Extra long brass bearings assure proper alignment of gears and a truerunning wheel. Clamps on any table or bench up to $1-1 / 8^{\text {w }}$ thick grade fine abrasive wheel, tool re grade fine abrasive whe
18N15355-Weight 1 lb .


## BURGESS ALL-PURPOSE TOOL KIT <br> Low Cost Kits <br> for Home or <br> Model Shop <br> 

Model V75. Vibro-Tool Master Kit. Here is the Ideal experimenters and hobbylsts tool kit that meets the needs of most wood, metal, leather, plastic and glass working problems. This handy package contains every basic tool necessary for marking and engraving metal and decorating glass and plastlic. It carves, slices, peens quickly and easlly. Supplied complete with vibrotool and one of each of the following: $\vee 24 \mathrm{knife}, \vee 23 \mathrm{knife}, \vee 3 \mathrm{carblde}$ point, $V 82$ leather punch, V45 ball point, V87 standard modeler, V81 abrasive, V5! curved chlsel, V55 V-shaped chisel and V115 stone. Packed in sturdy case for oonvenient storage. Operates on 110 volts, 60 cycles AC only. Shipping Welght 51 bs .
18N15 638-List Price 9.95. Dealer Price..... Each....
7.50

## LEATHER KRAFT KIT

Model V225. Vibro-tool Leather Kraft Kit. Complete with Vibro-tool and nine leather working attachments. Includes One each of the following ten basic leather working tools: ball point, $V 86$ deerfoot modeler ${ }^{2} 46$ ballpoint, $V 83$ leather liner, V84 leather slotter V85 double liner and leather Tool' and accessories housad in sturdy, oonvenlent storage case. Operates from 110 -volt, 60 -cycle AC only. Shlpping Welght 5 lbs .
18N15639-List Price 9.95. Dealer Price..... Each..
7.50

## MARKING KIT

Model V77. Vibro-Tool Marking Kit. Consists of Vibro-tool and hard tantalum carbide point. For metals, plastics etc. Operates from 110 -volt, 60 -cycle AC only.

## deluxe handee grinder kit in steel case

Hand-size, with high-speed, 25,000 RPM motor. 27 accessories include: rubber polishing wheel and saw With mandrels; slitting saw; push-pin mandrel; steel wire cavity brush; bristle brush; wire seratch brush; rubber disc; felt and rubber polishing points; felt pollshIng wheel; drum sander, discs; 6 mounted wheels, speed oll. $110-120$ volts AC-DC. 18N15263-No. 3010. Shpg. Wt. 8 lbs 23.37 As above, but with 26 Mtd. Whis. for industrial use. 23.37 18N15264-No. 3011. Shpg. Wt. ${ }^{4}$ dbs.................... 3.3 ber Pollshing Wheel; 1 Wheel Dressing Stone. Speed as
18N15354-No. 3008. Shpg. Wt. 2 Ibs.
17.42

## FAIRCHILD FLEXIBLE SHAFT TOOL

The hobbylst's answer to engraving, buffing, grinding and routlne polishing nouline polishing needsl Preclslon, $d y-$
namically balanced namically balanced
$1 / 20 \mathrm{H} . \mathrm{P}_{0}$ motor turns $1 / 20 \mathrm{H} . \mathrm{P}$. motor turns up 15,000 rpm at the handplece-with power to spare when using any of the 10 standard tools supplied. Pencil-size hand-plece permits
 fessional quality, and takes any standard $3 / 32^{\circ}$ or $1 / 8^{\prime \prime}$ shank tool. Flexible shaft is full three feet long and covered with plastic for clean, oll-free operation. Every elecered with plastic for clean, oll-free operathon. Every electrical component checked at factory with isted accessory tools, two wrenches, flexible shaft, motor and bracket for motor. Supplied in sturdy blond wooden cabinet. Operates on $110-120$ volts. AC or DC.
18N15645-Shipping Welght 7 lb
15.95

# TOOLS TO MAKE YOUR WORK EASIER 



AIR PRESSURE TOUCHUP SPRAYER


For touchlng up marted panels, cabinets, and radio chassis. Deslgned to operate perfectly with very low pressure from spara tires or any other air container. Comes complete with artight brass valve, adjustable brass spray tip. a length of rubber hose, and two 4-ozglass jars. Inexpensl ve, easy-to-use. 3 . 35
$18 \mathrm{~N} 14705-$ Shpg. wt. $3 \mathrm{lbs...........}$.
POWER SPRAYER WITH 12 FOOT HOSE
Newest type of touch-up sprayer that operates from the spark plug of any automoblle. Will spray paint, lacquer or any other free-flowing 11 quid. Comes complete with sprayer, pint glass Jar, spark plug air check valve compression tank, set of adaptors and a twelve-foot hose.
18N14704-Shpg. wt. 6 lbs.......
4.70

## VERNIER SLIDING CALIPER



Sharp polnted projections for accurate dividing, scribing, etc Lock nut insures against errors caused by sliding gauge. Rule graduated in 16 th and 32 nds plus $5^{n \prime}$ depth gauge. Precision-made Shpg. Wt: 1 lb .
18N 15027
984


## WALSCO SERVICE TWEEZERS

Serve hundreds of useful purposes. Of polished nickel-plated spring steel 18N15484-Self-Closing Type, $61 / 2^{\prime \prime}$ long with blunt points..............56\$ long, with slide lock and blunt point $5 \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . .71 c$ 18N15486-Precision Type, $41 / 2^{\prime \prime}$ ptd. 32c 18N15487-A山3 inleatherette case.1.91
G.C INSPECTION MIRROR

Long-handled inspection mirror makes it possible to see inside chassis-inspect colls, parts, connections.
18N15322-Wt. 8 oz.
$29 \phi$

## COMBINATION SQUARE

Has many uses-try and mitre square, depth gauge, marking gauge, level and scriber. Graduated 8 ths and 16 ths on one side, 16 ths and 32 nds on the other. $12^{\prime \prime}$ side, blade. 18N1502


## WALSCO LIGHTWEIGHT STAPLE DRIVER



Fully automatic-for neater, faster jobs on wire and cable. Staples wires up to $1 / 4$ " dia-
meter. Magazine holds 24 staples of 250 staples.
18Nis091-Shpg.
4.85 RUBBER CAP for plunger hesd-makes it easlar on the hand. 18N15090-Rubber. Cap.......................................................22c

## WALSCO CARBON TOOL STEEL STAPLES

In handy strips especially made for the Walsco Staple Driver. Brown color outside, inside coated with spectal clear insulating lacquer.
18N15093-Box of 250. 35 18N15099-Box of 1000 .. 1.32 18N15100-Box of 5000.................5.73

## FEATHERWEIGHT TACKER AND STAPLER

Quick, convenient tacker for attaching light wire or spaghetti labels, etc.i tacking on grille cloth or stapling papers, re-
ceipts, checks etc. Precision-built-steel body with fine Black finish. 18 N 15280. $\qquad$ .1 .60 18N15281-Box of 1000 staples...35c
 SAVE MOREI 10,000 staples.. 2.90


ADJUSTABLE HACK SAW
Accomodates $8^{\prime \prime}$ to $12^{\prime \prime}$ blades. Blade can be faced in lour dlrections. Easy-grip compositlon handle, ntckel-plated stock.
Complete with 8 -inch blade. handle, ntckel-plated Complete With 8-inch blade.
$18 \mathrm{~N} 17282-$ Shpg. Wit. $2 \mathrm{lbs.}$.

794
FLEXIBLE HACK SAW BLADES Excellent quality, herit-treated for extra hardness. Fits all standard frames. $1 / 2^{\prime \prime}$ wide, .025" thick.

| Catt. No. | Length | Teeth/in. | Each | Dozen |
| :---: | :---: | :---: | :---: | :---: |
| 18N17273 | $10^{\circ}$ | $18^{\prime \prime}$ | 74 | 674 |
| 18N 17274 | 10* | $24^{*}$ |  |  |
| 18 N 17275 | $12^{\prime \prime}$ | $18^{\prime \prime}$ | 84 | 80 |
| 18N17276 | 12* | 24* | 94 | 874 |

## ALL.PURPOSE HACK SAW

 Handy for tlght places. Fits where ordinary hack saws cannot be used. Complete with $71 /{ }^{\prime \prime}$ tapering blade. 18N17278-Hack Saw. $26 \%$

HEX AND SPLINE WRENCH KIT
Contains complete range of wrench keys, both hex (Allen) and spline (Bristo)l for No. 2 to $3 / B^{n}$ screws; all wrench sizes used in electronic trade. Comes in durable leatherette
case. 18 N 15488 -Shipping Weight 8 oz............ $97 \$$

G.M. CO. FLARING TOOL

Flares copper, brass and aluminurr tubing without cracking or spliting New type silp on clamp car be slipped
on or off instantly. Flares six most popular sizes: $3 / 16^{\circ}, 1 / /^{\circ} 5 / 16^{\circ}, 3 / 8^{\prime \prime}$. $1 / 22^{\circ} 5 / 8^{\prime \prime}$. Bright nickel finish.
18N 15732 .. Weight 2 ibs.........
2.79 BLOCK PLANE
Cuts with or across graln. For llight work. Black enameled cast cap with Lever $c a m$ lock. Screw end adjustment of high carbon steel cutter. Rose wood knob hande, 70 cutter $15 / 8^{\prime \prime}$.

Finest plane made for IInishing broad surfaces. End and slde adjusiment of cutters. Solld high carbon steel, rose-
wood knobs and handles. Beautlfully wood knobs and handles. Bearutlfully finished. $9^{\prime \prime}$ long; $2^{\prime \prime}$ cutters.
18N15618..................Welght $3 \%$ lbs.
$\qquad$ ( 18N15617......
.Welght $11 / 2 \mathrm{lbs}$....

## SMOOTH PLANE



## UTILITY CABINETS AND PARTS DRAWERS



DRAFTING MACHINE
Cuts drafting time by one-thirdl Eliminates use of T-square, protractor, and triangles. Makes sharp, accurate drawings up to $16 \times 22^{\circ}$. Combination 900 angle, calibrated scale moves at any angle to any point on the masonite board. Includes $171 / 2 \times 231 / 2 \times 1 / 4^{\prime \prime}$ board, steel arms, fittings, rubber feet.
18N15092-Wt. 8 lbs....... 6.63
NEW UTILITY CABINET
An Ideal all steel cabinet for stocking and storing small parts. Drawer patitions are removable, to make from two to eight comportments in eachdrawer. Identification card holders are part of the drawer handles. Top and bottom of cabinet are embossed so as to fit securely when stacked. Silver grey, quality finish and strong construction make this cabinet an
 an ex $\xi^{\prime \prime}$ wide $\times 61 / 2^{\prime \prime}$ high $\times 8^{\prime \prime}$ deep. Drawers measure $1-3 / 8^{n}$ deep. Shlpping Weight:5 ibs.
18N22374...

## 4-DRAWER ALL STEEL CABINET

Atractive, impressive, practical in design. Embossed cabinets fit securely when stacked in multiple units. Drawware $8 \times 1014 \times 1 / 4$, each with card hold 2 to 12 compartments per drawer, Contructed of heavy gise steel with tructed $71 / 2012 x 10$. Brown sho ping. Wt: 9 lbs. 18N2235 $1 .$.

### 5.25

## TRANSPARENT UTILITY BOXES



These attractive, crystalclear plastle boxes make Ideal storage compartments for screws, nuts, bolts and bundreds of other small parts. Bullt-in partitions keep parts separated at all times. Tight, snug fit of hinged cover assures parts remaining in correct compartment even when carried upside down. $7 \times 3 / \frac{12 x 1-3 / 16 *}{}$. Wt: $1 / 2 \mathrm{lb}$.
18N22383-9-Compartment Utility Box.
.674
18N22384-5-Compartment Utllity Box

## EQUIPTO STEEL DRAWERS WITH FRAME

A handy unit of exceptional quality for storUse individually, stack or insert under counters and in shelving. Frames are welded Into one strony, solid assembly that can be
 stacked with addillonal
stacked. With aditional of the elghteen drawers comes equipped with trames. Each of the elghteen drawers comes equipped with three adjustable and removeable cross dividers making four
compartments possible. This makes a total of 72 adjustable compartments possibe. Dimensions of cabinet: $34^{\circ \prime}$ wide $x^{\prime \prime} 13 \%^{\prime \prime} \mathrm{high}$

 high. Ollve green finish. Shipped set up and ready for use. Shipping Welght: 76 lbs .
18N22373.
21.50

CHUCK ARBORS TO FIT ANY SMALL MOTOR
Fits shaft of any small motor in place of a pulley. With flange and locking nut to hold grinding wheels, saws, and other tools. $1 / 4$ three-jaw chuck. Cholce of four sizes.

| No. | Unlt No. | Motor Shaft | Cost |
| :---: | :---: | :---: | :---: |
| 18 N15095 | 495 | $1 / 4^{\prime \prime}$ | .83 |
| 18 N15096 | 490 | $38^{\prime \prime}$ | 1.05 |
| 18 N 15097 | $490-A$ | $1 / 2^{\prime \prime}$ | 1.97 |
| 18 N15098 | $490-B$ | $5 / 8^{\prime \prime}$ | 1.13 |

## TEN DRAWER SMALL PARTS CABINET



A practical, heavy gauge steel cablnet especially designed for small parts. designed for small parts.
Provides ready storage Provides ready storage
space for resistors, conspace for resistors, con-
densers hardware and densers hardware and
other similar items. All other similar items. All
drawers are $11 /$ deep and have removable dividers that adjust each compartment for one to 12 sec tions. Identif!cation card holders on each drawer Cabinets can be easlly stacked one on top of an stacked, one on top of an has indentations that hold the feet of the one above. Sturdy construction - finishededges - handsome brown Hammerloid Inlsh. Size: $1616^{\prime \prime}$ wide $\times 8^{\prime \prime}$ high $\times 10^{n}$ deep. 18N22350-Shipping Weight: 17 tbs. $\qquad$ 7.88
"SNAP-ON" TYPE PARTS DRAWER

The modern, conventent way to store small parts. A strong, compact combinastrong, compact combina-
tion of gun-metal steel tion of gun-metal steel shelis and water-clear plasHe drawers. Merely snap together additional unlts on side, top and bottom to form strong metal cabiriet with extra space. No tools required - simple to do: prongs and slots interlock securely and quickly. Plastic dividers make it convenient to sub-alvide drawers inta two or more compartments. Rails on botiom of drawers assure smooth easy movement under heayy loads. Dimensions: $6-1 / 16^{\circ}$ long $x 3-1 / 8^{\prime \prime}$ wide $x$ 1-7/8" high. Weight: 9 oz . 18N22382.

45

## ALL-STEEL MULTI DRAWER

Convenient and economical storage for flltings, and small parts. Each unit constructed with tongue and slot designed to interlock with other unlisat top, bottom or side. Units may be fitted and securely locked around existing fixtures for economy of space. Each drawer has handy pull and holder for contents card. All steel construction, finished in attractive two-tone green. Ample drawer depth per-
 mits storage of reasonably large parts. Overall dimensions: $2-3 / 8 \times 2-1 / 4 \times 5$. I8N22381-Shpg. Wt: 10 oz. 10 for.....2.70 Each....... 3 \&

## NEW UNION PERSONAL FILE CHEST

Indispensable as a safe place to keep insurance papers, leases, contracts, correspondence, and other private or business papers. A systematic, time-saving, ready eference for Instant use. Sturdily made of fire-resistant steel, equipped with splil proof lock and two keys. Convenient sturdy corrying handle with bullt-in identiflcation card-holder. Comes with 10 Alphe betical A to 2 dividers, 7 Budget Folders and 3 plain folders. Gray enamel finish. $121 / 2 \times 101 / 6 \times 1 / 2^{\text {m }}$.
18 N22352-Shpg. Wt. 4 lbs.
2.90


CHASSIS, CHANGER CRADLE Steel framework and cork-padded clamps keep your work off the table-holds chassis or phonochanger at any angle so you can work on the bottom of chassis without endangering tubes. Stands on table or work bench. Adjustable for any size chassls or changer. Complete with standard clamps for grasping vertical surfaces of chassis orrecord changer. Groove in each clamp accemmodates flanged-in bottom edge of chassis. Shpg. Wt: 3 lbs. 18N15085.
3.87

## BALLASTS - LINE CORDS - FUSES

JFD AIR.COOLED ADJUSTABLE BALLAST KIT


Handy new klt of adjustable AC-DC ballasts in air-cooled periorated metal tubes, designed to replace more than 2700 different types of ballast tubes. Contains 2 Type "A." 2 Type "B", and 1 Type "C" ballasis, with book giving complele instructions and replacement dato.
4.41

REPLACEMENT TUBES FOR ABOVE KIT
7N6856-Type "A" Ballast 8 Prong Octal
7N6857-Type "B" Ballast 8 Prong Octal 7N6858-Type "C" Ballast 4 Prong
Any Type Above, Each
88

## JFD REPLACEMENT CHART

| $\begin{aligned} & \text { Use } \\ & \text { Type } \end{aligned}$ | To Replace Types Beginning With | Numbers | Ending With |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & A \\ & A \\ & B \end{aligned}$ | K,L,M or B <br> K,L,M,BK,BL or BM | $\begin{aligned} & 10 \text { to } 42 \\ & 45 \text { to } 105 \end{aligned}$ | $\begin{aligned} & \mathrm{A}, \mathrm{~B}, \mathrm{C}, \bar{D}, \mathrm{~F}, \mathrm{G} \text { or } \mathrm{H} \\ & \mathrm{~A}, \mathrm{~B}, \mathrm{C}, \mathrm{D}, \mathrm{~F}, \mathrm{G}, \mathrm{H}, \mathrm{~S}, \mathrm{~S} 2, \mathrm{~S} 3 \end{aligned}$ |
| C | To replace most 4-prong types such as LX $42, \mathrm{KX} 49$. KX'55, 140 R165R and 185R series. |  |  |

## UNIVERSAL RESISTOR CORD

A replacement cord for all makes of receivers. One cord fits all type sets. Any normally used reone cord. Complele instructions supplied with each oord.


7N5321-Resistor cord. Shpg. wt. 8 oz.
88

## LINE CORD RESISTORS

Flexible, sturdy cords for ACphono oscillators, etc Rupplies, ings are at 3 amps. Voltage drop subtracted from Voltage voltage gives total vollage oltage gives total voltage

| No. | Ohms | Voltage Drop |  |
| :---: | :---: | :---: | :---: |
| 7N5322 | 135 | 40.5 volts | 7 |
| 7N5332 | 150 | 45.0 volts | 7 |
| 7N5331 | 160 | 48.0 volts | 7 |
| 7N5323 | 180 | 54.0 volts | 7 |
| 7N5330 | 200 | 60.0 volts | 7 |
| 7N5324 | 220 | 66.0 volts | 7N |
| *Asterisk denotes | cord used in | 3-w |  |
| is calculated lor 15 amp. drain. |  |  |  |


| No. | Ohms | Voltage Drop |
| :---: | :---: | :---: |
| 7N5325 | 250 | 75.0 volts |
| 7N5329 | 280 | 84.0 volts |
| 7N5242 | 310 | 93.0 volts |
| 7N5326 | 330 | 99.0 volts |
| 7N5241 | 360 | 108.0 volts |
| 7N5320* | 560 | *78.75 volts |

Any above Type, Each
59

## SPECIAL AC-DC CORDS WITH PILOT LIGHT TAP

Similar above, but includes four conductors, with pilat light lap. Tinned leads for added protection

| 7N5334 | 160 Total Ohms | Tapped at 24 Ohms |
| :---: | :---: | :---: |
| 7N5335 | 180 Total Ohms | Tapped at 25 Ohms |
| 7N5336 | 200 Total Ohms | Tapped at 40 Ohms |
| 7N5337 | 200 Total Ohms | Tapped at 25 Ohms |
| 7N5339 | 280 Total Ohms | Tapped at 40 Ohms |

Any Above Type, Each
814
220 VOLT TO 110 VOLT LINE CORD RESISTOR American cord with stendard male plug and female retoreign plug and standard receptacle-ideal for servicemen abroad. Une with shavers, appliances. Standard 300
 ohm for sets using .3 amp . fubes, 50 me . plate supply. 7N5243-Tolal Capacity 350 ma . Shpq. wi. 8 oz. $\}$ 7N5244-As above, but foreign. Shpg. wt. 8 oz. $\}_{\text {Aach }}$ 7N5245 - Total Capacity 200 ma . Shpg. wt. 8 oz.$\}$.
7N5233 -As above, but loreign. Shpq. wt. 8 oz. Each.... 41


SIGNALITE 6 IN 1 PLUG FUSE U. L. approved. Contains 6 separate fuse links can be used six times without remov. ing from socket. Signal lamp lights in shock proof indicator cap when fuse blows-remains lit until cap is turned to renew fuse. Eliminales changing of tuses in dark, fumbling to find blown fuse. Each amperage is made with different colored cap.

39 N 13250 39N13251 39N13251 39N 13252
30 N 13254 $\qquad$
15 Amp. Fuse, Red Cap.
20 Amp. Fuse, Blue Cap.
25 Amp. Fuse, Yullow Cap.
Each 484

## Amp. Fuse, Green Cap

20 asst. for 25.28

## "METER BACK" FUSE MOUNT

Mounts directly on any meter terminal. Will not touch other posts. Takes $1 \times 35^{\prime \prime}$ instrument fuces only

25N11049

## JFD DUPLICATE TV

 REPLACEMENT BALLASTSExact duplicate ballasts for the television receivers listed below. Air cooled, perforated metal fubes

| Stock No. | Replacement for |  | Each | Stock No. | Replacement for |  | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Make | Part No. |  |  | Make | Part No. |  |
| 7N6840 | Belmont | B9 116534 | 1.32 | 7N6849 | Motorola | 17 A 470303 | 1.32 |
| 7N6841 | Belmont | B9M15822 | 1.32 | 7N6850 | Motorola | 17A485459 | 1.32 |
| 7N6842 | Belmont | B9M15067 | 1.32 | 7N6852 | Stew.Warn. | SW507300 | 1.32 |
| 7N6843 | Emerson | 397021 | 1.32 | 7N6853 | Teletone | TBR102D | 1.32 |
| 7N6844 | Emerson | 397022 | 1.32 | 7N6854 | Teletone | TBR103D | 1.32 |
| 7N6846 | Emerson | 397023 | 1.32 | 7N6855 | Teletone | TBR104D | 1.32 |

## AMPERITE AC-DC BALLAST TUBES

By using these fine regulators, tubes are kept to within $5 \%$ of thelr correct vollage, even if the line varies from 85 to 145 volts. Complete with starting resistor that saves pilot lights and tubes. All KL types are Octal bese.
Denotes exact replacement unit
Any Type Below, Each
734

$\begin{array}{cccccc}\text { No. } & \text { Type } & \text { No. } & \text { Type } & \text { No. } & \text { Type } \\ \text { 7N12238 } & 4 \mathrm{P} .45 & 7 \mathrm{~N} 12225 & 200 \mathrm{R}^{*} & 7 \mathrm{~N} 12232 & \text { KL.45 }\end{array}$ 7N12237 KL.75H .............. 7N12236 KL.50H

## REPLACES ALL AC-DC BALLASTS

| Type |  |  |  |  |  | Beginning With | Numbers | Ending With |
| :--- | :---: | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| KL-4S | K, L, M or BK | 36 to 67 | A, B, C or D |  |  |  |  |  |
| KL-50H | K, L, M or BK | 36 to 67 | F, G or, H |  |  |  |  |  |
| KL-75H | K, L, M or BK | 67 to 105 | F, G or H |  |  |  |  |  |

## TYPE 4P-45-4 PRONG

REPLACES THE FOLLOWING TYPES:
SOA2
50B2
S0×3T
$140 R 4$ 140R8
$140 R 44$
$140 L 4$
140 L 8 140L44
165 L 4
16588
$165 R 44$ LX42B
LX42C
LX42D KX49B
KX49C
KX49D

LX49B | LX49C | KX55C |
| :--- | :--- |
| LX49D | LX55B |
| KX55A | LX55C |
| KX55B | LX55D |

## LITTLEFUSES FOR TEST INSTRUMENTS

Type 8AG. Protect delicate instruments. Break circuit immediately on reaching blow point. Length 1 " diam. 1/4". May be used on 250 volls AC or DC. High Speed action


## IRC RESISTORS - KITS \& CABINET ASSORTMENTS

IRC INSULATED RESISTORS-TYPE BT COMPOSITION MEETS JAN SPECS


Fully insulated, moisture proof, flament type element in bakelite housing. Exclusive construction leatures provide low operoting temperature and excellent power dis-
$\leftrightharpoons$ f) Dinc $=$ sipation. Easily meets the exacting requirements of TV. BTS corresponds to IAN RC10 and RC20; BTA to JAN RC30 and BT-2 to JAN RC41. Tolerance $\pm 10 \%$. $\pm 5 \%$ available on apecial order at slightly higher prices, in minimum quantities of 10 of one value. Specify resistance when ordering.

STANDARD RMA CODE-SPECIFY RESISTANCE

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Megs. | Megs. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 0.47 \\ & 0.51 \\ & 0.56 \\ & 0.68 \\ & 0.82 \end{aligned}$ | $\begin{aligned} & 4.7 \\ & 5.1 \\ & 5.6 \\ & 6.8 \\ & 8.2 \end{aligned}$ | $\begin{aligned} & 47 \\ & 51 \\ & 56 \\ & 68 \\ & 82 \end{aligned}$ | $\begin{aligned} & 470 \\ & 510 \\ & 560 \\ & 680 \\ & 820 \end{aligned}$ | 4700 <br> 5100 <br> 5600 <br> 6800 <br> 8200 | $\begin{aligned} & 47000 \\ & 51000 \\ & 56000 \\ & 68000 \\ & 82000 \end{aligned}$ | $\begin{aligned} & 0.47 \\ & 0.51 \\ & 0.56 \\ & 0.68 \\ & 0.82 \end{aligned}$ | $\begin{aligned} & 4.7 \\ & 5.1 \\ & 5.6 \\ & 6.8 \\ & 8.2 \end{aligned}$ |
| $\begin{aligned} & 1.0 \\ & 1.2 \\ & 1.5 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 10.0 \\ & 12.0 \\ & 15.0 \\ & 18.0 \end{aligned}$ | $\begin{aligned} & 100 \\ & 120 \\ & 150 \\ & 180 \end{aligned}$ | $\begin{aligned} & 1000 \\ & 1200 \\ & 1500 \\ & 1800 \end{aligned}$ | $\begin{aligned} & 10000 \\ & 12000 \\ & 15000 \\ & 18000 \end{aligned}$ | $\begin{aligned} & 100000 \\ & 120000 \\ & 150000 \\ & 180000 \end{aligned}$ | $\begin{aligned} & 1.0 \\ & 1.2 \\ & 1.5 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 10.0 \\ & 12.0 \\ & 15.0 \\ & 18.0 \end{aligned}$ |
| $\begin{aligned} & 2.2 \\ & 2.7 \\ & 3.3 \\ & 3.9 \end{aligned}$ | $\begin{aligned} & 22.0 \\ & 27.0 \\ & 33.0 \\ & 39.0 \end{aligned}$ | $\begin{aligned} & 220 \\ & 270 \\ & 330 \\ & 390 \end{aligned}$ | $\begin{aligned} & 2200 \\ & 2700 \\ & 3300 \\ & 3900 \end{aligned}$ | $\begin{aligned} & 22000 \\ & 27000 \\ & 33000 \\ & 39000 \end{aligned}$ | $\begin{aligned} & 220000 \\ & 270000 \\ & 330000 \\ & 390000 \end{aligned}$ | $\begin{aligned} & 2.2 \\ & 2.7 \\ & 3.3 \\ & 3.9 \end{aligned}$ | 22.0 |


"BW" INSULATED WIRE-WOUND RESISTORS
Similar to the BT units listed above, but contain a wire wound element. completely encased in molded compound. Tolerance $\pm 10 \%$. Order sizes desired from tabulated isting above. Specity Resistance.


IRC METAL RESIST-O-CABINETS


Sturdy oll steel cabinet with 4 non-spill drawers; has 28 range identified compartments. MeasFREE with purchase of an assortment below

Assortment No. 4 100 BW 1/2 \& BTS 1/2-watt as. sorted resistors. Range: 47 ohms to 10 megohms. 7N5310-With
Cabinet
9.80

Assortment No. 5
83 BW 1 \& BTA 1-watt assorted resistors. Range: 47 ohms to 4.2


Assortment No. 6
12.20

[^3]14.65

## NEW IRC RESIST-O-KITS



## IRC POWER WIRE WOUND VARIABLE RESISTORS

For all industrial and radio uses. Dissipale heat rapidly, withstand heavy overloads, have great mechanical strength. All supplied with contact band. Above ten watts hove silver contact. Mounting brackets with all but ten watt units. Sizes: ABA, $134^{\pi}$ I


 Extra Contact Sliders for Resistors.
7NS213-for 10 watt
N5219-for 25 watt
2N5217-for 50-80 wait
12
7N5218-for 100-200 wat
Available resistances in each wattage indicated by price:

| OHMS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 71 | 92 | 1.16 | 1.33 |  |  |
| 10 | 71 | 92 | 1.16 | 1.33 |  |  |
| 25 | 71 | 92 | 1.16 | 1.33 |  |  |
| 50 | .71 | 92 | 1.16 | 1.33 |  |  |
| 100 | . 71 | 92 | 1.16 | 1.33 | 1.74 | ....... |
| 150 | . 71 | 92 | 1.16 |  |  | . . . . . |
| 200 | . 71 | 92 | 1.16 | 1.33 |  |  |
| 250 | 71 | 92 | 1.16 | 1.33 |  |  |
| 500 | . 71 | 92 | 1.16 | 1.33 | 1.14 | 2.14 |
| 750 | . 71 | 92 | 1.16 | 1.33 |  |  |
| 1000 | 71 | 92 | 1.16 | 1.33 | 1.74 | 2.14 |
| 1250 | 73 | 93 | 1.21 |  | 1.1 | 2.1 |
| 1500 | 73 | 93 | 1.21 | 1.39 |  | ....... |
| 2000 | 73 | 93 | 1.21 | 1.39 |  |  |
| 2500 | . 73 | 93 | 1.21 | 1.39 | 1.79 | 2.18 |
| 3000 | 73 | 93 | 1.21 | 1.38 |  | ...... |
| 4000 | 73 | 93 | 1.21 | 1.39 |  |  |
| 5000 | 73 | 93 | 1.21 | 1.39 | 1.79 | 2.18 |
| 6000 | 78 | 1.00 | 1.28 | 1.47 |  |  |
| 7500 | 78 | 1.00 | 1.28 | 1.47 | 1.89 |  |
| 10,000 | 78 | 1.00 | 1.28 | 1.47 | 1.89 | 2.30 |
| 15,000 |  | 1.03 | 1.39 | 1.56 | 2.01 |  |
| 20,000 |  | 1.03 | 1.39 | 1.56 |  |  |
| 25M |  | 1.11 | 1.50 | 1.71 | 2.14 | 2.47 |
| 40M | ...... |  | 1.50 | 1.71 |  | ..... |
| 50 M |  | .... | 1.62 | 1.76 | 2.22 | 2.53 |
| 75M |  |  | 1.80 |  | 2.33 | 2.67 |
| 100M |  |  | 1.91 | 2.13 | 2.43 | 2.77 |

## IRC WIRE WOUND FIXED POWER RESISTORS



Machine wound on non-hygroscopic cores; with heavy insulating coating that reststs mechanical damage.

 HO, $1012^{\prime \prime} \times 1 b^{\prime \prime}$.
Available resistances in each w

| OHMS | $\begin{aligned} & 10 \\ & \text { Watt } \\ & \text { 7NS210 } \\ & \text { AB } \end{aligned}$ | 20 Watt 7NS220 DG |  | $\begin{aligned} & 100 \\ & \text { Wat } \\ & \text { 7NS222 } \\ & \text { HA } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1 \\ 5 \\ 10 \\ 25 \\ 50 \end{gathered}$ | $\begin{array}{r} .34 \\ .34 \\ .34 \\ .34 \\ 134 \end{array}$ | $\begin{aligned} & 44 \\ & .44 \\ & 44 \\ & 44 \\ & 44 \end{aligned}$ | $\begin{aligned} & 80 \\ & 80 \\ & 80 \\ & 80 \end{aligned}$ |  |  |
| $\begin{aligned} & 75 \\ & 100 \\ & 150 \\ & 200 \\ & 250 \end{aligned}$ | $\begin{aligned} & 34 \\ & 34 \\ & 34 \\ & 34 \\ & 34 \end{aligned}$ | .44 .44 .44 .44 | $\begin{aligned} & 80 \\ & 80 \\ & 80 \\ & \hline \end{aligned}$ | $1.20$ <br> 1.20 | $\begin{aligned} & 1.59 \\ & 1.59 \end{aligned}$ |
| $\begin{gathered} 500 \\ 750 \\ 1000 \\ 1250 \\ 1500 \end{gathered}$ | $\begin{aligned} & 34 \\ & 34 \\ & 34 \\ & 37 \\ & 37 \end{aligned}$ | $\begin{aligned} & 44 \\ & 44 \\ & 44 \\ & 46 \\ & 46 \end{aligned}$ | $\begin{aligned} & .80 \\ & .80 \\ & .80 \\ & .85 \end{aligned}$ | 1.20 1.20 1.20 1.22 1.22 | 1.59 1.59 1.62 |
| $\begin{aligned} & 2000 \\ & 2250 \\ & 2500 \\ & 3000 \\ & 3500 \end{aligned}$ | $\begin{array}{r} .37 \\ .37 \\ .37 \\ .37 \\ .37 \end{array}$ | $\begin{aligned} & 46 \\ & 46 \\ & 46 \\ & 46 \\ & 46 \end{aligned}$ | .85 $\ldots .83$ .85 .85 | $\begin{array}{r} 1.22 \\ \cdots 1.22 \end{array}$ | 1.62 $\therefore \quad 1.62$ $\cdots \cdots$. |
| $\begin{aligned} & 4000 \\ & 4500 \\ & 5000 \\ & 6000 \\ & 7000 \end{aligned}$ | $\begin{array}{r} .37 \\ .37 \\ .37 \\ .42 \\ .42 \end{array}$ | 46 48 46 52 52 | .85 $\cdots \quad .85$ .93 .93 | 1.22 $\cdots \cdots . .$. | $\cdots 1.62$ |
| $\begin{gathered} 7500 \\ 10,000 \\ 12,000 \\ 12,500 \\ 15,000 \end{gathered}$ | $\begin{array}{r} .42 \\ .42 \\ .47 \\ .47 \end{array}$ | .52 .52 .55 .55 .55 | $\begin{array}{r} .93 \\ .93 \\ 1.03 \\ 1.03 \\ 1.03 \\ \hline \end{array}$ | 1.32 1.32 $\ldots$. 1.45 | $\begin{array}{r} 1.73 \\ 1.73 \\ \ldots .6 \\ 1.84 \end{array}$ |
| $\begin{gathered} 20,000 \\ 25 \mathrm{M} \\ 30 \mathrm{M} \\ 35 \mathrm{M} \\ 40 \mathrm{M} \end{gathered}$ | $\begin{array}{r} .47 \\ .51 \end{array}$ | $\begin{aligned} & .55 \\ & .64 \\ & .64 \\ & .64 \\ & .64 \end{aligned}$ | $\begin{aligned} & 1.03 \\ & 1.15 \\ & 1.15 \\ & 1.15 \end{aligned}$ | $\begin{aligned} & 1.45 \\ & 1.57 \end{aligned}$ | 1.84 1.91 |
| $\begin{gathered} 50 \mathrm{M} \\ 60 \mathrm{M} \\ 75 \mathrm{M} \\ 100 \mathrm{M} \end{gathered}$ | . ........ | . 73 | $\begin{aligned} & 1.25 \\ & 1.25 \\ & 1.44 \\ & 1.56 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.66 \\ & 1.76 \\ & 1.86 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.98 \\ & 2.09 \\ & 2.20 \end{aligned}$ |

# OHMITE FIXED \& ADJUSTABLE RESISTORS 



BROWN DEVIL FIXED RESISTORS
Wire-wound, vitreous enameled units Tinned copper terminals. Prolected againat humidity. Tolerance $\pm 10 \%$. Wt. 3 oz .

OHMS

| $0.4 \pm$ | 10 | 150 | 750 | 2,250 $\ddagger$ | 8,000 | 20,000 | 75,000* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.6** | 12t | 200 | 800 | 2,400* | 8,500t | 22,500 $\dagger$ | 80,000* |
| 0.8 | 15t | $225 \dagger$ | 850** | 2,500 | 10,000 | 25,000 | 85,000* |
| 1.1 | $20 \dagger$ | 250 | $900 \dagger$ | 2,750* | 11,000 $\dagger$ | 30,000 | 90,000* |
| 1.2 \% | 25 | 300 | 1,000 | 3,000 | 12,000t | 35,000 | 95,000* |
| 1.31 | $30 \dagger$ | 350 | 1.100 $\dagger$ | 3,500 $\ddagger$ | 12,500 | 40,000 | 100,000* |
| 1.517 | $35 \dagger$ | 400 | 1,200\% | 4,000 | 13,500 $\dagger$ | 45,000 | 100,00* |
| $2 \dagger$ | 40t | $450 \dagger$ | 1,250 | 4,500 $\ddagger$ | 14,300t | 50,000 |  |
| $3 \dagger$ | 50 | 500 | 1.500 | 5,000 | 15,000 | 55,000* |  |
| $4 \dagger$ | 75 | $600 \dagger$ | 1,750 $\ddagger$ | 6,000 | 16,000 $\dagger$ | 60,000* |  |
| $7.5+$ | 100 | 650*\$ | 1,850* | 7,000 | 17,500 | 65,000* |  |
| $7.5 \dagger$ | $125 \dagger$ | 7001 | 2,000 | 7,500 | 18,000 | 70,000* |  |

5-WATT
All sizes to 10,000 ohms except it

| No. | Ohms | Each |
| :---: | :---: | :---: |
| 7N7103 | $1-1000$ | .31 |
| 7N7103 | $1100-5000$ | .33 |
| 7N7104 | $6000-10000$ | .36 |
| 10 WATT |  |  |

All sizes except those marked *

| 7N7150 | $0.4-1000$ | .34 |
| :---: | :---: | :---: |
| 7N7150 | $1100-500$ | .37 |
| 7N7150 | $6000-10000$ | .42 |
| 7N7151 | $11000-20000$ | .47 |
| 7N7111 | $22500-25000$ | .51 |
| 7N7151 | $30000-50000$ | .57 |

## VITREOUS ENAMELED FIXED RESISTORS

Lug type resistors, wire wound on porcelain cores. Vitreous enameled conting protects
and insulates the wire. Terminal lugs. and insulates th
Tolerance $\pm 10 \%$.

| Ohms | $\begin{aligned} & \text { 25W } \\ & \text { 7N7125 } \end{aligned}$ | $\begin{gathered} 50 \mathrm{~W} \\ \text { 7N7132 } \end{gathered}$ | $\begin{gathered} 100 \mathrm{~W} \\ \text { 7N7139 } \end{gathered}$ | $\begin{aligned} & \text { 200W } \\ & \text { 7N7144 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ | . 47 | 1.11 | 1.66 | 2.20 |
| 2 | . 47 | 1.11 | 1.66 | 2.20 |
| 3 | . 47 | 1.11 | 1.68 | 2.20 |
| 4 | . 47 | 1.11 | 1.66 | 2.20 |
| 5 | . 47 | . 80 | 1.20 | 2.20 |
| 10 | . 47 | . 80 | 1.20 | 1.59 |
| 25 | . 47 | . 80 | 1.20 | 1.59 |
| 50 | . 47 | . 80 | 1.20 | 1.59 |
| 75 | . 47 | . 80 | 1.20 | 1.59 |
| 100 | . 47 | . 80 | 1.20 | 1.59 |
| 150 | . 47 | . 80 | 1.20 | 1.59 |
| 200 | . 47 | . 80 |  |  |
| 250 | . 47 | . 80 | 1.20 | 1.59 |
| 500 | . 47 | . 80 | 1.20 | 1.59 |
| 750 | . 47 | . 80 | 1.20 | 1.59 |
| 800 | . 47 | . 80 |  |  |
| 1000 | . 47 | . 80 | 1.20 | 1.59 |
| 1500 | . 51 | . 85 | 1.22 | 1.62 |
| 2000 | . 51 | . 85 | 1.22 | 1.62 |
| 2500 | . 51 | . 85 | 1.22 | 1.62 |
| 3000 | . 81 | . 85 | 1.22 | 1.62 |
| 3500 4000 | . 51 | 88 | .... | .... |
| 5000 | . 51 | . 85 | 1. 22 | 1.82 |
| 6000 | . 55 | . ${ }^{\text {. }}$ | 1.22 | 1.82 |
| 7500 | . 55 | . 83 | 1.32 | 1.73 |
| 8000 |  | . 93 |  |  |
| 10,000 | . 55 | . 93 | 1.32 | 1.73 |
| 12,000 | . 59 | 1.03 |  |  |
| 15,000 | . 59 | 1.03 | 1.45 | 1.84 |
| 20,000 | . 59 | 1.03 | 1.45 | 1.84 |
| 25.000 | . 67 | 1.15 | 1.57 | 1.91 |
| 30,000 35000 | . 67 | i, 15 | 1.57 | 1.91 |
| 40,000 | . 67 | 1.15 | 1.57 | 1.91 |
| 45,000 | . 76 |  |  |  |
| 50,000 | . 76 | 1.25 | 1.66 | 1.98 |
| 60,000 | . 76 | .... | 1.66 | 1.98 |
| 70,000 75,000 | . 89 |  |  |  |
| 75,000 | .... | 1.44 | 1.76 | 2.09 |
| 80,000 100,000 | $\begin{array}{r} .89 \\ 1.02 \end{array}$ | 1.56 | 1.88 |  |
| 125,000 |  | 1.66 |  | 2.20 |
| 150,000 |  | 1.71 | . |  |
| 175,000 | $\ldots$ | 1.78 | .... |  |
| 200,000 | $\ldots$ | 1.84 |  |  |
| 225,000 | .... | 2.08 | $\ldots$ | $\ldots$ |
| 250,000 | .... | 2.08 | ... |  |

STANDARD ADJUSTABLE SLIDERS
Screwdriver Type
Bahelite Knob Type

| Diam. | No. | Each |
| :---: | :---: | :---: |
| 1/4. | 7N7193 | 12 |
| 11" | 7N7194 | 12 |
| 8.". | 7N7195 | 15 |
|  | 7r7108 | 15 |


| No. | Each |
| :---: | :---: |
| 7N17197 | 18 |
| 7N7198 | $24 \%$ |
| 7N7199 | $24 \&$ |

## RELIANCE RESISTORS-SMALL PARTS CABINETS

INSULATED $1 / 2$ AND 1 WATT RESISTORS
RMA color coded insulated resistors. Moisture and heat resistant. Securely anchored pigtail wire leads. Ideal for congested wiring in compact equipment.

5 AND 10 WATT WIRE-WOUND RESISTORS
Tolerance within 5\%


All are wound with genuine nichrome wire on fine ceramic lubes. Guaranteed accuracy $5 \%$. Tinned copper wire leads and lugs for easy soldering. When andering, specify size desired.

| Ohms | Ohms | Ohms | Ohms | Ohms | Oh | Ohms |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 50 \\ & 75 \\ & 100 \\ & 150 \\ & 200 \\ & \text { in } 10 . \end{aligned}$ |  | $\begin{array}{r} 800 \\ 900 \\ 11000 \\ 1100 \\ \text { only. } \\ \text { only } \end{array}$ | $\begin{aligned} & 1500 \\ & 1505 \\ & \hline 2000 \\ & 22250 \\ & 2550 \end{aligned}$ | 2750 3000 5000 6000 7000 | $\begin{array}{\|l\|} \hline 8000 \\ 19000 \\ 1000 \\ 12500 \\ 1500 \\ 17500 \\ \hline \end{array}$ | $\begin{aligned} & 20000 \\ & 22500 \\ & 25000 \\ & 30000 \\ & 400000 \\ & 5000 \end{aligned}$ |
| 7N4438-5. Watt Resistors. Each, any size. <br> 7N4439-10.Watt Resistors. Each, any size |  |  |  |  |  |  |  |
| $2$ |  |  | 10 Watt Adjustable Wire Wound Vitreous enamel coated. Lug terminale. <br>  |  |  |  |  |
| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |  | Each |
| 25 | 50 100 | $\begin{aligned} & 150 \\ & 200 \end{aligned}$ | $\begin{array}{r} 500 \\ 1000 \end{array}$ | $\begin{aligned} & 2000 \\ & 2500 \\ & 250 \end{aligned}$ | $\begin{array}{r} 5000 \\ 10000 \end{array}$ |  | 29¢ |

7N4445--Speclfy resistance.
7N 4446 -Extra Slider for above. Each.
Reliance Vitreous Resistors Guaranteed plus or minus $10 \%$. All are non-porous, dissipate heat rapidly, have posttive lug contacts and do not change in value. Each marked for resistance.

10-WaH Rating $3 / 8 \times 13 / 4^{\prime}$

| No. | Ohms | No. | Ohms | No. | Ohms | No. | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7N4850 | 1 | 7N4866 | 100 | 7N4876 | 1000 | 7N4886 | 10000 |
| 7N4854 | 5 | 7N4868 | 150 | 7N4879 | 2000 | 7N4888 | 15000 |
| 7N4856 | 10 | 7N4870 | 250 | 7N4880 | 2500 | 7N4889 | 20000 |
| 7N4861 | 30 | 7N4872 | 400 | 7N4881 | 3000 | 7N4890 | 25000 |
| 7N4863 | 40 | 7N4873 | 500 | 7N4883 | 5000 | 7N4893 | 30000 |
| 7N4864 | 50 | 7N4875 | 750 |  |  |  |  |


| 20-Watt Rating $1 / 2 \times 2^{\prime \prime}$ |  |  |  | 50-Watt $3 / 4 \times 4^{\prime \prime}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Ohms | No. | Ohms | No. | Ohms |
| 7N4910 | 25 | 7N4936 | 2500 | 7N4958 | 100 |
| 7N4911 | 50 | 7N4938 | 3000 | 7N4959 | 250 |
| 7N4913 | 100 | 7N4940 | 4000 | 7N4960 | 500 |
| 7N4915 | 200 | 7N4942 | 5000 | 7N4963 | 1000 |
| 7N4919 | 400 | 7N4943 | 6000 | 7N4970 | 5000 |
| 7N4920 | 500 | 7N4946 | 8000 | 7N4976 | 10000 |
| 7N4923 | 750 | 7N4947 | 10000 | 7N4979 | 15000 |
| 7N4926 | 1000 | 7N4949 | 15000 | 7N4981 | 20000 |
| 7N4930 | 1500 | 7N4950 | 25000 | 7N4982 | 25000 |
| 7N4933 | 2000 | 7N4952 | 50000 | 7N4983 | 30000 |
| 7N4934 | 2250 | 7N4892 | 100000 | 7N4985 | 50000 |
| Each. | . 328 | Each | 32 | Each | 66 |



## ALL-STEEL MULTI DRAWER

Convenient and economical storage for fittings, and small parts. Each unit constructed with tongue and slot designed to interlock with other units at top, bottom or side. Units may be fitted and securely locked around existing fixtures for economy of space. Each drawer has handy pull and holder for contents card: A!l-steel construction finished in attractive two tone green. Ample drawer depth permits slorage of reasonably large parts. Overall dimensions $236^{\prime \prime} \times 21 /$ " $^{25^{\prime \prime}}$
18N22381-Shpg. wt. 10 oz. 10 for, ... 2.70 Each.

30

## WIRT RESISTOR CABINET 24 ROOMY COMPARTMENTS

Handsome blond finish wooden cabinet designed for the systematic and safe storage of resistors, small condensers and hardware or small precision tools. Saves you time and effort, keeps small parts at your fingertips, protects them from damage by condenser leads need. Resistor or condenser leads need not be bent as ers with lour comportments each as-
 sure ample space to fle hundreds of
1 -watt resistors. Flat top and bottom allows cabinets to be stacked when more drawer space is required. Sturdy tongue and groove construction throughout. Measures $9^{\prime \prime}$ high, $7^{\prime \prime}$ wide, $61 / 2^{\prime \prime}$ deep. 7N22363-Shipping weight 5 lbs.

## SPECIAL RESISTORS \& CLAROSTAT VOLUME CONTROLS



STANDARD FIXED

| Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: |
| 10 | 250 | 2500 | 20,000 |
| 20 | 300 | 3000 | 25,000 |
| 25 | 400 | 5000 | 30,000 |
| 30 | 500 | 7500 | 40,000 |
| 50 | $750 *$ | 10,000 | $50,000^{*}$ |
| 75 | 100 | $12,000^{*}$ | $60,000^{*}$ |
| 100 | 1250 | $12,500^{*}$ | $70,000^{*}$ |
| 150 | 1500 | 15,000 |  |
| 200 | 2000 | $17,500^{*}$ |  |

Type $5 \mathrm{KT}-5 \mathrm{~W} .11 / \mathrm{Br} 13 / 32^{\prime \prime}$

| No. | Ohms | Each |
| :---: | :---: | :---: |
| 7N7513 | 10 to 5,000 | 304 |
| 7N7514 | 7,500 to 10,000 | 314 |
| 7N7515 | 12,500 to 15,000 | 35 |
| 7N7516 | 20,000 | 394 |
| 7N7517 | 25,000 | 494 |
| 7N7518 | 30,000 | 53\% |
| 7N7519 | 40,000 | 606 |

Type 10KT-10 W. 13/4×13/32':

7N7520 10 to 10 MOhms 34 7N7520 $12 \mathrm{M}, 15 \mathrm{MOhms}$ O | 7N7520 | 12M, 15 M Ohms | 38 k |
| :--- | :--- | :--- |
| 7N7521 | $17,500 \& 20,000$ | 42 |

| 7N7521 | $17,500 \& 20,000$ | $42 \&$ |
| :---: | :---: | :---: |
| 7N7522 | 25,000 | 49 |
| 7N7523 | 30,000 | $33 \&$ |


| 7N7523 | 30,000 | $33 \ell$ |
| :--- | :--- | :--- |
| 7N7524 | 40,000 | 64 é |
| 7N7525 | 50,000 | 71 |
| 7N7526 | 60,000 | 88 é |


| 7N7525 | 50,000 | 88 |
| :--- | :--- | :--- |
| 7N7526 | 60,000 | 88 |
| 7N7527 | 70,000 | 994 |

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. $21 / \sigma^{\prime \prime}$ tinned copper wire leads. Moet regutrement of television and other high-voltage circuils. Negligible resistance drift, Insulated Negligible resis.ance drity
for 10,000 volis. Accuracy guaranteed $\pm 5 \%$. Non-inductive types show zero inductance up to 50 mc . and distributed capacitance is only 2 mmid.

STANDARD ADJUSTABLE Type 10AD-10 W. $13 / 4 \times 13 / 32^{\prime \prime}$ With adjustable clip.

| Ohms | Ohms | Ohms | Ohms |
| ---: | :---: | :---: | ---: |
| 10 | 200 | 750 | 3000 |
| 25 | 250 | 1000 | 4000 |
| 50 | 300 | 1500 | 5000 |
| 100 | 400 | 2000 | 7500 |
| 150 | 500 | 2500 | 10,000 |

7N7534-Any Above

NON-INDUCTIVE FIXED
Type 10NIT-10 W. $13 / 4 \times 13 / 32^{\prime \prime}$



## MALLORY YARD-OHM

## RESISTANCE KITS

Real solution to the odd:value resistor probi lem. Ideal for meter shunts, experimentalab., etc. Contain all 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 brald resistance values. Dissipation-all types; $1 / 2$ watt per inch. With instructions.

| Ohms | Cap. in |  | Stk. Ohms | Cap. in |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. Per In. <br> 7N4407 | Amps. .707 | Any Type | $\begin{aligned} & \text { No. } \begin{array}{l} \text { Per In } \\ 7 N 4411 \\ 50 \end{array} \end{aligned}$ | Amps. | Any Type Each |
| 7N4408 | . 315 |  | 7N4412 100 | 071 |  |
| 7N4409 10 | .223 |  | 7N4413 250 | . 044 \} |  |
| 7N4410 25 | .141) |  | 7N4414 500 | .031) |  |

## CONTINENTAL "NOBLELOY" X-TYPE RESISTORS

New l-watt resistor involving metal film principle, with accuracy of wire wound unit. No carbon used. Metallic resistance film is formed on the surface of a low loss ceramic mube, then hermetically sealed by a layer of vitreous enamel. Ceramic tubes are hollow and allow greater area for heal dissipation
Excellent reststance stability and negligible noise Excellent reststance stabllity and negligible noise
characteristlcs. Will withstand overloads of $200 \%$ and temperatures of 400 F . without change in value upon return "o room temperature. Critical tolerance within $1 \%$. Size $9 / 32^{\prime \prime} \times 1^{\prime \prime}$. $11 / 2^{\text {" }}$ tinned copper leads.

| Ohms | Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r} 1 \\ 10 \\ 25 \\ 50 \\ 100 \\ 200 \\ 400 \\ 500 \\ 1000 \\ 1450 \\ 2000 \end{array}$ | $\begin{aligned} & 2950 \\ & 3500 \\ & 4000 \\ & 4450 \\ & 4950 \\ & 5000 \\ & 5500 \\ & 5950 \\ & 7450 \\ & 8500 \\ & 8950 \end{aligned}$ | $\begin{array}{r} 9950 \\ 10,000 \\ 13,500 \\ 15 \mathrm{M} \\ 20 \mathrm{M} \\ 25 \mathrm{M} \\ 30 \mathrm{M} \\ 40 \mathrm{M} \\ 50 \mathrm{M} \\ 60 \mathrm{M} \\ 75 \mathrm{M} \end{array}$ | $\begin{gathered} 85 \mathrm{M} \\ 90 \mathrm{M} \\ 100 \mathrm{M} \\ 150 \mathrm{M} \\ 200 \mathrm{M} \\ 240 \mathrm{M} \\ 250 \mathrm{M} \\ 300 \mathrm{M} \\ 400 \mathrm{M} \\ 450 \mathrm{M} \\ 490 \mathrm{M} \end{gathered}$ | 500M <br> 600M <br> 750M <br> 800M <br> 900M <br> 1.0 Meg . <br> 1.5 Meg. <br> 2.0 Meg. <br> 2.5 Meg . <br> 3.0 Meg . |

7N7103-Spectify Resistance. Each. 59

58

## CLAROSTAT SERIES "M" AND "'T" YOLUME CONTROLS



Compact, efficient with exclusive stabilized element. "T"' trpe tapped controls listed below permit special functional operation
not attainable with other types of not attainable with other types of
controls. Dia. $118^{\prime \prime}$. Shaft $2^{\prime \prime} \times 1 / 4^{\prime \prime}$
dia. $3 / 8$ " bushing with nut.
Switches to fit elther type control listed below. Last letter of type numbers listed below identifies taper of control.

## CLAROSTAT TAPER CODE

S-Linear, Std. Pot.
U-Left Hand, Ant. and C Blas V-Right Hand, C Bias Rheostat 2-Left Hand, Audio Shunt, AVC

W-Left Hand, Screen Grid Volt, Phono Pickup
Y-Left Hand, Audio Shunt and AVC When Steep Taper is Desired

|  | Typ | hms | No. | Ty | hms | No. |  | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N7350 |  | 50 |  |  |  |  |  |  |
| 8N735 | M-8 | 1,000 | 8N7363 | M-4 | 50,000 | 8 N 7375 | M-66 |  |
| 8N7352 | M-11-S | 2,000 | 8N7364 | M-46-Z | 50,000 | 8N7376 | M-67-Z | - |
| 8N7353 | M-15-S | 3,000 | 8N7365 | M-47 | 75,000 | 8N7377 | M-68-2 |  |
| 8N7354 | M-19-S | 5,000 | 8N7366 | M-49- | 100,000 | 8N7378 | M-69-Z |  |
| 8N735 | M-20-U | 5,000 | 8N7367 | M-51-Z | 100,000 | 8N7379 | M-99-Z | 10Meg |
| 8N7356 | M-23- | 7,500 | 8N7368 | M-52-S | 200,000 | 8N7400 | M-81-4 | 10 Meg |
| 8N7357 | M-27-5 | 10,000 | 8N7369 | M-55 | 250,000 | 8N7401 |  | 20 Meg |
| 8N7358 | M-29-U | 10,000 | 8N7370 | M-64-Z | 250,000 | 8N7402 | M-41-W |  |
| 8N7359 | M-30-V | 10,000 | 8N7371 | M-58-S | 500,000 | 8N7403 | M-45-W | 50Me. |
|  | M-32-5 | 15,000 | 8N7372 | M-s0-Z | 500,000 | 8N7404 | M-50-Y | 500 Mg |
| 8N7361 | M |  |  |  | 1 Me |  |  |  |

Your Cost, any of above controls.
734
SERIES (T) TAPPED CONTROLS

| No. | Type | Ohms | Tapped | No. | Type | Ohms | Tapped |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N7380 | T-42 | 250,000 | 125,000 | 8N7388 | T-114 | 2 Meg. | 100,000 |
| 8N7381 | T-69 | 350,000 | 75,000 | 8N7389 | T-115 | 2 Meg . | 500,000 |
| 8 N 7382 | T-78 | 500,000 | 100,000 | 8N7390 | T-116 | ${ }_{2} \mathrm{Meg}$. | 1 Meg . |
| 8N7383 | T-101 | 1 Meg. | 50,000 | 8N7405 | T-120 | ${ }_{2} \mathrm{Meg}$. | 400,000 |
| 8N7384 | T-102 | 1 Meg. | $\{100,000$ | 8N7391 | T-121 | 2 Meg . | $\left\{\begin{array}{l} 250,000 \\ 500,000 \end{array}\right.$ |
| 8N7385 | T-103 | 1 Meg . | 100,000 | 8N7406 | T-123 | 2.5 Meg. | 250,000 |
| 8N7386 | T-109 | 1 Meg . | 225,000 | 8N7392 | T-128 | 4 Meg . | 500,000 500,000 |
| 8N7387 | T-112 | 1 Meg . | 500,000 |  |  |  | ........ |

Your Cost, any of above controls....................... 1.09

## 8N7398-SPST . ...............35 8N7399-DPST

## CLAROSTAT WIREWOUND CONTROLS

Series 58. Wirewound controls with alloy wire precisely wound on thin bakelite strip. Perfect sliding contact. $1 / 4^{\circ}$ shaft, $11 / 3^{\prime \prime}$ long. All controls listed below are linear.

| No. | Ohms | No. | Ohms | No. | Ohms | No. | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N70.48 | 1 | 8N7056 | 25 | 8N7097 | 200 | 8N7087 | 3000 |
| 8N7049 | 2 | 8N7057 | 30 | 8N7096 | 300 | 8N7084 | 3000 |
| 8N7051 | 4 | 8N7058 | 40 | 8N7095 | 400 | 8N7078 | 10000 |
| 8N7052 | 6 | 8N7099 | 50 | 8N7094 | 500 | 8N7073 | 15000 |
| 8 N 7053 | 10 | 8 N 7060 | 60 | 8 N7093 | 750 | 8N7070 | 20000 |
| 8N7054 | 15 | 8N7061 | 75 | 8N7092 | 1000 |  |  |
| 8N7055 | 20 | 8N7098 | 100 | 8N7090 | 2000 |  |  |



## IRC "PRECISTORS" CARBON RESISTORS


*Spectal indust. price applies to lots of 25 of one value.

## MALLORY VOLUME CONTROLS

MALLORY RADIO SERVICE ENCYCLOPEDIA - GTH ED.


Only complete servicing relerence on all pre-war and pot-war receivers. Approximately $25 \%$ more listings than the 5 th edition. Up-to-the-minute facts on correct replacement parts, volume and tone controls, capacitors, vibrators, circult intormation, servicing hints, etc. Lists radio sets by make and number side-by-side with replacement data on its components. Complete information on IF peaks, correct tube complements, all conveniently arranged for instant reference. Provides for further reference by listing page and volume in Rider's Manual where further information on the subject
may be obtained.
23 N19748- 552 pages. Shipping weight 4 lbs.
2.00

## STANDARD UNIVERSAL TAPPED CONTROLS

Standard $11 / /^{\prime \prime}$ diameter controls with tap for
various applications. Furnished with two nuts, washer, ground terminal and knob adapler. *No provision for use with switch; if switch is desired use TRP624. $\dagger$ Has slotted shaft for auto sets. \$Special taper for lader service. Others


No. Type Ohms Tap'd No.

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TRP601 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 8N6546 8N6547 | $\begin{aligned} & \text { TRP604 } \\ & \text { TRP605 } \end{aligned}$ | 350000 | $\begin{aligned} & 20000 \\ & 70000 \end{aligned}$ | 8N6591 8N6593 |  |  |  |
| 6577 | TRP606 | 500000 |  |  |  |  |  |
|  |  |  |  |  | TRP621 | 1/4 M |  |
| 8N6579 | TRP608 TRP609 |  |  |  |  |  |  |
| 8N658 | TRP610 | Meg. | 300 | $8 \mathrm{~N} 6596$ | $\frac{\operatorname{TRP622}}{\operatorname{TRP} 623}$ | $440$ |  |
|  |  |  |  |  |  |  |  |
| 8 N 658 | 1 |  |  |  |  |  | 500 |

Each-Shipping weight $3 / 2 \mathrm{lb}$.
1.09

## STANDARD UNIVERSAL DUAL CONTROLS

Consists of two volume controls strapped together and driven by a single shaft. Units listed service practically all receivers.

Wire Wound Controls

|  |  | Res. in Ohms |  | Taper |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Front | Rear | Front | Rear |
| 8N6684 8N6658 8N6685 | $\begin{aligned} & \mathrm{CE} \\ & \mathrm{GE} \\ & \mathrm{GG} \end{aligned}$ | $\begin{aligned} & 2000 \\ & 10000 \\ & 10000 \end{aligned}$ | $\begin{aligned} & 5000 \\ & 5000 \\ & 10000 \end{aligned}$ | $\begin{aligned} & \text { VII } \\ & \text { VII } \end{aligned}$ | $\begin{aligned} & \text { IV } \\ & \text { IV } \end{aligned}$ |
| Carbon Controls |  |  |  |  |  |
| 8N6686 8N6659 8N6687 8N6749 8N6689. | $\begin{aligned} & \text { GK } \\ & \text { LL } \\ & \text { MM } \\ & \text { NN } \end{aligned}$ | 10000 100000 100000 250000 500000 | $\begin{aligned} & 50000 \\ & 100000 \\ & 250000 \\ & 250000 \\ & 500000 \end{aligned}$ | 1 1 1 1 1 | $\begin{aligned} & \text { IV } \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |

Each-Shipping weight 1 lb .


## UNIVERSAL VOLUME CONTROLS

The Mallory-Yaxley Volume Controls listed on these pages can be used to service over $90 \%$ of all the radio recelvers 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; $3^{\prime \prime}$ shafts that can be shortened by notching and breaking olf; complele 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 adapler. Wire wound units have adjustable blas teature (exclusive MalloryYaxley); carbon element units with adjustable bias resistor where required.

Wire Wound Controls

| No. | Part | Ohms | Taper | No. | Part | Ohms | Taper |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }_{R}^{R}$ | $\begin{gathered} 2 \\ 6 \\ 10 \\ 20 \end{gathered}$ | $\begin{aligned} & 4 \\ & 4 \\ & 4 \\ & 4 \end{aligned}$ |  |  | $\begin{aligned} & 10000 \\ & 15000 \\ & 15000 \\ & 20000 \end{aligned}$ | $\begin{aligned} & 7 \\ & 2 \\ & 7 \\ & 4 \end{aligned}$ |
| 8N6665 8N6666 8N6667 8N6732 8N6668 | V | $\begin{gathered} 60 \\ 100 \\ 200 \\ 400 \\ 500 \end{gathered}$ | 4 <br> 4 <br> 4 <br> 4 <br> 1 | Carbon Controls |  |  |  |
|  | W |  |  | 8N67388N67108N67408N67148N6715 | $\begin{gathered} \text { Y5MP } \\ \text { F12* } \\ \text { Y10MP } \\ \text { H12* } \\ Y^{*} \end{gathered}$ | 5000 | 4 |
|  | X |  |  |  |  | 7500 |  |
|  | A 400P |  |  |  |  | 10000 | 4 |
|  | A |  |  |  |  | 15000 |  |
| 8N6733 | A550P | 550 | 4 |  |  | 20000 |  |
| 8N6734 | AIMP | 1000 | 4 | 8N67428N66768N66778N67168N6717 | Y25MP | 25000 | 4 |
| 8N6669 | B | 1000 | 1 |  | J* | 25000 |  |
| 8N6719 | UC500 | 1000 | 2 |  | K* | 50000 | 2 |
| 8N6735 | A2MP* | 2000 | 4 |  | K12 | 50000 |  |
| 8N6670 | C* | 2000 | 2 |  | Z* | 75000 | 2 |
| 8N6704 | $\mathrm{Cl2}^{*}$ | 2000 | 1 | 8N6718 | 212 | 75000 |  |
| 8N6736 | A3MP* | 3000 | 4 | 8N6729 <br> 8N6721 <br> 8N6745 | UCS10*UC502 | 100000150000 | 2 |
| 8N6671 | $\mathrm{D}^{*}$ | 3000 | 2 |  |  |  |  |
| 8N6705 | D7* | 3000 | 7 |  | $\begin{aligned} & \mathrm{UC502} \\ & \mathrm{Y} 20 \mathrm{MP} \end{aligned}$ | $\begin{aligned} & 150000 \\ & 200000 \\ & 250000 \end{aligned}$ | $\frac{1}{4}$ |
| 8N6706 | D12* | 3000 | 1 | 8N6679 | M |  |  |
| 8N6703 | A 4MP* | 4000 | 4 | 8N67308N67288N67228N67238N6724 | UCSIIt | 250000 | 2 |
| 8N6737 | A5MP* | 5000 | 4 |  | UC509*UC503 | 250000 |  |
| 8N6672 | E* | 5000 | 2 |  |  | 750000 | 1 |
| 8N6707 | E7* | 5000 | 7 |  | UC503 | 3 Meg . 4 Meg. | 1 |
| 8N6673 | F* | 7500 | 2 |  | $\begin{aligned} & \text { UC504 } \\ & \text { UC505 } \end{aligned}$ |  |  |
| $\begin{aligned} & \text { 8N6709 } \\ & \text { 8N6739 } \\ & 8 N 6674 \end{aligned}$ | F7* | 7500 | 7 | $\begin{aligned} & \text { 8N6725 } \\ & \text { 8N6726 } \\ & \text { 8N6727 } \end{aligned}$ | UC50 6 UC507 UC508 | 5 Meg . 5 Meg. 9 Meg. | 121 |
|  | A10MP* | 10000 |  |  |  |  |  |
|  | G* | 10000 | 2 |  |  |  |  |

* -Has adiustable bias leature. Wire wound units have adjustable plate; carbon element controls have external adjustable resistor. t-Has slotted shaft for auto sets. Supplied Less Switch. $\quad 734$


## EXPLANATION OF MALLORY VOLUME CONTROL TAPERS

No. (1) For audio or antenna shunt circults.
No. (2) For series circuits such as cathode voltage controls.
No. (3) For antenna shunt and "C" blas circuits.


Altachable switches to fit all unt vereal, tapped, and dual controls isted on this page.

| No. | Part | Type | Ea. |
| :--- | :---: | :---: | :---: |
| 8N6288 | 6.9 | S.P.S.T. | .35 |
| 8N12853 | 8 | S.P.D.T. | .44 |
| 8N6289 | 7 | D.P.S.T. | .44 |
| 8N6290 | 13 | 3-P.S.T. | .44 |
| 8N6291 | 14 | 4.P.S.T. | .44 |

## EXTENSION SHAFTS



Type A-Length 4",

 Any Size, Each.............. 244 Type B- $2^{\prime \prime}$ long. 1/ $^{\prime \prime}$ diameter with 3 " slot. Enclosed in tight itting tube
8N6559-Each

No. (4) Línear taper; for voltage divider circuits.
No. (4A) Modified linear taper, similar to No. 4.
No. (7) Wire wound element. For antenna and "C" blas.

## MOUNTING BRACKETS <br> 

For use where control mounts off chassis. Plated metal. Adjustable mounting centers.

8N6297-Type RB-248-Mounting centers $11 / 2^{\prime \prime}$ to $23 / 3^{\prime \prime}$.
8N6298 Type KB-249-Mounting centers $23 / 1$ to $27 / 8^{\prime \prime}$ Either Type, Each.

CONTROL HEX NUTS
For $2 / \mathrm{k}^{\prime \prime}$ bushings


VOLUME CONTROL WRENCH


For standard volume control nuts.
BN6387-No. 178-Each.....15\%

## MALLORY CONTROL DEALS

Fast-moving selections of Mallory controls, switches and accessories in neat, heavy-duty cabinets. Contains $95 \%$ of all your control needs. The cabinet has provision for the Mallory Encyclopedia (not supplied), and the cabinet is FREE. See facing page for full description of controls contained in these cabinets.

## MIDGETROL SELECTION




MR SELECTION

| 4 MR-48 | 1 MR-18 | 5 M-26 |
| :--- | :--- | :--- | :--- |
| 3 MR-53 | 1 MR-55 | 3 M-27 |
| 2 MR-50 | 1 MR-39 | 1 M-28 |
| 2 MR-44 | 1 MR-41 |  |

## UM SELECTION

| 4 UM-154 | 1 UM-118 | $2 \mathrm{M}-27$ |
| :---: | :---: | :---: |
| 3 UM-161 | 1 UM-163 | $1 \mathrm{M}-28$ |
| 2 UM-147 | 1 UM-142 | 5 SS-25 |
| 2 UM-196 | $3 \mathrm{M}-26$ | 1 SS-14 |
| 1 UM-140 |  |  |

# MALLORY VOLUME CONTROLS 

## MALLORY TELEVISION ENCYCLOPEDIA

200 page manual following the same format as the famous MALLORY RADIO SVCE. ENCY. Lists all makes and models T.V. sets through April, 1949, showing values and replacement of controls and fiter condensers. 23N19749

35
TELEVISION CONTROLS

| No. | Type | Ohms | Price |
| :---: | :---: | :---: | :---: |
| 8N6600 8N6601 8N6602 8N6603 8N6604 | $\begin{aligned} & \text { SU29 } \\ & \text { SU41 } \\ & \text { SU50 } \\ & \text { SU67 } \\ & \text { SUD1235 } \end{aligned}$ | 25M <br> 100 M <br> 500 M <br> 5 Meg. <br> 5 Meg. lapped of 1 Meg . | $\begin{array}{r} .88 \\ .88 \\ .88 \\ .88 \\ 2.20 \end{array}$ |

Switches: Uses same switches as Mallory type "U" midgetrols listed on right.

## MALLORY "UM" AND "TM" JUNIOR CONTROLS

Ultra-compact controls leaturing noiseless composition elements; attachable switches; plug-in type shafts. Both UM and TM types have slots which will take any one of the special shatts listed below. The TM types are similar to the UM but are provided with a lap as shown. TM type designed for use in tone compensating circuits. All are $1 / 2^{\prime \prime}$ thick, $11 / 0^{\prime \prime}$ diameter. Complete with SSI shaft.


MALLORY "TM" TYPE TAPPED CONTROLS

| No. | Type | Ohms | \|Tapped| | No. | Type | Ohms | To |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | TM220 |  |  |  |  |  |  |
| 8N6954 |  |  | 110 M | 8N7006* |  |  |  |
| 8N7013 | TM222 | 250M | 110 M | 8N7007* | TM242 | Meg. | 450 |
| 8N7014. | TM223 | 500 M | 60 M | 8N6960 | TM243 | eq. | 450 M |
| 8N7015 ${ }^{\circ}$ | TM224 | 500M | 100 M | 8N7008 | TM244 | 11/2 Meg. | 200M |
| 8N6955 | TM225 | 350M | 70M | 8N6961 | TM245 |  | 5 |
| 8N7016 | TM226 | 500 M | 15M | 8N6962 | TM246 | 2 Meg . | 15M |
| 8N7017 | TM227 | 500 M | 100 M | 8N6963 | TM247 | 2 Meg . | 60M |
| 8N6956 | TM228 | 500 M | S | 8N6964 |  | 2 Meg. | 250M |
| 8N6957 | TM230 | 500 M | 150 M | 8N6965 |  |  | 600M |
| 8N6958 | TM231 | 500 M | 225M | 8N7009 | TM250 | 2 Me | 125M |
| 8N7018 ${ }^{\circ}$ | TM232 | 500 M | 225M | 8N6966 | TM | 2 Me | 900M |
| 8N7019 | TM233 | 500M | 60 M | 8N7010 ${ }^{\circ}$ | TM25 | 2 Me | 900 M |
| 8N7020 | TM234 | 1 Meg . | 65M | 8N7011 |  |  | 400M |
| 8N7021 | TM236 | 1 Meg | 125M | 8N6967 | TM257 | Meg. | 900M |
| 8N7022 | TM238 | 1 Meg | 300M | 8N7012 | TM2 | Meg. | 900 M |
| 8N6864 | TM239 | 1 Meg . | 300 M | 8N7005 |  | Meg. |  |
| ${ }^{\text {che }}$ Comt | rpe | SSI sh | E |  |  |  |  | right.

## MALLORY PLUG-IN SHAFTS

Fit all UM and TM junior controls. Adapt for use with most auto and home radios.
8N6989-SS17. Replaces any slotted "Insacup" shaft to 6 "
8N6992-SS18. For Belmont. 18e
8N6993-SS19............... 38 e
8N6994-SS20..........................
8N6995-SS21. Molorola Model
8N6996-SS22
.266
.184
N6997-SS23
8N6998-SS24
.184
8N6999-SS25. Replaces standard knurled shafts from $\mathrm{y}_{4}^{\prime \prime \prime}$ to $4^{\prime \prime}$ long. Each
8N6809 SS26. Zenith sets .. 186 8N6810-SS27. Philco sels... 18 ć 8N6820 SS28. Motorola sets. 38 d 8N6821-SS29. Motorola eets. 18 é 8N6822 SS30. Motorola sets. 18 d

## 8N6826-SS31. Philco sets...

 8N6827-SS32. Philco sels... 184 8N6973-SS1. Replaces any $1 / \mathbf{n}^{\circ}$ round shaft or $11_{2}^{\prime \prime}$ or $3 / 2^{\prime \prime}$ flattened shaft up to $4^{\prime \prime}$ long.... 18 8N6974 -SS2................. 18 \& 8N6975-SS3. Replaces any 3 /2" slotted shaft up to $2^{\prime \prime}$ long.... 26 f 8N6976-SS4 N6971-SS5 ................. 8N6978-SS6. RCA, Hudson H6. 8N6982-SS10 8N6983-SS11. Replaces any 18 slotted shaft 2 to $4^{\prime \prime}$ long..... 26 ef 8N6984-SS12................. . 18 \& 8N6986-SSI4. Replaces any 1/0" slotted shaft to $2^{\prime \prime}$ long 8N6987-SS15. Replaces any ${ }^{*}$ " $^{\prime \prime}$slotted shaft 4 to $6^{\prime \prime}$ long.... 268 s 8N6988-SS16.

##  <br> $\int \sqrt{5} 0$

NEW MALLORY MIDGETROLS
Small diameter ( ${ }^{11}$ K"), special resistence element. Now ype contact for 8 mooth. quiet operation. New shaft easily cut with side snips. With hardware and clips for
use with all set-screw, knurled, and push-type knobs.

| No. | Type | Ohms | Taper | No. | Type | Ohms | Taper |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N7450 | U. 12 | 5M | (1) | 8N7465 | U. 40 | 100M | (2) |
| 8N7451 | U. 14 | SM | (4) | 8N7466 | U-41 | 100M | (4) |
| 8N7452 | U. 18 | 10M | (1) | 8N7467 | U. 42 | 150M | (1) |
| 8N7453 | U-19 | 10 M | (2) | 8N7468 | U-43 | 200M | (4) |
| 8N7454 | U. 20 | 10M | (4) | 8N7469 | U. 44 | 250M | (1) |
| 8N7455 | U. 21 | 15M | (1) | 8N7470 | U. 45 | 250M | (2) |
| 8N7456 | U. 22 | 15M | (2) | 8N7471 | U-46 | 250M | (4) |
| 8N7457 | U-24 | 20M | (1) | 8N7472 | U-48 | 500 M | (1) |
| 8N7458 | U. 28 | 25M | (2) | 8N7473 | U-50 | 500 M | (4) |
| 8N7459 | U-29 | 25M | (4) | 8N7474 | U-51 | 750 M | (1) |
| 8N7460 | U-33 | 50 M | (1) | 8N7475 | U-53 | 1 Meg . | (1) |
| 8N7461 | U. 34 | 50M | (2) | 8N7476 | U. 54 | 1 Meg . | (4) |
| 8N7462 | U. 35 | 50 M | (4) | 8N7477 | U. 55 | 2 Meg . | (1) |
| 8N7463 | U-36 | 75M | (1) | 8N7449 | U-56 | 2 Meg . | (4) |
| 8N7464 | U. 39 | 100M | (1) | 8N7478 | U-57 | 3 Meg . | (1) |

Each.

## TAPPED MIDGETROLS

| No. | Type | Ohms | Tapped | No. | Type | Ohms | Tapped |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N7480 | UT-420 | 250M | 50 M | 8N7484 | UT-443 | 1 Meg . | 450M |
| 8N7481 | UT. 425 | 350M | 70M | 8N7485 | UT-450 | 2 Meg . | 125M |
| 8N7482 | UT-427 | 500 M | 100 M | 8N7486 | UT-448 | 2 Meg. | 250M |
| 8N7496 | UT-429 | 500 M | 50 M | 8N7487 | UT-454 | 2 Meg . | 400M |
| 8N7483 | UT-431 | 500 M | 225M | 8N7488 | UT-451 | 2 Meg . | 900M |

AC On-Off Attachable Swifches for Midgetrols 8N7489-SPST Type US.26..35 $\quad$ 8N7491-Type US-27......... $44 \phi$ 8N7493-4PSTShorting US-23.44 "Has dummy terminal.

## ACCESSORIES

8N7494-Extension Shaft Type UE-50
8N7495-Idler Pulley Type UP-10.................................... 12


Ultra compact controls are similar to the types UM and TM junior controls listed at leff except that they feature standard shafts, $3^{\circ}$ long, milled the entire length and furnished with knob adapters (for spring type knobs). All are rated conservatively

| No. | Type | Ohms | No. | Type | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8N6900 | MR14 | 5M(4A) | 8N6913 | MR37 | 75 M (2) |
| 8N6901 | MR18 | 10M(1) | 8N6914 | MR39 | 100M(1) |
| 8N6902 | MR19 | 10M(2) | 8N6915 | MR40 | 100 M (2) |
| 8N6903 | MR20 | 10M (4) | 8N6916 | MR4 | $100 \mathrm{M}(4)$ |
| 8N6904 | MR21 | 15M(1) | 8N6917 | MR42 | $150 \mathrm{M}(1)$ |
| 8N6905 | MR22 | 15M(2) | 8N6918 | MR44 | $250 \mathrm{M}(1)$ |
| 8N6906 | MR24 | 20M(1) | 8N6919 | MR45 | 250M (2) |
| 8N6907 | MR28 | 25M (2) | 8N6920 | MR48 | $500 \mathrm{M}(1)$ |
| 8N6908 | MR29 | 25M(4) | 8N6921 | MR50 | 500M (4) |
| 8N6909 | MR33 | $50 \mathrm{M}(1)$ | 8N6922 | MR51 | $750 \mathrm{M}(1)$ |
| 8N6910 | MR34 | $50 \mathrm{M}(2)$ | 8N6923 | MR53 | 1 Meg . (1) |
| 8N6911 | MR35 | $50 \mathrm{M}(4)$ | 8N6924 | MR55 | 2 Meg . (1) |
| 8N6912 | MR36 | 75M (1) | 8N6925 | MR57 | $3 \mathrm{Meq} .(1)$ |

JUNIOR CONTROLS WITH FIXED KNURLED SHAFTS
Stmilar to type "MR" controls above, but have 3 " universal knurled shaft for replacing original units of this type.

| No. | Type | Ohms \& Taper | No. | Type | Ohms \& Taper |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8N6637 | MK 400 | 250M (1) | 8N6639 | MK402 | 1 Meg . 1 ) |
| 8N6638 | MK401 | $500 \mathrm{M}(1)$ | 8N6640 | MK403 | 2 Meg. (1) |

MRT Midgef Controls-Single Tap
Fized shaft. Easy-to-cut channel shaft and insert fits all type knobs. Nuts, washer and ground erminal furnished. 11/3" dia. Switches below attach easily.


| No. | Type | Ohms | apped | No. | Type | Ohms | Tapped |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N6762 | $\stackrel{\text { MRT } 420}{ }$ | 250M | 50 M | 8N6772 | MRT443 | 1 Meg . | 450M |
| 8N6763 | MRT 425 | 350M | 70M | 8N6773 | MRT 460 | 1 Meg. | 500 M |
| 8N6764 | MRT 428 | 500 M | 5M | 8N6774 | MRT445 | 2 Meq. | 5M |
| 8N6765 | MRT426 | 500 M | 15M | 8N6775 | MRT446 | 2 Meq. | M |
| 8N6766 | MRT427 | 500 M | 100M | 8N6776 | MRT447 | 2 Meg . | 60 M |
| 8N6762 | MRT430 | 500 M | 150M | 8N6777 | MRT450 | 2 Meg . | 125M |
| 8N6768 | MRT431 | 500M | 225M | 8N6778 | MRT448 | 2 Meg . | 250M |
| 8N6769 | MRT436 | 1 Meg . | 125M | 8N6779 | MRT454 | 2 Meg . | 400 M |
| 8N6770 | MRT440 | 1 Meg . | 200M | 8N6780 | MRT449 | 2 Meg . | 600M |
| 8N6771 | MR |  | 300M | 8N6781 |  | 2 Meg | 900M |

## MALLORY ATTACHABLE SWITCHES

Fit "UM," "TM" "MR" and "MRT"' Junior controls on this page" 8N6968-Single Pole, Single Throw. Each.
8N6969-Double Pole, Single Throw. Each
8N6970-Single Pole, Double Throw. Each
8N6972-Four Pole, Single Throw. (Shorting Type)............

## INDUSTRIAL AND P.A. CONTROLS

## OHMITE POWER RHEOSTATS



Designed to produce permanently smooth, close control. Ceramic and metal consiruction. Provided with insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid porcelain core. Each turn is locked against shifting by vitreous enamel, which also covers the core and base. Requires wis. Wi. I lh.

Model "H," 25 W, 1.9/16" dia Model "J," 50W, 2.5/16" dia.

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Total Ohms | Type | Each | $\frac{\text { No. }}{8 \text { N7200 }}$ | $\frac{\text { Ohrns }}{0.5}$ | $\frac{\text { Type }}{0308}$ | Each |
| 8N8350 | 1 | 0140 | 3.44 | 8N7201 | i | 0309 | 3.82 |
| 8N8362 | 2 | 0141 |  | 8N7202 | 2 | 0310 |  |
| 8N8351 |  | 0142 |  | 8N7203 | 4 | 0311 |  |
| 8N8363 8N8353 | 6 | 0143 | 3.06 | 8N7204 | 8 | 0313 | 3 |
| 8N8365 | 15 | 0146 |  | 8N7207 | $\begin{aligned} & 16 \\ & 22 \end{aligned}$ | $\begin{array}{r} 0315 \\ 0316 \end{array}$ |  |
| 8N8366 | 25 | 0147 |  | 8N7208 | 35 | 0317 |  |
| 8 N 8353 | 35 | 0148 | 3.06 | 8N7209 | 50 | 0318 |  |
| 8N8367 | 50 | 0149 |  | 8N7210 | 80 | 0319 | . 44 |
| 8N8390 | 75 | 0150 |  | 8N7211 | $\begin{aligned} & 125 \\ & 150 \end{aligned}$ | 0320 0321 |  |
| 8N8368 | 100 | 0151 |  | 8N7212 |  | 0321 |  |
| 8N8369 | 125 | 0152 |  | 8N7213 | 225 | 0322 |  |
| 8N8370 | 175 | 0153 |  | 8N7214 | 300 | 0323 |  |
| 8N8371 | 250 350 | 0154 | .06 | 8N7215 | 500 | 0324 |  |
| 8N8391 8 N 8372 | 350 500 | 0155 0156 015 |  | 8N7216 | 800 | 0325 |  |
| 8N8372 | 750 | 015 <br> 0157 <br> 0158 |  | 8N7217 8N7218 | 1,000 1,600 | $0326$ | . 3.4 |
| 848373 | 1.000 | $\overline{0158}$ |  | 8N7219 | 2,500 | 0328 |  |
| 8N8374 8N8375 | 1,500 2,500 | 0159 <br> 0160 | . 44 | 8N7220 | 3,500 | 0329 |  |
| 8N8376 | 3,500 | 0161 |  | $\begin{aligned} & \text { 8N7221 } \\ & \text { 8N7222 } \end{aligned}$ | $\begin{aligned} & 5,000 \\ & 8,000 \end{aligned}$ | $\begin{aligned} & 0330 \\ & 0331 \end{aligned}$ | 3.82 |
| 8N8377 | 5,000 | 0162 | 3.64 | 8N7223 | 10,000 | 0332 |  |

MODEL "K"-100 WATT (3 $1 / \mathrm{E}^{\prime \prime}$ DIA.)

| No. | Ohms | Type | Each | No. | Ohms | Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N8378 | 10 | 0446 |  | 8N8383 | 500 | 0455 | 5.35 |
| 8N8379 | 25 | 0448 |  | 8N8384 | 1,000 | 0457 | 5.73 |
| 8N8380 | 50 | 0449 |  | 8N8385 | 2,500 | 0460 | 5.73 |
| 8N8381 | 100 | 0451 | 3035 | 8N8386 | 5,000 | 0461 | 6.12 |
| 8N8382 | 300 | 0453 |  | 8N8387 | 10,000 | 0463 | 6.88 |

## OHMITE "AB" POTENTIOMETERS

Iwo watt molded composition porentiometers designed especially for industrial, laboratory and radio service use. 1" diameter X ${ }^{9} /{ }^{\prime \prime \prime}$ from back panel. Requires mounting hole on panel up to 180 thick. CU types are linear taper
CA types clockwise log loper
CB types counter-clockwise log. Taper. Tolerance $\pm 10 \%$ except 1 meg and higher which are $\pm 20 \%$

| No. | Type | Ohms | No. | Type | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8N8810 | CU5001 | 50 | 8N8822 | CB5031 | 50,000 |
| 8N881] | CU1011 | 100 | 8N8823 | CUl041 | 100,000 |
| 8N8812 | CU2511 | 250 | 8N8824 | CA1041 | 100,000 |
| 8N8813 | CU5011 | 500 | 8N8825 | CU2541 | 250,000 |
| 8N8814 | OU1021 | 1000 | 8N8826 | CA2541 | 250,000 |
| 8N8815 | CU2521 | 2500 | 8N8827 | CU5041 | 500,000 |
| 8N8816 | CU502 | 5000 | 8N8828 | CA5041 | 500,000 |
| 8N8817 | CU1031 | 10,000 | 8N8829 | CU1052 | 1 Megohm |
| 8N8818 | CB1031 | 10,000 | 8N8830 | CA1052 | 1 Megohm |
| 8N8819 | CU2531 | 25,000 | 8N8831 | CU2552 | 2.5 Megohms |
| 8N8820 | CB2531 | 25,000 | 8N8832 | CA2552 | 2.5 Megohms |
| 8N8821 | CU5031 | 50,000 | 8N8833 | CU5052 | 5 Megohms |

Any Type of Above Controls
8N8834-SPST Switch for "AB" Controls
Each 1.76


MALLORY "T" \& "L" PADS
For controlling level of low impedance audio circuits, mike or phono Cont. DC rating 4 watts. With bar knob, diat plate, and mounting nuts L. pad $15 / 8^{\prime \prime}$ diameter $\times 13 k^{\prime \prime}$ deep T pad $18^{\circ \prime \prime}$ diameter $\times 1111^{\prime \prime}$ deep.

| "L" PADS |  |  | "T" PADS |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Type | Ohms Imp. | No. | Type |
| 8N6356 | 16 | 6 | 8N6362 | T6 |
| 8N6355 | L8 | 8 | 8N6363 | T8 |
| 8N6357 | L15 | 15 | 8N6364 | T15 |
| 8N6358 | Lso | 50 | 8N6365 | T50 |
| 8N6359 | 1200 | 200 | 8N6366 | T200 |
| $8 \mathrm{8N6381}$ | 1250 | 250 500 | 8N6382 | T250 |
| 8N6360 | 1500 | 500 | 8N6367 | T500 |
| 8N6361 | L2000 | 2000 | 8N6368 | T2000 |
| "L" Pads ${ }^{\text {c }}$ " ${ }^{\text {" }}$ |  |  |  |  |
| Any type a | ., $\uparrow$ : 0 | 2.20 Any | e above. | . 2.50 |

## CLAROSTAT 10-WATT OUTPUT ATTENUATORS

Type CIB: Compacl constant impedance attenuators díssipate 10 watts in any position. Ideal for individual speaker conrols. Linear attenuation in 3 db steps to 30 db final step to infinity. $2^{\prime \prime}$ dia., $28 / /^{\prime \prime}$ long. Mount in single hole. Bushing $y^{\prime \prime \prime}$; shaft $1^{\prime \prime}$ long. With dial plate and knob



| No. | Ohms | No. | Ohms | No. | Ohms | Any Type, Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N7837 8N7838 | $\begin{array}{r} 8 \\ 15 \end{array}$ | $\begin{aligned} & 8 \text { 8N7839 } \\ & 8 N 7840 \end{aligned}$ | $\begin{array}{r} 50 \\ 200 \end{array}$ | $\begin{aligned} & \hline \text { 8N7841 } \\ & \text { 8N7842 } \end{aligned}$ | $\begin{aligned} & 250 \\ & 500 \end{aligned}$ | . 3 |



## CENTRALAB FADERS

Stralght Fador
For use with high impedance input de. smooth, quiet fading from one source to another. Bach tapped at center.

| Stock No. | Resistance Each Side c.t. | Your Cost |
| :---: | :---: | :---: |
| 8 N 9004 | 500 M |  |
| 8 N 9005 | 1 Meg. | $\mathbf{1 . 1 8}$ |



## -. CENTRALAB POWER RHEOSTATS

Ideal for motor speed controls, etc. All metal frame; core insulated with treated asbestos. Wire wound All for single-hole mounting; knob supplied. Diam eter $2^{\prime \prime}$; bushings $8 / 8 \pm 1 / 2^{\prime \prime}$ long. Depth behind panel 25 watt units $3 / /^{\prime \prime}$; 50 watt units $11 / /^{\prime \prime}$. Solder lug terminals.


| 50 Watts |  |  |  |  |  | 25 Watts |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Ohms | Price | No. | Ohms | Prive | No. | Ohms | Price | No. | Ohms | Price |
| 8N8962 | 2 | 2.06 | 8N8994 | 300 | 2.24 | 8N8977 | 2 | 1.76 | 8N8957 | 250 | 1.76 |
| 8N8985 | 10 | 2.06 | 8N8990 | 500 | 2.21 | 8N8978 | 8 | 1.76 | 8N8982 | 400 | 1.91 |
| 8N8987 | 25 | 2.06 | 8N8991 | 1000 | 2.21 | 8N8979 | 15 | 1.76 | 8N8958 | 500 | 1.91 |
| 8N8988 | 60 | 2.06 | 8N8960 | 2500 | 2.35 | 8N8980 | 50 | 1.76 | 8N8983 | 1000 | 1.91 |
| 8N8986 | 100 | 2.06 | 8N8992 | 5000 | 2.35 | 8N8976 | 100 | 1.76 | 8N8984 | 5000 | 2.06 |
| 8N8989 | 150 | 2.06 |  |  |  | 8N8981 | 150 | 1.76 |  |  |  |

## MALLORY CONTROLS

TYPE M-4 WATTS
Wire wound. Conservalively rated at 4 watts. Fully enclosed. $18 /$ " $^{\prime \prime}$ diameter. Mounts in "w" hole. Shaft $1 / 4$ " diameter, $8 / 8$ " long. With dust cover

## RHEOSTATS

| No. | Ohms | Type | Each |
| :---: | :---: | :---: | :---: |
| 8N6480 | T | MIR |  |
| 8N6481 | 2 | M2R |  |
| 8N6482 | 3 | M3R |  |
| 8N6483 | 8 | M6R |  |
| 8N6484 | 10 | M10R |  |
| 8N6485 | 15 | M15R | 4 |
| 8N6486 8N6487 | 25 | M25R |  |
| 8N6173 | 40 | M40R |  |
| 8N6174 | 50 | M50R |  |
| 8N6175 | 60 | M60R |  |
| 8N6176 | 75 | M75R |  |

POTENTIOMETERS

| No. | Ohms | Type | Each |
| :---: | :---: | :---: | :---: |
| 8 N 6503 | 20 | M20P |  |
| 8N6492 | 50 | M30P |  |
| 8N6495 | 100 | M100P | 34 |
| 8N6496 | 200 | M200P |  |
| 8N6497 | 400 | M 100 P |  |
| 8N6498 | 1000 | M1MP |  |
| 8N6499 | 2000 | M2MP |  |
| 8N6500 8N6501 | 3000 | M3MP | 24 |
| 8 N 6501 | 5000 | MbMP |  |
| 8 N 6502 | 10000 | M10MP |  |
| 8N6177 | 15000 | M15MP |  |
| 8N6178 | 20000 | M20MP | 14 |
| 8N6179 | 25000 | M 25 MP |  |
| 8N6180 | 60000 | M50MP |  |
| 8N6181 | 70000 | M70MP | 1.15 |

## TYPE C-2 WATTS

Wire wound. Extremely compact design makes them ideal for use where space is limited. Contact arm is grounded to the shaft. Overall diameter of unit is $11 /{ }^{\prime \prime}$ " Shaft $1 / 6 /^{\prime \prime}$ diameter and $8 / 8^{\circ \prime} \mathrm{L}$.

## RHEOSTATS

| No. | 0 hms | Type | Each |
| :---: | :---: | :---: | :---: |
| 8N6197 | 6 | $\overline{\mathrm{CbR}}$ |  |
| 8N6198 | 10 | C10R |  |
| 8N6199 | 15 | C15R |  |
| 8N6200 | 20 | C20R |  |
| 8N6201 | 30 | C30R | 4 |
| 8N6202 | 40 | C40R |  |
| 8N6203 | 50 | C50R |  |
| 8N6204. | . 100 | Cioor |  |

POTENTIOMETERS

| No. | [Ohms] | Type | Fach |
| :---: | :---: | :---: | :---: |
| 8N6205 | 10 | C6P |  |
| 8N6206 | 10 | C10P |  |
| 8N6207 | 15 | C15P |  |
| 8N6208 | 20 | C20P |  |
| 8N6209 | 30 | C30P |  |
| 8N6210 | 40 | C40P | 734 |
| 8 N 6211 | 50 | $\mathrm{C}^{\mathrm{C} 50 \mathrm{P}}$ |  |
| 8 N 6212 | 100 | C100P |  |
| 8N6213 | 200 | C200P |  |
| 8N6214 | 400 | C100P |  |
| 8N6215 8N6216 | $1000$ | $\begin{aligned} & \text { C1MP } \\ & \text { C3MP } \end{aligned}$ |  |
| $\frac{8 N 6216}{8 N 6217}$ | $\frac{3000}{500}$ | C5MP |  |
| 8N6218 | 6000 | C6MP |  |
| 8N6219 | 10000 | C10MP | 7 ¢ |
| 8N6220 | 15000 | C15MP |  |

# ERIE CERAMICONS 



ERIE SILVER-MICA BUTTON CONDENSERS
Midgel silver-mica cond. Unmatched for VHF and UHF work. " $Q$ " factor at 1 MC not less than 1000 above 100 mmf ; not less than 700 between 50 and 100 mm ; and not less than 500 below 50 mmol . Max. work. volt. 350 V. AC or 500 V. DC. 370-CB has ring type metal shell, 3 soldering ears. High potential terminal at elther end for feed thru connection. 370 -FA bolted with $3 / 48^{\circ}$ screw. Tolerance $\pm 20 \%$.

Type 370-CB

| No. | Cap. (mmi) | Each | Lots/25 | Lots/50 |
| :---: | :---: | :---: | :---: | :---: |
| 5N2250 | 15 | . 65 | . 60 | . 50 |
| 5N2239 | 25 | . 65 | . 60 | . 50 |
| 5N2251 | 50 | . 47 | . 43 | . 36 |
| 5N2252 | 100 | . 47 | . 43 | . 36 |
| 5N2253 | 150 | . 53 | . 43 | . 36 |
| 5N2254 | 200 | . 65 | . 49 | . 41 |
| 5N2225 | 250 | . 59 | 54 | 45 |
| 5N2255 | 300 | . 65 | . 60 | 50 |
| 5N2256 | 400 | . 65 | . 60 | 50 |
| 5N2257 | 500 | . 65 | 60 | 50 |
| 5N2258 | 750 | 1.00 | 92 | . 77 |
| 5N2259 | 1000 | 1.29 | 1.18 | . 99 |
| Type 370-FA |  |  |  |  |
| 5N2260 | 15 | 65 | 60 | . 50 |
| 5N2240 | 25 | . 65 | . 60 | . 50 |
| 5N2261 | 50 | . 47 | . 43 | . 36 |
| 5N2262 | 100 | . 47 | . 43 | . 36 |
| 5N2263 | 150 | . 53 | . 43 | . 36 |
| 5N 2264 | 200 | . 65 | . 49 | . 41 |
| 5N2226 | 250 | . 59 | . 54 | 45 |
| 5N2265 | 300 | . 65 | . 60 | . 50 |
| 5N2266 | 400 | . 65 | . 60 | . 50 |
| 5N2267 | 500 | . 65 | . 60 | . 50 |
| 5N2268 | 750 | 1.00 | . 92 | . 77 |
| SN2269 | 1000 | 1.29 | 1.18 | . 99 |

## ERIE FEED THRU CERAMICONS



Type 362. Compact leed-through cer: amic cond. $5 / 8^{\circ}$ wire leads. 500 V . DC work. 500 mmf Tolerance $20 \%$. Lots of 25

59c

## HIGH VOLTAGE CERAMICONS



Typo 410. For TV power supply, filter and by-pass applica. hons. Special body design gives extra long creepage path. Low loss molded case $11 / 8$ dia. x $7 / 9^{\circ}$ lona. Conservatively rated at 15


ERIE TUBULAR TRIMMERS


Type 532. Platic
diolectric trimmer. Provides easy and
precise adjustment. precise adjustment,
stability of capacity. stability of capacity. V. DC. 32

ERIE DISC CERAMICONS
Flat Hi-K ceramic dielectric with silver fired on to the dielectric. Lead wires firmly soldered to the silver electrodes. Phenolic coated. Very elficient at high frequencles. 500 V . Tolerance $\pm 20 \%$.



Small fixed capacitors. Ceromic dlelectric with silver electrodes fired on at a very high temperature. Excellent HF characteristics. Dimensions: Style K. $562^{\circ} \mathrm{x} .250{ }^{\circ}$. Styie L . 812 " x .250 ". Style


## NPO CERAMICONS

Has zero temperature coefficient. "Q" for NPO Ceramicans above 30 mmi is 1000 or hi her. Below 30 mmf , " $Q$ ' decreases slightly as capacliy decreases. Working Voltage, 500 Volts DC. Tol. $\pm 10$.

| Stock No. | Type | MMF | Each | $\begin{gathered} \text { Lots/ } \\ 50 \end{gathered}$ | $\begin{aligned} & \text { Lots/ } \\ & 100 \end{aligned}$ | Stock No. | Type | MMF | Eoch | $\begin{gathered} \text { Lots/ } \\ 50 \end{gathered}$ | $\begin{aligned} & \text { Lots/ } \\ & 100 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2367 <br> 5N2270 <br> 5N2368 | $\begin{aligned} & \mathrm{K} \\ & \mathrm{~K} \\ & \mathrm{~K} \end{aligned}$ | $\begin{aligned} & 1.5 \\ & 3 \\ & 3.3 \end{aligned}$ | 29c | 25 c | 20c | $\begin{aligned} & \text { 5N2273 } \\ & \text { 5N } 2274 \\ & \text { 5N2275 } \end{aligned}$ | $\begin{aligned} & \mathrm{K} \\ & \mathrm{~L} \\ & \mathrm{~L} \\ & \hline \end{aligned}$ | $\begin{aligned} & 20 \\ & 25 \\ & 33 \end{aligned}$ | 29c | 25 c | 20 c |
| 5N2369 | K | 4.7 |  |  |  | 5N2276 | M |  |  |  |  |
| $\begin{aligned} & \text { 5N2271 } \\ & \text { 5N2370 } \end{aligned}$ | $\begin{aligned} & \mathrm{K} \\ & \mathrm{~K} \end{aligned}$ | $\begin{aligned} & 5 \\ & 6.8 \end{aligned}$ |  |  |  | $\begin{aligned} & \text { 5N2277 } \\ & \text { 5N2278 } \end{aligned}$ | $\begin{aligned} & \mathrm{M} \\ & \mathrm{M} \\ & \hline \end{aligned}$ | $\begin{array}{r} 75 \\ 100 \\ \hline \end{array}$ | 32 c | 27 c | 22 c |
| 5N2371 | K | 8.2 |  |  |  | 5N2372 | 334 | 150 | 35 c | 30 c | 24c |
| 5N2272 | K | 10 |  |  |  | 5N2373 | 334 | 175 | 35 c |  |  |

NEGATIVE TEMPERATURE COEFFICIENT CERAMICONS Tubular type N750

| Stock No. | Type | MMF | Each | $\begin{gathered} \text { Lots/ } \\ 50 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Lots/ } \\ 100 \\ \hline \end{gathered}$ | Stock No. | Type | MMF | Each | $\begin{gathered} \text { Lots/ } \\ 50 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Lots/ } \\ 100 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 5N2374 } \\ & \text { 5N2375 } \\ & \text { SN2376 } \\ & \text { SN2377 } \\ & \text { SN2378 } \end{aligned}$ | $\begin{aligned} & \mathrm{K} \\ & \mathrm{~K} \\ & \mathrm{~K} \\ & \mathrm{~L} \\ & \mathrm{~L} \end{aligned}$ | $\begin{array}{r} 5 \\ 10 \\ 47 \\ 75 \\ 100 \end{array}$ | 29c | $25 c$ | 20c | $\begin{aligned} & \text { 5N2379 } \\ & \text { 5N2380 } \\ & \text { 5N2381 } \\ & \text { 5N2382 } \\ & \text { 5N2383 } \end{aligned}$ | $\begin{aligned} & 331 \\ & 331 \\ & 338 \\ & 338 \\ & 338 \end{aligned}$ | $\begin{aligned} & 10 \\ & 22 \\ & 33 \\ & 47 \\ & 62 \end{aligned}$ | 35 e | 30 c | 24 c |

## GP CERAMICONS

For general purpose applications such as by-pass and blocking condensers, where lemperature coefficient is not important. Capacity will not decrease more than $20 \%$ nor increase more than $10 \%$ from their value at room temperature as the temperature is varied from $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$. Power factor will not exceed $3 \%$. Rated voltage of GP1 is 500 V DC; GP2 350 V DC .

ldeal for R.F. by-pass to ground. May be used to support other circuit elements. Supplied in moided phenolic case for greater insulation qualities and mechanical strength. Both types mounted with 3.48 nut. Height above chassis when mounted-Type 323-19自":Type 324-


## CERAMICON TRIMMER

Give maximum stability and eose of adjustment. Capacity change constant per degree of rotation. Silver electrodes fired on ceramic rotor and base. 360 degree rotor completely covers entire track on stator thus preventing dust and other foreign matter from affecting the characteristics of the unit.

| Stock No. | Type | Range MMFD | Temp. Coel. | Each | Lots/25 | Lots/50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A TS2A | $\begin{aligned} & 1.5 .7 \\ & 3.12 \\ & 4.30 \\ & 7.45 \\ & \hline \end{aligned}$ |  | 88c | 75 c | 60 c |
|  | $\begin{gathered} \mathrm{A} \\ \mathrm{TD} 2 \mathrm{~A} \end{gathered}$ |  | $\begin{aligned} & \text { NPO } \\ & \text { NPO } \\ & \text { N500 } \\ & \text { N500 } \\ & \hline \end{aligned}$ | 1.47 | 1.25 | 1.00 |
| $\begin{aligned} & \text { 5N2296 } \\ & \text { 5N2297 } \\ & \text { 5N2299 } \end{aligned}$ | $\begin{array}{r} \mathbf{B} \\ 557 \end{array}$ | $\begin{aligned} & 3.12 \\ & 5.25 \\ & 8.50 \end{aligned}$ | $\begin{aligned} & \text { NPO } \\ & \text { NPO } \end{aligned}$ N750 | 73c | 62c | 50c |

## CORNELL DUBILIER CONDENSERS

## ＂BLUE BEAVER＂TYPE DRY ELECTROLYTICS



Small，handy to use．Conveniently mounted．Hi－Form－ ation Process as
sures higher volt－ age breakdown．Sealed in drawn－aluminum
cans．Cardboard insulating sleeves with polarity marked．

| Stock No． | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Cap． Mfd． | Volts | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N1090 | BR 102A | 10 | 25 | 5／6x11／6 | ． 44 |
| 5N1091 | BR 202A | 20 | 25 | 585116 | ． 47 |
| 5N1092 | BR 252A | 25 | 25 | $5 \times 116$ | ． 50 |
| 5N1093 | BR 502 | 50 | 25 | 8 \％ $617 / 4$ | ． 56 |
| 5N1094 | BR 550 | 5 | 50 | 5681／16 | ． 44 |
| 5N1095 | BR 105 | 10 | 50 | \＄8×11／10 | ． 47 |
| 5N1096 | BR 205 | 20 | 50 | 3／8×17／6 | ． 50 |
| 5N1097 | BR 255 | 25 | 50 | 96x1716 | ． 53 |
| 5N1098 | BR 505 | 50 | 50 | 5／8x $\mathrm{l}^{11 / 16}$ | ． 62 |
| 5N1099 | BR 415 | 1 | 150 |  | ． 44 |
| 5N1100 | BR 815 | 8 | 150 | 5／8x116 | ． 17 |
| 5N1101 | BR 1215 | 12 | 150 | $5 / 4 \times 1746$ | ． 50 |
| 5N1102 | BR 1615 | 16 | 150 | 8／6x17／4 | ． 53 |
| 5N1103 | BR 2015 | 20 | 150 | 3 3 $\times 11^{11}$－16 | ． 56 |
| 5N1054 | BR 3015 | 30 | 150 | $3 \times 2$ | ． 59 |
| SN1104 | BR 4015 | 40 | 150 | ${ }_{3}^{3} x^{2}$ | ． 65 |
| SN1045 | BR 5015 | 50 | 150 | 7／6x2 | ． 71 |
| 5N1046 | BR 8015 | 80 | 150 | 7／8×21／2 | .85 |
| SN1105 | 13R 42.5 | 4 | 250 | 50x110 | .47 |
| 5N1106 | BR 825 | 8 | 250 | 58．176 | ． 47 |
| 5N1107 | BR 1225 | 12 | 250 | 5／6x2 | ． 59 |
| 5N1108 | BR 1625 | 16 | 250 |  | ． 65 |
| SN1109 | BR 2025 | 20 | 250 | $3{ }^{3} \times 1{ }^{11} 18$ | .71 |
| 5N1110 | BR 4025 | 40 | 250 | $7 / 8 \times 21 / 2$ | .82 |
| 5N1129 | BR 145 | 1 | 450 | 5／8x11佫 | ． 47 |
| 5NH130 | BR 245 | 2 | 450 | 5／8×11／8 | ． 50 |
| 5N1111 | BR 445 | 4 | 450 | 5／8x $17 / 10$ | ． 53 |
| 5N1112 | BR 845 | 8 | 450 | $3 / 4 \times 2$ | ． 56 |
| SN1047 | BR 1045 | 10 | 450 | 7／8x2 | ． 62 |
| 5N1113 | BR 1245 | 12 | 450 | 7／8x2 | ． 68 |
| 5N1114 | BR 1645 | 16 | 450 | 7／3x21／2 | 79 |
| 5N1115 | BR 2045 | 20 | 450 | 1×21／2 | ． 88 |
| 5N1055 | BR 3045 | 30 | 450 | $1 \times 3$ | ． 97 |
| 5N1048 | BR 4045 | 40 | 450 | $1 \times 3$ | 1.18 |
| 5N1116 | BR 850 | 8 | 500 | 7／8x11／16 | ． 76 |
| 5N1117 | BR 1650 | 16 | 500 | $1 \times 2 \frac{1}{2}$ | 1.18 |

## ＂EDL＂CARDBOARD CASED ELECTROLYTICS



Multiple wax fllled． All common negative except（＊）separate section．Center mount－ ing strap；color coded
leads．

| Stock No． | Type | Mfd． | Volts | Size | Ea． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N1118 | EDL 2055 | 5－5 | 25 | $3 / 6 \times 13 / 4$ | ． 56 |
| SN1119 | EDL 2101 | 10－10 | 25 | $5 \cdot 6 \times 1{ }^{3}$ | ． 62 |
| 5N1120 | EDL 3055 | 5－5 | 50 | $3 / 8 \times 1{ }^{3} 4$ | ． 65 |
| 5N1121 | EDL 115 | 10－10 | 50 | 5／8x21／4 | ． 68 |
| 5N1122 | EDL 8815 | 8－8 | 150 | $3 / 1 \times 21 / 4$ | ． 68 |
| 5N1123 | EDL 8115 | 8－16 | 150 | $13 / 15 \times 23 / 4$ | ． 71 |
| 5N1121 | EDL 2215 | 20－20 | 150 | $7 / 8 \times 21 / 2$ | ． 76 |
| 5N1131 | EDL 4215 | 40－20 | 150 | $1{ }^{1 / 16} \times 23 / 4$ | ． 88 |
| 5N1132 | EDL 4415 | 40－40 | 150 | $1 \times 3$ | 1.00 |
| 5N1133 | EDL 5315 | 50－30 | 150 | 1x3 | 1.00 |
| 5N1134＊ | EDL 2215¢S | 20－20 | 150 | 13／18x $2^{7 / 6}$ | 1.18 |
| SN1135 | EDL 2215 C | 20－20／20 | 150／25 | $1 \times 2 \times 2$ | 1.12 |
| 5N1136 | EDL 4215 C | 40－20／20 | 150／25 | $1 \times 23$ | 1.18 |
| 5N1137 | EDL 5315 C | 50－30／20 | 150／25 | $11 / 5 \times 3$ | 1.23 |
| 5N1125 | EDL 8125 | $8-16$ | 250 | ${ }^{1} \times 82^{3}$ | ． 94 |
| 5N1126 | EDL 1125 | 16－16 | 250 | $12^{3}$ 3 | 1.00 |
| 5N1127 | EDL 8845 | $8-8$ | 450 | 1123 | 1.00 |
| 5N1128 | EDL 8145 | 8－16 | 450 | $11 / 8 \times 31 / 4$ | 1.18 |

## ＂BBR＂MINIATURE <br> ELECTROLYTIC CONDENSERS



Baby BBR type tu－ bular electrolytics．
Hermetically sealed． Deslgned for use in compact equipment such as hearing alds，pocket radios，etc．

| Slock No． | Type No． | Mid． | Size | V． | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N1081 | BBR 50.6 | 50 | $36^{2} \times 11 /{ }^{\prime \prime}$ | 6 | 59c |
| 5N 1082 | BBR 25－6 | 25 |  | 6 | 59c |
| SN1083 | BBR 5.6 | 5 |  | 6 | 59c |
| 5N1084 | BBR 20－25 | 20 |  | 25 | 59c |
| SN 1085 | BBR 10．25 | 10 | $x+78$ | 25 | 59 c |
| SN1086 | BBR 10.50 | 10 |  | 50 | 59c |
| 5N1087 | BBR 5.50 | 5 |  | 50 | 59c |
| 5N1088 | BBR 10.90 | 10 |  | 90 | 59c |
| SN1089 | BBR 16.90 | 16 | $2 \times 176$ | 90 | 59c |

Listed on these pages are fast selling C．D capacitors to fill practically all radio and television service requirements．These excellent units are recognized stondards throughout the industry and are precision made for accurate operation and long life．Whether it be a miniature fubular capacitor or a large Dykanol transmitting type capacitor you are always assured of the best product ohtainable．


Compact，in molded bakelite units．Rec－ ommended for use in low voltage circuits． Individually tested for accuracy of capacity and voliage breckdown．Designed to glve dependable service where small size units are required．Types 1 W and 1 D （ifg．A）${ }^{18} 16 \mathrm{x}^{18} / \mathrm{A}^{\circ}$ ；
 test， 500 V ．Working except sizes higher than working．

| Stock No． | Trpe No． | Cap． Mid． | Flg． | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5N1303 | 5W 5V5 | ． 000005 | B | 15c |
| 5N1355 | 5W 5Q1 | ． 00001 | B | 15c |
| 5N1356 | 5W 502 | ． 00002 | B | 15c |
| SN1357 | 5W 5Q25 | ． 000025 | B | 15 c |
| SN1304 | 5W 5Q3 | ． 00003 | B | 15c |
| SN1305 | 5W 5Q4 | ． 000004 | B | 12 c |
| 5N1358 | 5W 505 | ． 00005 | B | 12 c |
| 5N1359 | 5W 5T1 | ． 0001 | B | 12 c |
| 5N1360 | 5W 5T15 | ． 00015 | B | 12 c |
| 5N1361 | 5W 5T2 | ． 0002 | B | 12c |
| 5N1362 | 5W 5T25 | ． 00025 | B | 15 c |
| SN1306 | 5W 5T3 | ． 0003 | B | 15c |
| SN1307 | 5W 5T4 | ． 0004 | B | 15c |
| 5N1363 | 5W 5T5 | ． 0005 | B | 15c |
| 5N1308 | 1 W 5T6 | ． 0006 | A | 15c |
| 5N1309 | 1 W 5T7 | ． 0007 | A | 15 c |
| 5N1310 | IW 5T8 | ． 0008 | A | 15c |
| 5N1364 | 1W 5D1 | ． 001 | A | 18 c |
| 5N1311 | 1 W 5D15 | ． 0015 | A | 18c |
| 5N1366 | 1 W 5D2 | ． 002 | A | 24 c |
| 5N1312 | 1W 5D25 | ． 0025 | A | 27c |
| 5N1367 | 1W 5D3 | ． 003 | A | 29c |
| 5N1372 | 1D 5D4 | ． 004 | A | 32c |
| 5N1373 | 1 D 5D5 | ． 005 | A | 35c |
| 5N1374 | 1 W 5D6 | ． 006 | A | 44c |
| 5N1377 | 1 D 3 Sl | ． 01 | A | 71c |

## ＇SILVER－MIKE＂UNITS

Molded in low－loss red bakelite．Designed for use in high $O$ electronic circuits where fre． quency stability and minimum loss must be maintained．All rated at 1000 V test， 500 V working．Tolerance $\pm 5 \%$ ．Sizes through .0005 it＂thick； 001 thraugh $.0031 / 4 \% .004$ and ．005， $510^{\circ}$


| Stock No． | Type No． | Mid． | Each |
| :---: | :--- | :--- | :--- |
| SN1351 | SR 5V5 | .000005 | .26 |
| SN1352 | SR 5Q1 | .00001 | .24 |
| SN1353 | SR 5Q25 | .000025 | .24 |
| SN1371 | SR 5Q4 | .00004 | .24 |
| SN1383 | SR 5Q5 | .00005 | .24 |
| SN1384 | 5R 5Q7 | .00007 | .24 |
| SN1385 | SR 5T1 | .0001 | .24 |
| SN1386 | SR 5T15 | .00015 | .26 |
| SN1387 | SR 5T2 | .0002 | .26 |
| SN1388 | 5R 5T25 | .00025 | .26 |
| 5N1389 | 5R 5T3 | .0003 | .32 |
| SN1390 | SR 5T4 | .0004 | .38 |
| SN1391 | SR 5T5 | .0005 | .41 |

Fig．A－ 13 ＂Square

| SN1392 | IR SD1 | .001 | .65 |
| :--- | :--- | :--- | :--- |
| SN 1393 | 1R SD15 | .0015 | .79 |
| SN1394 | 1R SD2 | .002 | .79 |
| SN1395 | 1R SD25 | .0025 | 1.06 |
| SN1396 | 1R SD3 | .003 | 1.21 |
| SN1397 | 1DR SD4 | .004 | 1.26 |
| SN1398 | 1DR SD5 | .005 | 1.32 |

＂BLUE CUBS＂
New molded plastic， Vikane impreg－ nated，paper tubu lars with welded
 leads．Withstands temperatures Irom $-70^{\circ}$ $10+212^{\circ} \mathrm{F}$

400 V DC

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Type No． | Cap． <br> Mid． | Size Inches | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5N900 | PTE－4S 1 | ． 01 | 11／12011／18 | 15 c |
| 5N901 | PTE－4S2 | ． 02 | 1／6x 1616 | $15 c$ |
| 5N902 | PTE－4S5 | ． 05 | 1／2x13／8 | 15 c |
| 5N903 | PTE－4P1 | ． 1 | \％佐1\％ | 21 c |


| 600 V DC |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 5N904 | PTE－6D1 | ． 001 |  | $15 c$ |
| 5N905 | PTE－6D2 | ． 002 | 11／2011／16 | 15 c |
| 5N906 | PTE－6D3 | ． 003 | 11681116 | 15 c |
| 5N907 | PTE－6D4 | ． 004 | 11／5x11／16 | 15 c |
| 5N908 | PTE－6D5 | ． 005 | $11 / 8 \times 110$ | 15 c |
| 5N909 | PTE－6D6 | ． 006 | 7／6x1516 | 15c |
| 5N910 | PTE．6S1 | ． 01 | ${ }^{7} 16 \times 15$ | 18c |
| 5N911 | PTE－6S15 | ． 015 | 7／6x13\％ | 18 c |
| 5N912 | PTE－6S2 | ． 02 | 1／2x1仿 | 18c |
| 5N913 | PTE．6S3 | ． 03 | $916 \times 10$ | 21. |
| 5N914 | PTE－6S4 | ． 04 | 96 | 21c |
| 5N915 | PTE．6S5 | ． 05 | \％6x 19 | 24 c |
| SN916 | PTE．6P1 | ． 1 | $11 / 16 \times 11 / 10$ | c |


| 5N917 | ｜PTE－16D1 | ． 001 | 7／10x136 | c |
| :---: | :---: | :---: | :---: | :---: |
| SN918 | PTE－16D2 | ． 002 | 1／10x | 32c |
| 5N919 | PTE－16D3 | ． 003 | 100x | 32c |
| 5N920 | PTE－16D4 | ． 004 |  | 32 c |
| 5N921 | PTE－16D5 | ． 005 | $918 \times 19$ | 32c |
| 5N922 | PTE－16D55 | ． 0055 | 1／2x13／6 | 32c |
| 5N923 | PTE－16D6 | ． 006 | 9， 610 | 32 c |
| 5N924 | PTE－16D7 | ． 007 | 2 96x 19 | 32 |
| 5N925 | PTE－16D75 | ． 0075 | 3，10x $1 \%$ | 32 c |
| 5N926 | PTE－16D8 | ． 008 | 1／0x1916 | 32 |
| 5N927 | PTE－16S1 | ． 01 | 9 Tax 13 | 35 c |
| 5N928 | PTE－16S15 | ． 015 | ， $10 \times 10$ | 35 c |
| 5N929 | PTE－16S2 | ． 02 | 1110x1 15／6 | 35 c |
| 5N930 | PTE．16S25 | ． 025 | 11 何 136 | 35 c |
| 5N931 | PTE－16S3 | ． 03 | 11／8x1366 | 35c |
| 5N932 | PTE－16S4 | ． 04 | $11 / 10 \times 14 / 6$ | 35c |

voltage lor television．Size：：1 except higher

| Stock No． | Type No． | Mfd． | Vilg． | La |
| :---: | :---: | :---: | :---: | :---: |
| 5N933 | PTE－60T5 | ． 0005 | 6000 | 79 c |
| 5N934 | PTE－60D1 | ． 001 | 6000 | 79 |
| 5N935 | PTE－60D5 | ． 005 | 6000 | 79 c |
| 5N936 | PTE－100T5 | ． 000 | 0，000 | 88 |

＂KR＂DRY ELECTROLYTICS
 Compact etched foil． Color coded leads． Seamless drawn metal can，mtg．nut．Dual units have separale sections except dual 20. 450 Volts D．C．Working

| Stock No． | Type No． | Cap． Mid． | $\begin{aligned} & \text { Size } \\ & \text { Inches } \end{aligned}$ | Each |
| :---: | :---: | :---: | :---: | :---: |
| $\underline{5 N 1295}$ | KR 504 | 4 | $1 \times 2$ | 1.00 |
| 5N1296 | KR 508 | 8 | $1 \times 2$ | 1.03 |
| 5N1297 | KR 512A | 12 | $1 \times 2$ | 1.26 |
| 5N1298 | KR 516A | 15 | $1 \times 3$ | 1.41 |
| 5N1292 | KR 520 | 20 | $13 / 8 \times 2 / / 2$ | 1.56 |
| 5N1293 | KR 530 | 30 | $13 / 8 \times 31 / 2$ | 1.76 |
| 5N1294 | KR 540 | 40 | $138 \times 43 / 8$ | 2.00 |
| 5N1299 | KR 548A | 4.8 | 136838 | 1.47 |
| 5N1300 | KR 588A | 8－8 | $13 / 8 \times 3$ | 1.62 |
| 5N1354 | KR 5816A | 8－16 | $13 / 9 \times 41 / 2$ | 1.91 |
| 5N1290 | KRC 5220 | 20－20 | $13.8 \times 43$ | 2.35 |
| 5N1302． | KR 5888A | 8－8－8 | $1398 \times 4$ | 2.35 |
| 600 Volts D．C．Working |  |  |  |  |
| 5N1289 | KR 604 | 4 | $136 \times 3$ | 1.76 |
| 5N1050 | KR 608 | 8 | $13 / 8 \times 4$ | 2.35 |
| 5N1051 | KR 616 | 16 | $11 / 2 \times 4 / 2$ | 2.94 |



## WET ELECTROLYTIC

 REPLACEMENTSType＂WR＂．Dry electrolytic，alu－ minum cans．Can is negative，lug terminal．Rated at 450 W .10 mid Replace wet electrolytics from 4 to $12 \mathrm{mid} ., 20 \mathrm{mfd}, 16$ to $20 \mathrm{mfd} .$, 30 mifd．， 20 to 30 mfd．， 40 mfd ． 30 to $40 \mathrm{mfd} .3 / 4$ mounting stud with palnut．

| Stock No． | Type Na． | Mid． | Size Inches | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5N1052 | WR 10 | 10 | $13 / 8 \times 21 / 6$ | ． 85 |
| 5N1053 | WR 20 | 20 | $13 / 8 \times 21 / 2$ | 1.32 |
| 5N1057 | WR 30 | 30 | $13 / 8 \times 31 / 4$ | 1.53 |
| 5N1056 | WR 40 | 40 | $1388 \times 31 / 4$ | 1.71 |

# CORNELL DUBILIER CONDENSERS 

HIGH VOLTA GE SERIES CAPACITORS


Type DSTH for high voltage filtering, coup ling and by. pass applica tians in television. Exceptionally large satety factor, double case construction. Withstands $85^{\circ}$ temperature. Sturdy leads for mounting

| Stock Na. | Type No. | $\begin{aligned} & \text { Cap } \\ & \text { MFD } \end{aligned}$ | $\begin{gathered} \text { Size } \\ \text { Inches } \end{gathered}$ | Ec |
| :---: | :---: | :---: | :---: | :---: |
| 5N3200 | DSTH $30 T 5$ | . 0005 | $1 / 2$ | 56c |
| 5N3201 | DSTH 30D1 | . 001 | $10^{10}$ | 56 c |
| 5N3202 | DSTH 30D5 | . 005 | $7{ }^{7} \times 2$ | 59c |
| 5N3203 | DSTH 3051 | . 01 | ${ }^{1516}{ }^{\prime \prime} \times 2$ \% ${ }^{\text {a }}$ | 62 c |
| 5N3204 | DSTH 3055 | . 05 | 138**3 | 11 |

## 4000 Volts DC

| 5N3205 | DSTH 40T5 | 0005 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SN3206 | DSTH 40D1 | . 001 | - | 59c |
| 5N3207 | DSTH 40D5 | . 005 |  | 62c |
| 5N3208 | DSTH 40S1 | . 01 |  | 65 c |
| 5N3209 | DSTH 4035 | . 05 | $17 / 10^{\circ} \mathrm{x} 3$ |  |


| 5000 Volts DC |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 5N3210 | DSTH S0T5 | 1.0005 | $11 / 10$ | 62 c |
| 5N3211 | DSTH 50DI | . 001 | $13 / 1{ }^{10} \times 2$ | 62 e |
| 5N3212 | DSTH 50D5 | . 005 | $11 / 10^{\prime \prime} \times 2$ | 65 c |
| 5N3213 | DSTH 50S1 | . 01 | 13/8'x31/4 | 68 c |
| 5N3214 | DSTH 50S5 |  | $158^{\prime \prime} \times 1 / 2{ }^{\prime \prime}$ | 76 c |

MTV TELEVISION COND.

tions. Rated 6000 V .

Metal cased, high voltage condensers. Dykanol filled and impregnated Ideal for TV and other HV applica-

| Stock No. | Type No. | $\begin{aligned} & \text { Cap. } \\ & \text { MFD } \end{aligned}$ | Size Inches | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5N937 | MTV $60 T 5$ | .0005 | $1 \times 13 / 4$ | 76c |
| 5N938 | MTV 60D1 | . 001 | $1 \times 1$ | 76 c |
| 5N939 | MTV 60D5 | . 005 | $1 \times 1$ | 76 c |
| 5N940 | MTV 60S1 | . 01 | $1 \times 2$ | 82 c |
| 5N941 | MTV 6053 | . 03 | $13 / 8 \times 2$ | 88 c |
| 5N942 | MTV 6055 | . 05 | 137882 | 940 |

## "TVC" METAL TUBULAR CAPACITORS



Compact can type withstands severe climatic conditions. NonInductive, irapreg nated, filled with Dyk anol to maintain high insulation resistonce.

600 Volte D. C.

| Stock No. | Type No. | Cap. Mid. | Size Inches | , |
| :---: | :---: | :---: | :---: | :---: |
| 5N1172 | TVC 6D5 | . 005 | $7 / 10$ | 56 |
| 5N1173 | TVC 6S1 | 01 | 7 76x 1 | . 56 |
| 5N1174 | TVC 6S15 | . 015 | 1601 | . 59 |
| SN 1190 | TVC 6S2 | . 02 | 160 | . 62 |
| SN1191 | TVC 6S3 | 03 | 17/2x $\times 11 / 8$ | . 65 |
| 5N1192 | TVC 6S4 | 04 |  | . 65 |
| 5N1193 | TVC 6S5 | . 05 | $06 \times 1$ | . 65 |
| 5N1194 | TVC 6P1 |  | 5/8x1 | . 73 |
| 5N1198 | TVC 6P25 | 25 | $3 / 4 \times 1$ | 1.00 |
| 5N1196 | TVC 6P5 | 5 | 1al18 | 1.3 |



1600 Volts D. C.

| 5N1183 | TVC 16D5 | . 005 | fex | 710 |
| :---: | :---: | :---: | :---: | :---: |
| 5N1184 | TVC 16S1 | . 01 | $17 / 6 \times 10$ | 710 |
| 5N1185 | TVC 16515 | . 015 | 8=11/0 | 73c |
| 5N1186 | TVC 16S2 | . 02 | 210 | 76 c |
| SN1182 | TVC 16S3 | . 03 | $\times 21$ | 76 c |
| SN1188 | TVC 16S4 | . 04 | ¢ $\times 1 / 10$ | 76 c |
| SN1189 | TVC 16S5 | . 05 | 8021/0 | 82c |

## "TLA" DYKANOL "A"

FILTER CAPACITORS


In sealed aluminlum containers $41 / 2 x{ }^{1} 1 / 2$ except (*) which are $21 / 8^{\circ}$ high Mount in any position Dykanol dielectric. Can negative

| Stock <br> No. | Type No. | Cap. | Wkg. <br> Valt. | Each |
| :--- | :--- | :--- | :--- | :--- |
| SN4195* | TLA 6020 | 2 | 600 | 2.44 |
| SN4196 | TLA 6040 | 4 | 600 | 3.35 |
| SN4197* | TLA 10010 | 1 | 1000 | 2.23 |
| SN4198 | TLA 10020 | 2 | 1000 | 2.91 |
| SN4494* | TLA 1500S | .5 | 1500 | 2.68 |
| SN4199 | TLA 15010 | 1 | 1500 | 2.91 |

"TLAD" TRANSMITTING COND.
Same as above except insulated can. $41 / 2^{\circ}$ x $11 / 2^{\prime \prime}$ except (*) which are $27 / 3^{\circ}$ high.

| Stock No. | Type No. | Cap. Md. | Volt. | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5N4114* | TLAD 6020 | 2 | 0 | 2.88 |
| 5N4115 | TLAD 6040 | 4 | 600 | 3.79 |
| 5N4116* | TLAD10010 | 1 | 1000 | 2.68 |
| 5N4117 | TLAD10020 | 2 | 1000 | 3.35 |
| 5N4118* | TLAD15005 | . 5 | 1500 | 3.12 |
| 5N4119 | TLADI5010 | 1 | 1500 | 3.35 |

"TJU" DYKANOL "A


Dykanol filled and impregnated. Porcelaln high tension terminols for trouble free high voltage use. New universal type mounting bersacket for quick, easy mounting. Welght 4 lbs.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Cap. <br> Mfd. | Wkg. Volt. | Ht. | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2994 | TJU 6010 |  | 600 | 21/8" | 3. |
| 5N2995 | TJU 6020 | 2 | 600 | 27/" | 3.82 |
| 5N2996 | TJU 6040 | 4 | 600 | 33i8' | 4.85 |
| 5N2957 | TJU 6080 | 8 | 600 |  | 7.20 |
| 5N2997 | TJU 10010 | 1 | 1000 | 21/8 | 3.38 |
| 5N2998 | TJU 10020 | 2 | 1000 | $4{ }^{\prime \prime}$ | 4.41 |
| 5N3004 | TJU 10040 | 4 | 1000 | $43 / 5$ | 5.59 |
| 5N2958 | TJU 10080 | 8 | 1000 | 434" | 8,0 |
| 5N2959 | TJU 10100 | 10 | 1000 | 43/8" | 8.97 |
| 5N2999 | TJU 15010 | 1 | 1500 | ( | 3.97 |
| 5N3000 | TJU 15020 | 2 | 1500 | 41/8" | 5.69 |
| 5N3005 | TJU 15040 | 4 | 1500 | 43/3" | 7.50 |
| 5N2960 | TJU 15080 | 8 | 1500 | 43 | 11.17 |
| 5N2991 | TJU 20001 | . 1 | 2000 | 21/ ${ }^{\prime \prime}$ | 3.53 |
| 5N2992 | TJU 200025 | . 25 | 2000 | 21/8' | 3.82 |
| 5 N 2993 | TJU 20005 | . 5 | 2000 | 27/8 ${ }^{17}$ | 3.97 |
| 5N3001 | TJU 20010 |  | 2000 | ${ }^{37}{ }^{\prime \prime}$ | 4.85 |
| 5N3003 | TJU 20020 | 2 | 2000 |  | 5.73 |
| 5N3021 | TJU 20040 | 4 | 2000 | $3^{3 / 4}$ | 8.08 |
| 5N3019 | TJU 30010 | 1 | 3000 | 33/" | 10.73 |
| 5N3020 | TJU 30020 | 2 | 3000 | $41 /{ }^{\text {4 }}$ | 13.38 |
| 5N3022 | TJU 50020 | 2 | 5000 |  | 28 |



Etched foil electrolytic capacitors for power packs, electric fence devices, telephone and cults. Aluminium cans, cardboard sleeves.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Cap. } \\ & \text { Mfd. } \end{aligned}$ | Volts | Size | Ea |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2567 | BRH601 | 100 | 6 | $8{ }^{8} \times 11^{1 / 10}$ | . 68 |
| 5N2570 | BRH6025 | 250 | 6 | 6/88176 | . 85 |
| 5N2568 | BRH605 | 500 | 6 | 81/8x21/2 | 1.00 |
| 5N5269 | BRH610 | 1000 | 6 | $7{ }^{6} \times 2$ | 1.32 |
| 5N2573 | BRH615 | 1500 | 6 | 7/8x $21 / 5$ | 1.76 |
| 5N2574 | BRH620 | 2000 | 6 | 1x23/2 | 2.29 |
| 5N2575 | BRH121 | 100 | 12 | 35814/4 | . 73 |
| 5N2571 | BRH1225 | 250 | 12 | $3 \times 2$ | 1.03 |
| 5N2577 | BRH125 | 500 | 12 | 3/8x21/2 | 1.12 |
| 5N2578 | BRH151 | 100 | 15 | $8 / 8 \times 176$ | . 76 |
| 5N2572 | BRH1525 | 250 | 15 | $84 \times 2$ | 1.12 |
| 5N2576 | BRH155 | 500 | 15 | 7/6x21/2 | 1.23 |
| 5N2579 | BRH25! | 100 | 25 | 5/3x2 | . 79 |
| 5N2580 | BRH252s | 250 | 25 | 1/8x2 | 1.18 |
| 5N2553 | BRH255 | 500 | 25 | 1123/2 | 1.32 |
| 5N2554 | BRH 501 | 100 | 50 | 3/42 | . 88 |

## X'MITTING MICAS



Moulded in bakelite; me. chanically strong; special impregnation; high insulatian resistance. No mag. netic material-reduces loses at all frequencies Short, heavy terminals-minimum RF and con tact resistance. India Mica. For grid and plate blocking.

600 V . Whpg. 1000 V . Test

| Stock No. | C. D. Na. | Cap. Mid | Each |
| :---: | :---: | :---: | :---: |
| 5N4156 | 4-14050 | . 00005 | . 41 |
| 5N4157 | 4.13010 | . 0001 | . 41 |
| 5N4158 | 4.13020 | . 0002 | . 41 |
| 5N4159 | 4.13025 | . 00025 | . 41 |
| 5N 4160 | 4-13050 | . 0005 | . 41 |
| 5N4161 | 4-12010 | . 001 | 41 |
| 5N4162 | 4-12020 | . 002 | 47 |
| 5N4163 | 4-12060 | . 006 | 71 |
| SN4164 | 4-11010 | . 01 | . 94 |
| 5N4165 | 4-11020* | . 02 | 1.29 |
| 5N4166 | 4-11030* | . 03 | 1.73 |

1200 V. Wkg. 2500 V . Test

| SN4168 | $4-23010$ | .0001 | .59 |
| :--- | :--- | :--- | ---: |
| SN4169 | $4-23025$ | .00025 | .59 |
| SN4170 | $4-23050$ | .0005 | .59 |
| SN4171 | $4-22010$ | .001 | .73 |
| SN4172 | $4.22020^{*}$ | .002 | 1.12 |
| SN4173 | 4.22050 | .005 | 1.11 |
| SN4174 | $4.21010^{*}$ | .01 | 2.29 |

2500 V. Wkg. 5000 V. Test

| SN4175 | 4.53010 | .0001 | .73 |
| :--- | :--- | :--- | ---: |
| SN4176 | 4.53020 | .0002 | .82 |
| SN4177 | 4.53025 | .00025 | .88 |
| SN4178 | $4-53050$ | .0005 | 1.00 |
| SN4179 | 4.52010 | .001 | 1.21 |
| SN4180 | $4-52020 *$ | .002 | 1.82 |
| SN4181 | $4-52040$ | .004 | 2.56 |
| SN4182 | $4-52050^{*}$ | .005 | 2.76 |

All thickness $11 /$ ex, excopt *-7/is.
"DYR" CAPACITORS


Dykanal filled and fmpregnated. For severe requirements of alrcraft. marine and troptical use. Moisture proof, withstands 600 V D. C. Wkg.

| Stock No. | Type | $\begin{aligned} & \text { Cap. } \\ & \text { Mrd. } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Size } \\ & \text { Inches } \end{aligned}$ | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5 N3006 | DYR 6005 | . 05 | 13/6x $1 \times 3$ | 1.53 |
| 5N3011 | DYR 6010 | . | $1.356 \times 1 x^{2} 4$ | 1.56 |
| 5N3012 | DYR 6025 | . 25 | $15.6 \times 1 \mathrm{~m}^{3 / 4}$ | 1.65 |
| 5N3013 | DYR 6050 | . 5 | $113 / 18 \times 1 \times 7 / 8$ | 1.76 |
| 5N3014 | DYR 6100 | 1.0 | $2 \times 181 x^{7} / 8$ | 2.00 |
| 5N3015 | DYR 6200 | 2.0 | $2 \times 2 \times 11 / 8$ | 2.68 |
| 5N3010 | DYR 61055 | . $05-05$ | $1^{13} 6 \times 1 \times 1 \times 8$ | 1.91 |
| 5N3007 | DYR 6011 | , 1-1 | $1150 \times 1 x^{3 / 1}$ | 1.97 |
| 5N3016 | DYR 6022 | 25-. 25 | 113001x ${ }^{3}$ | 2.00 |
| 5N3008 | DYR 6055 | .5-5 | $2 \times 13$ - $x^{2} / 4$ | 2.29 |
| 5N3017 | DYR 6110 | 1.-1. | $2 \times 2 \times 11 / 8$ | ? 2.82 |
| 5N3009 | DYR 6111 | 1-1-1-1 | $1^{13} 10 \times 1 \times 1{ }^{3}$ | 2.23 |
| 5N3018 | DYR 8222 | .25-.25-.25 | 2x13/4 ${ }^{13 / 4}$ | 2.53 |
| 5N3023 | DYR 655.5 | .5-.5-. 5 | 2×2×11/8 | 3.06 |

## 'DA" AND "DB" METAL CASED



Non-inductively wound Wax impregnated.

400 Volts D. C. Wkg.

| Stock No. | Type | Mfd. | L $\times$ W $\times$ T | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5N1277 | DA 4011 | . 1 | $1236 \times 1 \times 3 / 5$ | 1.03 |
| 5N1278 | DA 4025 | 25 | $115 / 6 \times 1 \times$ | 1.18 |
| 5N1279 | DA 4050 | . 5 | $11316 \times 1 \times 7$ | 1.26 |
| 5N1342 | DA 4100 | 1.0 | $2 \times 1 \times 1{ }^{11}$ | 1.53 |
| 5N1343 | DA 4200 | 2.0 | $2 \times 2 \times 11 / 8$ | 1.97 |
| 5N1344 | DB 4010 | . 12.1 | $1{ }^{13 / 16 \times 1 \times 3.14}$ | 1.62 |
| 5N1345 | DB 4025 | .25-.25 | 2x11/4 $\mathrm{x}^{3 / 4}$ | 1.76 |
| 5N1346 | DB 4050 | .5-. 5 |  | 2.06 |
| 600 Volts D.C. Wkg. |  |  |  |  |
| 5N1348 | DA 6050 | ${ }^{5}$ | $2 \times 13 / 4 x^{13} /{ }^{4 \prime}$ | 1.62 |
| 5N1350 | DA 6100 | 1.0 | 2x2x11/8* | 1.85 |

## MALLORY ELECTROLYTIC CONDENSERS



| No. | Type | Mid. | Volts | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N3700 | WP039 | 1,000 | 15 | 12 |  |
| 5N3701 | WP041 | 2,000 | 15 | $138^{\prime \prime} \times 26^{\prime \prime}$ | 2.76 |
| 5N3702 | WPOS5 | 100 | 25 | $1{ }^{\prime \prime} \times 2{ }^{\circ}$ | . 85 |
| SN3703 | WResti | 500 | 25 | $1^{\prime \prime} \times 2$ 年" | 1.44 |
| 5N3704 | WP059 | 1,000 | 25 | $11 /{ }^{\prime \prime} \times 2{ }^{\prime \prime}$ | 2.09 |
| 5N3705 | WP065 | 500 | 50 | $13 / 8{ }^{*} \times 2^{\prime \prime}$ | 2.09 |

DUAL SECTION

| 5N3662 | FP211 | $30-30$ | 150 | $1^{\prime \prime} \times 2^{\prime \prime}$ | 1.03 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 5N3710 | FP214 | $50-50$ | 150 | $1^{\prime \prime} \times 21 /^{\prime \prime}$ | 1.23 |
| 5N3726 | FP208 | $20-20$ | 150 | $1^{\prime \prime} \times 2^{\prime \prime}$ | .91 |
| 5N3727 | FP210 | $40-20$ | 150 | $1^{\prime \prime} \times 2^{\prime \prime}$ | 1.03 |
| SN3728 | FP212 | $40-40$ | 150 | $1^{\prime \prime} \times 21 /^{\prime \prime}$ | 1.15 |

MULTIPLE SECTION

| No. | Type | Cap. Mid. | Wkg. Volts | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N3713 | FP354 | 20.20.20 | 150 | 1"x2* | 1.29 |
| 5N3798 | FP357 | 40.40-40 | 150 | 1 " $\times 3^{\prime \prime}$ | 1.53 |
| 5N3870 | FP355 | 40-20-20 | 150 | 1" $21 /{ }^{\prime \prime}$ | 1.41 |
| 5N3714 | FP367 | 10-10-10 | 350 | $1 " \times 2$ | 1.41 |
| 5N3670 | FP389 | 10-10-10 | 450 | 1"*3" | 1.47 |
| 5N3798 | FP390 | 15.15-10 | 450 | " $\mathrm{x}^{\prime \prime}$ | 1.68 |
| SN3725 | WP302 | 15-15/1000 | 150/2 | 1"×2" | 1.59 |
| 5N3732 | FP307 | 40-20/100 | 150/25 | $1^{\prime \prime} \times 21 / 2$ " | 1.76 |
| 5N3733 | FP310 | 40-40/20 | 150/25 | 1"x21 | 1.41 |
| 5N3871 | FP410 | 50.50-50/20 | 150/25 | 13/8"x ${ }^{\prime \prime}$ /2" | 2.00 |
| 5N3715 | EP306 | 40.20/20 | 150/25 | $1 \times 2$ " | 1.35 |
| 5N3716 | FP309 | 50-30/100 | 150/25 | 1"x24/2" | 1.76 |
| 5N3717 | FP328 | 15-10/20 | 350/25 | 1 "x2" | 1.35 |

FP - TC TELEVISION CONDENSERS
These capacitors have been specifically designed for television. FP is a fabricated plate, twist prong, dry type. Type TC is a metal, tubular dry, electrolytic cond. Extremely dependable under adverse operating conditions.

| \%. | Type | Mid. | Volts DC | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N3874 | WP505 |  | 3 V | $3 / 4{ }^{\prime \prime}$ | 1.23 |
| 5N3875 |  |  |  | 1"x2" |  |
| 5N3876 | WP540 | 1.0 . 260 cycles | 3 V .NP |  | 2.65 |
| 5N3877 | WP204 | 250.1000 | 10.6 | /"x2" | 2.50 |
| 5N3878 | FP117 | 150 | 5 | $130 \times 2{ }^{\text {c }}$ | 1.68 |
| 5N3879 | $\mathrm{FP}^{\text {FP215 }}$ | 5.100 | 150 |  | 2.09 |
| 5N3880 | FP218 | 0.20 | 300 |  | 2.47 |
| $\begin{aligned} & \text { 5N3881 } \\ & \text { SN3882 } \end{aligned}$ | FP235 | 0.80 | 450.350 | $\xi^{*}$ | 2.41 <br> 1.85 |
| 5N3883 | FP239 | 50-40 | 450 |  | 8 |
| 3 |  |  | 450-50 |  | . 32 |
| 388 | FP30 | - | 50.15-15 |  | 2.00 |
| 5N3886 | FP312 | 25-50 | 50.25-50 |  | 1.59 |
| 5N3888 | FP318 | -90-20 | 200-200-50 |  | 2.76 |
| 5N3891 |  | 0-60- | 300-150.25 |  | 2.53 |
| 5N3892 | FP341 | -90-50 | 450-150-150 | 8* $\times 1$ | 2.41 |
| 5N3893 | FP342 | -40.130 | 450-150-50 |  | 2.35 |
| 5N3894 | FP343 | -100-50 | 450.150-50 |  | 2.35 |
| 5N3895 | FP344 | -30-30 | 450.400-300 |  | 2.20 |
| 5N3919 | FP345 | -10.80 | 450.450 .20 |  | 2.56 |
| 5N3920 | FP3 | -40-10 | 450 |  | 2.53 |
| 5N3921 | FP395 | 40-40.40 | 450-450-150 |  | 2.53 |
| 5N3922 | FP413 | -40-40-20 | -300-300-1 |  | 2.65 |
| 5N3923 | FP414 | 15-80-40-200 | 350-200-200-25 | 1\%"×3 | 2.68 |
| 5N3924 | FP421 | 5.50-80 | 400-400-300-250 | * | 2.70 |
| 5N3925 | FP428 | -10-35.10 | -450-350-350 |  | 2.65 |
| 5N3926 | FP431 | 40.10.15-25 | $450.450-450.25$ |  | 2.44 |
| 5N3927 | FP432 | 40.10-10-250 | 450-450-450-25 |  | 2.62 |
| SN3928 | FP433 | 60-10-10-20 | 450-450-450-150 |  | 2.05 |
| 5N3929 | TC308 | . 5215750 cycles | 3V.NP |  | 1.76 |
| SN3930 | TC420 | 1.5260 cycles | 4V.NP |  | $2.06$ |
| 5N3931 | TC250 |  |  |  | $1.32$ |

Cardboard Tubular Dry Electrolyties
Waxed cardboard tubes with an adjustable strap for horizontal mounting. Insulated leads. ends. All multiple have common negative.



| 5N3745 | 3N527* | (20.20) (20) | (150) (25) | ${ }^{13} 10^{\prime 6} \times 25^{\prime \prime}$ | 1.12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N3746 | 3N533* | (30-30) (20) | (150) (25) | $1 " \times 258$ | 1.15 |
| 5N3747 | TN125* | (20.10) (10) | 150 |  | 1.09 |
| SN3748 | TN129 | (40-20) (20) | 150 | \%"x24" | 1.35 |

For top chassis mounting in fifler and audio bypass circuits. Light weight. Hermetically

SINGLE SECTION

| No. | Type | Mfd. | Voits | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N37 | FP115 | 50 | 150 |  | . 88 |
| 5N3706 | FP116 | 100 | 150 | 1 "x | 1.15 |
| 5N3699 | FP135 | 30 | 350 | 1"x2" | 1.00 |
| 5N3707 | FP137 | 50 | 350 | 1" $\times 2 \frac{1}{2 \prime \prime}$ | 1.21 |
| 5N3658 | FP1 42 | 10 | 450 |  | . 76 |
| 5N3659 | FP143 | 15 | 450 |  | 91 |
| DUAL SECTION |  |  |  |  |  |
| 5N3729 | FP213 | 50.30 | 150 | 1"x236" | 1.15 |
| 5N3730 | FP217 | 20-20 | 250 | $1^{*} \times 2$ | 1.21 |
| 5N3793 | FP225 | 15.15 | 350 | " $\times 2$ " | 1.23 |
| 5N3792 | FP227 | 20.20 | 350 | "x3" | 1.33 |
| 5N3664 | FP231 | 10-10 | 450 | 1"2" | 1.23 |

Designed for twist prong mounting through sultable chassis slots. Solder lug type terminals all at one end.

SINGLE SECTION

| No. | Type | Mid. | Volts | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N3708 | FP1 44 | 20 | 450 | 1"x2" | 1.03 |
| 5N3791 | FP1 45 | 30 | 450 | 1"x3" | 1.15 |
| 5N3709 | FP1 46 | 40 | 450 | 1" $\times 3$ " | 1.32 |
| SN3681 | FP1 49 | 80 | 450 | $13 / 8{ }^{\prime \prime} \times 21 / 2$ | 2.29 |

## DUAL SECTION

5N3665 FP234 $20-20 \quad 450 \quad 1^{\prime \prime} \times 3^{\prime \prime} \quad 1.56$ SN3711 FP238, $40-40$ 450 $138^{\prime \prime} \times 3^{\prime \prime} \quad 2.35$ 5N3712 FP245 80-10 $45011 / 1^{\prime \prime} \times 3^{\prime \prime} \quad 2.50$


## MULTIPLE SECTION

| No. | Type | Cap. Mid. | Wkg. Volts | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N3718 | FP371 | 30-10/20 | 350/250 | $1 \times 3$ " | 1.68 |
| 5N3719 | EP330 | 30.20/20 | 350, 25 | $1^{\prime \prime} \times 3^{\prime \prime}$ | 1.65 |
| 5N3668 | FP332 | 10.10/20 | 450/25 | $1^{\prime \prime} \times 2^{\prime \prime}$ | 1.38 |
| 5N3799 | FP339 | 20-20/20 | 450/25 | 1 "x3" | 1.73 |
| 5N3720 | FP346 | 40-40/20 | 450/25 | $138^{\prime \prime} \times 3^{\prime \prime}$ | 2.15 |
| 5N3721 | FP409 | 40.40-30/20 | 150/25 | $138^{\prime \prime} \times 2^{\prime \prime}$ | 1.82 |
| 5N3673 | FP424 | 15.15-10/20 | 450/25 | 13"*2* | 2.00 |
| 5N3722 | FP426 | 20-15/20-20 | 450/25 | 15***2" | 2.00 |
| 5N3723 | FP429 | 40-30-10/20 | 450/25 | $135{ }^{\prime \prime} \times 3^{\prime \prime}$ | 2.47 |
| 5N3872 | FP4 16 | 40/40-20/20 | 350/300/25 | $13 \times 3 \times 3$ " | 2.32 |
| 5N3724 | FP434 | 10-10-10-10 | 450 | 11/6"*2" | 1.91 |
| 5N3873 | FP444 | 20-20-20-20 | 450 | $13^{1 / 8} \times 1 \times 3^{\prime \prime}$ | 2.65 |

MOUNTING PLATES FOR FP - WP CONDENSERS
For $84^{4}$ dia. cans 5N3674-Bakelite 5N3671-Metal Any Type $\left.\begin{array}{l}\text { For } 1^{\prime \prime} \text { dia. cans } 5 N 3675 \text {-Bakelite 5N3678-Metal } \\ \text { For } 13 / /^{\prime \prime} \text { dia. cans } 5 N 3676 \text {-Bakelite 5N3679-Melal }\end{array}\right\}$ S Each


TC DRY ELECTROLYTICS
Hormetically sealed in aluminum case. Supplied with leads and insulating tube. Can be used under alt climatic conditions.
Ideal for under chassis mounting. Average diameter !

SINGLE SECTION - TYPE TC

| Stock No. | Cap. Mid. | Wkg. Volts | Each | Stock No. | Cap. <br> Mfd. | Wkg. Volts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5N829 | 1000 | 3 | 1.06 | 5N988 | 40 | 150 | 65 |
| SN830 | 500 |  | 1.00 | 5N838 | 50 | 150 | 71 |
| SN831 | 1000 | 6 | 1.32 | 5N839 | 60 | 150 | 76 |
| 5N832 | 500 | 15 | 1.23 | 5N840 | 10 | 250 | . 56 |
| 5N848 | 10 | 25 | 44 | 5N841 | 20 | 250 | 71 |
| 5N875 | 25 | 25 | . 50 | 5N842 | 10 | 350 | . 59 |
| 5N876 | 50 | 25 | . 59 | 5N843 | 20 | 350 | . 76 |
| 5N833 | 100 | 25 | 71 | 5N844 | 5 | 450 | . 53 |
| 5N987 | 10 | 50 | 47 | 5N888 | 8 | 450 | . 56 |
| 5N897 | 25 | 50 | . 53 | 5N889 | 10 | 450 | . 62 |
| 5N898 | 50 | 50 | . 62 | 5N845 | 15 | 450 | 76 |
| 5N834 | 5 | 150 | . 44 | 5N846 | 20 | 450 | . 88 |
| 5N835 | 10 | 150 | 50 | 5N847 | 30 | 450 | . 97 |
| 5N836 | 15 | 150 | 53 | 5N849 | 40 | 450 | 1.18 |
| 5N837 | 20 | 150 | . 56 | 5N850 | 10 | 500 | 1.59 |
| 5N882 | 30 | 150 | . 57 | 5N851 | 10 | 600 | 1.73 |

DUAL COMMON NEGATIVE TYPE TCD

| Stock | Type | Cap. Mld. | Wkg Volts | Each | Stock No. | Type | Cap. Mid. | Wkg Volts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5N852 | TCD 26 | 25 | 25 | 65 | 5N858 | TCD62 | 10 |  | 94 |
| 5N883 | TCD45 | 20-20 | 150 | 76 | 5N859 | TCD65 | 20-20 | 350 | 1.23 |
| 5N854 | TCD47 | 30.30 | 150 | 88 | 5N860 | TCD71 | 8.8 | 450 | 1.00 |
| 5N855 | TCD48 | 40-40 | 150 | 1.00 | SN861 | TCD72 | 10-10 | 450 | 1.09 |
| 5N856 | TCD52 | 10-10 | 250 | 88 | 5N862 | TCD74 | 15-15 | 450 | 1.29 |
| 5N85 | TCD5 | 20.20 | 250 | 1.06 | 5N8 | CD7 | 20-20 | 450 | 1.41 |

## 'TP" PAPER TUBULARS

Oll treated non-inductive units, All triple sealed. Not affected by humid climatic conditions. All have wire leads.

| No. | Mtd. | Volts | Each | No. | Mfd. | Volts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SN3896 | . 01 | 400 | 146 | 5N3907 | . 005 | 600 | 146 |
| 5N3897 | . 02 | 400 | $14 \%$ | SN3908 | . 006 | 600 | 144 |
| 5N3898 | . 05 | 400 | 16¢ | SN3908 | 01 | 600 | 168 |
| 5N3899 | . 1 | 400 | 194 | 5N3910 | . 02 | 600 | 16 |
| 5N3818 | . 2 | 400 | 24. | 5N3820 | . 03 | 600 | 198 |
| SN3900 | 25 | 400 | 24¢ | SN3821 | .04 | 600 | 194 |
| 5N3901 | . 5 | 400 | 31 | 5N3911 | . 05 | 600 | 22 |
| 5N3819 | 1.0 | 400 | 484 | 5N3912 | . 06 | 600 | 22 |
| SN3902 | . 0001 | 600 | 144 | 5N3913 | . 1 | 600 | 241 |
| 5N3903 | . 00025 | 600 | 144 | 5N3914 | . 25 | 600 | $29 ¢$ |
| SN3904 | . 0005 | 600 | 14 | 5N3915 | . 5 | 600 | 426 |
| 5N3905 | 001 | 600 | 144 | 5N3823 | 1.0 | 600 | 67 |
| 5N3906 | . 002 | 600 | 143 |  |  |  |  |

SPRacue
TYPE 6.8P MIDGET TUBULARS

## FOR MINIATURE RADIOS

600 Working Volts DC

| No. | Mid. | Size | Each | No. | Mid. | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2494 | 00 | 1/ $x^{11} 166^{\prime \prime}$ | . 21 | 5N2500 | . 001 | 4利16" | 21 |
| 5N2493 | . 002 | $1 / 4 x^{1 / 140}$ | . 21 | 5N2501 | . 002 | $3+x^{11} 16$ | 21 |
| 5N2492 | . 003 | \% $\mathrm{x}^{11 / 10}$ | . 21 | 5N2502 | . 003 | 14 $x^{11} 116$ | 21 |
| 5N2491 | . 004 | - $x^{18} 16$ | . 21 | 5N2503 | . 004 | 34x $x^{13} 16$ | 21 |
| 5N2490 | . 005 | $2 / 6 \times 136$ | . 24 | 5N2505 | . 006 | 1/4 $\times^{13 / 16}$ | . 21 |
| 5N2489 | . 006 | $816 \times 13 / 6$ | . 24 | 5N2506 | . 01 | $5 / 46 \times 1 / 16$ | . 24 |
| 5N2488 | . 01 | 3/16x1 | . 26 | SN2507 | . 02 | $616 \times 1$ | 26 |
| 5N2487 | . 02 | $11 / 4{ }^{1 / 51}$ | . 29 | 5N2508 | . 05 | 13, $16 \times 1$ | . 29 |
| 5N2486 | . 05 | ${ }^{15} 5 \times 13$ | . 32 | 5N2499 | . 1 | ${ }_{15}=1511 / 8$ | . 38 |
| 5N2485 | . 1 | $5 \times 18{ }^{3}$ | . 41 | 5N2498 | 25 | $5 \times 18 \times 1 / 8$ | 44 |
| 5N2484 | . 25 | 3/7x ${ }^{\text {" }}$ | . 47 | 5N2497 | . 5 | 8/8×25\% | 52 |

## 200 Working Volts DC



100 Working Volts DC


## MOULDED TELECAPS

TYPE TM "600" LINE


Alt-purpose, small size. Heat-nesistant bakelite phenolic, paper tubular. For high-lemperature TV recelvers, auto setg, etc. Oil-illed. Shock and humidily-proof, non-inflammable.

No. Mfd, Ea. ${ }^{\prime}$ No. Mfd. Ea. No. Mfd. Es. No. Mfd. Fa. 5N2627 $.0001 \quad . \overline{5 N 2632} .002 \quad .15 \quad \overline{5 N 2636}$ | $5 N 2628$ | .00025 | .15 | $5 N 2633$ | .003 | .15 | $5 N 2637$ | .01 | .18 | $5 N 2642$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $5 N 2629$ | .0004 | .15 | $5 N 2634$ | .004 | .15 | $5 N 2638$ | .02 | .18 | $5 N 2643$ |

 5N2631 .001 |.15

5N2640 06
TYPE "MB" MOLDED TUBULARS
1600 Volts Working, Oil Impregnated

| No. | Mid. | Dia. Lgt. | Each | No. | Mid. | Dia. Lgt. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2690* | . 001 | 3/8138" | . 32 | 5N2693 | 01 | 1/2x2 | 35 |
| 5N2691 | . 002 | $3 \times 13 \times$ | . 32 | 5N2694 | . 02 | - $4 \times 2$ | 35 |
| 5N2692 | . 005 | 816x $1 \%$ " | . 32 | 5N2695* | . 05 | ${ }^{15} 46 \times 23 / 6$ | . 41 | oletion of molds.

TYPE TVM - 6,000 \& 10,000 VOLTS

| No. | TVM | Mid. | WVDC | Size | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2696 | 356 | . 0005 | 6,000 | 1/2011/2 | 79 |
| 5N2697 | 216 | . 001 | 6,000 | 680176 | . 79 |
| 5N2698 | 256 | . 005 | 6,000 | $8 \% \times 17 \%$ | . 79 |
| 5N2699 | 331 | . 0005 | 1,0000 | $8 / 8 \times 17 / 8$ | . 88 |
| 5N2700 | TVQ-116 | . 01 | 6,000 | ${ }^{13,16 \times 2}{ }^{\text {² }}$ | . 82 |
| 5N2701 | TVQ-156 | . 05 | 6,000 | $1 \times 3$ " | . 94 |

SPRAGUE "ATOMS"
Ulira-compact dry electrolytics ealed in tubes with outer insulating leeve. Protected against "Blowend caps.

| No. | Mrd. | Wkg. VIts. | Nize | Euch |
| :---: | :---: | :---: | :---: | :---: |
| SN769 | 10 | 25 | \%1613/8 | . 44 |
| 5N770 | 25 | 25 | $9 \times 1 \%$ | . 50 |
| 5N2680 | 5 | 50 | 9/6x ${ }^{\circ}$ | . 14 |
| SN2682 | 10 | 50 | Hex $8^{\prime \prime}$ | . 47 |
| 5N771 | 25 | 50 | 5/8x 18 | . 53 |
| 5N2841 | 50 | 50 |  | . 62 |
| SN772 | 4 | 150 | 5, $\times 13 \%^{\prime \prime}$ | . 41 |
| 5N773 | 8 | 150 | $78 x$ | . 17 |
| SN774 | 12 | 150 | $88 \times 15 / 8=$ | . 50 |
| SN775 | 16 | 150 | Hoxis/8 | . 53 |
| 5N776 | 20 | 150 | ${ }^{3}$ ( $\times 13 \%^{\prime \prime}$ | . 56 |
| 5N2810 | 30 | 150 | 13, 10 $\times 170$ | . 59 |
| 5N777 | 10 | 150 | $7{ }^{7} \times 15{ }^{\text {P }}$ | . 65 |
| SN778 | 4 | 450 |  | . 53 |
| 5N779 | 8 | 450 | ${ }^{3} \times 15{ }^{\prime \prime}$ | . 56 |
| 5N780 | 12 | 450 | 78×15\% | . 68 |
| 5N781 | 16 | 450 | $1{ }^{16} \times 21 / 8$ | . 79 |
| 5N782 | 20 | 150 | ${ }^{7} \times 2{ }^{\prime \prime}$ | . 88 |
| 5N783 | 10-10t | 50 | ${ }^{8}$. $\times 238^{\prime \prime}$ | . 68 |
| 5N3164 | 8-3* | 150 |  | . 68 |
| 5N2842 | $12-20$ | 151 | ${ }^{11} \times 21{ }^{1}$ | . 73 |
| 5N3165 | $20-30^{\circ}$ | 150 |  | . 76 |



| No. | Mid. | Wkg. IVits. | Size | Each |
| :---: | :---: | :---: | :---: | :---: |
| 5N2683 | 20-20t | 150 | 1 $\times 27 / 3$ | 1.18 |
| 5N714 | $20-30^{\circ}$ | 150 |  |  |
| 5N797 | $30-30^{\circ}$ | 150 |  | 88 |
| 5N745 | $20-10^{*}$ | 150 |  | . |
| ${ }_{\text {SN716 }}$ | ${ }^{40-30^{\circ}}$ | 150 | 1x23\% | 94 |
| 5N798 | $40-40^{\circ}$ | 150 |  | . 00 |
| 5N799 | 50-30 | 150 |  | . 00 |
| 5N747 | 50-50 | 150 | 1596x ${ }^{\text {3 }}$ | 1.09 |
| SN2843 | 40-20t | 150 | H6x23/3 |  |
| SN784 | 12-12* | 200 |  |  |
| 5 S785 | $8-16^{\circ}$ | 200 | 1,16x2 | 75 |
| 5N2844 | $8-16^{\circ}$ | 250 |  |  |
| 5N2815 | 8-16t | 230 | $1 \times 2 \%$ \% | 32 |
| 5N787 | 16-16* | 200 | 3/8x23/6 | 88 |
| 5N2846 | $16-16^{*}$ | 250 | $1 \times 2$ | 00 |
| 5N2684 | 16-1 | 250 |  | 50 |
| 5N786 | 8-8.8 ${ }^{\circ}$ | 450 | $15 / 662$ | . 00 |
| 5N2685 | 8-8t | 450 | $116{ }^{6} 33$ | 1.23 |
| 5N2847 | $8-16^{*}$ | 450 | $1 \times 23$ | 1.18 |

TYPE TVL TWIST-LOKS
TELEVISION REPLACEMENTS. Hermetically seated for lone life. Designed for $85^{\circ} \mathrm{C}$ operation up to 450 WVDC.

SINGLE UNITS


| SN2403 | TVL-50 | 70+70/20 | 200/50 | $13 \times 13^{1 / 6^{*}}$ | 2.35 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2404 | TVL-21 | $100+10 / 40$ | 200/50 | $13 \times 3 \times 2^{\prime \prime}$ | 2.26 |
| 5N2405 | TVL-22 | $80+80,60$ | 250/200 | 13/9x31.2" | 2.50 |
| 5N2406 | TVL-23 | 40/20/10 | 350/300/200 | 115x20 | 1.71 |
| 5N2408 | TVL-24 | $80+40 / 150$ | 400/50 | 13 \% $\mathrm{l}^{+5}$ | 2.73 |
| SN2409 | TVL-28 | 10/10/50 | 450/350/25 | $1 \times 3{ }^{\prime \prime}$ | 1.56 |
| SN2410 | TVL-20 | $30 / 100+25$ | 450/25 | $13 / 8 \times 2^{\prime \prime}$ | 1.62 |
| 5N2414 | TVL-52 | $10+10 / 40$ | 450/50 | $1 \times 2{ }^{1}{ }^{\prime \prime}$ | 1.68 |
| 5N2415 | TV1-d7 | $20+10 / 50$ | 450/50 | $1 \times 33^{\prime \prime}$ | 1.82 |
| 5N2417 | TVL-29 | $40+10$ | 450,50 | 13/8×21/3" | 1.91 |
| 5N2418 | TVL-57 | 40/100'130 | 450/150/50 | $13 / 8 \times 3^{3}$ | 2.44 |
| 5N2419 | TVL-65 | $20+20.60$ | 450/350 | $13 / 83312^{\prime \prime}$ | 2.26 |
| 5N2420 | TVL-53 | 10+10/10 | 450/350 | $118 \times 3{ }^{\text {a }}$ | 2.06 |
| 5 N 2421 | TVL 31 | 20/20/40 | 475/300/25 | $136 x^{3 \prime}$ | 1.97 |
| 5N2422 | TVL 32 | 40/40/25 | 475/400/50 | 1\%\%3 ${ }^{10}$ | 2.73 |
| 5N2423 | TVL-33 | $10+10+10$ | 475 | $1 \mathrm{xa}^{\prime \prime}$ | 1.76 |
| 5N2424 | TVL-55 | $30+30+20$ | 475 | 13/683 ${ }^{\text {² }}$ | 3.06 |

QUADRUPLE UNITS

| 5N2425 | TVL-60 | $60+40+20 / 5$ | 300/25 |  | 35 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2432 | TVL-34 | $10+10 / 10+10$ | $350 / 300$ |  | 1.82 |
| 5 N 2433 | TVL-35 | $40 / 10 / 80+10$ | 400/350/250 | 13/3x312 | 2.62 |
| 5N2435 | TVL-36 | $10+10+1010$ | 450/150 | $13682^{4}$ | 1.79 |
| 5N2438 | TVL-68 | $60+10+10 / 20$ | 450/250 | $136 \times 3{ }^{\prime \prime}$ | 2.56 |
| 5N2442 | TV1-56 | 10/30/30 | 450/400/300 | 13/8x ${ }^{1 / 2}{ }^{\prime \prime}$ | 1.82 |
| 5N2443 | TVL-58 | $30+30+15+10$ | 450 | $131834{ }^{\prime \prime}$ | 2.50 |
| 5N2444 | TVL-37 | 10/10/80,50 | 475/450/200/50 | 13683 | 2.70 |
| 5N2445 | TVL-38 | $40+20+10 / 10$ | 475/25 | 11/9x3" | 3.00 |
| 5N2416 | TVL-39 | $10+10+10+10$ | 475 | $1300{ }^{\circ}$ | 2.32 |
| 5N2447 | TVL-40 | $40+20+10+10$ | 475 | 13603* | 3.23 |

## TYPE TVA ATOMS

Especially designed to take care of both television and radia Small sized, metal-encased dry electrolytic tubulars.. .. All are suitable for $85^{\circ} \mathrm{C}$ operation. . TVA-11 through TVA-14 are spectally

SINGLE UNITS

| No. | TVA | Mid. | WVDC | Dia. $\times 1$. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2448 | 1 | 1000 | 6 |  | 1.32 |
| 5 N 2449 | 2 | 2000 | 6 |  | 2.29 |
| 5N2450 | 3 | 250 | 10 |  | 1.03 |
| 5 N 2451 |  | 500 | 10 | ${ }^{13} 16 \times 21 / 55^{\circ}$ | 1.12 |
| 5N2452 | 5 | 10 | 25 |  | . 44 |
| 5N2453 | 6 | 25 | 25 | 11901510" | . 50 |
| 5N2454 |  | 50 | 25 | 11468156\% | . 59 |
| SN2455 | 8 | 100 | 25 | "10x149\%" | 71 |
| 5N2456 | , | 2.50 | 25 |  | 1.18 |
| 5N2457 | 10 | 500 | 25 | 1,16x 23.5 | 1.32 |
| 5N2458 | 11 | 1 | 50 |  | . 44 |
| 5N2459 | 12 | 2 | 50 | 7/10 $\times 1.16^{\frac{1}{4}}$ | . 44 |
| 5N2460 | 13 | 5 | 50 | $8 / 16 \times 1$ \% | . 44 |
| 5N2461 | 14 |  |  | Thats" | . 47 |
| 5N2462 | 15 | 25 | 50 | 1,46x190\% | . 53 |
| SN2463 | 16 | 50 | 50 | 1601190" | . 62 |
| SN2464 | 17 | 100 | 50 | 13961990 | . 88 |
| 5N2465 | 18 | 30 | 150 |  | . 59 |
| 5N2466 | 19 | 80 | 150 | ${ }^{15} 16 \times 23$ 16" | . 88 |
| 5N2467 SN2535 | 21 22 | 10 20 | 450 | ${ }^{131082 \%}{ }^{\text {a }}$ | . 62 |
| 5N2535 | 22 | 20 | 450 | 146x2910 | . 88 |
| SN2536 5N2537 | 23 $2+$ | 30 40 | 450 450 |  | . 97 |
| 5N2537 | $2+$ | 40 | 450 |  | 1.18 |

DUAL UNITS

| 5N2538 | 20 25 | $20+20$ $10+10$ | 150 | 136x 19 /10 | 76 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5N2539 | $25^{*}$ | $10+10$ | 450 | $1510 \times 2 \%^{\prime \prime}$ | 1.09 |

# INTERFERENCE FILTERS = WAVE TRAPS 

## C-D QUIETONE INTERFERENCE FILTERS

Type IF-18. An efficient allwave compactive inductive type filter for use in connection with all types of electrical appliances where interference conditions are severe. With frame connection for reduction of radiation. Bakelite case, finished in Walnut. Rating, 110 volts AC or DC, 5 amperes. Reduces interterence when installed between radio and outlet-suppresses noise conditions when installed at offending appliance or molor. Shpg. wt. 5 bs. 5N12493-List Price $\$ 8.35$
4.91

Type IF-4. For use on small radio recelvers, such as AC-DC midget sets, where the noise level is not too
severe. Connects in power line between the radio severs. Connects in power line between the radio
receiver plug and wall receptacle. Rating 5 amperes on 110 volts $A C$ or DC. Walnut bakelite case. 5N 12490 -Shlpping weight 8 oz. List $\$ 1.10$.

65

## FILTERS FOR USE AT THE APPLIANCE

Type IF-6. For all types of home electrical appliances where interference is of moderately low intensity. Installed between appliance and power supply with short return lead which reduces radiation. Rating 5 amperes at 110 volts AC or DC. Walnut finish. 3N12425-Shipping weight 8 oz . List $\$ 1.75$.
1.03


Type IF-21. All-wave apacitive-induclive type filter for use on appliances where return lead cannot be made, such as shaver, barber clippers. Bakelite case. Rating 1.6 amperes at 110 volts AC or DC. Walnut Innish.
$5 N 12495$-List Price $\$ 4.00$
2.35

Type IF-19. Capacitive-inductive type filter for use where interfer ence is severe. Frame connection
Iinish. 5 amperes at 110 V . AC-DC.
SN12494-Shipping weight 2 lbs. List $\$ 7.00$
4.12


Type IF-22A. For use in connection with electric shavers 5 as Schick, Knapp-Monarch and similar type shavers. Shpg. Wt. 1 lb . 110 volts A akelit Shpg. Wt. lib. Price $\$ 2.75$
1.62

Type 22B. Physically the same as Type 22A, but for use with Packard, Zephyr, Remington-Rand, and Ronson type electric shavers. 5 amperes at 110 V. AC or DC. Bakelite case.
1.62

## INDUSTRIAL QUIETONE INTERFERENCE

 FILTERSType IF-7A. Capacitive-inductive type heavy duty filter for eliminating noise created by motors, oil burners, diathermy machines, elevators, etc. In steel cutout box ${ }^{2} \times 0^{\prime \prime}$ with knock-outs for BX
cable or conduit. For single phase $110-220$ volts AC or DC at 5 amperes. Shpq. wt. 9 lbs.
7.35

Type IF-27. Capacitive-inductive heavy duly type for severe Interference from oil bumers, motors, etc. For 110 volts $A C$ or DC at 5 amperes. In steel box with flexible leads 5N12498-Shlpping weight 5 lbs . List $\$ 7.00$
4.12

Type IF-28. Same as Type IF-27, but for drawing up to 10 amps. at 110 V . AC or DC 7.35
$5 N 12499$-Shpg. wt. 7 lbs . List $\$ 12.50 \ldots . .7 .3$

## FLUORESCENT NOISE FILTER

Type IF-24. Mounts inside fixture by means of slotted strip which slips under any assembly bolt. Case is grounded and leads are shunted across power line. Cylindrical, $2^{\prime \prime} \times 7 / 8$ ". For use on 110 volts AC or DC Shipping weight 8 oz . 5N12501-List Price $\$ 1.10$

65
Type IF-54. Capacitive inductive filter which provides extremely high attenuation over a wide range of frequencies. Suitable for fluorescent lights, sign flashers, etc. Drawn metal container $2^{\prime \prime} \times 2^{\prime \prime} \times 11 / 8^{\prime \prime}$. Insulated wire leads $6^{\prime \prime}$ long. Rated at 2 amperes on $110-220$ volts AC or DC. Shpg. wt. ilb.
SN12491-List \$2.25.
1.32

## ICA "FILTERVOLTS"

All-Wave Model. Contains heavy duty R.F. chokes, large filter capacitors, "Pl" filter-unit. Eliminates noises caused by irons, toasters, vacuum cleaners, etc. Rated 5 amps at 32,110 and 220 volts AC or DC. For use with any all-w
4.41

Intermediate model. Eliminates extremely noisy radio reception due to power line disturbances caused by lights, electrical appliances, etc. Can be installed ai set or at source of
Shipping weight 2 lbs.
5N12507-List Price $\$ 4.50$
2.65

MEISSNER TV.FM WAVE TRAPS
Designed expressly for use in the reduction of unwanted signals of certain types encountered in frequency modulation and televitered in irequency modulation and televi-
sion reception. Can be used with receivers sion reception. Can be used with recelvers input impedances of $400,300,72$ or 50 ohms. Easily installed across antenna terminals. 12N10255-Model 15-7510. 6-13MC 12N10257-Model 15-7511. 13.27 MC 12N10258-Model 15-7512. 27-54 MC 12N10259-Model 15-7513. 54-108 MC 12N10260-Model 15-7514. 108-216 MC Any Model, List \$5.00. Each


## MEISSNER BROADCAST BAND WAVE TRAP

These popular Meissner wave traps are compact units designed for the elimination of interference caused by strong broadcast stations. All are fully shielded and moisture protected. Limited coverage permits easy adjustment. Full instructions are furnished for use as elther reject or by-pass arrangements. Shlelds are $18 / 8 \times 17 / 8$ " high. Brackets for mounting the unit to the chassis or cabinet are attached to the shield.
12N10261-Model 15-8479. 400-700 KC 12N10262-Model 15-8480. 650-1000 KC 12N10263-Model 15-8481. 950-1600 KC Any Model. List \$1.50. Each.


88

## MEISSNER LINE FILTER

Type 15-7515. A combination in-ductor-capacitor type which filters both sides of the line. Greatly reduces interference carried into the recelver by the power line. Espe.
cially true in small radios with builtin antennas where one side of the line is connected to the chassis; thus introducing interference directly into the anterina circuit. Rating: 110 volts AC or DC at 3 amps. 5 B 12502 List $\$ 6.50 \ldots .3$


## NOISE SUPPRESSOR

Eliminates noise from $115 \mathrm{~V} .50 / 60$ cycle fluorescent. Leads shunted across power line. 4//4"xl3/4"x 11/2" 5 N 12520 -Wt. $1 \mathrm{lb} . . . . .754$

(A) Type X-6 for medium interlerence. Plug into socket ahead of affected installation. Brown plastic case. Size: $11 / 6^{\prime \prime} \times 2 \frac{1}{6 "} \times 1$ ". amperes at 110 volts AC or DC Wt. 802.
Wt. 822 2. List $\$ 1.60 \ldots$. . 94
$5 N 12509$ 4
Each, in lots of 6
. 84 ¢
(B) Type X-5. Triple capacityfiller with provision for return lead to appliance. For Vacuum Cleaners, food mixers, etc. $13 / 8^{\prime \prime} \times 21 / 8^{\prime \prime}$. 5 amperes at $110-220$ volts $A C$ or DC. Wt. 8 oz. $\$ 2 . \cdots$.
(B) X-3 Plug-in. Capactlive type for use between set and outlet. Rated 5 amps at $110-220$ volts, for slight interference. $1 \mathrm{z} / \mathrm{x} \mathrm{x}$


## W-7 MOTOR TYPE

(C) Dual capacity unit. Use on motor brushes or rings. Brackel for mig. to frame. For moderate interierence $110-220$ volts. 7/t 13s:

79

## W-11. Llke above, for severe in

W-11. Llke above, for severe in-
terierence. $13 \mathrm{zz} 3^{\circ}$,
$5 N 12513-\mathrm{List} \$ 2.10 \ldots 1.23$


Type Z-4. Dual inductance-capacity for severe inferference where return lead is inconvenient. For vibrators. $11 / \mathrm{s}^{\prime \prime} \times 3^{\prime \prime}$. 3 am peres $110-220$ volts. Wt. 8 oz .
3N 12524 -List $\$ 2.50 \ldots$. . 47

Z-2. Capacitive-inductive. ${ }^{3}$
amps. at $110-220 \mathrm{~V} .12 / 8 x 2 \% / 4{ }^{\circ}$ 5N12511—List \$2.20... 1.29

## HEAVY DUTY FILTERS



LC-8. Induct ance capacity filter lor severe interference. Reted 110.220 ., 5 amps. Has cord, plug and receplacle. 21/8 $\times 3 \times 31 / 2^{\prime \prime}$ high. Case has mig. flanges. Wt. 8 lbs.
SN12514-List $\$ 11.25 \ldots .61$

LC-10. Same as above, rated $110-220$ V., 10 amps.
$5 N 12515-\mathrm{Lta} \$ 15.00 .8 .82$

# MERIT QUALITY TRANSFORMERS 

B

## VIBRATOR TRANSFORMERS

Exact duplicate vibrator transformers. P3068 replaces Chevrolet 986241 , Philco CR4, CR6, CR8. P4076 for Cadillac 7256609, Chevrolet 985793, Oldsmobile 982399, Pontiac 984171. P4077 for Buick 980690, 980733, 980744, 980745, 980797, 980798.

| Stock No. | Type No. | Sec. DC to Filter |  | Dimen. <br> H $\times W \times D$ | Mtg. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volis | M.A. |  |  |  |
| 6N1915 | P3068 | 260 | 00 | $23 / 16 \times 25 / 8 \times 17 / 8^{\prime \prime}$ | C | 2.65 |
| 6N 1916 | P4076 | 265 | 55 | $31 / 4 \times 25 / 8 \times 25 / 8{ }^{\prime \prime}$ | IG | 3.29 |
| 6N1917 | P4077 | 280 | 65 | $315 / 16 \times 21 / 4 \times 23 / 8{ }^{\prime \prime}$ | IT | 3.53 |

## FIXED OUTPUT TRANSFORMERS

Fig. A. All class A operation except type A2936 which is class $\mathrm{B}_{1} \mathrm{AB}_{1}$. Secondary impedance 3.5 ohms.

| Stock No. | Type | $\begin{gathered} \text { Pri. } \\ \text { Impedance } \end{gathered}$ | $\begin{aligned} & \text { Psi. } \\ & \text { M.A. } \end{aligned}$ | Max. <br> Watts | Mig. Centers | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 N1918 | A3025 | 2,500 | 50 | 3 | $13 / 4$ | 73 c |
| 6N1919 | A 3026 | 5.000 | 40 | 3 | 13/4" | 73 c |
| 6N1934 | A2935 | $5,000 \mathrm{ct}$. | 150 | 18 | $213 / 16^{\prime \prime}$ | 1.76 |
| 6N1935 | A2927 | 8,000 | 20 | 3 | $11 / 2^{\prime \prime}$ | 73 c |
| 6N1936 | A2936 | $10,000 \mathrm{ct}$. | 75 | 10 | 23/8" | 1.41 |

## UNIVERSAL OUTPUT

Fig. F. Matches single or push-pull tubes to volce coil. Primary imp: 4000-7000-8000-10000-14000 ohms ct. Sec. imp. . 17 to 32.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Pri. } \\ \text { M.A. } \\ \hline \end{gathered}$ | Max. | Mtg. | Dimensions $H \pm W \pm D$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1937 | A2900 | 35 | 4 |  | $13 / 8 \times 23 / 8 \times 11 / 4^{\prime \prime}$ | 1.41 |
| 6N1938 | A2901 | 40 | 8 | $23 / 8{ }^{\prime \prime}$ | 15/8x2 13/16x11/2" | 1.50 |
| 6N1939 | A2904 | 40 | 18 | 23/8" | $21 / 4 \times 27 / 8 \times 17 / 8^{10}$ | 1.91 |

## MERIT UNIVERSAL LINE TRANSFORMERS

Fig. F. To couple various line impedances to a voice coil. Primary imp: 500-1000-1500-2000 ohms.

| Stock No. | Type | Sec. | Watts | Mtg. Centers | $\operatorname{Dim}_{\mathrm{W}} \times \mathrm{D}$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N 1931 | A2906 | 3.2, 6-8 | 10 | 23/8" | 15/8x2 13/16x11/2" | 1.32 |
| 6N1932 | A2907 | $3.2,6-8$ | 18 | 23/8' | 21/4x27/8×17/8" | 2.20 |
| 6N1933 | A2908 | 6-8, 16 | 24 | $31 / 8{ }^{\prime \prime}$ | $21 / 4 \times 311 / 16 \times 21$ | 2.35 |



POWER TRANSFORMERS
Fig. C. Receiver replacement type. For use in radio and amplitiers. Primary for 115 V. 60-cycle A.C. Leads R.M.A. color coded.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Plate |  | $\frac{\text { Rect }}{V}$ | Fil. 1 |  | Mig. Ctrs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V | MA |  | V | A |  |  |
| 6N1940 | P2958 | $\overline{480 \mathrm{ct}}$ | 50 |  | 6.3 ct | 2.6 | $2 \times 21 / 3^{\prime \prime}$ | 2.94 |
|  | P2957 | 700 | 50 |  | 6.3 ct | 2.6 | $21 / 4 \times 213 / 16^{\prime \prime}$ | 3.53 |
| 6N1942 | P2966 | 700 ct | 70 | 53 | $\left\{\begin{array}{l}2.5 \mathrm{ct} \\ 2.5 \\ \mathrm{ct}\end{array}\right.$ | $\begin{aligned} & 9.0 \\ & 3.5 \end{aligned}$ | 21/4x2 13/16 ${ }^{\prime \prime}$ | 4.26 |
| 6N 1925 | P2 |  | 40 |  | 6.3 ct 6.3 | 2.0 | $2 \times 2$ | 3 |
| 6N1926 | P2951 | 650 | 70 | 53 | 6.3 ct | 3.5 | $2 \times 21 / 2^{\prime \prime}$ | 3.67 |
| 6N 1927 | P2952 | 700 ct | 90 | 53 | 6.3 ct | 3.5 | $21 / 4 \times 2$ | 3.97 |
| 6N1943 | P2953 | 700 ct | 120 | 5 | 6.3 ct | 4.7 | $21 / 2 \times 31 / 8$ | 4.50 |
| 6N1 |  | 750 ct | 150 | 5 | 6.3 ct | 5 | $21 / 2 \times 31 / 8^{\prime \prime}$ | 5.73 |

## PLATE TRANSFORMERS

DC voliage ratings are approximate values at output of a ${ }^{2}$ section choke input filter using M.V. rectifier tubes. Primary 115 volt, 60 -cycle AC. (t) Both secondaries available simultaneously. (") Has 40 -volt blas tap.

| Stock No. | Type No. | Sec. <br> Rms <br> Volts | $\begin{array}{r} \text { Sec. } \\ \text { DCl } \\ \text { Volts } \end{array}$ | $\begin{aligned} & \text { DC } \\ & \text { Sec. } \\ & \mathrm{M.A.} \end{aligned}$ | $H \times{ }^{\text {Dim }} \times D$ | Mig. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1995 | $\overline{\text { P3157 }}$ | 660 ct ${ }^{\text {c }}$ | $500$ | 250 | " | D | 6.76 |
| 6N 1996 | P3158 | $\left\{\begin{array}{r}1080 \mathrm{ct} \\ 500 \mathrm{ct}\end{array}\right.$ | $1000 t$ | 125 | 45/8x3 13/16x $5^{\prime \prime}$ | D | 8.23 |
| 6N1997 | P315 | $\left\{\begin{array}{l}900 \mathrm{c} \\ 800 \mathrm{ct}\end{array}\right.$ | 750 600 | 225 | ' | D | 7.94 |
| 6N1998 | P3167 | $\left\{\begin{array}{l}1450 \mathrm{ct} \\ 1175 \mathrm{ct}\end{array}\right\}$ | $\begin{aligned} & 1200 \\ & 1000 \end{aligned}$ | 300 | $53 / 4 \times 61 / 8 \times 4^{\prime \prime}$ | EH | 19.84 |

## ISOLATION TRANSFORMERS

To provide isolation between line and associated circuits. Primary for $117 \mathrm{~V}, 50 / 60$-cycle AC. Static shielding between primary and secondary. 117 V . secondary.

| Stock No. | Type | Watts | Dimensions | Mig. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. |  | H $\times$ W $\times$ D |  |  |
| $\begin{aligned} & 6 N 1986 \\ & 6 N 1987 \end{aligned}$ | $\begin{aligned} & \hline \text { P3096 } \\ & \text { P3197 } \\ & \hline \end{aligned}$ | $\begin{aligned} & 40 \\ & 80 \end{aligned}$ | $\begin{aligned} & 31 / 8 \times 25 / 6 \times 25 / 8^{\prime \prime} \\ & 37 / 8 \times 33 / 16 \times 31 / 2^{\prime \prime} \end{aligned}$ | $\begin{aligned} & B \\ & D \end{aligned}$ | $\begin{aligned} & 3.38 \\ & 5.00 \end{aligned}$ |

## RELIANCE REPLACEMENT TRANSFORMERS



## 1. FILAMENT TRANSFORMERS

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Primary Volts | Secondary Volts | Secondary Amperes | Dimen. $H \times W \times D$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N 1950 | 15, 60 cy . | 6.3 ct . | 1 |  | 85 c |
| 6N 1951 | 15, 60 cy . | 6.3 ct . | 3 | $\mid$ | 1.20 |
| 6N1952 | 15, 60 cY . | 6.3 ct . | 6 | $29 / 16 \times 4 \times 21 / 4^{\prime \prime}$ | 1.59 |
| 6N 1945 | 15,60 cy. | ct. | 6 | 21/4x $311 / 16 \times 17 / 8^{\prime \prime}$ | 1.65 |

## 3. UNIVERSAL LJNE TRANSFORMERS

Match voice coll to any tube, single or push-pull, universal line iransformers match voice coll to $500,1000,1500$, or 2000 -ohm line. Shipping weight 2 lbs

| Stock No. | Watts | Sec. | Mtg. Cent. | Dim. $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1949 6N19190 6N19191 | $\begin{aligned} & 10 \\ & 18 \\ & 24 \end{aligned}$ | $\begin{aligned} & 3.2,6-8 \\ & 3.2,6-8 \\ & 6-8,16 \end{aligned}$ | $\begin{aligned} & 23 / 8 \\ & 23 / 8 \\ & 31 / 8 \end{aligned}$ | $\begin{aligned} & \text { 15/82 } 13 / 16 \times 1 / 2^{\prime \prime} \\ & 21 / 4 \times 27 / 817 / 0^{\prime \prime} \\ & 21 / 4 \times 311 / 16 \times 21 / /^{\prime \prime} \end{aligned}$ | $\begin{aligned} & .98 \\ & 1.45 \\ & 1.59 \end{aligned}$ |

## 4. STEP-DOWN AUTOTRANSFORMERS

Permits use of standard voliage motors, accessories and appliances with line voltages from 220 to $250 \mathrm{~V} .50-60$ cycles. Sec. voltage 110-125. Built-in receptacle, cord with plug.

| Stock No. | Watts | Size |  | Wt. |
| :---: | :---: | :---: | :---: | :---: |
|  | 6N1981 | 80 | $35 / 8 \times 3 \times 27 / 8$ | 5 |
| 6N1982 | 150 | $37 / 8 \times 35 / 8 \times 31 / 8$ | 7 | Each |
| 6N1983 | 250 | $43 / 4 \times 31 / 4 \times 33$ | 3.35 |  |
| 6N1984 | 500 | $43 / 4 \times 4 \times 3 / 8$ | 9 | 3.98 |
| 6N1985 | 1,000 | $71 / 4 \times 65 / 8 \times 55 / 8$ | 12 | 5.10 |


| Stock No. | H.V. Secondary |  | Fil. |  | Fil. |  | Mtg. <br> Centers | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Volts | DC Ma. | V. | Amps. | V. | Amps. |  |  |
| 6N1958 | 480 ct . | 40 | 5 | 2 | 6.3 | 2 | $2 \mathrm{x} 21 / 2^{\prime \prime}$ | 2.10 |
| 6N1959 | 650 ct . | 40 | 5 | 2 | 6.3 | 2 | $2 \times 21 / 2$ | 2.19 |
| 6 N 1960 | 700 ct . | 70 | 5 | 3 | 6.3 | 2.5 | $2 x^{2} 1 /{ }^{\prime}$ | 2.65 |
| 6N1961 | 700 ct . | 90 | 5 | 3 | 6.3 | 3.5 | 21/4x213/16 | 2.90 |
| 6N 1962 | 700 ct . | 120 | 5 | 3 | 6.3 | 4.7 | $21 / 2 \times 31 / 8^{\prime \prime}$ | 3.35 |
| 6N 1963 | $750 \mathrm{ct}$. | 150 | 5 | 3 | 6.3 | 4 | $21 / 2, x 31 / 8$ | 3.90 |

## 1. UNIVERSAL OUTPUT TRANSFORMERS

| Stock No. | $\begin{aligned} & \text { Class } \\ & \text { Oper. } \end{aligned}$ | Primary lmpedance | Sec. Imp. | Max. Watts | MIg. Ctrs. | Dimen. H. W. D. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1954 | Sin. | 4000/7000 | .171 | 4 | $2^{\prime \prime}$ |  | 5 |
| 6N 1955 | or | 8000/10000 | to | - | 23/8", | $15 / 8 \times 213 / 16$ | 97 |
| 6N 1956 | P.P. | 14000 Ct . | $32)$ | 18 | $23 / 8^{\prime \prime}$ | $21 / 4 \times 27 / 8 \times 1$ | . 19 |
| 6N1946 | Si | $\begin{aligned} & 3000 / 5000 \\ & 7000 / 8000 /- \end{aligned}$ |  | 24 | $31 / 8^{\prime \prime}$ | 21/4×3 11/16x21/8" | 1.59 |

1. FIXED OUTPUT TRANSFORMERS

Mtg. Ctrs.: "2", $111 / 2^{\prime \prime}$, $\ddagger 213 / 16^{\prime \prime}$.

| Stock No. | Pri. Imp. | Sec. | Pri. M.A. | Watts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1964* | 2000 | 3.2 | 60 | 5 | 49 |
| 6N1947\% | $5000 \mathrm{ct} \text {. }$ | 3.2 | 150 | 18 | 1.08 |
| 6N1965* | 5000 | 3.2 | 40 | 5 | . 49 |
| 6N1966* | 7000 | 3.2 | 30 | 5 | . 48 |
| 6N1948 $\dagger$ | 8000 | 3.2 | 20 | 3 | . 47 |
| 6N1967* | 10000 | 3.2 | 30 | 5 | . 49 |

1. FILTER CHOKES- 1500 V. INSULATION

| Stock No. | Inducance Henries | Current | DC <br> Res. <br> Ohms | Mig. Ctrs. | Dimen. $H \times W \times D$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 6 \mathrm{~N} 1971 \\ & 6 \mathrm{~N} 1973 \end{aligned}$ 6N1974 | $\begin{aligned} & 8.5 \\ & 15 \\ & 10.5 \end{aligned}$ | $\begin{array}{r} 50 \\ 75 \\ 110 \end{array}$ | $\begin{aligned} & 400 \\ & 400 \\ & 220 \end{aligned}$ | $\begin{aligned} & 23 / /^{\prime \prime} \\ & 318^{\prime \prime} \\ & 39 / 16^{\prime \prime} \end{aligned}$ | $15 / 8 \times 213 / 16 \times 11 / 2^{\prime \prime}$ $21 / 4311 / 16 \times 21 / 8^{\prime \prime}$ $29 / 16 \times 4 \times 21 / 4^{\prime \prime}$ | $\begin{aligned} & .65 \\ & 1.13 \\ & 1.35 \end{aligned}$ |

# UTC TRANSMITTING TRANSFORMERS 



G5
TO
G8

## CASE DIMENSIONS

| Type | Height | Width | Depth | Type | Height | Width | Depth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{G} 2 \\ & \mathrm{G} 3 \\ & \mathrm{G} 4 \end{aligned}$ | $\begin{aligned} & 23 / 10^{\prime \prime \prime} \\ & 210^{\prime \prime} \\ & 2^{15}, 10^{\prime \prime \prime} \end{aligned}$ | $\begin{aligned} & 33 / 6^{\prime \prime} \\ & 334^{\prime \prime} \\ & 41 / 8^{\prime \prime} \end{aligned}$ |  | $\begin{aligned} & \text { G5 } \\ & \text { G7 } \\ & \text { G8 } \end{aligned}$ | $\begin{aligned} & 384^{\prime \prime} \\ & 438^{\prime \prime} \\ & 458^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 318^{\prime \prime} \\ & 458^{\prime \prime} \\ & 51 / 8^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 41 / 2^{\prime \prime} \\ & 512^{\prime \prime} \\ & 58^{\prime \prime} \end{aligned}$ |

SINGLE SECONDARY FILAMENT TRANSFORMERS
Primaries tapped 105,115 volls, $50 / 60$ cycles AC.

| No. | Type | Sec. Volts Amps. | Insul. | Case | Lbs | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N5853 | S-53 | 2.5 c.t. 10 | 1500 v . | G-3 | 4 |  |
| 6N5854 6N5855 | S-54 S-55 | $\begin{array}{ll}5.5 \text { c.l. } & 4 \\ 6.3 \text { c.t. } & 3\end{array}$ | 2500 v. 1500 v . | G.3 | 4 | 3.14 3.14 |
| 6N5857 | S-57 | 2.5 c.t. 10 | 10000 v .1 | G-5 | 6312 | 4.41 |
| 6N5858 | S. 58 | 2.5 c.t. 20 | 10000 v . | G-5 |  | 5.39 |
| 6N5859 | S-59 | 5 to 5.25 c.t. 13 | 5000 v . | G. 5 | 61/2 | 4.41 |
| 6 N 5861 | S. 61 |  | 3000 v . | G-5 |  | 4.41 5.39 |
| 6N5862 | $\text { S. } 62$ |  | 5000 v . | G-5 | 61/2 | 3.39 |
| 6N3863 |  | 14 v. c.t. tapped at 12 v. c.t., 11 v. c.t. 10 | 5000 v . | G-7 | 11 | 9.80 |

FILTER, SWINGING AND AUDIO CHOKES

| Nos. | Type | Service | Hy. | Ma. | Ohms | Case | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N5823 | \$S. 23 | Audio | 500 | 5 | 6000 | G-2 | 3.33 |
|  | $\begin{aligned} & \text { *S.27 } \\ & \text { \#S.28 } \\ & \text { *S.29 } \\ & \text { *S. } 30 \end{aligned}$ | Filter Filter Filter Swlng. | $\begin{array}{r} 30 \\ 20 \\ 10 \\ 5 / 25 \end{array}$ | $\begin{array}{r} 75 \\ 100 \\ 175 \\ 175 \end{array}$ | $\begin{array}{r} 350 \\ 350 \\ 95 \\ 95 \end{array}$ | $\begin{aligned} & \mathrm{G} \cdot 4 \\ & \mathrm{G} \cdot 4 \\ & \mathrm{G} \cdot 4 \\ & \mathrm{G}-4 \end{aligned}$ | $\begin{aligned} & 3.72 \\ & 3.72 \\ & 3.72 \\ & 3.72 \end{aligned}$ |
| 6N5831 <br> 6N5832 <br> 6N5833 <br> 6N5836 | $\begin{aligned} & \text { *S.31 } \\ & \text { *S.32 } \\ & \text { +S. } 33 \\ & \text { S. } 34 \\ & \text { S. } 36 \end{aligned}$ | Filter <br> Swing. <br> Filter <br> Swing. <br> Swing. | $\begin{array}{r} 20 \\ 5 / 25 \\ 20 \\ 5 / 25 \\ 5 / 25 \end{array}$ | $\begin{aligned} & 225 \\ & 225 \\ & 200 \\ & 300 \\ & 400 \end{aligned}$ | $\begin{array}{r} 120 \\ 120 \\ 90 \\ 90 \\ 85 \end{array}$ | $\begin{aligned} & \text { G-5 } \\ & \text { G-5 } \\ & \text { G-7 } \\ & \text { G-7 } \\ & \text { G-8 } \end{aligned}$ | $\begin{array}{r} 4.90 \\ 4.90 \\ 6.86 \\ 6.86 \\ 10.29 \end{array}$ |
| 6N5837 | \$5-37 | Filter | 20 | 550 | 60 | G. 8 | 13.72 |

## UNIVERSAL DRIVER TRANSFORMER

| No. | Type | Application | Case | Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N5809 | S. 9 | P.P. Driver plates to grids of Class B fubes up to 400 watts output. | G-4 | 4 | 5.10 |
| 6N5810 | S. 10 | P.P. 56, 6C6 Trlode, 6C5, or similar plates to $45^{\prime} \mathrm{s}, 2 \mathrm{~A} 3^{\prime}$ s or 6L6's, self or fixed bias | $\mathrm{G} \cdot 3$ | 5 | 4.61 |

## ULTRA COMPACT AUDIO UNITS

Hi-fidelity, small, lightweight, suitable for compact equipment. Frequency response $\pm 2 \mathrm{db}$. from 30 to $20,000 \mathrm{cp}$. Maximum operaling level +10 db . Top or bottom mtq . Size: $11 / 2^{\prime \prime} \times 11 / 2^{\prime \prime} \times 2^{\prime \prime}$. W1. 1 lb

| No. | Type | Pri. Imp. Ohnis | See. Imp. Ohith | Euch |
| :---: | :---: | :---: | :---: | :---: |
| 6N5394 | A 10 | $\begin{aligned} & 50,125,200 / 250,333,500 / \\ & 600 \text { ohms } \end{aligned}$ | 50,000 ohin | 8.82 |
| 6,N5726 | A 11 | 50. 200, 500 | 50 | 8.82 |
| 6N5370 | A 12 | $\begin{aligned} & 50,125,200 / 250,333,500 / \\ & 600 \text { olims } \end{aligned}$ | 80,000 ohms overall, in 2 sections | 8.82 |
| 6N5371 | A 14 | 30 ohms. | 50,000 ohms overal! in 2 | 8.23 |
| 6 N 537 | A 16 |  | 60,000 ohms 2:1 turn ratio | 7.84 |
| 6N5373 | A18 | 15 | 80,000 ohms overall, 2.3:1 turn ratio overali | 8.28 |
| 6N5374 | A 19 | 15 | 80,000 ohms overall, 2.3:1 turn ratio overall | 10. |
| 6N5375 | A 20 | $\begin{aligned} & 50,125,200 / 250,333,500 / \\ & 600 \text { ohms } \end{aligned}$ | $50,125,200 / 250,333,500$ 600 ohms | 8.8 |
| 6N5376 | $\text { A } 21$ | $50,200 / 250,500 / 600 .$ | 50, 200/250, 500/600 | 9.41 |
| 6N5397 | $\text { A } 24$ | 15,000 ohms. | $\begin{aligned} & 50,125,200 / 250,333,500 / \\ & 600 \text { ohms } \end{aligned}$ | 8.82 |
| 6N5377 | A 26 | 15,000 ohus | $50,125,200 / 250,333,500 /$ $600 \text { ohms }$ | 8.23 |
| 6N5378 | A 26 | 30,000 olums plate to plate | $\begin{aligned} & 50,125,200 / 250,333,500 / \\ & 600 \text { ohms } \end{aligned}$ | 8.82 |

## UNIVERSAL INTERSTAGE EQUALIZER

Type CGE-1. The ideal device for all applica. tions requiring frequency response correction. Designed to be connected between two triode audio stages or match a high impedance ( 5000 - 30,000 ohms) source to grid. Employs reso nant circuits to permit low or high end equaliza ion without effecting mid-irequencies. Bass may be raised and highs may be dropped simul taneously, Continu
 Size: $23 /$ " " $\left.^{4} 4^{\prime \prime} \times 21 /\right)^{\prime \prime}$
6N5399
14.70

## DYNAMIC NOISE SUPPRESSION INDUCTOR

Type CG-50. Incorporates two accurate High $Q$ coils (. 8 and 2.4 hy.) for use in dynamic nolse suppression circuits. Effectively suppresses surlace and needle noise in high fidelity phonograph equ ment. Excellent circuit included. Case lype RC (see listing below) $2^{3 / 16^{\prime \prime}} \times 27 / 8^{\prime \prime} \mathrm{H}$. 6N5396.
9.41

VARIMATCH MODULATION TRANSFORMERS Universal modulation transformer. For matching all popular types of modulator Class C amplifier moduated Secondaries are desiagned secondaries are designed to carry the plate current 0 through 4 use RC case.


| Stock No. | Type | Max. <br> Audio <br> Watts | Wat1s <br> Class C <br> Stage | Dimensions |  |  | Shpq. Wt. Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L. | W. | H. |  |  |
| 6N5359 | CVM-0 | 12 | 10-25 | 21/2" |  |  | 3 | 5.00 |
| 6N5360 | CVM-1 | 30 | 20.60 | $31 /$ |  | 412** | 6 | 8.23 |
| 6N5361 | CVM-2 | 60 | 40.125 | $35 / 8$ |  | 414* | 12 | 12.05 |
| 6N5362 | CVM-3 | 125 | 100-250 |  |  |  | 20 | 17.64 |
| 6N5363 | CVM. 4 | 300 | 200-600 | 7\%" |  | $519^{*}$ | 31 | 29.40 |
| 6N5364 | CVM-5 | 600 | 450-1200 |  | * |  | 89 | 67.62 |

## UTC STANDARD VARITRAN VOLTAGE CONTROLS

Employs a sliding contact riding over the transformer turns. Provides continu ously-variable output voltages from 0 to 130 volts without interruption of the circuit. All completely shielded. Type V. 1 (illistrated) includes cord, plug, and switch. Other units have screw terminals on insulated strip. For 115 volts.


| No. | Type | Watts | Amps. | Size | Wt. | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 N5733 | V-0 | 230 | 2 | * $6 \times 484^{\prime \prime}$ | 10 lbs . | 11.27 |
| 21N5771 | V-1 | 570 | 5 | $5 \times 81 / 2 \times 31 / 2^{\prime \prime}$ | 14 lbs . | 17.15 |
| 21N5716 | *V1-M | 570 | 5 | $5 \times 10 \% / 2 \times 312^{\prime \prime}$ | 14 lbs . | 28.42 |
| 21 N5772 | V-2 | 570 | 5 |  | 13 lbs . | 14.70 |
| 21N5773 | V-3 | 850 | 7.5 | $5 \times 7 \times 51 / 3$ | 19 lbs. | 21.56 |
| 21 N5774 | V-4 | 1250 | 11 | 63/0x 93/4 6 | 37 lbs . | 31.36 |

*Same as V-1, but includes 0.150 volt A.C. meler.

## OUNCER AUDIO UNITS

Compact quality transformers that weigh only one ouncel ldeal for portable broadcast, hearing aid, aircraft and similar applications. High tidelity characteristics, uniform from $40-15,000 \mathrm{cps}$., except for $0-14$, $0-15$ and units carrying DC which are for walce fre. quencies from $150-4000 \mathrm{cps}$. Maximum level 0 db . Fully impregnated and sealed in drawn aluminum housing $7 /^{\prime \prime}$ diameter, $11 / 8^{\circ}$ high.

| Stock No. | Type | Pri. Impedance | Sec. Impedance | Each |
| :---: | :---: | :---: | :---: | :---: |
| 6N5479 | 0.1 | 50, 200/250, 500/600 | 50,000 | 7.79 |
| 6N5480 | 0.2 | 50, 200/250, 500/600 | 50,000 P.P | 7.79 |
| 6N5481 | 0.3 | 7.5/30 | 50,000 | 7.06 |
| 6N5482 | 0.4 | 15,000 | 60,000 | 6.17 |
| 6N5483 | 0.5 | 15,000 DC in Pri. | 60,000 | 6.17 |
| 6N5484 | 0.6 | 15,000. | 95,000 P | 7.06 |
| 6N5485 | O-7 | 15,000 DC in Pri. |  |  |
| 6N5486 | 0-8 | 15,000. | $50,200 / 250,500 / 600$ | 7.79 |
| 6N5487 | 0.9 | 15,000 DC in Pri | 50, 200/250, 500/600 | 7.79 |
| 6N5488 | 0.10 | $30,000 \mathrm{P}$. 10 | 50, 200/250, 500/600 | 7.79 |
| 6N5489 | 0.12 | 50, 200/250 | 50, 200/250, 500/600 | 7.06 |
| 6N5491 | 0.14 | 200 | 1/2 megohm | 7.79 |
| 6N5492 | 0.15 | 15,000 | 1 megohm. | 7:79 |

[^4]
# UTC LABORATORY TRANSFORMERS 

## UTC LINEAR STANDARD TRANSFORMERS

High permeability cores and precisely balanced interleaved windings quarantee unitorm frequency response, minimum hum pickup and negligible wave form distortion. Vacuum-baked, impregnated colls. Minimum distributed capacity and leakage reaclance.

## INTERSTAGE AUDIO TRANSFORMERS

Response $\pm 1 \mathrm{db}, 20-20,000 \mathrm{cps}$. Hum-pickup re duction compared to uncased type, -74 db , except
 $4 k^{\circ}$. Shpg. wt. 4 lb ., except LS-22, 9 lbs.
Primary Impedance, 15,000 ohms. For Single Plate.


| No. | Type | Use | Secondary | Max. Lev. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N5417 <br> 6N54 18 <br> 6N5413 | $\begin{aligned} & \text { LS. } 19 \\ & \text { LS-20 } \\ & \text { LS-21 } \end{aligned}$ | To PP qrids <br> To grid <br> To PP grids | 95,000 ohms; 1/4:1 <br> 60,000 ohme; $2: 1$ <br> 135,000 ohms; 3:1 | $\begin{aligned} & +17 \mathrm{DB} \\ & +14 \mathrm{DB} \\ & +14 \mathrm{DR} \end{aligned}$ | $\begin{aligned} & 14.11 \\ & 12.35 \\ & 14.11 \end{aligned}$ |

Primary Impedance, 30,000 ohms. P. to P. Ior Push-Pull Plates.


OUTPUT TRANSFORMERS-TO LINE AND VOICE COII The multiple laps of these units provide a wide range of impedances tor every application. Have large cores and precisely balanced, interleaved conl structures. Unequalled response ( $\pm .2 \mathrm{db}, 25-20,000 \mathrm{cps}$ ) with minimum harmonic distortion. In LS. 2 case. $4^{7} 1^{\prime \prime}$ long, $31 / 2^{\prime \prime}$ wide,


| No. | Type | Pri. P. to P. | Secondary | Watts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N5421 | L.S-52 | 8,000 ohms | 500 to 1.2 | 15 | 16.46 |
| 6N5422 | LS-54 | 8.000 ohme | 30 to 1.2 | 15 | 11.76 |
| 6N5412 | LS.55 | 5.000 \& 3,000 | 500 to 1.2 | 20 | 16.46 |
| 6N5423 | LS-57 | 5,000 \& 3,000 | 30 to 1.2 | 20 | 11.76 |
| 6N5424 | LS. 58* | 2,500 \& 1,500 | 500 to 1.2 | 40 |  |
| 6N5425 | LS-60A* $\dagger$ |  |  |  |  |
| 6N5426 | LS-61 | 10,000 \& 6,000 | $500 \text { to } 1.2$ | $15$ | 16.46 |
| 6N5427 | LS.62A* $\dagger$ | 4,600 | 500, 125 | 30 | 20.58 |
| 6N5428 | LS-6L.1* | 9,000 ohms | 500101.2 | 30 | 24.70 |
| 6N5398 | LS.61.3* | 9,000 ohms | 30 to 1.2 | 30 | 16.46 |
| 6N5429 | LS-6L4 | $3,800 \& 4,500$ | 500 to 1.2 | 55 | 29.40 |

## HIGH LEVEL MATCHING TRANSFORMER

Type L.S.33. High level line matching. Pri. imped: 50, 125, 200, 250, $333,500 / 600$ ohms; sec. imped: $1.2,2.5,5,7.5,10,15,20,30,50,125$, $200,250,333,500 / 600$ ohms. $\pm .2 \mathrm{db}$ from 201020,000
tevel 15 watts. Size: $4^{7 / 16} \times 31 / 2 \times 4^{3} \mathrm{sk}^{\prime \prime}$. Weight $71 / 2 \mathrm{lbs}$. tevel 15
16.46

## HYBRID AND REPEAT COILS

Type LS-140. Line io line for isolating bolanced and unbalanced cir cuits. Pri. and sec. imp. 500/600 ohms, split windings. $30-20,000 \mathrm{cps}$. Max. level +10 db . Weight 3 lbs .
20.58

Type LS-141. Three sets of balanced windings for hybrid service, center lapped. Pri. and sec. $500 / 600$ ohms. $\pm 1 \mathrm{db}$ from 30 weight 3 libs.
16.46

## 2-SECTION FILTER CHOKE

Type LS-90. Filler choke with hum-bucking lap. Inductance in series So hy at 50 MA DC; in parallel, 12.5 hy at 100 MA DC. DC resistance, 510 ohms in series and 128 ohms in parallel. Insulation test voltage 2000 volts. Housed in LS. 2 case: $47 \mathrm{I}_{6}^{\prime \prime}$ long, $31 / 2^{\prime \prime}$ high. Mounting
6N5411-Shipping weight 9 lbs .
8.23

## UTC VARIABLE INDUCTORS

Specially designed for use in tuned audio circuits. Adjustment of set screw on side of case permits a change in inductance of plus $90 \%$ to $-50 \%$ from mean value shown. Die cast case $111 \mathrm{a}^{\prime \prime}$ long, $1 / \mathrm{s}^{*}$ mean value shown. Die cast case $1 / k^{" l}$ long, $1 / /{ }^{\prime \prime}$ wide, board side $13 / \mathrm{sk}^{\prime \prime}$ by ${ }^{39} 4 \mathrm{in}^{7}$. Welght-5 $5 / 2 \mathrm{ozs}$.

| No. | Type | Mean Hys. | Each | No. | Type | Mean Нув. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N5444 6N5445 6NS446 6N5447 GN54496N5450 6N5450 | VI.Cl <br> VI.C2 <br> VI. $\mathrm{C}^{2}$ <br> VI.C4 <br> VI.C5 <br> VI.C6 | .0085.013.021.034.053.084 | 6.34 | 6N5458 6N5457 6N5458 | VI-C12 VI-C13 <br> VI-C1 4 | $\begin{array}{r} 1.3 \\ 2.2 \\ 3.4 \\ \hline \end{array}$ | 8.07 |
|  |  |  |  | 6N5459 6N5460 6N5461 | VI.C15 <br> VI-Cl6 <br> VI-C17 | $\begin{array}{r} 5.4 \\ 8.5 \end{array}$ |  |
| 6N5451 <br> 6N5452 <br> 6N5453 <br> 6N5455 | $\begin{aligned} & \text { VI-C7 } \\ & \text { VI-C8 } \\ & \text { VI.C9 } \\ & \text { VI.C10 } \\ & \text { VI-C11 } \end{aligned}$ | $\begin{array}{r} .13 \\ .21 \\ .34 \end{array}$ |  | 6N5462 <br> 6N5463 <br> 6N5464 | $\begin{aligned} & \text { V1.C18 } \\ & \text { VI.C19 } \\ & \text { VI-C20 } \end{aligned}$ | $\begin{aligned} & 21 . \\ & 33 . \\ & 52 . \end{aligned}$ |  |
|  |  | . 84 |  | 6N5465 | VI-C21 | 83. | . 8 |

## UTC HIPERM ALLOY TRANSFORMERS

Light in weight and small in dimensions, with fuli dependability and fidelity for all compact service applications. Frequency range $\pm$ do from 30 to $20,000 \mathrm{cps}$. All incorporate a Hiperm alioy nickel iron core and hum balanced coil structure. Rugged die cast case is of high conductivity alloy. finished in black, arranged for mounting with the termin tis ether up or down. All are $2 \%^{\circ} \mathrm{L}_{\mathrm{\prime}} 1^{15} / \mathrm{k}^{\prime \prime}$ W. $3^{\prime}$ 后" H. and weigh 2 lbs .


Low Impedance to Grid and Mixing Max. Level+15 DB.


## UTC TOROID PERMALLOY CHOKES

| New Permalloy dust toroid units are used in audio, carrier, and supersonic applications requiring high $O$ and great stability. HOA coils have maximum $Q$ of 200 at 5000 cycles. HQB coils have maximum $Q$ of 200 at 4000 cycles. All coils have extremely low hum pickup, can be spaced closely, are hermetically sealed, and adjusted 10 1\% tolerance. |  |  | HQA | HOB |
| :---: | :---: | :---: | :---: | :---: |
| No. | Type | Henrys | $\begin{aligned} & \text { DC Ma. } \\ & \text { Max. } \end{aligned}$ | Each |
| $\begin{aligned} & \text { 6N5434 } \\ & \text { 6N5435 } \\ & \text { 6N5436 } \\ & \text { 6N5437 } \\ & \text { 6NS438 } \end{aligned}$ | HQA- 2 <br> HQA. 4 <br> HOA. 6 <br> HQA. 8 <br> HQA. 10 | 12.5 Mh . 30 Mh . 80 Mh . 200 Mh . 500 Mh . | $\begin{array}{r} 400 \\ 160 \\ 70 \\ 65 \\ 40 \end{array}$ | $\begin{aligned} & 6.86 \\ & 8.35 \\ & 7.84 \\ & 8.82 \\ & 9.80 \end{aligned}$ |
| $\begin{aligned} & \text { 6N5439 } \\ & \text { 6N5440 } \\ & \text { 6N5441 } \\ & \text { 6N5442 } \\ & \text { 6N5443 } \end{aligned}$ | HOA-12 <br> HOA-13 <br> HQB. 5 <br> HOB-7 <br> HOB-10 | $\begin{aligned} & \text { 1.25 Hy } \\ & \text { 2. Hy. } \\ & \text { 2. } \mathrm{Mh} \\ & \text { 12. Hy. } \\ & \text { 12. } \end{aligned}$ | $\begin{aligned} & 26 \\ & 20 \\ & 60 \\ & 30 \\ & 11 \end{aligned}$ | $\begin{aligned} & 10.78 \\ & 10.78 \\ & 16.66 \\ & 18.62 \\ & 21.56 \end{aligned}$ |



## SOLA CONSTANT VOLTAGE TRANSFORMERS

Automatic requlation of voltage for all types of electically operated equipment. They deliver a constant output voltage independent of transient or continuous variations in supply voltage to within $\pm 1 \%$. Especially recommended for precision laboratory equipment such as photo-electric devices, x-ray equipment, Link trainers, profection equipment, etc. Input $95-125 \mathrm{~V}$., 60 cyoles, A.C. except those marked with $\left({ }^{( }\right)$which have additional input, 190.250 V . Solat those marked vailable for 2550 cycles Over 1000 types of Sola ranstormers are available. If those listed below do not fit your needs, write us for available.

| Stock No. | $\begin{aligned} & \text { Mfrs. } \\ & \text { Type } \end{aligned}$ | Output VA | Output V. | Dimensions Inches | Wt. Ibs. | Eacb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1410 | 301002 | 15 | 6.3 | $5 \frac{1}{16} \times 312^{\prime \prime} \times 23$ | 415 | 18.50 |
| 6 N 1411 | 301003 | 15 | 115.0 |  | $41 / 2$ | 18.50 |
| 6N1412 | 30188 | 15 | 6.0 | $5116^{\prime \prime} \times 25 / 8{ }^{\prime \prime} \times 3{ }^{4} 6^{\prime \prime}{ }^{\prime \prime}$ | 6 | 15.00 |
| 6 N 1413 | 30492 | 15 | 6.3 |  | 8 | 15.00 |
| 6 N 1414 | 30198 | 15 | 115.0 | $51310^{\circ \prime} \times 29 \%^{\prime \prime} \times 31 / 0^{\prime \prime}$ | 6 | 15.00 |
| 6 N1415 | 30804 | 30 | 115.0 |  | 12 | 17.00 |
| 6N1416 | 30805 | 60 | 115.0 | $810^{\prime \prime} \times 43^{\prime \prime} 10^{\prime \prime} \times 433^{\prime \prime}$ | 13 | 24.00 |
| 6 N1417 | 30806 | 120 | 115.0 |  | 17 | 32.00 |
| 6 N1418 | 30886 | 120 | 115.0 | $113 \% \times 1{ }^{\prime \prime} \times 130 \times 48^{\prime \prime}$ | 26 | 32.00 |
| 6N1419. | 30807 | 250 | 115.0 |  | 28 | 52.00 |
| 6 N 1420 | 30808 | 500 | 115.0 |  | 40 | 75.00 |
| 6 N1421 | 30809 | 1000 | 115.0 | 191/8" $\times 91 /{ }^{\prime \prime} \times 7{ }^{\prime \prime}{ }^{\prime \prime}$ | 110 | 125.00 |
| 6 N 1422 | 30811 | 2000 | 115.0 | $311^{\prime \prime} \times 911^{\prime \prime} \times 77^{\prime \prime}$ | 205 | 225.00 |
| -6N1 423 | 30M813 | 3000 | 115.0 | $44^{11 / 8^{\prime \prime} \times 10^{\prime \prime} \times 936}$ | 325 | 300.00 |
| -6N1424 | 30M815 | 3000 | 115.0 | $2435^{\prime \prime} \times 4233^{\prime \prime} \times 9 / 5^{\prime \prime}$ | 570 | 475.00 |

## THORDARSON REPLACEMENT TRANSFORMERS


AGE

## Thordarson Replacement Oufput Transformers

BAH type mounting, measure $2 \% / 8^{\prime \prime} x 1 \frac{1 / 4 " x}{}{ }^{\prime \prime} 3 / 8 "$ with $2^{\prime \prime} \mathrm{mtg}$. strs. Wt 34. lb. except type TS-24S61 which weighs 1 lb . and has mitg. ctrs. of $2 \% / \mathrm{s}^{*}$. Class A operation $3-4$ ohms secondary.

Service Output Transformers

| No. | Type | Pri. Imp. | Pri. Ma. | Watts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1880 | TS.24S48* | 4-5000 | 10 | 1 | $85 ¢$ |
| 6N1881 | TS-24S49* | 7-8000 | 10 | 5 | 85 |
| 6N2143 | TS-24S50 | 2000 | 55 | 5 | 824 |
| 6N2144 | TS. 24 S51 | 5000 | 40 | 5 | 915 |
| 6N2145 | TS.24S52 | 7000 | 30 | 5 5 | 94 c |
| 6N2146 | TS-24S54 | 15000 | 10 | 5 | 97e |


Universal Sorvice Replacements for Single and push-pull platea

| No. | Type | Pri. Imp. | Pri. Ma. | Sec. | Watts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N2147 | TS-24S60 | 4M, 7M, | 35 | . 1 to | 4 | 1.41 |
| 6N2148 | TS-24S61 | ${ }_{14 \mathrm{M}}^{1}$, С.T. | 40 | $\begin{gathered} 29 \\ \text { ohms } \end{gathered}$ | 8 | 1.53 |

## Universal Replacement Power Transformers

Adjustable mounting brackets. All leads RMA color-coded. 117 V $50-60$ cycle input.

| $\begin{aligned} & \text { AGF Mtg. } \\ & \text { Stock No. } \end{aligned}$ | GGV Mtg. Stock No. | Thord, | Plate Voltage | MA | $\begin{aligned} & \text { Rect. } \\ & \text { Fi. } \end{aligned}$ | $\begin{aligned} & \text { Fil } \\ & \text { No. } 2 \end{aligned}$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1882 | 6N1883 | TS-24R000 | 240-0-240 | 40 | $\overline{5 V-2 A}$ | 6.3V.C.T. 2 A | 2.88 |
| 6N1884 | 6 N 1885 | Ts-2:R01* | 325-0-328 | 40 | $5 \mathrm{~V}-2 \mathrm{~A}$ | 6.3V.C.T-2A | ${ }^{3.03}$ |
| ${ }_{6}$ N1886 | CN1887 | TS- $24 \mathrm{RO} 2^{\circ}$ | 350-0-350 | 70 | $5 \mathrm{~V}-2 \mathrm{~A}$ | 6.3V.C.T--2 5 A | ${ }^{3.67}$ |
| 6N1888 | 6, 1889 | T $\mathrm{T}-24 \mathrm{R} 00^{\circ}$ | 350-0 | 90 |  | 6.3V.C.T-3 3 A | 3.97 <br> 40 <br> 50 |
| 6N1890 | ${ }_{6}^{6}$ N1891 | T $\sim^{-24 R 05}$ | 3750-375 |  | $5 \mathrm{~V}-3 \mathrm{~A}$ | 6.3VC.T ${ }^{\text {a }}$ - $\mathrm{A}^{\text {A }}$ |  |
| 6N1992 | ${ }_{6}^{6 N 1893}$ |  | 375-0-375 | 150 | ${ }_{5}^{5 \mathrm{~V}} \mathrm{~V}_{5} \mathbf{3 A}$ | 6.3V.C.T.-5A | 7.06 |
| 6N1894 | 6N1895 |  | $400-0-100$ | 200 |  | 6.3V.C.T.-6A | 7.29 |
|  | 6 N 2098 | T-22R32 | 350-0-350 | 110 | $5 V-2 A$ | 6.3V.C.T-3. <br> $63 \mathrm{CT}-31$ | 26 |

* Thordarson Type No. shown is for AGF mitg. For GGV mtg., add "U".

AUDIO INTERSTAGE TRANSFORMERS

| o. | Type | Mtg. | Application | Ratio | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N2008 | T20A16 | BAH | Sgl. pl. to sgl. or PP | 1:2 | 1.70 |
| 6N2009 | T20A17 | FGV | Sgl. pl. to sql. or PP grids | 1:2 | 2.23 |
| 6N2010 | T20A19 | BAH | Sgl. or PP pl. to sgl. or PP grids | 1:3 | 09 |
| 201 |  |  | Sgl. pl. to sgl. or PP grids | 1:3 | 2.50 |
| N2012 | T20A23 | FG | Sgl. pl. to sgl. or PP grids | 1:3 | 2.70 |
| 6N2013 | T20A24 | FGV | PP plates to PP grids | 1:3 | 2.94 |
| 6N2014 | T20A25* | RTV | Sgl . or PP pl. to egl. or PP grids | 1:1.41 | 5.88 |

* Fully potted; hum-bucking coil and core.


## UNIYERSAL CHOKES

Newly designed Universal Chokes replace swinging or smsothing types. Vollage regulation not affected. Provides more inductance throughoul current range decreasing ripple voltage. *Tuned audio circuit reactor.

| Steck No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Inductance Hy . |  | Curreat MA |  | $\underset{\text { DCms }}{\text { DC }}$ | Mtg. Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rated | Max. | Rated | Max. |  |  |  |
| 6 N 2015 | T20C50 | 350 | 75 | 5 | 25 | 5500 | BAH | 2.03 |
| 6 N2016 | T20C51 | 35 | 15 | 15 | 25 | 1850 | BAF | 1.35 |
| 6N2017 | T20C52 | 8 | 4 | 40 | 65 | 450 | BAH | 1.29 |
| 6N2018 | T20C53 | 12 | 8 | 80 | 100 | 375 | BAH | 1.79 |
| 6N2019 | T20C54 | 8 | 4 | 150 | 200 | 145 | GGV | 2.88 |
| 6N2020 | T20C55 | 6 | 2 | 200 | 300 | 75 | GGV | 3.73 |
| 6N2021 | T20C56 |  | 4 | 300 | 375 | 60 | GGY | 5.23 |
| 6N2022 | T20C57 | 10 | 6 | 500 | 600 | 65 | PUV | 20.29 |
| 6N2023 | T20C58 ${ }^{\circ}$ | . 75 | . 75 | 0 | 10 | 30 | BAH | 1.35 |

## DRIVER TRANSFORMERS

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Input Tubes | Out put Tubes | Ratio | $\begin{aligned} & \text { Pri. } \\ & \text { MA } \end{aligned}$ | Mtg. Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N2028 | T20D75 | 1-30, 1-49, 1-6C5, | IJ6, 19, 2-30, 2-49 | 2.4:1 | 3 | BAE | 1.62 |
| 6N2029 | T20D76 | $1 \mathrm{H4}$ (3ingle pl.), $1-6 \mathrm{~N} 7,6 \mathrm{~A} 6,53$. | ${ }_{1-6 N 7,6 A 6,53}$ | 5.2:1 | 7 | BAH | 1.70 |
| 6N2030 | T20D77 | 1-76 (sgl. pl.) 1-89, 6F6, triode $1-6 \mathrm{C} 5$ (sgl. pl.) | $\begin{aligned} & (\text { class B) } \\ & 79,2-46,59 \\ & \text { (class B } 25 \mathrm{~L} 0 \end{aligned}$ | 2.5:1 | 30 | FGV | 2.53 |
| 6N2031 | T20D78 | 2-6F6, Triode | $\begin{aligned} & 2-6 \mathrm{~F} 6\left(\text { class } \mathrm{AB}_{2}\right) \\ & 2-6 \mathrm{c} .6\left(\text { class } \mathrm{AB}_{2}\right) \end{aligned}$ | 4:1 | 40 | GGV | 3.38 |
| 6N2032 | T20.D79 | 2-6.46, 83 <br> $2-6 \mathrm{~N} 7$ (sgl. or PP pri.) | 2-6N7 (PP class Bgrids) | 5.2:1 | 30 | FGV | 2.88 |



GGV


RAV


RTV

BAH

DUAL TONE CONTROL
An effective tone compensating network for sound systems. Treble and bass frequencies attenuated or accentuated independently. For mooth control over wide range of audio frequencies. 20 C74 Tone Control Choke with Humbucking DC ohms 220. Test volts 500. Mitg. Type RAV. 6N2027.
$\qquad$ RN2 X Dual Tone Control Potentiometer for above circull.

## FEEDBACK CONTROL TRANSFORMER

T20A26 is the control element in a variable audio inverse feed. back system, basis of compressor-expander circuit. Variable gain is produced by automatically controlling inverse feedback voltage. Superior to DC grid bias control, response faster, harmonic distortion does hi-fidelity amplifier incorporating above circuit. Mtg, type RTV. 6N2026.
5.59

| No. | Type | Primary | Secondary | Mitg. Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N2093 | T22R20 | $6-8 \mathrm{~V}$ DC | 250v DC 50 ma | CAV | 3.73 |
| 6N2094 | T22R22 | $6-8 V \mathrm{DC}$ | 325 v DC 75 ma | CAV | 4.41 |
| 6N2095 | T22R24 | $\left\{\begin{array}{l}6-8 V \\ 117 \mathrm{~V} \\ \text { AC }\end{array}\right.$ |  | GGV | 8.47 |

AUDIO INPUT TRANSFORMERS

| Stock No. | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Mtg. Type | Application | Turns Ratio | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{6 N 2000}$ | $\overline{T 20 A 00}$ | BAH | Line or mic. to single or | 1:10 | 1.85 |
| 6 N2001 | T20A01 | FGV | Line or mic, to single or PP grids | 1:20 | 2.70 |
| 6N2002 | T20A02 | FGV | Line or mic, to PP grids | 1:20 | 85 |
| 6N2005 | T20.405 | RTV | Lineto PPgrid mic, tosingle or PPgrids | 1:10 | 6.23 |
| 6N200 | T20A | BAH | V.C. or low imp. mic. to grid | 1:80 | 1.70 |


| Transceiver Transformer |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Mtg. Type | Application | Turns Ratio | Each |
| 6, 2003 | T20.A03 | BAH | Single pl. to grid Line or mic. to grid | $\begin{aligned} & 1: 3.25 \\ & 1: 35 \end{aligned}$ | 2.38 |

## OUTPUT TRANSFORMERS

Low Level Output Transiormers (BAH)

| Stock No. | $\begin{gathered} \text { Type } \\ \text { No. } \end{gathered}$ | Application | Pri. Imp. | Sec. Imp. | Power Output | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N2103 | T22S45 | Sgl PI to VC | 1500 to 3000 | 3.2 to 4 | a | 1.35 |
| 6N2105 | T22S47 |  | 6000 to 12000 CT | 3.2 to 4 | 3 | 1.62 |
| 6N2107 | T22S56 | Sgl. \& PP | 8000 to 10000 CT |  | 8 | 2.44 |
| 6N2108 | T22S58 | Pl to VC | 5000 to 7000CT | 3.2 to 4 | 8 | 2.44 <br> 2.53 |
| $6^{6} 2109$ | T22S60 |  | ${ }_{20000 \mathrm{CT}}{ }^{2500}{ }^{\text {a }}$ | $\begin{array}{r} 6 \text { to } 8 \\ 125-200- \end{array}$ | 8 | 2.53 3.17 |
| 6N2127* | T22S90 | Sgl or PP P1 | 20000 CT | $500 \text { to }$ | 3 |  |

* Type FGV Mounting.
Special Duly Hi-Level Output Transiormers (GGV)

| 6N2111 T22S64 |  | Sgl \& PP Pl to Line \& VC | 10000CT |  | 25 | 4.23 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 W2112 | T22S66 |  | 8000CT | 3.2 to 4 | 25 | 4.23 |
| 6 N2113 | T22S68 |  | 6500 CT | 6 to 8 - | 25 | 4.41 |
| 6N2114 | T22870 |  | 5000 CT | 15-250-500 | 25 | 4.53 |
| 6N2115 | T22S72 |  | 3000 CT |  | ${ }^{25}$ | 4.53 |
| 6 N 2118 | T22S78 |  | 3300 CT |  | 60 | 6.44 |

Univeral Replacement to Multiplo Voice Coil (BAH)

| 6N2116 | T22S74 | Sgl or PP Pi to VC | $\begin{array}{\|} 14000-10000-8000-1 \\ 6600-5000-3000- \end{array}$ | 1 to 30 | 25 | 3.73 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N2110 | T22S62 | Sgl Pl to VC | $\begin{aligned} & 2500 \mathrm{CT} \\ & 4000-3000-2500- \\ & 2000-1500 \end{aligned}$ | 1 to 30 | 8 | 2.50 |
| 6N2124 | T22S86 | Sgl Pl or | $14000 \mathrm{CT}-8000 \mathrm{CT}$ | 3.2 to 4 | 3 | 1.85 |
| $\begin{aligned} & \text { 6N2125 } \\ & 6 \mathrm{~N} 9126 \end{aligned}$ | $\begin{aligned} & \mathrm{T} 22 \mathrm{~S} 87 \\ & \mathrm{~T} 22888 \end{aligned}$ | PP Pl to VC | 3500 |  | 8 | 2.03 2.20 |

Malching Line or Lines to Voice Coil (BAH)

| 6 N2119 | T22S80 | Sgl Line to VC | 500 to 600 |  | 8 | 2.59 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N2120 | T22S82 | Maltiple |  |  | 25 | 4.20 |
| 6N2121 | T22S83 | Lines to | 2000-1500- | 3.2 to 4 | 15 | 3.23 |
| 6N2122 | T22S84 | VC | 1000-500 |  | 5 | 2.65 |

## FILAMENT TRANSFORMERS

These excellent quality filament transformers are wound with a single secondary. Carefully designed for improved voltage regulation and minimum heat rise. Rated for continuous operation at peak load; 117 volls, $50 / 60$ cycles. Insulated for 1600 volts RMS.

| No. | Type | Secondary |  | Dimensions HxWxD | Mig. | Lhs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V | A mpps. |  |  |  |  |
| 6 N 2045 | T-21F08 | 6.3CT | 1 | 2x238813/2 | BAH | 8/4 | 1.85 |
| 6 N 2046 | T-21F10 | 6.3CT |  | $2 \times 31 \times 1{ }^{3}$ | BAH |  | 2.44 |
| 6N2047 | T-21F11 | 6.3CT | B | $3110 \times 21 / 2 \times 21 / 4$ | CAV | 21.4 | 3.62 |
| 6N2048 | T-21Fi2 | 6.3CT | 10 | $31 / 10 \times 21 / 2 \times 23 / 4$ | CAV | 23 | 3.56 |

# STANCOR REPLACEMENT TRANSFORMERS 4-5 <br> UNIVERSAL OUTPUT 

| No. | Type | Application | Mig. | Each |
| :---: | :---: | :---: | :---: | :---: |
| 6N1675 | A-3856 | Sgl or PP P1 |  | 1.53 |
| 6N1663 | A-3822 | Sgl Pl (7M to 10M) to VC | Q | 1.29 |
| 6N1637 | A-3823 | Sgl or PP P1 ( 4 M to 14 M ) to VC. | Q | 1.62 |
| 6 6N1671 | A-3850 | Sgl or PP PI ( 4 M to 14 M ) to VC. |  | 1.73 |
| 6 N 1670 | A. 3849 | Sgl Pl (1,500 to 10M) to VC. | Q | 1.53 |
| 6N1763 | A-3880 | PP P1 ( 4 M to 14M) to VC. |  |  |
| 6N1574 | A-2855 | PP Pl ( 4 M to 14 M ) to VC. | $\bigcirc$ | 2.47 |
| 6N1678 | A. 3890 | PPP P ( 4 M to 14 M ) to VC. | TD | 3.82 |
| 6N1673 | A. 3852 | PP P1 (4M to 14M) to VC | , | 2.09 |
| 6N1666 | A-3830 | PPP1 (3M to 10 M ) to VC | J | 2.88 |

## FIXED OUTPUT TRANSFORMERS

| No. | Type | Impedance in Ohms |  | Max. Walts | Mig. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pri. | Sec. |  |  |  |
| 6N1677 | A-3865 | 1.500 |  | 5 | A | 1.38 |
| 6N1578 | A-3330 | 2.000 | 3.5 | 5 | A | 1.23 |
| 6N1640 | A. 3876 | 2,000 | 4 | 5 | A | 1.03 |
| 6N1576 | A. 3328 | 4,000 | 3.5 | 3 | A | . 85 |
| 6N1571 | A-2203 | 4,000 | 8 | 5 | A | 1.50 |
| 6N1645 | A-3877 | 5,000 |  | 5 | A | 1.09 |
| 6N1659 | A.3310 | 5,000 | $500,15,8,4$ | 20 | C | 4.09 |
| 6N1646 | A-3878 | 7.000 | 4 | 5 | A | 1.06 |
| 6N1573 | A-2313 | 7,000 | 8 | 10 | A | 1.59 |
| 6N1577 | A-3329 | 8,000 | 3.5 | 3 | A | . 85 |
| 6N1648 | A. 3879 | 10,000 | 4 | 5 | A | 1.03 |
| 6N1575 | A-3327 | 25,000 | 4 | 5 | A | 1.00 |

Push-Pull Plates to Voice Coil. All are Class AB except t-AB1.

| 6N1762 6N1661 6N1662 6N1647 6N1657 | A-3872 A-3800 A-3801 $\dagger$ A-201 A-3304 | 5,000 <br> 5,000 <br> 6,600 <br> 8,000 <br> $10.000 / 7,000$ | $\begin{gathered} 15,8,4 \\ 500,250,15,8,4 \\ 500,250,15,8,4 \\ 500,15,8,4 \end{gathered}$ | $\begin{aligned} & 18 \\ & 30 \\ & 35 \\ & 10 \\ & 25 \\ & \hline \end{aligned}$ | TD C C A C | $\begin{aligned} & 3.53 \\ & 4.65 \\ & 5.41 \\ & 1.82 \\ & 4.23 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1660 | A-3311 | 10,000 | 500, 15, 8, 4 | 25 | C |  |
| 6N1667 | A. 3831 | 10,000 | 8,4 | 5 | A | 1.49 |
| 6N1572 | A-2312 | 14.000 | . | 10 | A | 1.65 |
| 6N1676 | A-3857 | 25,000 | 4 | 5 | A | 1.32 |

## AUDIO TUBE TO LINE

| No. | Type | Application | Impedance Ohms | Mitg. | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8N1599 | A-3250 | SglPlor PP Pl to line | $\begin{aligned} & \mathrm{P}_{\mathrm{ri}}-20 \mathrm{M}, 10 \mathrm{M}, 5 \mathrm{M} \ldots \ldots . \\ & \mathrm{Pri-20M}^{\mathrm{CT}} . \\ & \mathrm{Sec}-500,333,200,125,50 \end{aligned}$ | Q | 2.65 |

AUDIO LINE TO VOICE COIL

| No. | Type | Watts | Impedance Ohms | Mtg. | Ec. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1764 | A-3882 | 25 | Pri-500, 333, 25 | D | 4.26 |
| 6N1765 | A-3883 | 25 | Pri-500. | J | 2.29 |
| 6N1595 | A $3837^{\circ}$ | 15 | $\begin{aligned} & \text { Sec-15, 8, 6, } 4 \\ & \text { Prl-500, } \end{aligned}$ | J | 2.94 |
| 6N 1636 | A-7949 | 12 | Sec-8, 4, 2.65, 2.35, 2, 1.5, <br> .. $, .5, .3, .2,-1, .05$ <br> Pri-2M, 1500, 1M, 500 <br> Sec-6.8. | J | 2.03 |

- Designed to operate one or more speakers in parallel across a 500 ohm line. For line to line or line to V.C.


## INPUT TRANSFORMERS

Intercommunicator and Transceiver

| No. | Type | Impedance | Mtg. | $\mathrm{HxW} \times \mathrm{D}$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1693 | A-4744 | Pri-4, Sec-25,000 | VE | 18/82\% 2 ex $1 / 3 /$ | 1.44 |
| 6N1643 | A. 3833 | $\begin{aligned} & \text { Pri-200 and } 5,000 \\ & \mathrm{Sec}-60,000 \end{aligned}$ | A | 15/8×27/8×11/2" | 2.00 |

## INTERSTAGE TRANSFORMERS

PUSH.PULL INPUT. Single Plate ( 7,000 to 20,000 ohms) to pushpull class "A" grid. All pri. are rated at 10MA-DC except A-4206 phich is 15 MA .

| No. | Type | Mtg. | Ratio | $\mathrm{HzW} \times \mathrm{D}$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 N1619 | A-52-C | A | 2:1 |  | 1.44 |
| 6N1651 | A-53-C | A | 3:1 | $13 / 8 \times 2 \% \times 186^{\prime \prime}$ | 1.44 |
| $6_{6 N 1690}$ | A.63-C | ${ }^{\text {A }}$ | 3:1 | $19 / 8 \times 278 \times 11^{\prime \prime}$ | 1.56 |
| 6N1654 | A.73-C | A | 3:1 |  | 1.88 |
| 6N1589 | A-4206* | C | 3.25:1 | 31/8x $25 / 8 \times 2 \frac{1}{8 \prime \prime}$ | 4.41 |

Most popular sizes and ratings of 2.5 and 6.3 volt types are represented below. All high voltage secondaries are CT.
Combination Plate and Filament Supply, Type " $M$ ' mounting.

| No. | Type | Plate |  | Rec. Fil. |  | Amp. Fil. |  | Mtg. Area | Wt. Lb. | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V | DC ma | V | Amp. | V | Amp. |  |  |  |
| 6 N 17 | P-6001 | 6.50 | 10 | 5.0CT | 2.0 | 2.5 | . |  |  | 3.53 |
| 6 | P-6005 | 700 | 70 | 5.00 | 3.0 | 2.50 | 9.0 | 33/2x+1/4 | 5 | 4.56 |
| 6N1714 | P-8004 | 700 | 90 | 5.0CT | 3.0 | 2.5 | 3.5 12.5 |  |  | 4.56 |
| 6 N | P-6006 | 700 | 120 | 3.0CT | 3.0 | 2.5 CT | 12.5 |  |  | 6.23 |
| 6 N1785 | P-6289 | 420 | 40 | .0CT | 2.0 | $\begin{aligned} & 2.5 \mathrm{CT} \\ & 6.3 \mathrm{CT} \end{aligned}$ | 3.5 2.0 | 2,4x ${ }^{3}$ | 3 | 12 |
| 6N1735 | P-6297 | 480 | 40 | .0CT | 2.0 | 6.3CT | 2.0 | $3 \times 31 \%^{\prime \prime}$ |  |  |
| 6 N 172 | P-6010 | 650 | 10 | 5.0CT | 3.0 | 6.3CT | 2.0 |  | 2 | 3.38 |
| 6N1786 | P-6119 | 600 | 55 | 5.0CT | 2.0 | 6.3CT | 2.7 | $3 \times 2$ | 3 | 4.06 |
| ${ }_{6}^{6 N 1746}$ | P-6348 | 480 | 60 |  |  | 6.3CT | 2.75 | $2^{11} 1 x^{23}{ }^{3}{ }^{\prime \prime \prime}$ | 2 | 3.50 |
| 6 N | P-8120 | 630 | 70 | 00 | 3.0 | 6.3CT | 3.5 |  | 4 | 4.53 |
| 6N1721 | P-6011 | 700 | 70 | 5.0 C | 3.0 | 6.3CT | 2.5 |  |  |  |
| 6N1741 | P-6312 | 580 | 90 | 5.0 C | 3.0 | 6.3CT | 2.8 | 3318x3 | 4 | 4.94 |
| 6N1723 | P-6012 | 700 | 90 | 5.0 CT | 3.0 | 6.3CT | 3.5 | 313833 | 4 | 4.53 |
| 6N1743 | P-6313. | 700 580 | 120 | 5.0CT | 3.0 3.0 | 6.3CT | 4.7 |  | 5 6 | 5.03 |
| 6 N1724 | P-6014 | 750 | 150 | C | 3.0 | C |  |  |  |  |
| 6N1744 | P-6314 | 700 | 200 | 5.0 CT | 3.0 | 6.3CT | 5.5 | $41 / 2 \times 37 / 3$ | $8$ | 7.23 |
| 6N1726 | P-8165 | 800 | 200 | 5.0 CT | 1.0 | 6.3CT | 5.5 | 4) $\times 41 /{ }^{\prime \prime}$ | 9 | 7.38 |
| 6N1745 | P-6315 | 740 | 275 | 5.0CT | 3.0 | 6.3CT | 7.0 | $41 / 2 \times 410$ | 9 | 9.41 |

## FILAMENT TRANSFORMERS

A wide range of voltage and current ratings is avallable for use with the commonly used types of receiving and transmitting tubes. Each transformer is designed to provide the best voltage regulation commensurate with its secondary current rating and physical size. All Pri maries 115 Volts 60 Cycles. All are 2500 volt insulation except * 7500 V ., $\dagger 10,000 \mathrm{~V}$., $\ddagger 5000 \mathrm{~V}$

| No. | Type | Secondary |  | Dimensions $H x W \times D$ | Mig. | Lbs. | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V | Amps. |  |  |  |  |
| 6N1728 | P-6133* | 2.5 CT | 5 | $211 / 6 \times 33^{3} 10 \times 214^{\prime \prime}$ | 5 | 1.5 |  |
| 6N1711 | P-4083 | 2.5 CT |  | $3{ }^{3} 10 \times 25 \times 2 \%^{\prime \prime}$ | C | 1.5 | 3.65 |
| 6N1707 | P-3024 | 2.5 CT | 10 | $3{ }^{2}$, $\times 2 \times 258 \times 2 \%^{\prime \prime}$ | C | 2.5 | 3.67 |
| 6N1714 | P. $3060 \dagger$ | 2.5 CT | 10 | 31/2x2 \%/821\%" | B | 2.5 | 3.67 3.35 |
| 6N1708 | P-3026 | 5 CT | 3 | 36/ $\times 28 / 8 \times 25 / 8$ | C | 2 | 3.53 |
| 6 N1790 | P-4088 | 5 Cl | 3 | $318 \times 21 / 2 \times 2162^{\prime \prime}$ | B | 2 | 2.82 |
| 6N1709 | P-3062 | 5 CT | 6 | $31521 / 2 \times 21^{\prime \prime}$ | B | 2 | 3.23 |
| 6N1730 | P-6135 | 5 CT | 10 | $31 / 8 \times 21 / 2 \times 278^{\prime \prime}$ | N | 3 | 3.53 |
| 6N1729 | P-6134 | 6.3 CT | 1.2 | 15/8x27/8x ${ }^{5 / 8}$ | A | 1 | 1.56 |
| 6N1779 | P-5014 | 6.3 CT | 3 | 31/8×21/2x21/2" | B | 2 | 2.65 |
| 6 6N1710 | P. 4019 | 6.3 CT | 4 | ${ }^{33} 16 \times 28 / 6 \times 25 / 8$ |  |  |  |
| 6 N1775 | P-3064 | 6.3 CT | 6 | $31 / 8 \times 21 / 2 \times 276$ | B | 2 | 3.23 |
| 6N1788 6 N1740 | P-4089 | 6.3 CT | 6 | 35\%93x ${ }^{\text {a }}$ | C | 3.5 | 3.82 |
| 6N1740 | P. 6308 | 6.3 CT | 10 | $31.2 \times 27 / 8 \times 2{ }^{\prime \prime}$ | N | 3.5 | 3.76 |
| 6N1780 | P-5015 | 7.5 CT | 4 |  | B | 3 | 2.65 |
| 6N1782 | P-6138 | 7.5 CT | 8 | 3\%18931/8x278" | S | 5 | 4.47 |
| 6N1789 | P-4093 P | 7.5 CT | 24 |  |  | 21 | 14.70 |
| 6N1732 | P. 6139 | 10 CT | 8 | $37 / 8 \times 31 / 8 \times 311^{\prime \prime}$ | N | 5 | 4.38 |
| 6N1725 | P-4097 | 10 CT | 8 | 4×31/4x35/8 | C | 5 | 5.00 |

DC FILTER CHOKES
All are Type A Mtg. except *-L, †-TD

| No. | Type | Hys. | Ma. | Ohms | $\mathrm{HzW} \times \mathrm{D}$ | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N1856 | C. 1515 | 20 | 15 | 900 | 15/8*27/8x13/6" | 1.06 |
| 6N1699 | C-1707 | 7 | 50 | 550 | 18/8×278913. | . 94 |
| 6N1623 | C-1003 | 16 | 50 | 580 | $2 \times 314 \times 184^{\circ}$ | 1.26 |
| 6N1200 | C-1708 | 13 | 65 | 500 | $2 \times 31 / 4$ | 1.38 |
| 6N1852 | C-1355* | 8 | 75 | 290 | 21/823/4x10" | 1.47 |
| 6N1624 | C-1002 | 15 | 75 | 400 | $21 / 6 \times 33 / 4 \times 21 / 4$ | 1.73 |
| 6N1701 | C-1709 | 8 | 85 | 250 | $2 \times 31 / 62^{\prime \prime}$ | 1.62 |
| 6N1585 | C-2305 $\dagger$ | 5 | 100 | 300 |  | 2.35 |
| 6N1625 | C-1001 | 10.5 | 110 | 225 | 25/54x21" | 2.18 |
| 6N1584 | C. 2304 | 2.3 | 150 | 60 | $2 \times 31 / 8 \times 1 /{ }^{\prime \prime}$ | 1.53 |
| 6N1586 | C-2309 | 3 | 150 | 90 | $21 / 4 \times 39 \times 21 / 4$ |  |
| 6N1702 | C-1710 | 7 | 150 | 200 | 25/8x4土21/4 | 2.06 |
| 6N1694 | C-1080 | 3.5 | 50 | 200 | $15 / 8 \times 27$ ¹1/ ${ }^{\prime \prime}$ | 1.00 |
| 6N1696 | C-1279 | 8.5 | 50 | 400 | $15 / 8 \times 278 \times 11 / 2^{\prime \prime}$ | 1.03 |
| 6N1813 | C. 1333 | 8 | 50 | 450 |  | 1.06 |

Free Stancor Catalog lists over 400 items, including audio and power transtormers and reactors, power packs, radio transmitter kits FREE 23N19969.

# television replacement parts <br> gENUINE 

每
RCA TELEVISION IF AND VIDEO COIL KIT
Contoins all coils necessory to build the picture, sound, and video clrcuits of a high quality television receiver. Shown below in tabular Isting. RCA No. 204XI
12N10156

| No. | $\begin{aligned} & \text { RCA } \\ & \text { Type } \end{aligned}$ | No. in Kit | Description | Each |
| :---: | :---: | :---: | :---: | :---: |
| $12 N 10167$ | 201 K 1 | 2 | Sound IF Transformer | 1.29 |
| $12 N 10158$ | 202K1 | 1 | Converter Transformer | 1.29 |
| 12N10159 | 202K2 | 1 | 1st PIX IF | 1.38 |
| 12 N 10160 | 202K3 | 1 | 2nd PIX IF | 1.06 |
| 12N10161 | 202K4 | 1 | Cathode Trap | 1.29 |
| 12N10162 | 203K1 | 1 | Discriminator Transiormer | 1.62 |
| 12N10163 | 202L1 | 2 | 3rd and 4th PIX IF | . 38 |
| 12 N 10164 | 203L1 | 1 | Video Series Peaking Coll | . 26 |
| $12 N 10165$ | 203 L 2 | 1 | Video Shunt Peaking Coil | . 26 |
| 12N10166 | 203L3 | 2 | Video Series Peaking Coll | . 26 |
| 12N10167 | 203L4 | 2 | Video Shunt Peaking Coil | . 26 |

Deflection Yoke Type 201 Dl for use with direct viewing kinescopes requiring $50^{\circ}$ magnetic deflection, such as RCA 7DP4 and 10BP4 Performance checked to close linearity limits. Provides required retrace time when used with typical deflection circuits using RCA Horizontal output transformer $211 \mathrm{I} 1,204 \mathrm{~T} 3$ or 204 TI and Vertical output trans former 204 T 2

## 6N5977

 size for corrosion-tree operation6N5983
4.41

Horizontal Output Transformers Type 211 Tl for use with deflection yoke type 201D1 and with direct viewing tubes such as 7DP4 and 10BP4. Autotransformer primary provides voltage for pulse rectitier o supply kinescope anode potentiol. Filament winding for pulse rectifier is included. Secondary is topped for connecting width control. 6N5975
ach 5.59

## TV PARTS FOR TRANSMITTING STATIONS

TYPE 201DII DEFLECTING YOKE. For use with 5 WP15 Flying Spot Cube and 5WPII Tronscriber Kinescope 6N6019
10.29

TYPE 201075 DEFLECTING YOKE ASSEMBLY. Includes keyed Jumbo Annular 7-pin socket. For use with Image Orthicons, types 5655, 2P23 and 5769
182.77

TYPE 201D76 DEFLECTING YOKE For type 1850-A
TY6015 . 201 DT7 DEFLECTING YOKE. For type $2 F 21$ Monos
TYPE 201 D77 DEFLECTING YOKE. For type 2F21 Monosco
6N6016
80.36

TYPE 202D75 FOCUSING COIL. For Image OThicons, typer 22033 5655 and 5769.
104.37 6N6017
48.51
ypes 2P23, 5655 ond 5769 .
dencation
TYPE 204T1 HORIZONTAL OUTPUT TRANSFORMER. For deflection clrcuits using RF operated high voltage supplies. For RCA Image Orthicons (2P23, 5655, 5769), Flying Spot CR Tube (SWP15), and Oriniconser Kinescope (5WP11), Used with RCA Deflecting Yokes Transcriber Kinescope
6N5985
11.76

Ion-trap Magnet Type 203D1. A necessity wherever kinescopes with ion-trap quns are used. Conetruction is fool-prool-only two coils and a padded mounting yoke. Prevents ions from bombarding the sensitive inescope screen
Write for full information on these and other Television components Write for full in

| No. | RCA Type | Description | Each |
| :---: | :---: | :---: | :---: |
| 6N5978 | 201D2 | Deflecting Yoke | 7.64 |
| 6N6002 | 201D3 | Deflecting Yoke | 8.76 |
| 6N6003 | 201D12† | Deflecting Yoke | 4.41 |
| 6N5979 | 201 Rl | Width Control | . 41 |
| 6N5980 | $201 R 2$ | Width Control | 1.29 |
| 6N5981 | 20183 | Horizontal Linearity Control | 47 |
| 6N5877 | 201R4* | Width Control | . 59 |
| 6N5878 | 201R5* | Horizontal Linearity Control | 71 |
| 6N6004 | $20176 \dagger$ | Power Transformer $\times 30-$ tube) | 15.29 |
| 6 N6005 | $20177 \dagger$ | Power Translormer (24-tube) | 12.35 |
| 6 N 6006 | $20178+$ | Power Transformer (21-tube) | 11.17 |
| 6N6007 | 201T9* | Power Transformer (27-tube) | 12.35 |
| 6N6008 | 201710* | Power Translormer (27-tube) | 12.35 |
| 6N5982 | 201 Xl | Yoke Mounting Hood | . 76 |
| 6N5876 | 202D2* | Focus Coil | 6.47 |
| 6N6009 | 203D3 $\dagger$ | Ion-Trap Magnet (PM type) | 1.23 |
| 6N6010 | 203R1 $\dagger$ | Hor. Osc. \& Sync. Control Coil | 1.06 |
| 12N10168 | 204L1 | Filament Choke | . 12 |
| 6N5986 | $204 \mathrm{~T} 2 \dagger$ | Vertical Output Transformer | 2.94 |
| 6N5970 | 20473 | Horizontal Output | 7.06 |
| 6N6011 | 204T9 $\dagger$ | Vertical Defl. Output Transf. | 2.65 |
| 6N5971 | $208 T 1+$ | Horizontal Block. Osc. Transi. | 2.29 |
| 6N5972 | 208T2 $\dagger$ | Vertical Block, Osc. Transf. | 1.62 |
| 6N5973 | 20873 | Horizontal Block, Osc. Transi. | 1.62 |
| 6N6974 | $20878 \dagger$ | Horizontal Sync-Disc. Transf. | 1.35 |
| 6N6012 | $20819 \dagger$ | Ver. Blocking Osc. Transformer | 1.47 |
| 6N5976 | 211 T 2 | Horizontol Output Transformer | 11.17 |
| 6N6013 | $211 \mathrm{~T}{ }^{\text {a }}$ | Hor. Defl. Output \& HV Transi. | 5.59 |
| 6N5875 | 21175* | Hor. Defl. Output \& HV Transi. | 7.35 |

*For $16^{*}$ set using 16AP4 TV Tube
† Used with both 16AP4 and 10BP4 Tubes.

## RCA FRONT END TUNER

Type 201El. Designed espectally for use with stagger tuned IF s. Hondles all 12 TV channels and selects desired picture and sound carriers. Tuner includes RF amplifier stage, converter tage, oscillator stage, tine tuning control. channel switch, converter tronsformer and al. their aligning adjustments. Units are mounted and aligned. Mountson $4^{\prime \prime}$ chassis. 37.63

## RCA TV DATA BOOK

Advanced study guide for TV servicing. Authoritative, easy to follow alianment procedures, circuit and service data. Diagrams, photos, parts list. Includes RCA $630 \mathrm{TS} \& 648 \mathrm{PTK}$ drawings.

## RCA TELEVISION COMPONENTS BOOK

32 page booklet gives complete technical, installation and application dato on RCA TV components for use with 16AP4. Includes schematic diagram and parts list of deflection and HV circult fully described in 4 page section
4 page sec
23 N 19903
.25


## TV POWER TRANSFORMER

A top quality, precision made television power transformer with a rating of 2200 volts at 2 MA . Filament voltoges are: 6.3 volts at 1 amp . and 2.5 volts at 2 amps. Upright mounting. Shipping weight $21 / 2 \mathrm{lbs}$ 6N1501.
3.75

REPLACEMENT PARTS FOR TRANSVISION SETS

| Stock No. | Part No. | Description | Esch |
| :---: | :---: | :---: | :---: |
| 6N10220 | 16 | 250 MicroH . Video Peaking Coll | 38 |
| 6 N 10221 | 17 | 73 MicroH. Video Peaking Coil | . 38 |
| 6 N10222 | 174 | 1 st Pix IF, Trap 21.9-27.9 MC | 1.32 |
| 6N10223 | 174 | 3 rd Pix IF, Trap 21.9 MC | 1.32 |
| 6N10224 | 175 | 2nd Pix IF, Sound 21.9 MC | 1.59 |
| 6N10225 |  | 4th Pix IF, Fixed | 1.32 |
| 6N10226 | $177 \& 318$ | Sound IF, 21.9 MC | 1.47 |
| 6N10227 | 317 | Sound Discriminator, 21.9 MC | 1.62 |
| 6N10228 | 319 | 500 MicroH . Video Peaking Coil | . 38 |
| 6 N10230 | 365 | Slug Coil | . 44 |
| 6N5889 | 308 | 9 KV Hor. HV Output (Flyback) | 3.45 |

## HIGH VOLTAGE FLYBACK

Similar to RCA type $211 T 1$ Horizontal deflection outputrantormer ued with deflecting yoke 201D1 or 201D3. Provides approximately 9 KV for excollent picture brilliance in a $10^{\prime \prime}$ 10 or $12^{n}$ tube. Filament winding included. Secondary tapped for connecting type 201 RI width control. Powdered iron core insures quiet operation. 6N5889.

## 16-INCH FLYBACK

Similar to RCA type 211 T . Designed for use in pulse operated power supplies with no load kinescope anode polentials up to 13.5 KV . Ideally suited for conversion of 10 inch ond 12 inch TV sets to the 16 inch size. 6N5888
3.90

# ANTENNA-IF-RF-OSCILLATOR COILS <br> <br> MEISSNER COILS <br> <br> MEISSNER COILS <br> <br> STANWYCK COILS 

 <br> <br> STANWYCK COILS}

## "PLASTIC" IF TRANSFORMERS

Trimmer base and coll form are moulded in one piece. Trimmers "floated" away from the base with an air gap between the bottom plate and the plastic base. Wide range Frequency adjustable elther side of Pre-set frequency, double-tuned. Metal shield can and Litz wire. Unaffected by temperature or humidity. Size $11 / 4^{\prime \prime}$ square by $21 / 2^{\prime \prime}$ high.

| INPUT |  | output |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Set at | Type | No. |  |
| 12N10373 | 16-6649 | 175 KC | 16-6651 | 12N 10375 |  |
| 12N10376 | 16-6652 | 262 KC | 16-6654 | 12N10378 | c |
| 12N10382 | 16-6658 | 456 KC | 16-6660 | 12N10384 |  |

HI Q IRON CORE "PLASTIC" IFs

| 12N10152 | Type 16-6662 | Input, peaked at $455 \mathrm{KC} \ldots \ldots .1 .23$ |
| :---: | :---: | :---: | :---: |
| 12N10153 | Type 16-6663 | Output, peaked at 455 KC .1 .23 |

## "TWEET" FILTER OUTPUT IF

Type 16-6670. New output transformer with built-in "iweet" filter in secondary circuit. For replacement use in late model recelvers that have "tweet" filter enclosed In IF output shield. Plastic, adr-core construction. Shield can $11 / 4 \times 11 / 4 \times 21 / 2^{\circ}$. Spade bolt mtg on $13 / 16^{\prime \prime}$ centers.
1.32

## FM IF AND DISCRIMINATOR TRANSFORMERS

Model 16-6665 If Transformer. For the new ultra-
 high FM frequencles. Permeability tuned to 10.7 MC. Mounted in rectangular shield can measuring $17 / 16^{\prime \prime} \times 7 / 8^{\prime \prime} \times 129 / 32^{\prime \prime}$ with screw type mig. lugs.
$12 \mathrm{~N} 10329-5 h p g$ wt. 8 oz Model 17-3484 Distriminator Transformer. Permeability luned to 10.7 megacycles. For use

Permea FM range. Same size as above.
12N10333-Shpg. wt. 8 oz
2.29

STANDARD ANTENNA AND RF COILS
Deslgned to cover the BC band from 545 to 1580 KC (190-550 meters) with a 365 mmid tuning condenser. High impedance primaries, wound with Litz wire. Shielded coils are in black crackle finished non-magnetic can. $17 / 8^{\prime \prime}$ dia., $21 / 2^{\prime \prime}$ high. Unshielded
12N10046-Ant. Coil type 14-1010
12N10047-RF Coil type 14-1011...
56c Shielded
\}73c
12N10044-Ant. Coil type 14-1004 12N10045-RF Coil type 14-1005.

## UNIVERSAL ADJUSTABLE" UNSHIELDED COILS

Replace BC band coils in most receivers, accurately track other coils when adjusted. Matches inductance of burned out coll with screwdriver adjustment. Osc Coil adjustable from 175 to 520 KC . For use with elther cut plate or padding condenser circuits.
12N10007-type 14-1026 ant
12N10008-type 14-1027 RF.
1.03

## OSCILLATOR COILS

## FOR 190-550 METER BC BANDS

Used with 365 mmid . condensers. IF xformers and RF and antenna colls. Shlelded type is $13 / 4^{\prime \prime} x 11 / 2^{\prime \prime}$ Padders not supplied.

| No. | Type | Freq. KC | Padder Mmid. | Each |
| :---: | :---: | :---: | :---: | :---: |
| -12N 10029 <br> -12N10031 | $\begin{aligned} & 14-4242 \\ & 14-4243 \end{aligned}$ | $\begin{array}{r} 175 \\ 456 \end{array}$ | $\begin{aligned} & 900 \\ & 350 \end{aligned}$ | 796 |
| $\begin{aligned} & \text { \#12N10028 } \\ & \text { \#12N10030 } \end{aligned}$ | $\begin{aligned} & 14-3732 \\ & 14-4034 \end{aligned}$ | $\begin{aligned} & 175 \\ & 456 \end{aligned}$ | $\begin{aligned} & 900 \\ & 350 \end{aligned}$ | 62 |

## PHONO OSC. COIL FOR WIRELESS BECORD PLAYERS

Type 17-9373 knob adjustment permits selection of clear fireq. in BC band. $12 \mathrm{~N} 10010^{\circ} 13$ '土 " $^{\prime \prime}$ square by $31 / 2^{\prime \prime}$ high.

## 456 KC OSC. COIL

Type 14-1033. For type 6SA7. Unshielded, 456 KCIF. Requires 350 mmid padder cond. 365 mmid. funing cond. 12N10332

## BFO COIL

Type 17-6753. To supply keat note necessary for CW reception. Range, $290-650 \mathrm{KC}$; peaked at 456 KC . $138^{\prime \prime} \mathrm{sq} . \times 31 / 2^{\prime \prime}$ high. at $456 \mathrm{KC}. 138^{\prime \prime} \mathrm{sq} \cdot x 31 / 2^{\prime \prime}$ high.
12 N 10171

> NOTE: SEE PAGE 94 FOR RCA AND OTHER TELEVISION COILS.

MIDGET IF COILS
Iron core 455 KC midgets. Compression tuned, exceptlonally high gain due to spectally designed powdered iron cores. For general seplacement use and new set construction of small AC-DC receivers, auto radios and portables. Overall dimensions of can $3 / 4^{\prime \prime}$ square $\times 17 / 8^{\prime \prime}$ long. 12N10350-Wi. 2 oz.
$97 c$
Midget AM Coll similar to above but with the addition of a plastic base with lug terminals and spade bolt mounting lugs.
12N10358-Wt. 2 oz.
$97 c$


## MIDGET FM COILS

Newly designed slug tuned FM coils. High qualliy fron cores assure maximum " Q " and gain when tuned to 10.7 MC . Band width 200 KC peak to peak. Symmetrical response curve. Polystyrene base, lightweight aluminum can $3 / 4^{\prime \prime}$ square by $17 / 8^{\prime \prime}$ high. Spade bolt mounting.
12N10355-Shpg. wt. 2 oz.
1.23

FM Discriminatar. Tunes to 10.7 MC Bandwidth 330 KC peak to peak (plus or minus 165 KC ). Output 9 volts with input of 2 volis. Physical dimensions same as above.
12N10356-Shpg. wt. 2 oz.
1.41

FM Ratio Detector. For new FM circuits which eliminate limiter tube. 10.7 MC , band width 330 KC .
12N10357-Shpg. wt. 2 oz.
1.50

FM IF AND DET. COILS
Newly designed Slug Tuned FM coils, maximum "Q" and gain at 10.7 MC . Low loss ceramic and quality iron cores. Response curve symmetrical, extreme stability. Aluminum case. $13 / 9^{\prime \prime}$ square by $3^{\prime \prime}$
12N10351
1.91

FM Discriminator same as above electrically and mechanically. Electrically centered secand mechanicaliy. Electricaly centered seepeaks. For 10.7 MC .
12N 10352.
2.15


FM Ratio Detector coll, same const, as above.
12 N1035s -Wt. $3 \mathrm{oz} . . . . . . . . . . . . . . . . . . . . . . . . . . .2 .26 ~$

## CARRON COILS

## UNSHIELDED 456 KC OSCILLATOR COIL

Color coded, dowel type wound with cotton covered enamel wire, dehydrated, ireated, flash-dipped. 12N 10238

## UNSHIELDED UNIVERSAL ADJUSTABLE COILS

 Exact induciance of replaced coll covering 550-1715 KC matched easily. Osellator coil adjustable from 175 to 520 KC . Universal mig. Lacillities. 12N10307-Antenna. 12N10309-RF. 12N10310-Osc.
## PEE WEE TYPE ANTENNA AND RF COILS

Secondarles "progressive" wound with Litz wire on $1 / 2^{\prime \prime} \times 11 / 2^{\prime \prime}$ impregnated forms. BC band covers $540-$ 1500 KC with 365 mmid . condenser. HI impedance primanes and coupling turns, complete with ear plugs and mig. brackets.
12N10315-Antenna. 12N10316-R


## RF CHOKES

All purpose RF chokes wound on steatite dowels. Both winding and dowl impregnated, sealed permanently against humidity. Mounted on $6 / 32^{\prime \prime}$ screw placing lugs in easy connecting position.

| No. | Induct. | Each | No. | Induct. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12N 10208 | 2.5 mh | 296 | 12N102I1 | 10.0 mh | 40c |
| 12N10209 | 5.5 mh |  | 12N10212 | 30.3 mh | 44 c |
| 12N 10210 | 7.5 mh |  | 12N10213 | 60.0 mh | 51 c |

## LITZ WOUND ANTENNA AND RF COILS

New type bank winding for practically constant gain and selectivity over BC band. High impedance primaries. Tune 540.1500 KC with 356 mmfd . condenser. Unshielded type have univ. bracket, stand-off mig. $13 / 4^{\prime \prime}$ centers. Size: $17 / 8 \times 21 / 4^{\prime \prime}$.
SHIELDED TYPE
12N10317-Antenna.
12N10318-RF.
688.

12N10319-Antehna UNSHIELDED TYPE
12N10320-RF

# MALLORY \& CENTRALAB SWITCHES 



Contact members heavily silver plated, and given a smooth hard finish. Contact shoe, of the self-cleaning type, is of silver alloy. Switches provided with one permanent stop and one adjustable stop. Bushings fa" and extend $3 / 6^{\circ}$. Pointer type. Bakelite knob is supplied also.

| Shorting |  | Non-Shorting |  | Gangs | Total No. Positions <br> Circuits |  | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | Type | Stock No. | Type |  |  |  |  |
| 9N6248 | 1211L | 9N6264 | 1311L | 1 | 1 | 11 | 91 |
| 9N6249 | 1215L* | 9N6265 | 1315L* | 1 | 2 | 5 | 97 |
| 9N6250 | 1213L* | 9N6266 | 1313L* | 1 | 3 | 3 | 1.06 |
| 9N6251 | 1212L* | 9N6267 | 1312L* | 1 | 4 | 2 | 1.12 |
| 9N6253 | 1221L | 9N6269 | 1321 L | 2 | 2 | 11 | 1.35 |
| 9N6254 | 1225L* | 9N6270 | 1325L* | 2 | 4 | 5 | 1.53 |
| 9N6255 | 1223L* | 9N6271 | 1323L* | 2 | 6 | 3 | 1.65 |
| 9N6256 | 1222L* | 9N6272 | 1322L* | 2 | 8 | 2 | 1.73 |
| 9N6258 | 1231L | 9N6274 | 1331L | 3 | 3 | 11 | 1.82 |
| 9N6259 | 1235L* | 9N6275 | 1335L* | 3 | 6 |  | 1.94 |
| 9N6261 | 1241L | 9N6277 | 1341L |  | 4 | 11 | 2.32 |
| 9N6262 | 1245L* | 9N6278 | 1345L* | 4 | 8 |  | 2.70 |
| 9N6281 | 12611 | 9N6283 | 1361L |  | 6. | 11 | 3.41 |
| 9N6286 | 1266 L | 9N6287 | 13661 | 6 | 12 | 6 | 4.35 |

* Provided with OFF position.


## " 3100 " SERIES SINGLE-GANG SELECTOR SWITCHES



Tap and circuit selector switches with same features as gang switches above.
For use in many types af test circuits. $2^{\prime \prime}$ For use in many types af tost circuits. 2 , knob and mounting nut. $3 / /^{n} n^{n}$ bushings. *Indicates adj. stop.

| Shorting Stock No. | Type | Non Short'g Stock No. | Type | No. of Circuits | Conta per | Base Diam | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9N6878 | 3115 | 9N6888 | 3215 | One | 5 |  | 68 |
| 9N6879 | 31112 J | 9N6889 | 32112] | One | 12 | 14. | . 68 |
| 9N6990 | 3122] | 9N6890 | 3222J | Two | 2 | 14** | . 68 |
| 9N6991 | 3123J | 9N6891 | 3223J | Two |  | 11 | . 68 |
| 9N6880 | 3126J | 9N6892 | 3226J | Two | 6 | 13 | . 68 |
| 9N6881 | $3134]$ | 9N6893 | 3234] | Three | 4 | 11 | . 71 |
| 9N6882 | $3142 J$ | 9N6894 | $3242]$ | Four | 2 | 11 | . 71 |
| 9N6883 | 3143J | 9N6895 | 32431 | Four | 3 | 14 | 71 |
| 9N6884* | 31117 J | 9N6896** | 32117 J | One | 17 | 1110 | 1.06 |
| 9N6885* | 3129J | 9N6897* | 3229] | Two | 9 | 11100 | 1.06 |
| 9N6886* | 31365 | 9N6898* | 3236] | Three | 6 | $1116{ }^{\circ}$ | 1.15 |
| 9N6887* | 31635 | 9N6899* | 3263] | Six | 3 | $11110{ }^{\prime \prime}$ | 1.15 |

## HARD ALUMINUM ETCHED PLATES

Numbers in white. Fit $38^{\circ}$ bushings. $30^{\circ}$ spacing for al 5witch lypes $1200 \mathrm{~L}, 1300 \mathrm{~L}$ and $1144^{" b a s e} 3100 \mathrm{I}$ and 3200 J . base.

| Marking | $30^{\circ}$ Space Cat. No. | $\begin{gathered} 20^{\circ} \text { Space } \\ \text { Cat. No. } \end{gathered}$ | Marking | $30^{\circ}$ Space Cat. No. | $\begin{aligned} & 20^{\prime} \text { Space } \\ & \text { Cat. No. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9N6224 |  | Volume | 9 N 6244 |  |
| 1 to 3 | 9N6225 | 9N6303 | $\mathrm{OH}-1$ to 3 | 9N6235 | 9N6313 |
| 1 to 4 | 9N6226 | 9N6304 |  | 9N6236 <br> 9N6237 | $\begin{aligned} & \text { 9N6314 } \\ & \text { 9N6315 } \end{aligned}$ |
| 1 to 5 | 9N6227 | 9N6305 | Off-1 to 6 | 9N6231 | 9N6315 |
| 1 to 6 | 9N6228 | 9N6306 | $\mathrm{OH}-1$ to 7 | 9N6239 | 9N6317 |
| 1 to 7 | 9N6229 9N6230 | 9N6307 | Off-1 to 8 | 9N6240 | 9N6318 |
| 1 1 1 to 8 | $\begin{aligned} & \text { 9N6230 } \\ & 9 \mathrm{~N} 6231 \end{aligned}$ | 9N6308 9N6309 | Off-1 to 9 | 9N6241 | 9N6319 |
| 1 to 10 | 9N6232 | 9N6310 | Off-1 to 10 | 9N6242 | , |
| 1 to 11 | 9N6233 | 9N6311 |  |  |  |
| 1 to 12 | 9N6234 | 9N6312 | Any ab 9N622 |  |  |
| 1 to 15 |  | 9N6243 | 9N6223 | . |  |

## MALLORY PUSH-BUTTON SWITCHES

Non-locking types with black bakelite knob. For mounting in "/s" hole, panels up to $1 / 4$ "

| No. | Type | Contacts | Cost |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 9N6460 | 2001 | SPST* | .76 |
| 9N6461 | 2002 | SPST | .76 |  |
| 9N6462 | 2003 | SPDT | .82 |  |
| 9N6457 | 2004 | DPST | . .94 |  |
| 9N6463 | 2006 | DPDT | 1.15 |  |


*Normally open.

SPECIAL SWITCHES


No. $1400 \mathrm{~L}-12$ positions; opens one line at a time while maintaining circuit through others. $13 / 4 \times 2 / / 2^{\prime \prime}$ wircuite. $8 / 8^{7}$ bushing 2. notched shaft. Complete with knob \& dial plate.
3.47

9N6371

24 POINT TAP SWITCH


No. 13124 L -Sultable for use in test circuits, tube checkers, anal. yzers. Special single-circuit 24 point non-shorting switch. ${ }^{3 / /^{\prime \prime}}$ plete with dial plate and kar-type 9nob. 9N6371

base.

# SWITCHES FOR EVERY PURPOSE 



## CUTLER-HAMMER NEW DESIGN SWITCHES

Approved type with nickel-plated metal parts. Fast action-excellent for appliances, radio receivers, etc. Underwriters Appr. Stern length, fig. 1 and $2, ~ " / 1 / 2$ "; fig. 3 and 4, "sis".

| Stock No | Type | Fig. | Poles | $\begin{gathered} \text { Armps @ } \\ 125 \mathrm{v} . \end{gathered}$ | Each | $\begin{gathered} \text { Lots } / 10 \\ \text { Each } \end{gathered}$ | Lots /21 Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9N12836 | 8280K16 | 1 | SPST | 6 | 29 | . 26 | 23 |
| 9N12834 | 8282K 14 | 1 | SPDT | 3 | 35 | . 31 | 28 |
| 9N12833 | 8363K7 | 1 | DPDT | 6 | . 59 | . 53 | 48 |
| 9N12817 | 8360k7 | 1 | DPST | 6 | . 55 | . 50 | . 45 |
| 9N12813 | 7321 K 3 | 2 | SPST | 12 | . 69 | . 62 | . 56 |
| 9N12814 | 7320 K 3 | 2 | DPST | 10 | . 69 | . 62 | 56 |
| 9N12837 | 8097K3 | 3 | SPST | 3* | . 20 | . 18 | 16 |
| 9N12832 | 7140K6 | 4 | SPDT $\dagger$ | . . . . | . 26 | . 23 | 21 |

## *Midget Rated AC $\quad$ With Dead Center Position

5. On-Off switch plate for loggles. With locating projection

3e 10 for
27

## HEAVY DUTY SWITCHES

Underwriters approved. Nickel-plated metal parts. Fast action. Handles motor rated 1 hp . at $125 / 250 \mathrm{v}$. Fig. 2-Stem ${ }^{18}$ sem

| Stock No. | Type | Poles | $\begin{aligned} & \text { Amps @ } \\ & 125 \mathrm{v} \text {. } \end{aligned}$ | Ampe (a. 250 v. | Each | Lots/ 10 Each | Lots /2] Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9N12815 | 7361 K 5 | SPST | 5 | 10 | 1.10 | 9 | 89 |
| 9N12816 | 7360K8 | DPST | 15 | 10 | 1.10 | 99 | 89 |



## H \& H ROTARY PANEL SWITCHES

Rated 3 amps., 125 volts. Approved type. With locknuts. Shaft extends $1^{\prime \prime}$; bushing ${ }^{3} \mathbf{k}^{\prime \prime}$ In diarneter. With lug terminals.

| No. | Type | Each | 10For | No. | Type | Each | 10 For |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9N12779 | S.P.S.T. $\dagger$ | . 28 | 2.52 | 9N12782 | D.P.S.T. * | . 63 | 5.67 |
| 9N12693 | S.P.S.T. | . 35 | 3.15 | 9N12783 | D.P.D.T. | . 56 | 5.04 |
| 9N12780 | SP.S.T.* $\dagger$ | . 35 | 3.15 | 9N 12784 | D.P.D.T.* | . 64 | 5.76 |
| 9N12781 | D.P.S.T. | . 52 | 4.68 |  |  |  |  |

## ROTARY SWITCH PLATE

'Off-On" switch plate. Etched aluminum and black. Size: $1^{\prime \prime} 11 / 1{ }^{\prime \prime}$. Clean cut lettering 9N9857-10 tor 85\$. Each......... © "OHf-On" Switch Plate, Etched aluminum,



## 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 1 amp. at 125 V . AC. Bushing " $1 / 2^{\prime \prime}$ dia., $5 / 8^{\prime \prime}$ long.

METAL PLUNGER


Used on Supreme instruments and other popular makes, 9N12774-Your Cost $46 \$$ 10 For. 4.14

BAKELITE TIP
\(\left.\begin{array}{l}9N12777-Red. <br>

9N12778-Black.\end{array}\right\}\) Each.......... 57\& | 10 For |
| :---: |
| 5.13 |

BAKELITE BUTTON
9N12775-Red.
9N12776-Black. $\}$ Each
10 For. ...... (Specily Color).

## BAKELITE KNIFE SWITCHES

Heavily plated metal parts, bakelite bese. Single pole types $11 / 2^{\prime \prime}$ long; double pole $212^{\prime \prime}$. Excellent for use for switching high and low sections of television antennas.

|  | No. | Type | Each |
| :---: | :---: | :---: | :---: |
|  | 9N16830 | S.P.S.T. | 50 |
|  | 9N16831 | S.P.D.T | . 59 |
| ntit ${ }^{\text {a }}$ | 9N16832 | D.P.S.T. | . 68 |
| $\pm$ | 9N16833 | D.P.D.T | 79 |
|  | 9N16834 | 3-P.S.T. | 1.09 |
|  | 9N16835 | 3.P.D.T. | 1.18 |
|  | 9N16836 | 4.P.S.T. | 1.47 |
|  | 9N16837 | 4-P.D.T. | 1.76 |



UNIMAX NEW PRECISION SWITCHES
Actuators attached to removable, interchangeable "adaplaplates" Operating pressure, appro. 8 oz . All units SPDT, except MXO.1, which is SPST. Ratings: 15 amps, 125 volts; 5 amps, 250 volts; 60 cyc . Units vary only in style of actuator.
9N12653-MX-1 Basic Pin Type (A) .............................. 1.00
9N12654-MXL-1 Leal Spring Type (C).
N 12655 - MXO. 1 Top Reset, Plunger Type (B)
9N12656-MXU-1 Boltom Reset, Plunger Type (B).
9N12657-MXT.1 Hinged Leal Spring Type.
9N12656-MXW. 1 Leaf Spring Roller Type (D)
9 N12659-MXO. 1 Plunger, Small Spring Type (E)
9N12660-MXA-1 Hinged Arm, Roller Type.
9N12661-MXY-1 Reverse.Acting, Hinged Type
9N12662-MXF.1 Reverse-Acting, Hinged Roller Type
9N12663-MXJ-1 Plunger Type, For Panel

## UNIMAX DESIGN KIT

Fills many needs in the dralting room, mode! shop and maintenance depl. Makes available diversilied switch types for quick determination of size. shope, inounting and method of actuating, for particular application. Complete with two MX-1 SPDT base switches, one MXT-1 base switch with direct acting hinge arm. Adaplaplates, one style "J" spring piunger with threaded bushing for one hole panel mig., one spring piunger with threaded bushing tor one hole panel mig., one " ' ' direct acting with leat one "T" style direct action with roller, roller assembly to fit " $L$ " and " $T$ " adaptaplates. Screws and rivets for attaching adaplaplates.
9N12758-Complete.

FEDERAL ANTI-CAPACITY SWITCHES

Springs are phosphor bronze silverplated, actuated by a cam roller. Dimensions: $21 / 2 \times 5 \times 3 / 4$.


| No. | Type | Each | No. | Type | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9N12852   <br> 9N12851 D.P.S.T. D.P.D.T. | 1.90 | 9N12850 | 4-P.D.T. | 2.25 |  |

## CANOPY SWITCH

Rotary type, composition top. Very shallow. Wire leads. Rated 3 amp, at 125 volts.
leads. Rated 3 amp. at
$9 N 13342-10$ for 1.35.
Each
15


## SLIDE SWITCHES

Compact slide silver plated switches in cadmium steel housings. All rates at 125 V . AC.DC. $11 / 8^{\prime \prime}$ mig. ctrs.

| No. | Tyife | Amp. | Term. | Es. | No. | Type | Amp. | Term. | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9N 12842 <br> 9N1284' | SPST | . 75 | $\begin{aligned} & 2 \\ & 3 \end{aligned}$ | $\begin{aligned} & .16 \\ & .19 \end{aligned}$ | $\begin{aligned} & 9 N 12844 \\ & 9 N 12840 \end{aligned}$ | $\begin{aligned} & \text { DPST } \\ & \text { DPDT } \end{aligned}$ | $\begin{aligned} & .50 \\ & .50 \end{aligned}$ | 4 | $\begin{aligned} & .22 \\ & .28 \end{aligned}$ |

## STANDARD MU-SWITCH THERMOSTAT-TYPE SWITCH



Light pressure, quick action precision units. Require only 4 oz. pressure and .001" of movement to operate. Underwriters apo proved. Rated 15 amps. at 125 volts AC $1 / 2$ H.P. inductive loads at $125-460$ V. A.C. Screw terminals with lugs. $1^{\text {is }}$ - $10^{"} x^{11} / \int_{6}{ }^{n} x^{13}$, i6" $\left.\frac{\text { No. }}{9 N 12725}\left|\frac{\text { Type }}{\text { SPST }}\right| \frac{\text { Normal }}{\text { Closed }} \right\rvert\, \frac{\text { Each }}{90}$ |  |  |  |  |
| :--- | :--- | :--- | ---: |
| $9 N 12125$ | SPST | Closed | .90 |
| $9 N 12726$ | SPST | Open | .90 | 9N12127 SPDT Open 1.08

MU switch designed for autornatic control of temperature in electrically heated brooders and incubators, or wherever an automatic electric heat control is desired. Maximum efficiency between $80^{\circ}$ and $120^{\circ} \mathrm{F}$. Has double ether filled waler and adiusting screw. Rled water and adjusting screw. Rated V a C . No inductive. 250 V . AC only. Nor-inductive loads.
9N12753.
1.35

# AMPHENOL AND JOHNSON SOCKETS 

AMPHENOL 78 SERIES STANDARD TUBE SOCKETS
(1): Type RS, for replacement work. Steel from $1 / 10$ plats lor mounting centers from $1 / 2^{\prime \prime}$ to $17 / 8^{\circ}$. (2): Type S, for new work. Single $13 / 16^{\prime \prime}$ hole; firmly held by simple retainer ring. 9 and 11 prong sockets for Amphenol connectors. 7C fits small \& large base tubes.


| $\begin{aligned} & \text { Fig. } 1 \\ & \text { Type RS } \end{aligned}$ | $\begin{aligned} & \text { Fig. }{ }^{2} \\ & \text { Type } \end{aligned}$ | Prongs | Ea. |
| :---: | :---: | :---: | :---: |
| 13N 13057 | 13N 13207 | 4 | 8 |
| 13N13058 | 13N13208 | 5 | 8 |
| 13N13059 | 13N 13209 | 6 | 8 8 |
| 13N 13060 | 13 N 13210 | 75 | 8 |
| 13 N 13061 | 13N 13211 | 7 L | 8 |
| $13 N 13056$ | 13 N 13237 | 7 C | 10 |
| 13N13050 | 13N 13212 | 8 Oct | 104 |
| 13 N 13040 | 13N13045 | 8 lok | 13. |
| 13N13041 | 13N13213 | - | 128 |
| 13N13042 | 13N13214 | 11 | $17 ¢$ |

(3): RECEPTACLE SHELL: For all type $S$ above except 13N13110-Amphenol 23-1S Receptacle Shell.................. 7 AMPHENOL $77-M J P^{*}$ SERIES SOCKETS Molded from hlgh-dielectric black bakelite. With molded-in plate for $1 \frac{1 / 3^{\circ}}{}$ mig. centers. Supertor quality, strong and dependable.

| No. | Prongs | Each | No. | Proncs | Fach |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13N13164 | 4 | 7 | 13N13168 | 7 L | 84 |
| 13N13165 | 5 | 78 | $13 N 13169$ | 8 Oct | 8 |
| 13N13166 | ${ }_{75}$ | 78 | 13N13223 | 9 | 131 |
| 13N13167 | 75 | 74 | 13N13224 | 11 | 14. |

MIDGET "MIP" SOCKETS: Smaller, with $15 / 16 \mathrm{mtg}$. centers. 13N13225-Octal, 8-prong Type 88-8. 12


## AMPHENOL MINIATURE TUBE SOCKETS

Type 78-7P for all 7-pin miniature tubes. Mounts in $8 / 8$ hole. Retainer ring included. Black bakepermits compact layouts.
permits compact layouts.
13N13173-MIniature Tube Socket..
Por Photo Cells: Fits RCA Pee-Wee and the Cetron CE-5BB, CE-20 photoelectric cells. Sturdily made of black bakelite. MINATURE 7 AND 9 PIN SOCKETS
Newest miniature sockets for use with television. FM, auto radios, portables and other installations. 147 Series mount in $5 / 8^{\prime \prime}$ chassis hole, mountung centers $7 / 8^{\prime \prime}$ "Screw holes mounting centers $11 / 8 \%$. Top mountings have mounting cen

| Number | ns | Mat ' 1 | Type | Mtng. | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13N 12576 | 7 | Bakelite | 147-500 | Bottom | $14 ¢$ |
| 13N 12577 | 9 | Bakelite | 59-409 | Bottom | 234 |
| 13N12578 | 7 | Micafilled | 147-913 | Top | 24 |
| 13N12579 | 9 | \% | 59-407 | Top | 340 |

Tube Shialds and Spring Assemblies for Above 13N12580-for 7-pin socket. Ht. 13/8*.............. 13N12581-for 7-pin socket. Ht. 13/4"... 13N12582-for 9-pin socket. Ht. 11/2"................... 124 13N12583-for 9-pin socket. Ht. 1 15/16*... 13N12584-for $9-p i n$ socket. Ht. $23 / 8^{\prime \prime}$ $\qquad$


| No. | Prong | Each | No. | Prongs | each |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | ach |
| 13194 | 4 | 28 ¢ | 13N13197 | 7 S | 284 |
| 13N13195 | 5 | 28 | 13N 13198 | 72 | 35 |
| 13 N13196 | 6 | 28 | 13N 13199 | 8 Oct | 28\$ |

## AMPHENOL FLOATING OCTAL SOCKETS



Live rubber grommets fit into mounting holes - cushion-socket for vibration-free operation. Black bakelite dielectric. Mounts in $1^{\prime \prime} 3 / 16^{\prime \prime}$ hole above or below chassis. Two $1 / 4^{\prime \prime}$ screw holes on $1 / 2^{\prime \prime}$ centers. Complete with 4 rubber grommets, 2 mitg. screws, plus nuts and washers; nothing olse needed for assembly. Type 77-MIP-8FK
13N13158-Floating Octal Socket, ......... 234 Kit for making lloating connections using MIP type sockets. Contains' 4 grommets, 2 mounting serews, nuts and washers. 13N13159-Floating Octal Kit,

## AMPHENOL POLYSTYRENE SOCKET

For extremely low losses at Ultra-High-Frequencies. Molded polystyrene base. Requires $l^{\prime \prime} 1 / 8^{\prime \prime}$ hole. Mounting centers $1 / 2^{\prime \prime}$. Sharp nibs on mounting plate for perfect ground to chas-



## AMPHENOL TV SOCKETS



Extremely efficient, low-loss sockets for TV and cathode-ray tubes. Magnol Type CR socket has 11 silver-plated contacts; substantial barriers to reduce leakage losses, prevent voltage breakdowns. Duodecal, Diheptal sockets have Individual contact wells.

| No. | Amphenol Type | Size | Each |
| :---: | :---: | :---: | :---: |
| 13N13185 | 49-SSI1L | Magnal Type CR | 714 |
| 13N13190 | 59-402 | Duodecal-Circle Dia. 1.063* | 92 ¢ |
| 13N13191 | 59-415 | Diheptal-Small for $2.050^{\circ} \mathrm{Base}$ | 98 c |
| 13N13192 | 59.417 | Diheptal-Med. for $2.250^{\prime \prime}$ Base | 984 |

## JOHNSON SOCKETS

## MINIATURE SOCKETS AND SHIELDS

Sturdily constructed miniature sockets for use with all 7 -pin miniature tubes. Contacts are of phosphor-bronze, heavily silver-plated-selfallgning type. Unusual construction insures exceptionally low losses, with minimum capacitance and leakage between contacts. 13N13186-Minatare Socket Type 267...


STEATITE SOCKET WITH SHIELD BASE: Includes metal ring which extends upward to form a shield yev base.
 13N13220-Sheld Base Only. Type $277 \mathrm{~S}_{\mathrm{r}} \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . . .4_{4}$ 13N13222-1 $3 / 4^{\text {n }}$ Shield 278 for types 277 B or S............ 12

## STEATITE UHF SOCKET 122. 10 ?

7-pin wafer socket with base shteld, retainer spring, provision for mounting mica capacitors on socket for short leads. Small grid colls may 2.312" bet. centers. For tubes $826,829,832$,
etc.


### 122.237 SOCKET FOR 813 \& HK257 TUBES

Low loss steatite socket excellent for use at high and ultra high frequencies. Cadmium plated contacts reinforced with recessed cadmium plated steel springs. $17 / 8^{\circ}$ mounting centers.
13N14158-Size: $25 / 8^{\text {" S Square. Each... }}$
$.65 \not$
LOW-ABSORP TION BASE SOCKETS Ceramic base with cadmium-plated heavy
phosphor-bronze contacts. Double filament springs; heavily nickeled brass shells. Very low losses.
13N14160-UX 4-prong Base Socket, type 123-210........ 88: 8 13N14161-50-watt Base Socket, type 123-211.... . 1.09 Giant 5-prong Type 123-216, for 803 , RK 28, etc.

### 122.275 STEATITE INSULATEDSOCKET

 For Elmac type $4125 A$ and 4-250A tubes. Contacts cadmium-plated, reinforced with sunk: mounting holes bossed for panel mounting. 5 prong, $2-27 / 32^{\prime \prime}$ square, with $3 / 8^{\prime \prime}$ mounting holes on $21 / 4^{\prime \prime}$ centers. Ideal for high frequen and high-temperature operation.13N14156-Each....
.1 .03

## 122-247 STEATITE WAFER SOCKET

7-pin socket for 829,826 , ete. Alum base shield. 13N13187-Each

734

## MIDGET WAFER SOCKETS

Laminated Bakelite. Heavily plated, selfaligning, oneplece rugged, floating conlacts. $\mathrm{H} / 3^{\prime \prime}$ mtg. centers.
$13 N 13114-4$ prongs
$13 N 13115-5$ prongs
13 N13115-5 prongs 13N13125-7, large 13 N13121-6 prongs 13N13127-8, octal
$13 N 13122-7$, small 13 N13075-8, loktal 13N13122-7. small 13N13075-8. loktal
Your cost..... 10 for 54 \&..... Each......... 6 \&


MINIATURE WAFER for compact glass tubes (3/8" diameter), 7-pin type. Mounting centers axe 7/8" apart. 13N 13097. 72

# PLUGS-CONNECTORS-TERMINAL STRIPS 

## AMPHENOL MINIATURE SHIELDED CONNECTORS



Fig. A. Shielded miniafure connectors. Molded bakelite in cadmium plated brass shells. For cables up to $1 / 4$ ". Shield can be soldered to shell where shielded cable is used. "1/10" dia.; $13 / 10^{\circ} \mathrm{L}$ shielded miniature connectors. Mount in $7 / 8$ "dia. hole on $11 / 4$ " centers.

Miniature Connectors Fig. (A)

| Male | Type No. | Fernale | Type No. | Cont. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13N13335 | 91-MPM-3L | 13N13337 | 91 -MPF-3L | 3 | 21 c |
| 13N13336 | 91-MPM-4L | 13N13339 | 91-MPF-4L | 4 | 24 c |
| 13N13338 | 91 -MPM-6L | 13N13340 | 91-MPF-6L | 6 | 26c |

Shielded Sockets Fig. (B)

| Female | Type No. | Male | Type No. | Cont. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13N12704 | 78-PCG-3F | 13N12696 | 86-PCG-3M | 3 | 21c |
| 13N12705 | 78-PCG-4F | 13N12697 | 86-PCG-4M | 4 | 21 c |
| 13N12707 | 78-PCG-6F | 13N12698 | 86-PCG-6M | 6 | 24 c |

## MINIATURE PLUGS AND SOCKETS

Interchangeable with miniature type connectors. Sockets have push-on mounting rings. Excellent lor speaker connections.

| Sockets | Type No. | Plugs | Type No. | Contacts | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13N11599 | 78-S3S | 13N12708 | 71-35 | 3 | 9 c |
| 13N12701 | 78-S4S | 13N12709 | $71-4 \mathrm{~S}$ | 4 | 9 c |
| 13N11542 | 78-S6S | 13N12711 | 71-6S | 6 | 12 c |

## CABLE CONNECTORS

Shielded cap, rubber grommet end opening. Con-
sists of " S " type tube sackets and "CP" plugs.

| Female | Type No. | Male | Type No. | Cont. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13N11475 | 78-PF-4 | 13N11471 | 86-PM-4 | 4 | 18c |
| 13N11476 | 78-PF-5 | 13N11472 | 86-PM-5 | 5 | 18 c |
| 13N11477 | 78-PF-6 | 13N11473 | 86-PM-6 | 6 | 18c |
| 13N11478 | 78-PF-7S | 13N11474 | 86-PM-7S | 75 | 18c |
| 13N11491 | 78-PF-8 | 13N11490 | 86-PM-8 | 8 Oct. | 21 c |
| 13N11508 | 78-PF-9 | $13 N 11506$ | 86-PM-9 | 9 | 23 c |
| 13N11509 | 78-PF-11 | 13N11507 | 86-PM-11 | 11 | 28c |

Amphenol Type 79-CC4. Cable-clamp used with above connectors to relieve strain on soldered connections.

AMPHENOL RECEPTACLES AND PLUGS


Molded black bakelite insulation. 2 -pole receptacles with one elongated hole. May be used with elther standard or polarized type plugs. Underwriters Laboratory approved. Ratings: 15A-125V or $10 \mathrm{~A}-250 \mathrm{~V}$. Dimen.
sions: (A) Holes- $1.172^{\prime \prime}$; (B) Mounting Centers- $11 / 2^{*}$ to $17 / 8^{*}$; (C) Hole-13/8". Mounting Centers $13 / 4^{\prime \prime}$ -

| Stock No. | Type No. | Pole | Type | Each |
| :---: | :---: | :---: | :---: | :---: |
| 13 N 11502 13 N 11503 13 N 11624 13 N 11625 13 N 11626 | $\begin{aligned} & 61 \cdot \mathrm{~F} \\ & 61 \cdot \mathrm{M} \\ & 61-\mathrm{MP} \\ & 60 \cdot \mathrm{~F} \\ & 60-\mathrm{M} \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 3 \\ & 3 \end{aligned}$ | Receptacle Standard plug Polarized plug Receplacle Polarized pluq | $\begin{aligned} & 18 c \\ & 18 c \\ & 18 c \\ & 25 c \\ & 25 c \end{aligned}$ |
| With Plate (B) |  |  |  |  |
| $13 N 11500$ 13N11501 13N11627 $13 N 11640$ 13N11641 | $\begin{aligned} & 61-F I \\ & 61-M 1 \\ & 61-M P 1 \\ & 60 \cdot F 1 \\ & 60-M 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 3 \\ & 3 \\ & \hline \end{aligned}$ | Receptacle Standard plug Polarized plug Receptacle Polarized plug | $\begin{aligned} & 20 c \\ & 20 c \\ & 20 c \\ & 27 c \\ & 25 c \end{aligned}$ |
| Flush Type (C) |  |  |  |  |
| 13N11504 13N11505 13N11635 | $\begin{aligned} & 61-F 10 \\ & 61-\mathrm{M1O} \\ & 61-\mathrm{MP} 10 \end{aligned}$ | $\begin{aligned} & \hline 2 \\ & 2 \\ & 2 \\ & \hline \end{aligned}$ | Receptacle Standard plug Polarized plug | $\begin{aligned} & 28 c \\ & 28 c \\ & 28 c \end{aligned}$ |
| Shielded Cable Connectors (D) |  |  |  |  |
| $13 N 11546$ 13N11545 13N11647 $13 N 11648$ $13 N 11649$ | $\begin{aligned} & 61-\mathrm{F} 11 \\ & 611 \mathrm{M11} \\ & 61-\mathrm{MP} 11 \\ & 60-\mathrm{F} 11 \\ & 60 . \mathrm{M} 11 \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 3 \\ & 3 \\ & \hline \end{aligned}$ | Receptacle <br> Standard plug <br> Polarized plug <br> Recentacle <br> Polarized plug | $\begin{aligned} & 32 c \\ & 32 c \\ & 32 c \\ & 39 c \\ & 39 c \end{aligned}$ |

## TERMINAL STRIPS

Superior quality bakelite torminal strips. Solder
 lugs mounted on thick insulation. Available with 2, 3,4 or 6 solder terminals. Single 6-32 mounting hole.

| Stock No. | Term. | Ea. | 10 for | Stock No. | Term. | Ea. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13N13145 | 2 | 6c | 54 c | 13N13112 |  | 11c |  |
| 13N13123 | 3. | 9 c | 81 c | 13N13113 | 6 | 16 | 1.44 |

JONES PLUGS, SOCKETS


Multiple contact - " 400 " series heavy duty ( 25 am pere) and " 300 " series standard duty ( 5 ampere) slzes. Cable type have clamps. Chassis type have hrackets-heavy duty type at ends, standard type at sides.


Plugs Fig. (A)

| Standard Duty |  |  | Heavy Duty |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contacts | Stock No. | Type No. | Cost Each | Stock No. | Type No. | Cost <br> Each |
| 2 | 13N12460 | P-302-CCT | 31c | 13N12400 | P-402-CCT | . 52 |
| 3 | 13N12418 | P-303-CCT | 34 c |  |  |  |
| 4 | 13N12461 | P-304.CCT | 36 c | 13N12401 | P-404-CCT | . 64 |
| 6 | 13N12462 | P-306.CCT | 40 c | 13N12402 | P-406-CCT | 74 |
| 8 | 13N12463 | P-308-CCT | 44 c | 13N12403 | P-408-CCI | . 85 |
| 10 | 13N12464 | P-310-CCT | 49 c | 13N12404 | P-410-CCT | . 96 |
| 12 | 13N12465 | P-312-CCT | 54 c | 13N12405 | P-412-CCT | 1.08 |
| Sockets Fig. (B) |  |  |  |  |  |  |
| 2 | 13N12466 | S-302-CCT | 310 | 13N12412 | S-402-CCT | 56 |
| 3 | 13N12419 | S-303-CCT | 35 c |  |  |  |
| 4 | 13N12467 | S-304-CCT | 37 c | $13 N 12413$ | S-404-CCT | 71 |
| 6 | 13N12468 | S-306-CCT | 42 c | 13N12414 | S-406-CCT | . 86 |
| 8 | 13N12469 | S-308.CCT | 49 c | 13N12415 | S-408-CCT | 1.01 |
| 10 | 13N12470 | S-310.CCT | 55c | 13N12416 | S-410-CCT | 1.16 |
| 12 | 13N12471 | S-312-CCT | 62e | 13N12417 | S-412-CCT | 1.30 |
| Chassis Type Plug (C) |  |  |  |  |  |  |
| 2 | 13N12472 | P-302-AB | 14 c | 13N12426 | P-402-AB | 33c |
| 3 | 13N12420 | P-303-AB | 17 c |  |  |  |
| 4 | 13N12473 | P-304.AB | 19 c | 13N12427 | P-404-AB | 40 c |
| 6 | 13N12474 | P-306-AB | 23 c | 13N12428 | P.406-AB | 49c |
| 8 | 13N12475 | P-308-AB | 26c | 13N12429 | P-408-AB | 56 c |
| 10 | 13N12476 | P-310-AB | 30c | 13N12430 | P-410.AB | 64 c |
| 12 | 13N12477 | P-312 | 34 c | 13N12431 | P-412-AB | 710 |
| Chassis Type Socket (D) |  |  |  |  |  |  |
| 2 | 13N12478 | S-302-AB | 15c | 13N12406 | S-402-AB | 37 c |
| 3 | 13N12421 | S-303-AB | 18c |  |  |  |
| 4 | 13 N12479 | S-304-AB | 20 c | 13N12407 | S-404-AB | 49c |
| 6 | 13N12480 | S-306-AB | 24 c | 13N12408 | S-406-AB | 59c |
| 8 | 13N12481 | S-308-AB | 30 c | 13N12409 | S.408-AB | 11 c 82 c |
| 10 | $13 N 12482$ $13 N 12483$ | S-310-AB S-312-AB | 36 c 42 c | $13 N 12410$ $13 N 12411$ | S-410-AB | 82 c |

## JONES HEAVY BAKELITE STRIPS

Type 140: 7/6" wide, ${ }^{18} / \mathrm{m}^{\prime \prime}$ high. Terminals are mounted on effer T/8 centers, $1 / 4$ metal to metal spacing over bakelite body. Type 141: $1 / 8^{\circ}$ wide, $1 / 2^{\circ}$ high. Terminals mounted on $7 / 10{ }^{\prime \prime}$ centers with $3 / 8$ " metal to metal spacing over bakelite. Type 142: 1 b/4" wide, $5 /$ " "high. Termi- $^{2}$ nals mounted on $1 / 0_{0}$ centers, $3 / 8$ "metal to metal spacing over bakelite

| Term. | No. 140 |  | No. 141 |  | No. 142 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stack No. | Each | Stock No. | Each | Stock No. | Each |
| 2 | 13N12527 | 14 c | 13N12539 | 18 c | 13N12714 | 22 |
| 3 | 13N12528 | 20 c | 13N12540 | 24 c | 13N12715 | 31 |
| 4 | 13N12529 | 25c | 13N12541 | 31 c | 13 N12716 | . 39 |
| 5 | 13N12530 | 30c | 13N12542 | 38 c | 13N12717 | . 46 |
| 6 | 13N12531 | 34 c | 13N12543 | 44 c | 13N12718 | . 54 |
|  | 13N12532 | 40c | 13N12544 | 52 c | 13N12719 | 63 |
| 8 | 13N12533 | 45 c | 13N12545 | 58 c | 13N12720 | 11 |
| 9 | 13N12534 | 51 c | 13N12546 | 65 c | 13N12721 | 78 |
| 10 | 13N12535 | 56 c | 13N12547 | 72 c | 13N12722 | . 87 |
| 11 | 13N12536 | 61 c | 13N12548 | 78 c | 13N12723 | . 95 |
| 2 | 13N12537 | 66 c | 13N12549 | 84c | 13N 12724 | 1.03 |

BAKELITE MOUNTING STRIP
Mounts parts on chassis.


| Stock No. | Lugs | Each | 10 for | Stock No. | Lugs | Each | 10 for |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13N13124 | 1 | 2 c | 14 c | 13N13135 |  | 4 c | 31 c |
| 13N13133 | 2 | 3 c | 16 c | 13N13137 |  | 5 c | 45 c |

 7/8" wide, $1 /$ /a $^{2}$ thick.

| Stock No. | Terminals | Each | 10 For |
| :---: | :---: | :---: | :---: |
| $13 N 13140$ | 2 | $7 c$ | .63 |
| $13 N 13141$ | 3 | $12 c$ | 1.08 |
| $13 N 13142$ | 4 | $16 c$ | 1.44 |
| $13 N 13143$ | 5 | $19 c$ | 1.71 |
| $13 N 13144$ | 6 | $22 c$ | 1.98 |
| $13 N 13230$ | 7 | $24 c$ | 2.16 |
| $13 N 13231$ | 8 | $29 c$ | 2.61 |
| $13 N 13232$ | 9 | $32 c$ | 2.88 |
| $13 N 13233$ | 10 | $35 c$ | 3.15 |

## PHONE PLUGS - CONNECTORS

MALIORY JUNIOR JACKS


Compact, extend only 1 s/e" behind the panel. Equipped with heavily-plated springs.
No. 701 -Open Circult.
13N6450-Each.
32c
13N6451-No. 702 . Circuit clos.
13N6449-No. 702 A. Two circult. $13 N 6449-N o .702 A . ~ T w o ~ c i r c u l t . ~$
13N6435-No. 702B. Three circuit microphone jack. Each, ony type.
13N6452-No.
$44 c$ 13N6452-N. 703.
13N6459-No. 703A. cir. reverse. 13N6466-No. 703B. 3 circuli mike, I circuit closing. Each, any type

50c
13N6433-No. 704. Interstage. 13 N 6478 -No. 704A. Two circuil Eachent control.. 59C 13N6479-No. 705. Two-circuit filament lighting.

68 c 13N6448-No. 706 . Inierstage. filament control.
$73 c$

## MALLORY MIDGET JACKS



Extremely compact. Mount in 3/6 "hole. Type A-1 "Infant" Jack is not illustrated

| No. | Part | Type | Ea. |
| :---: | :---: | :---: | :---: |
| $13 N 6182$ | A-1 | Open circult | 18 c |
| 13N6183 | A-2 | Cir. closing | 29c |
| 13N6184 | A-2A | 2circuit | 32c |
| 13N6185 | A-3A | Cir. Reverse | 47c |

## LONG FRAME JACKS

(i)

Extend $31 /{ }^{\prime \prime}$ " behtnd panel. Have pure silver contacts as well as bakelite separators. No. 1 Open Circuit.
13N6400-Each . ....... 38 e
13N6401-No. 2 Circuit Cloing 13N6401-No. 2 Circuit Closing.
13N6402-No. 2A. Two Circuit long frame jack. Either type. Each $47 c$

## SIGNAL CORPS TYPE JACKS <br> 

Phone Jack: Type SCIA. Like Sig. Corps typo JK-34A. Open circuit. Takes Mallory 75; W. E. 47A, 47B; Sig. Corps No. PL.47. PL-48, PL-55, PL-148, PL-155.
13N6300-Each.
$32 c$ Mike Jack: Type SCA 2 B . Three oircuit. Like Sig. Corps No JK-33A. Takes W. E. 109; Sig. Corps No. PL-46, PL-68, PL-168.
13N6301-Each.
38 c
FLAT PLUG


Ulira-compact type for use where space is limited. Molded bklt.


MALLORY PLUGS; JACKS


No. 75. Two way. Bakelite shell. Tie cord anchor included. 13N6295-Each

CANNON TYPE XL CONNECTORS


Designed for use on all types of mikes, PA systems, standard radio equipment and for electrical installations requiring up to 3 wires with 15 amps . capacity. Patented latchlock device permits easy and positive inserition and removal. * Zinc shells- 1 steel shell

STRAIGHT PLUGS

| Stock No. | Type | Illust. | Description | Each |
| :---: | :---: | :---: | :---: | :---: |
| 13N13321 | XL-3-12* | 1 | Male (pin insert) | . 71 |
| 13N13322 | XL-3-11* | 1 | Female (socket insert) | . 73 |
| CLAMP TYPE PIUGS |  |  |  |  |


| 13N13345 | XL-3.12SC | 4 | Male (pin insert) | 1.62 |
| :--- | :--- | :--- | :--- | :--- |
| 13N13346 | XL-3-11SCt | 4 | Female (socket insert) | 1.65 |

WALL RECEPTACLE

| 13N13323 | XL-3.14* | 2 | Male (pin insert) | .59 |
| :--- | :--- | :--- | :--- | :--- |
| 13N13341 | XL.3-13* | 2 | Female (socket insert) | .73 |

## PANEL RECEPTACLE

| 13N13343 | XI. $3 \cdot 14 \mathrm{~N}^{*}$ | 3 | Male (pin insert) | .68 |
| :--- | :--- | :--- | :--- | :--- |
| 13 N 13344 | XL.3.13N | 3 | Female (socket insert) | .73 |

## ADAPTER RECEPTACLES (-) (

Adapts microphones for use with Cannon plugs.

| 13N13347 | XL.3-50* | For Universal D20A mike, etc. | .62 |
| :--- | :--- | :--- | :--- |
| $13 N 13348$ | XL.3-50T* | For Turner 2ll mike, etc. | .68 |
| $13 N 13349$ | XL-3-50N* | For Shure, Astalic, E.V. etc. | .76 |

## AMPHENOL 83 SERIES UHF CONNECTORS

UHF low-loss single contact connectors and adaptors for use with RG type cables. Small and large sizes for coax and twinax cables. RG type cables. Small and large sizes for coax and twinax cables. Made for all practical ainc and mo
2.pc. stralght plug with low-loss mica-filled insert.

13N11550-Straight Plug 83-1SP
82c
 Receplacle chassis or box type. Low-loss mica.filled inserlis51-Receptacle Chassis 83-1R
1.21

Angle plug adapter. Polystyrene insert, pin and socket
1.46


For 1 or 2 phone or speaker cords. Molded bakelite shell 23/4" long, $3 / 4$ " diameler. With screw connections.
13N14974-Black. Ea...
13N14971-Red. Ea... 10 for.
.2 .43

## Mefal Shell Type

Same with nickeled brass shell.


## "Stubby" Metal Shell

 As above but with short metal shell. 214 " overall. 13N14959-Each. 10 for.$42 c$

## Midget Bakelite Plug

Bakelits shell. $21 / 4^{\circ} x=1 / 6^{\circ}$ dia. Saldor lug connections. 13N14960-Black. Ea....
13N14963-Red. Ea... 27e 13N14963-Red. Ea.
$27 c$
.2 .43

## Midget Metal Shell

Same with metal shell. $21 / 4^{*}$ overall $x$ " M " $^{\prime \prime}$ diameter. 38 13N14958-Each.......
$38 c$

# BINDING POSTS－PHONE TIPS－PLUGS 

| PHONO TIP PLUG AND JACK |  |
| :---: | :---: |
| $x^{5}=(2) 3$ |  |
|  |  |
|  | Double Phono lock mounted on |
|  | 1／3N12964（C） $1 / 2^{2}$ Centers 10c |

$\overbrace{}^{5}$EBY BINDING POSTS NON－REMOVABLE TOPS
Specially designed for use on metal chassis．Post has Jumor hole for wire or phone tlip．Has 6.32 stud Jumor Post．Has 6.32 stud， $1 / 2{ }^{\prime}$ long． 13Ni3082－Each．．．．．．．．．15c Ensign Post．Has 6.32 stud． $53^{\circ}$ $\underset{\substack{\text { long } \\ \text { lisi }}}{ }$ 23c
 EBY TWIN POST UNITS
Two binding posts molded into a heavy Bakelite base． 13 Neavy 13062

42c


INSULATED POSTS
Red or Black composition top．Plated ferrule．Spec 11y color． IIc

PLAIN TIP JACKS
For test equipment．Power－ ul spring． $1 / 4^{\circ}$ mounting hole．
13 Ni
13N12918－Each．．． $6 C$

## ALL INSULATED <br> TIP JACK


 Bronze spring． 13N12934－Red． 13N12935－Black

15c SPRING CLAMP
BINDING POSTS

Insulated top．Spring clamp holds $w$ all length 1
13N13046－Each
15c


BINDING POST WITH
BANANA JACK TOP Hole in top takes banana velug．Hole in slem for wire．Red or Black Spacify color．
13N12945－Each． 10 tor．
1.35

## PLAIN BANANA

 JACKS AND PLUGS

Plug is $11 / 8{ }^{\circ}$ long．Jack 18 5／6＂ long and its $1 / 4^{\circ}$ hole in panels
un to 3／thick．
13 N12919 Hlug．Each 10 for ．．．．．60c 100 for
13N12923－Jack．Each． 10 for


## MOLDED BAKELITE

 INSULATED TIP JACKSLarge diameter moldad Bakelite heads take all phone tips．Phosphor bronze springs．With insulating washer
3N12877－Red．
13N12878－Black
12c
Either Type， 10 for
.1 .08

##  <br> COMBINATION JACK <br> New type，takes both phono tips and banana plugs．Fully insulated， with insulated washer． In Red or Black．Specify color desired． 11c 10 for <br> INSULATED TIP JACKS <br> 



9 c
10 for．
80c


## AMPHENOL PHONE TIP JACKS

Type 78－1P．Bakelite body．Takes standard plain or solderless
phone tips．Mounts Nress iecurely by means of snap ring．Requires 3／6 hole．Red or Black－specify color desired．
13N12765－Each

5c

TIP JACKS


Mounted on $3 / y^{\circ}$ Bakelite．Contact springs grip cord tips securely Double lack type． 10 for．
$9 c$
Same a
13N13036－Each ．．．．．．．．T4C

## ALLIGATOR PHONE

TIP JACK


Aligator clip fitted with standard phone tip jack．Fits test prods equipped with phone tip ends． Redor Black－specify color．
$25 c$ 13N12880－Each
.2 .24

## CINCH STAND－OFF TERMINALS

Insulated；for TV and other high voltage electronic equipment．Mica－filled low loss bakelite．Mounts in 5／4＂diameter hole．Provides excellent insulation for passing HV wires through chassis．

| Stock No． | Type | Length | Each |
| :---: | :---: | :---: | :---: |
| 13N12965 | $16 S$ | $9 \%$ | $\mathbf{4 4 C}$ |
| 13N12966 | 16 L | $13 \%$ | $\mathbf{4}$ C |

ALLIGATOR CLIPS


Powerful grip． $2^{\circ}$ clip is $1 / 4^{\circ}$ wide， $23 / 4^{\circ}$ clip is $1 / 0^{\circ}$ wide．Steel non－ rusting finish．

| No． | Length | Each | $\frac{10 \text { for }}{54}$ |
| :---: | :---: | :---: | :---: |
| $13 N 12955^{*}$ <br> $13 N 12956$ | $23 / 4^{\circ}$ | 12 c | 1.08 |

＊End takes banana plug．
Copper with bronze spring． RF work．Set screw 2 long 13N12917－Each． 10 for．

## INSULATED BANANA JACKS AND PLUGS



Plug has set screw for solderless wire connection．Jack fits $1 / 4{ }^{\circ}$ hole and panels up to 3／8＂thick． Red or Black insulation on both． Specify color desired． 12 C
13 N 12915 －Plug．Each．．．． 10 lor．．．． 1.08 100 tor ．．． 9.70 13N12916－Jack．Each．．．． 9 10 for ．．． 8 le 100 for ．．．． 7.60

## BERYLLIUM BANANA PLUGS <br> $\pi-10$

Signal Corps approved．Used on all government equipment．Made of Beryllium copper．Rivet shank of plug can be lurned over with－ out splitting．Shank $1 / 4^{\circ}$ lang．
$1 / 8^{\circ}$ diam．Overall size： $13 / 16^{\circ}$ ． 13N13183－Each．．．．．． 9 e
13N13184－Overall size：i1／8
Same but with 6.32 threaded stud 3 复 ${ }^{\circ}$ long．
$.15 c$

SOLDERLESS INSULATED PHONE TIP PLUGS


INSULATED ALLIGATOR CLIPS

Plated metal grips with insulated handles that take banana plugs． Handles in Red or Black；specify． Steel non－rusting finish．


Heavily plated．Takes up to No． 18 wire． 1 ＂long．
13 N14881－10 for．．．．．．．．． 2 C 100 for．

## PHONO NEEDLE PLUG



PHONE TIP AND LUG ADAPTERS FOR PRODS


For use with any banana plug． Fits tip jacks or binding posts． Red or Black．
$\left.\begin{array}{l}\text { Red or } 13 \text { Black．} 129 \text {－phone tip end } \\ \text { 13N12914－－Spadelug end }\end{array}\right\}$ Either Type， 10 for．

PLAIN SOLDERLESS
PHONE TIP PLUGS

All metal tip plug for tip jack und． Solderless connection． $15 / 8{ }^{\circ}$ long．
$13 N 12943-10$ for 54 c
Each．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． As above but $11 / 1 /$ long． 13N12944－10 for 54 e Each． $6 c$

AMPHENOL BAKELITE JACKS AND PLUGS


Mount in $3 / 6^{\circ}$ hole with retainer ring included．Contacts recessed $1 / 8$＂ Body may be used as a feed－thru．State cholce，Red or Black．

| JACKS |  |  |  | PLUGS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No． | Type | For Plug | Each | Stock No． | Type | For Jack | Each |
| 13N12920 | 78．1S | 8／6 | 5 c | 13N12900 | 71．1S | $3 / 8{ }^{\text {a }}$ | $31 / 20$ |
| 13N12921 | 78.11 | $3 / 8$ | 5 c | 13N12901 | 71.11 | 行。 | 3 |
| 13N12922 | 78－1M | $1 / 8$. | 5 c | 13N12903 | 71.1 M | 1／8＊ | $31 / 2$ |

## CLIPS=KNOBS



## MUELLER CLIPS AND RUBBER INSULATORS

Spring-actuated clips Type 27 and 27C are laboratory iypes with mesh teeth on three sides, others have teeth in tront only. Insulators listed opposite proper sizo clips. in tront only. Insulators listed opposite proper sizo clips. come 5 red and 5 black.


- Cadmium plated steel. $\ddagger$ Lead coated steel. $\dagger$ Solid copper.


## No. 85T CROCODILE TIP CLIP <br> $\qquad$

For connectina Bridges, Voltmeters, or anything having binding posts with non-removable heads.


MUELLER WEE-PEE-WEE CLIP
Non-ferrous R.F. Clip. Will not heat in high frecuency circuits. Ideal for tapping coils. Length 1 ", $16^{\circ}$. Completely insulated with Red or Black facket (sperify color desired. No. 88-98)
17N16022-10 for 1.47
Each 16c


## MUELLER "TWIN-CLIP"

Special type clip-has jaws on both ends. Makes a quick splice, reconnects a broken lead, etc. Can be used for holding or racking parts in industrial processing or holding
articles tor display.
17N16025-10 for 69c.
Each 8c


Grips wire with right pressure for good electrical contact without injury to wire. All are nickel-plated brass except thich are nickelplated bronze.

| Stock No. | Fig. | Lgth. | Max. Wire | Mig. Hole | 10 For | 1000 For |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17N14824 | B | $1{ }^{\circ}$ | No. 10 | No. 8 | 8 c | 6.40 |
| 17N14828 | C | 11伤" | No. 10 | No. 8 | 14 c | 9.40 |
| 17N14826 | A | 13. | No. 10 | No. 8 | 36 c | 29.00 |
| 17N14823* | B | 30. | No. 14 | No. 6 | 7 c | 5.60 |
| 17N14825 ${ }^{\circ}$ | A | $1{ }^{\circ}$ | No. 14 | No. 6 | 30 c | 24.80 |
| 17N14820 | D |  | No. 10 | Copper lug | 44 c | 34.20 |
| 17N14821 | r | 3/4. | No. 12 | No. 6-32 | 13 c | 8.50 |



## CLIPS

Miniature type for metal iubes. With wire ferrule.


## G-C AMO MINIATURE TUBE PULLER

Designed to prevent tube breakage and burned fingersspeeds servicing of radios using miniature type tubes. Easily removes or inserts miniature tubes such as 6AGS, SOBS, etc. Works on suction and vacuum principle-gets into places where fingers alone could not reach. 18N15584-Shpg. wt. 2 oz. 18N15594-For 9-pin tubes.

## MINIATURE TUBE PIN STRAIGHTENER

Precision constructed steel die. Quickly straightens and aligns pins on types such as 50B5, 35W4, etc. Can be carried in tool box or fastened to bench 18 N15261-For 7-pin Miniature Tubes

59


## BAKELITE KNOBS

| Molded and polished walnut bakelite knobs for $1 / 4^{*}$ shafts. All are set screw type except those marked with "which are brown push-button knobs; $\dagger$ is knurled hole mtg.: "* have recessed tops. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Type | Dia. | Ea. | 10 |
| 11N9655 | 1 | $1^{\prime \prime}$ | 8 c | 72 c |
| 11N9693 | $2 \dagger$ | 7/8" | 4 c | 33 c |
| 11N9736 | 3 | $34^{\prime \prime}$ | 5 | 44c |
| 11 N9737 | 3 | 1/8' | 6 c | 54 c |
| 11 N9692 | 4 | ${ }^{3} 1^{\prime \prime}$ | 5 c | 44e |
| 11N9694 | 5 | 7/810 | 3 c | 27 c |
| 11 N9695 | $5^{* *}$ | 76 | 3 c | 27 c |
| 11 N9661 | $6^{*}$ | ${ }^{13} / \mathrm{M}^{\prime \prime}$ | 4 C | 33 c |
| 11 N9696 | $0^{\circ 00}$ | 3164" | 4 c | 33 c |
| 11N9657 | 7 | 3. | 7 | 63 c |
| 11N9660 | 8 | ${ }^{13 / 16 "}$ | 7 c | 63 c |

## Pointer and Lever Knobs

Polished Black bakelite. Al have filled pointers except " $M$ " (has ridged lop). For $1 / 44^{\circ}$ shafts. | No. |
| :--- |
| Lath. Ht. Type: Ea. |




Red Bakelite.

## MIDGET KNOBS

12. With and without the pointer Illustrated. For gmall sets. $11 / 46^{\circ}$ dia. Set screw. $1 / 4$ shaft.

| Color | With Pointer | Without Pointer | Ea. | $\begin{aligned} & 10 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Walnut | 11N9676 | 11N9680 | 6 c | 54 |
| Ivory | 11N9677 | 11N9681 | 6 c | 54 |
| Red | 11 N9678 | 11 N 9682 | 6 c | 54 |
| Black | 11 N9679 | 11N9683 | 6 | 5. |

## KIT OF SO KNOBS

13. Assorted sizes and colors in new, modorn, designs as used on the latest post-war sets. All standard shaft size openings. Four each of 12 different designs two each of one design. Kit con sists of 12 sel screw type, 18 snurled shaft type and 20 tlatted shaft spring type.
2.48

## G.C. KNOB PULLER

14. Knobs that are hard to grip can be easily removed with this knob puller. Simply slip the G-C knob puller. Simply slip the Gehind the knob and pull if oft. Saves time, the cabinet and the knob
18N15042..
$24 c$
TV KNOBS FOR RCA 630TS CHASSIS

| Stock No. | RCA Type | Description | Each |
| :---: | :---: | :---: | :---: |
| 11N9669 | 71598 | Escutcheon Dial for Che | 1.00 |
| 11N9670 | 71534 | Station Selector | . 32 |
| 11N9671 | 71535 | Picture, Brightness or Ver. Hold | 21 |
| 11N9672 | 71537 | Dummy Brightness. | . 18 |
| 11N9673 | 71533 | Fine Tuning. | . 24 |
| 11N9674 | 71536 | Horiz. Hold or Volume Control | 18 |



TRANSMITTER KNOBS FOR $1 / 4$ IN. SHAFTS

| No. | Type | Size | Ea. | $\begin{aligned} & 10 \\ & \text { For } \end{aligned}$ | No. | Type | Size | Ea. | $\begin{aligned} & 10 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 N13022 | 1 | $11 / 2^{\prime \prime} \mathrm{d}$. | 30c | \$2.70 | 11N13005 | 3 | $13 / 8{ }^{\text {n }} \mathrm{d}$. | 20 c | \$1.80 |
| 11N13018 | 1 | $15 / 8{ }^{\prime \prime} \mathrm{d}$. | 12 c | 1.08 | 11 N13013 |  | $138^{\prime \prime} \mathrm{d}$. | 21. | 1.89 |
| 11 N13004 | 1 | $13 / 4{ }^{\prime \prime} \mathrm{d}$. | 31c | 2.79 | 11 N13012 | , | $2^{3} 8^{n} \mathrm{~d}$ d. | 26 c | 2.34 |
| 11 N13011 | 1 | $21 / 10^{\prime \prime} \mathrm{d}$. | 32 c | 2.88 | 11N9885 | 4 | $11 / 8^{\prime \prime} \mathrm{d}$. | 112 | . 99 |
| 11 Ni3010 | 1 | $3^{\prime \prime} \mathrm{d}$. | 41c | 3.69 | 11N9886 | 5 | $11 / 2 \mathrm{~d}$. | 12 c | 1.08 |
| 11 N9896 | 2 | $11 / 2$ "d. | 44e | 1.96 | 11N13008 | 5 | 1588d. | 19 c 24 c | 1.71 2.16 |
| 11 N13014 | 3 | $11 / 3$ "d. | 13e | 1.17 | 11Ni3009 | 5 | $23,8^{\prime \prime} \mathrm{d}$. | 32c | 2.88 |

G-C AUTO RADIO KNOBS


Fig. 1. ${ }^{13 / 6 "}$ dia.: $7 / 6^{*}$ high. For either $1 / 4^{\text {" }}$ or $3 /$ a $^{2}$ shafts; bushing included.
Pearl Gray.
11N9667-io for 1.62. Ea... 18c Maroon.
1 N9668- 10 for 1.62 . Eo... 18 c

## KIT OF 100 KNOB SPRINGS

A handy kit for every serviceman. 12 different type knob springs and wedges to take care of all replacements. Made of tempered spring steel.

## SMALL HARDWARE

DELUXE HARDWARE ASSORTMENT
 Our most popular hardware assortment conveniently boxed. Contains over 1000 pieces of the most frequently used hard ware: assortod machine screws, nuis, bolts, riveis, etc.
17N14831-Wt. 4 lbs
976

## PICKUP CARTRIDGE MTG. SCREWS

 Contains smallmachine and self-tap- ping screws of various lengths, sizes, stylas for fasteningcastridge to pickup arm. Pkg. contains approx. 30 screws, spacers.

246
RADIO HARDWARE IN JARS


Most convenient way to keep your small hardware-glass jars with screw-on caps. Any far below.

336 17N14675-jar only. 6c
Round Head Machine Screws (A)

| No. | Quantity | Size |
| :---: | :---: | :---: |
| 17N14650 | 100 | $4-36 \times 1 / 4$ ", long |
| 17N14651 | 100 | $4.36 \times 1 / 2^{\prime \prime}$ long |
| 17N14652 | 75 | $4-36 \times 3 / 4{ }^{\prime \prime}$ \% long |
| 17N14653 | 90 | $6-32 \times 1 / 4$. , long |
| 17 N 14654 | 80 | $6-32 \times 1 / 2^{\prime \prime}$ long |
| 17N 14655 | 70 | $6-32 \times 3 / 4.1$ long |
| 17N14656 | 75 | $8-32 \times 3 / 8$. , long |
| 17N14657 | 70 | $8.32 \mathrm{x} 1 / 2^{\prime \prime}$ long |
| 17N14658 | 65 | $8-32 \times 3 / 4{ }^{\prime \prime \prime}$ long |
| 17N14659 | 60 | 10-32x $1 / 2^{\prime \prime}$ " long |
| 17N14660 | 50 | 10-32x $x^{3 / 4}$ " long |

P-K Top Screws (C)

| No. | Quantity | Size |  |
| :---: | :---: | :---: | :---: |
| 17N14665 | 50 | No. $4 \times 1 / 2^{\prime \prime \prime}$ |  |
| 17N1466 | 50 | No. $6 \times 1 / /^{\prime \prime}$ |  |
| 17N14667 | 45 | No. $6 \times 31^{\prime \prime}$ |  |
| 17N14668 | 40 | No. 7x $1 / 2^{\prime \prime}$ |  |
| 17N14669 | 35 | No. $10 \times 3 /{ }^{\prime \prime \prime}$ |  |
| 17N14670 | 45 | No. $10 \times 3 / 8^{\prime \prime \prime}$ |  |

Hexogon Nuts (8)

| No. | Quantity | Size |
| :---: | :---: | :---: |
| 17N14661 | 110 | $4.36 \times 1 / 4^{\prime \prime}$ |
| 17N14662 | 110 | $6-32 \times 1 / 4^{\prime \prime}$ |
| 17N14663 | 90 | $6-32 \times 5 / 16^{\prime \prime}$ |
| 17N14664 | 90 | $8-32 \times 5 / 16^{\prime \prime}$ |
| Washers (10) |  |  |
| 17N14671 | 150 | No. 6 Plain |
| 17N14672 | 150 | No. 8 Plain |
| 17N14673 | 100 | No. 6 Lock washer |
| 17N14674 | 100 | No. 8 Lock washer |

## ESCUTCHEON PINS

$\longrightarrow$ Fastens any type of escutcheon or nameplate. $5 / 16^{\prime 4}$ long. 146
17 N14811-Per $100 . . . . . . . . . . . . . ~$

## RIVET AND EYELET ASST.



Special assortment of 55 popular size rivets and
fasten sockets, etc. fasten soc
$17 N 14840$

246


## BUMPER FEET

17N14757-Each
Felt, with No. 6 P-K scrow for mounting. Felt is permanently clamped into place
by metal ring $3 / 4^{\prime \prime}$ in dia.

10 For
............... 4e

CABLE CLAMPS
Heavy gauge steel. No. 6 mounting hole. Plated.
17N14951-1/4"... Gross 90c 4 for 3 C 17N14952-1/20... Gross 1.953 for 5c
"1000 PLUS" HARDWARE KIT


Here is a hardware kit to fill the needs of service men and home constructors. 100 and one items needed for different jobs every day. Each item is conveniently separated into its own compartment box. Over 1000 assorted pieces are included in the kit. There are 125 assorted lengths of $6-32$; $100,8-32$ and $25,10.32$ machine screws. Also included are 100 each of $6-32$ and $8-32$ nuts, 100 assorted wood screws, 150 assorted rivets and eyelets, 10 each assorted lugs, flat washers and 100 grommets and fibre washers. 17 N 14815 -Shpg. wt. $4 \mathrm{lbs} . .$.


ASSORTED BRACKETS
Pkg. of 28 most used angles, brackets.

416


## ASSORTED FIBRE WASHERS

 Contains 100 plain and shoulder type to fit No. 6 , 8,10 screws, and $1 / 4^{\prime \prime}, 3 / 8^{\prime \prime}$ and $1 / 2^{\prime \prime}$ holes. 17N1483236c

## ASST. SEL <br> 40 most often used sizes. No nuts needed-start 7N <br> $35 c$

## RUBBER GROMMET KITS



Kit " A " contains 12 asst. grommets in 4 sizes: $3 / 16$ 4/2". "B" has 30 in same 1zes
17N14794-Asst. "A": 21c 17N14795-Asst. "B" 13 c


## RUBBER GROMMETS

Insulate holes in $1 / 16^{\prime \prime}$ motal panels, chassis, electrical applíances, etc.

| Stock No. | Fits Hole | Insido Diam | $\begin{aligned} & \text { Per } \\ & \text { Doz. } \end{aligned}$ | $\begin{aligned} & \text { Por } \\ & 100 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 17N 14765 | $1 / 4^{\prime \prime}$ | $1 / 8^{\prime \prime}$ | 9 c | c |
| 17N14766 | 5/16" | 3/16" | 16c | $65 c$ |
| 17N14768 | 7/16" | 5/16" | 20 c | 70 c |
| 17N14769 | $1 / 2^{\prime \prime}$ | 3/8* | 22 c | 75 c |

RIGHT ANGLE BRACKETS
Made of heavy metal. Width $3 / 8{ }^{\prime \prime}$.

| Stock No. | Size | Ea. | $\begin{aligned} & \text { For } \\ & 10 \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 17N14895 | 1/2x ${ }^{1 / 2^{\prime \prime}}$ | 11/2c | 10 c |
| 17N14896 | 5/6x 5/8" | 2 c | 15 c |
| 17N14897 | x1" | $21 / 2 \mathrm{C}$ | 20 c |
| 17N14898 | $11 / 8 \times 11 / 8$ | 3 c | 25 |
| 17N14899 | $11 / 2 \times 11 / 2$ | $31 / 2$ |  |

## WING NUTS

17N12926-6-3217N12928-10-32 17N $12927-8-3217 N 12929-1 / 4-20$
Per $10 \quad 31 c$ Per 10.


PLATED MACHINE SCREWS

Available in three types for all needs.

## 6/32 Round Heod Screws

| Stock No. | Length | Gross |
| :---: | :---: | :---: |
| $17 N 14750$ | $3 / 8^{\prime \prime}$ | $39 c$ |
| $17 N 14751$ | $1 / 2^{\prime \prime}$ | $42 c$ |
| $17 N 14752$ | $3 / 4^{\prime \prime}$ | $46 c$ |
| $17 N 14753$ | $1 \because c^{\prime \prime}$ | $53 c$ |
| $17 N 14754$ | $11 / 4^{\prime \prime}$ | $68 c$ |

8/32 Round Head Screws

| 17 N 14755 | $1 / 2^{\prime \prime}$ | 53 c |
| :--- | :--- | :--- |
| 17 N 14756 | $3 / 4^{\prime \prime}$ | 58 c |

6/32 Flat Head Machine Serews

| $17 N 14760$ | $3 / "^{\prime \prime}$ | $38 c$ |
| :--- | :--- | :--- |
| $17 N 14761$ | $1 / 2^{\prime \prime}$ | $11 c$ |
| $17 N 14762$ | $3 / 4^{\prime \prime}$ | $16 c$ |
| $17 N 14763$ | $1^{\prime \prime}$ | $53 c$ |
| $17 N 14764$ | $11 / 4^{\prime \prime}$ | $69 c$ |

ANTIQUE FINISHED
MACHINE SCREWS

| No. | Size | Lath. | Doz. | Gr. Lots |
| :---: | :---: | :---: | :---: | :---: |
| 17N14680 | 6-32 | 3/4" | 9 c | 95 c |
| 17 N 14681 | 6-32 | $1^{\prime \prime}$ | 10 c | \$1.02 |
| 17N 14682 | 6.32 | 1120 | 11c | 1.18 |

Round Head Wood Screws

| Stock No. | Size | Length | Gross |
| :---: | :---: | :---: | :---: |
| 17 N 14780 | 4 | 3/8." | 48 c |
| 17N14781 | 5 | 1/2 | 50 c |
| 17N14782 | 5 | $3 / 4$ | 54 c |
| 17N14783 | 5 | $1^{\prime \prime}$ | 60 c |

NUTS \& WASHERS-POPULAR SIZES

$17 \mathrm{~N} 14804-6 / 32 \times 1 / 4^{\prime \prime}$ hex nuts. Gr. 48 C
$17 \mathrm{~N} 14805-8 / 32 \times 1 / 4{ }^{\prime \prime}$ hex nuts. Gr. 17 N $14805-8 / 32 \times 1 / 4^{\prime \prime}$ hex nuts. Gr.
$17 N 14806-6 / 32 \times 5 / 16^{\prime \prime}$ hex nuts. Gr. 50 C 17N $14807-8 / 32 \times 5 / 16^{\circ \prime}$ hex nuts. Gr. 50 C 17N $14803-10 / 32 x^{3 / 80}$ " hex nuts. Gross ...60c 17N14808-6/32x11/32" knurled nuts. Per 100.
.. .10 17N14809-No. 6 Washers 17N14810-No. 8 Washers ...l 100 for 16 C

(A) LOCKING WASHERS

17N14758-\#6 washer.
(B)

206
Pkg. of 100

## KNOB SET SCREWS

(B) Case-hardened headless set screws.
$\left.\begin{array}{l}\text { 17N14786-1/8" } x 6 / 32^{\prime \prime}, \ldots . . . . . \\ 17 N 14787-1 / 0^{\prime \prime} \times 8 / 32^{\prime \prime}\end{array}\right)$ for 18e

(0) 1
(0) 8

## SOLDERING LUGS

In five types to fit all your soldoring requirements.
(3) $\begin{aligned} & 8 \\ & 0 \\ & 0\end{aligned}$

7N 14812 -No. 1
17 N 14813 -No. 2
17N14814-No. 3, solderless type 17N14816-No. 4, 5/6" long
17N14818-No. 5, 7/日" long
Any above, per $100 \ldots$........34
Por 1000.
3.06


## TAPERED LUGS

(6) Fits over all screws up to No. 10; shank 1its banana plugs. $11 / 4^{\prime \prime}$ long, $1 / 2^{\prime \prime}$ wido. 17N12954-Per doz44e

## HEAVY DUTY SPADE LUGS

(7) Designed for battery terminals, etc. inch long. No. 10 slot.
17N14912-Per 10
.69

## RADIO CHEMICALS

CEMENT SOLVENT AND THINNER
Used for loosening cement on speaker cones, voice coils and other parts where cement has been applied previously. Recommended also for thinning radio cement, plastic cement and fabric cement. 17N15821-4-oz Bottle

38 17N15822-8-oz. Botlie.

## WALSCO CONTACTENE INJECTOR

Injector needle permits application of contact chemicals to

without unsoldering connections or taking control apart. This tool is made with highest quality surgical type needle, and an oil resistant rubber bulb.
17N15823.
44c


## G-C STRIP-X

Makes it easy to strip enamel trom magnet wire. Simply dip
the ends of the wire in Sirip- $X$ the ends of the wire in sirip-X wire is then ready for soldering 17N15826--2-0z. Botlle
$35 c$

## G-C MAGIC SCRATCH

 REMOVER POLISH Dark ShadeSomethang new! Polish contains the proper stains and other ingredients to eliminate scratches on cabinets while pollshing to a gloss. Excellent for radio cabinets, furniture and woodwork. 17N15827-2-oz. Bottle

18e
17N15828-8-oz. Bottle.


## NEW LIGHT SHADE

## SCRATCH REMOVER POLISH

For blonde maple, mahogany and all light woods. Removes scratches and makes the wood like new. Polishes at the same time.
17N15829-2-oz. Bottle
18c
17N15830-8-oz. Bottle

## CARBON TETRACHLORIDE

An excellent all around cleaner for terminals and conirols. Dissolves dirt and grease.
17N15831-8-oz. Bottle.
17N15832-16-oz. Bottle.
17N15833-Quart Can. 89c

## RADIO SERVICE CEMENT

For cementing replacement cones and repairing torn cones. Used on glass to hold wires in place. Vibra. tion-proof, waterproof, fast-drying. 17N15314-2-oz. bottle, brush attached to cap. Each
17N15315-4-oz. Bottle … . . . . . . . 9 c
17N15316-8-oz. Bottle................................ 1.03
17N15317-1-pt. Bottle
1.94

## LUMINOUS LITE-KOAT KIT



Long-life, non-poisonous coating that absorbs light in daytime and glows in dark Ideal to coat or stripe dials, knobs, switch plates, meter boxes, key holes, panels, instruments, hallways, staircases, etc Contains generous quantity of Lite-Koat powder, Mix-Koat Top-Koal to protect finish, handy small brushes and thinner Complete instructions and sugqestions. 17N15834-De luxe kit.
1.76


LUBE-REX CONTACT CLEANER Ideal for attenuators, push button switches, etc., as well as Philco Mystery Controls. Cleans contacts pellant provents corrosion. Moisture metal
17N15533-2-oz. Bottle ..
17N15534-Pint Botlle...
$35 c$
.1 .47

## GRAFOLINE

Especially designed for noisy controls, switches, and wire wound controls. Merely apply to equip ment and noises cease. 17N15535-2oz. Bottle
17N15536-Pint Bottle


## AIR DRYING FINISHES

Here's good news for servicemen! Now you can get truly protessional-looking finishes in either crystal, wrinkle or smooth with these new, efft cient air-drying finlshes. Easy to handle-simply apply and let dry Gives durable and lasting finish at a reasonable price. Air-dry or bake on metal or wood. Comes in handy 2 -ounce or 8 -ounce sizes.


Wrinkle (Varnish) Finish


\section*{Telephone (Smooth) Finish <br> | 17N15384 |
| :--- | :--- | :--- | :--- |
| 17N15385 | $\mathbf{3 5}$ Black \(\left.\begin{aligned} \& Bray <br>

\& 17N 15393 <br>
\& 17N15394\end{aligned} \right\rvert\, 826\)}

2-oz. thinner for wrinkle varnish Usted above.
$29 c$
Thinner for telephone black and crystal lacquer

29

## FLOCK SPRAY OUTFIT



Easy to operate. Beginners can turn out professional velvet-like flock jobs. Contalns spray gun, ivory and brown felt flock, undercoats to match, thinner, brush 17N15489-Outfit. Shpg. Wit 3 lbs , brush. 17N15490-Spray Gun Oty 3 ....... 6.17 $11 / 2$ oz. can felt flock.
17N15479-Brown 17N15481-Ivory 17N15480-Red 17N15482-Green 59e
EXTRA CONTAINERS of felt flock, $31 / 4 \mathrm{oz}$. each ( 17 oz. covers $11 / 2$ to 2 square feet) 17N15491-Brown 17N15492-lvory 17N15493-Red 17N15494-Green 976 EXTRA UNDERCOATS-acts as colorbase, etc. $1 / 2$ pint cans-cover appr, 10 sq. ft . 7N15495--Brown 17N15496-Ivory
17N15497-Re $\qquad$ 976
EXTRA THINNER-use to clean brush and thin out undercoat. $1 / 2$ pint can. 326
$17 N 15499$-Thinner.......................


## BAKELITE CEMENT

For cementing bakelite to bakelite and to other material. 17N15310-2-oz. size .......35c 17N15311-8-oz. size ................1.29 7N15311-8-oz. size ............. 1.29


## WALSCO PLASTIC CEMENT

Cements plastics, metal, wood glass, etc. Drles fast. Strong bond. Waterproof and heat resisting. Espectally made to repair broken plastic cablnet knobs, grid caps, etc. Brush attached to cap. Walsco No. 42 2-oz. botlle. 17N15321

35c

## "WALSOLUB B"

New chemical lubricant that in stantly elimmates noise on bandswitches, controls and other airexposed contacts. Superior 10 graphite, Comes in conventent dis penser tube
$32 c$

## 8 DUCO CEMENT <br> Excellent for repairing speaker cones, cementing grille cloths, etc 17N15257-Each. <br> 21 c <br> Lots of 12 . <br> ea. 19 c

## CONTACT CLEANING FLUID

Prepared to clean tuning condenser springs, volume controls, band switches, etc. Prevents corrosion of contacts.
17N15377-2-oz. bottle.......29 29
17N15824-4-oz. Bottle...........44c
17N15825-8.oz. Botlle...........59c


## RADIO CHEMICAL KIT

A complete kit of 8 chemical necessities for servicemen in leatherette pockel case. Service ce ment, Rubber Drive Ce ment, Carbon-X, Grafo Slip Compound, Dial Oil Polish, Non Cleaner. Applicator attached to cap o 17N15529
1.94

## COIL DOPE KIT

Has a polysiyrene base and its power factor loss is negligible even if used for high frequency work. Will render articles moisture proof. May also be used for cementing parts made of polystyrene. Kit contains 2 oz. bottle of coil dope, $2-\mathrm{oz}$. bottle of spe 17 N 15313 and two brushes.

## FELT-KOAT KIT



A "must" for every serviceman! Complete Flock Finish Kit for -applying soft felt-like Ilock to phono turntables, displays, tool chests, lamp bases, and wire mesh on speaker, grilles, etc. Produces heavy soft velvet-like coat that prevenis scratching. Easy to apply. Deluxe Kit containing Brown flock, appllicator undercoal, thinner and brush. 17N 15528
1.76

COLOR CODING ENAMEL


For color coding coils, terminals, etc. Green, blue, red, yellow and a bottle of thinner included, as well as two brushes. Employ your own system of coding-adds


## CARBON-X FOR CONTROLS

Useful both as an electrical conductor and as a practleal method of touching up worn and noisy spots on carbon controls. 17N15532-2 oz. Bottle.

# SPEAKER AND CABINET REPAIR NEEDS DIAL CABLE-SPRINGS 



## PLASTIC CABINET CEMENT

Quickly and easily repairs all Bakelite or plaskon molded radio cabinets. Produces bond almost as strong as cabinet. Dries quickly and holds securely. 2-oz. bottle complete with brush attcched to bottle cap. 17N15273.

35c

## SCRATCH STIK



Handy pocket stick for servicemen, removes scratches from radlo cabinets in a jiffy. Contains filler and seratch polish.
17N15520-Each.
246
10 for.
2.16


## SCRATCH REMOVER KIT

Combination kit of 6 colors, popular shade of wood Scratch-Stik fillers and 2 bottles scratch remover liquid-walnut and clear. Works on all light and dark wood. 17N15530.
$82 c$


## CABINET REPAIR KIT

Handy kit that may be used with excellent results in radio shops, stores, trucks, etc. Small brushes in caps of all bottles make quick patching of damaged cabinets easy. Kit contains bottle each of lvory spirit enamel, light and dark; dark brown lacquer enamel, walnut spirit stain, polish renewer, French varnish; 3 sheets garnet finishing paper, steel wool, and cloth. 17N 15527 -Shpg. wt. 3 lbs.

### 1.76

## CABINET TOUCH-UP KIT

For use on plastic, bakelite or wood cabinets 9 shades of shellac sticks, bottles of light and dark oil stain, bottle of metal shading lacquer. Magic Scratch Remover, alcohol lamp, spatula, brushes, steel wool, etc.
17 N15521-Shpg. wt. 3 lbs.

### 3.20



## DRIVE RUBBERS

Kit of 24 contains eight different types of iriction drive rubbers for replacement in popular recelvers. 11 N9400 - Drive Rubber Kit

88 c

## DIAL CABLE ADJUSTER

Handy ald for seplacing slipped-ofl dial cable over dicl drum
18N15061-Each.
44c
DIAL LIGHT COLORING KIT
Red, Green, Blue and Amber, and a bottle of solvent. Each in screw top, wide mouth bottle. Dries in 1 minute. Color permanent 18N15185-Cost, per Kit.

50c

## JFD RADIO DIAL BELT KITS

Assortments of the most popular stzes in use today.
Assortments of the most popular sizes in use-Assy. of $25 . . . . . . . .3 .94$ For individual belts give JFD belt No. and 11 N 9909 . 15 ea .

WALSCO ORNAMENTAL GRILLE
Heavy perforated grille, beautifully "heavy pross" plated and lacquered brushed brass plated and lacquered with gold finish effect. For use over cloth or screening in custom built radios, P.A. Speakers and juke boxes. 22N19493-Size $12^{\prime \prime} \times 18^{\prime \prime}$.
1.62

22N19494-Size $18^{\prime \prime} \times 24^{\prime \prime}$
2.94

## FLOCKED GRILLE SCREENING

Protective grille for radio, intercom, elc. Won't teer, iray.

| Slock No. | Size | Color | Each |
| :---: | :---: | :---: | :---: |
| $22 N 19487$ | $8 \times 11^{\prime \prime}$ | Brown | 50 c |
| $22 N 19489$ | $18224^{\prime \prime}$ | Brown | 1.71 |

## SPEAKER GRILLE CLOTH

Handsome frieze, $50^{\circ "}$ wide, cut to your specifled length. 22N20949-Per Yard...........1.85 22N19496-12"x12".
. 25 c


## SPEAKER SHIMS

Non-Magnetic Monel shims. 4 each .004' $.006^{\prime \prime}, .008^{\circ \prime}, .010^{\prime \prime}$ shims. In plastic case with penctl' clip. 22N19649-Each

## VOICE COIL DUST FELTS

Felt discs used on voice coils to keep dust out. Can be glued to any cone. Comes in a package of 25 . 22 N14745--Pkg. of 25

## WALSCO SPEAKER CONE PATCHES

Specially fabricated material and adhesive for repairs. 22N19647-12 Assorted Patches.

## SCOTCH TAPE DISPENSERS

1. Desk Dispenser. Takes $1 / 2^{\prime \prime}$ or $3 / 4^{\prime \prime}$ tapes.
18N 15035 -Shpg. wt. 5 lbs 1.69 2. Plastic Hand Dispenser. $1 / 2^{\prime \prime}$ tape.
18N15033-Shpq. wt. 6 oz....... 29 c 18N15033-Shpg. wt. 6 oz

## TRANSPARENT SCOTCH TAPE

$3 / 2^{\prime \prime}$ size. $792^{\prime \prime}$ long. Fits both above 18N15046-Each 50c 6 fos 2.70


FRICTION TAPE, $1 / 4$ " WIDTH Rolls come packed in individual boxes. 18N14829-2 Oz. each 12 c 18N14842-4 Oz, each 22 c 18N14843-8 Oz. each 39c


DIAL DRIVE SPRING ASSORTMENT


Replacement for any dial belt. Cut to size Repln ends with simple zipper-like con--join ends wing strength over 60 lbs . 5 -foot spool with 10 connectors. liN9888-Shpg. wi. 1 lb .
1.62

DETROLA DRIVE SPRINGS
Exact replacements for 1946-47 DetrolaUtah Expansion spring with inserted core. 11N9893-Shpg. wt. 2 oz.

24c


## BLACK NYLON DIAL CABLE

| Length | Spec. Thin | Each | Standard | Each | Medium | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Envelope ${ }^{\circ}$ | 11N9930 | 24 c | 11N9945 | 24c | 11N9931 | 24 c |
| 25-leet | 11N9889 | 73 c | $11 N 9943$ | 73 c | 11N9928 | 73 c |
| 100-ft. | 11N9927 | 2.65 | 11N9944 | 2.65 | 11N9929 | 2.65 |

## DIALS AND VARIABLE CONDENSERS

MIDGET SINGLE GANG CONDENSERS


Firmly staked rotor and stator plates. Low-loss bakelite insulation. Ball bearing. Counter clockwise motion. $1 / /^{\prime \prime}$ shaft. $18 \times 13 / 4 \times 138^{\prime \prime}$ deep.

11N10189* $15 \mathrm{mmfd} \mid$ 11 N10190* 25 mmfd IIN10191. 35 mmfd | IIN10192* |
| :--- |
| IIN10193 |
| I |
| 15 mmfd |

$\qquad$
11N10194 100 mmfo
11N10195 1.50 mmfd 4 11 N 10196250 mmfd 11 N10198 410 mmfd 59
*Double spaced.

## DEFIANCE GANG CONDENSERS FOR FM-AM



Each section contains a trimmer, oluminum plates, ball bearings, low-loss insulation plus K" shaft leatured in each model.
5-Section: Ranges in mmf. FM front section, 19.1-1.4. FM center section. 18.5-1.2. FM rear section, 18.5-1.3. AM RF section, 421 31.6 AM oscillator section, 161.6-21.1.

11N9792-Shpq. wt. 1 lb .
1.65 4-Section: Two FM sections, each 18.5-1.2, AM RF section, 420 maximum. AM oscillator section, 162 maximum.
1.50


## FM GANG CONDENSERS

 SIMILAR TO ABOVE3-Section: Each section 14.8-1.3 mmf. 11N9794-Shpg. wt. I lb.............. 1.25 2.Section: Each section 14.8-1.3 mmp.

## DEFIANCE GANG CONDENSERS

With aluminum plates, ball bearing rotors and low-loss insulation, 2 and 3 gang units supplied with Irimmers on boltom. Shafts 4 " dio.. $11^{*}$ " long. 3 mtg . holes tapped for " m screws. All $1 \frac{5}{8}$ " high, 112 in "wide. All 365 mmid per section except cut sections on 456 KC Super types.

| T.R.E. |  |  |  | 456 Kc Super |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Each | Gangs | Lengt h | Rotation | No. | Each |
| 11 N9780 | . 59 | 1 | 13 的" | counter clock |  |  |
| 11N9781 | . 89 | 2 | $2 \%$ 原 | counter clock | 11N9798 | . 89 |
| 11 N9782 | 1.39 | 3 | $3{ }^{3} / 16^{\prime \prime}$ | counter clock | 11N9799 | 1.39 |
| 11 N9783 | . 59 | 1 | ${ }^{17} 16^{\prime \prime}$ | clock wise |  |  |
| 11N9784 | . 89 | 2 | ${ }^{23} 16{ }^{\prime \prime}{ }^{\prime \prime}$ | clockwise | 11 99796 | 89 |
| 11N9785 | 1.39 | 3 | 3 $1 / 10 \times$ | clockwise | 11 99797 | 1.39 |

420.160 MMFD DEFIANCE GANG CONDENSERS

Two gang, 420 , and 160 mmfd . condensers lor use with 456 KC IF superhets. Counterclockwise rotation, with trimmers built onto trame. Total length $2^{3}$ ir $^{*}$. Shpa. wi. 11 lb . 11N9775-Two Gang. 420 and 160 mmtd.

89
11N9776 - Three Gang. Two 420 and one 160 mmid .

## MICA TRIMMER CONDENSER

Base of low-loss ceramic with India Ruby mica
Moisture resistant. Lugs bend easily.

| No. | Plates | Range | Each |
| :---: | :---: | :---: | :---: |
| 11 N9537 | 11/2 | 2.30 MMF | 12. |
| 11N9536 | 2 3 | 4.80 MMF 9.180 MMF | 12 d |
| 11N9335 | 3 | 9.180 MMF | 16 c |
| 11N9534 | 4 5 | 25-280 MMF | 18. |
| 11N9533 | 5 6 | 45-380 MMF | $20 ¢$ |
| 11N9532 | 6 | 70-480 MMF | 22. |
| 11N9531 | 7 | $100-580 \mathrm{MMF}$ | 24¢ |



BRASS SHAFT COUPLINGS AND BUSHINGS


## Brass \& Fibre Shaftings

For extensions. $1 / \mathrm{s}^{\prime \prime}$ dia
IIN15010-6" Brass.
11N15011-6" Fibre. Each.
11N15012-12" Brass.
11N15013-12" Fibre.
each.
124
24

## Panel Bearing Assembly

4. Use with rigid or -extble coupling when mounting. For up to " $1 \mathrm{~K}^{\prime \prime}$ panels.
11N9563-3" long. $1 / 4 "$ Shaft.20 11 N9562-0" lonç. $1 / 4^{\prime \prime}$ Shatt. 26 11N9564-Bearing only....... 6

## CROFLEX TUNERS AND CALIBRATIONS



Tuners are flexible-may be adopted to any chassis. Condensers clockwise or counder clock wise-may be located in various positions relalive to tuner. Choice of 5 different knob locations. All with horizontal double channel calibrations, broad cast band 55 to 170 and shorl wave 6 to 18. Models 234 and 236 have third scale reading reverse, arbitrary 0 to 100. All have "3 dimension" edge lighted glass dial scales. Smallest size has one lamp socket, all others have two. Hubs $3 / 8$ " dia. with $1 / 1^{\prime \prime}$ adaptors.

Fully Adaptable-Choose for Size Only

| Stock No. | Model | Escutcheon Overall | Panel Cutout | Pointer Travel | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 11 N9818 | 231 | $21 / 4 \times 4 / 4{ }^{\prime \prime}$ | 17/8×43/8" | $3^{13} / 8^{\prime \prime}$ | 2.79 |
| 11N9819 | 232 | $2 \%$ \% $15 \times 61$ | $113 \times 16 \times 1 /$ | 4110 | 2.94 |
| 11 N9820 | 233 | $33^{3} \times 66^{5 / 4}$ | $23^{14} \times 6^{\prime \prime}$ | $513^{\prime \prime}$ | 3.15 |
| 11 N9821 | 234 |  | $2^{3}, 16 \times 79$ / ${ }^{\prime \prime}$ | 63/4" | 3.53 |
| 11 N9800 | 236 | $4 \times 11^{1}{ }^{\prime \prime}$ | $33^{3} 16 \times 9^{11} 1_{16}{ }^{\prime \prime}$ | $9^{\prime \prime}$ | 8.56 |

Stock Calibrations: The glass dial scales may be removed and replacements put in easily.

AM Broadcast Short-
wave, double channel
AM Broadcast only, single channel

| For Model | Horizontal | Vertical | Horizontal | Vertical |
| :---: | :---: | :---: | :---: | :---: |
| 231 | $\dagger$ | 11N9822 | 11 N9826 | 11 99830 |
| 232 | $\dagger$ | 11 N9823 | 11 N9827 | 11 N9831 |
| 233 | $\dagger$ | 11 N9824 | 11 198828 | 11 N9832 |
| 234 |  | 11 N9825 | 11 N 9829 | 11N9833 |
| FM | Broadcast |  | AM/EM | Broadcast |
| 231 | 11 N9834 | 11 N9838 | 11N9842 | 11N9846 |
| 232 | 11N9835 | 11 19839 | 11 N9843 | 11 N 9847 |
| 233 | 11 N9836 | 11 N9840 | 11 N9844 | 11 N9848 |
| 234 | 11 N9837 | $11 N 9841$ | 11N9845 | 11 N9849 |

$\dagger$ All Horizontals supplied with respective dials.
Stock calibration as above
Each 444

$$
\text { Crowname Horizontal Scales for Model } 236 \text { Dial }
$$



MAGIC EYE ASSEMBLY


6 prong type requires 6ES on 6G5 tube for 6.3 volt sets; 2ES for 2.5 -volt sets. 8-prong type takes all octal base magic eye lubes. All types are easily installed. Complete with escutchoon. Instructions included. 13N11480-6.prong type. MEA. 6


## PERMEABILITY TUNERS AND DIALS

Complete assembly, tncludes dial, coils, knob shaft. cable, slug carriage, two High Q sluqs, and clear plastic dial cover. Tunes RF and Oscillotor coils. Superheterodyne circuil companents pre tracked of lactory. Use as the basis for compact receivers, no tuning gang capacitor needed. Gold, bulf and brown finished dial scale. Covers 540 to 1600 KC .
11 N10450-Fig. B-With rectangular dial.
2.85

11N10451-Fig A-With slide rule dial and window. .............. 4.05 Regenerative Tuner: Ideal for experimenters and hobloyists. Replaces single gang variable condenser. Tunes from 540 to 1600 KC. Pre fracked at foctory. Complete with coil, 3 color dial scale. Same as Fig. B, but With center knob. 11N10452.
1.44

Fig. C-FM Dia-Tuner Head: Deslgned for use as tuning control and cial. For FM recaption in the 88108 MC band. Incturdes converter cir cuits necessary for changing VHF carrier freq. to 10.7 meg. intermediate cults necessary
11N10453--Fig. C.
4.17

11 N10455-V.H.F. Choke, 4.5 Microhenry Ior Tuner Head........ . . 57

## PHOTO ELECTRIC EQUIPMENT \& KITS

WORNER FOTOELECTRIC ANNOUNCER
Model 61 A. Complete light

source and senslitive photo cell source and sensitive photo cell Mirror supplied for reflecting Mirror supplied for reflecting window when placed up to 10 feet from the unit. Equipped with oplical system to arrest unwanted light. Breaking of light beam activates chime or other waring device announcing entrance of persons through doors, passages, driveways, etc. Operates from 115 -volt, 60-cycle A.C. source. 2INI5654-W\&: 7 tbs.
20.14

## DE-TEC-TRONIC SMOKE ALARM

Model AP-4 15 . Low cost photo lectricindicator of smore density passing through the flue of a boller Indicating meter and lights on front panel show when a predetermined value. In a predetermined value. Insures periect combustion as
well as keeping within limis well as keeping within limiss of local smoke ordinances. such as bell may be connected to relay circult. Ideal for hotels, hospitals, factories, etc. where breeching of boiler doen not exceed $10-\mathrm{ft}$. in width. $115-v .50 / 60$ cycles. List Price $\$ 90.00$. 2INL5723 $\qquad$ 67.50


## PORTABLE "PLUG-IN" TIME SWITCH

AEMCO. Model 110. Designed especlally for use with most electrical appliances such as refrigerators, fans, radios, electric cookers, etc. Removable dial for easy setting of trip levers. Self-starting synchronous motor with normal operation down to $20^{\circ}$ below zero. Settings as close as 15 minutes between on and off positions. Can be preset up to 24 hours in advance. Attractive, compact steel cablnet; visible dials and trip levers. Tamber-proof cabinet can be padlocked. Equipped with five-foot extension cord for connection to the nearest convenient outlet, and with receptacle into which appliance can be plugged. 115 -volt, 60 -cycle A.C. 2 IN 5 722-List price $\$ 11.50$.

2IN15723......

## Has innumerable applications in the home,

 on the farm, or in industry. May be used to turn on chicken brooders, oll or gas burners, any installation that may be turned on or off through the delivery or withdrawal of current. Self starting type, for automatic control of solenoid valves, signs, stokers, etc. Shown with cover off. Operates on Ild volts 60 cycles AC current. Model 191 B has $21 / 2$ minute ratchet dial. Capacity of $20 \mathrm{mps}, 2000$ watts. Deslgned for general use. Overall size: $81 / 2 \times 5 \times 3 \%^{\circ}$. Comes complete with single-pole on-off switch. 21 N15600-Shpg. Wt: 8 lbs. ............9.10 Model $962 \mathrm{~B}-$ Double Pole: Capacity $4000 \mathrm{~W} ., 20 \mathrm{amp}$, per pole. 2 INI5601.
Model 191BP-Poultry House Lighting Timer. For morning and evening operation. Bright light circuit 2000 W .; dimmer 800 w.
2 IN15602. $\qquad$ . 12.95
Personal Model similar to Model 191 B but In portable case, fitted cord and plug and a clock controlled receptacle. Auto matic control at $15-\mathrm{min}$. intervals of fans, heaters, bedside radios. Minimum seting of 45 minutes between on and off positions.
21N15603..................................................................... 8.40
21N15604-Same as above but 1320 watt capaclty..........9.4. $5^{\circ}$

## ELECTRIC EYE AMPLIFIER KIT

Burglar alam, door announcing, counting and sorting are just a few of the many applications of this easy-tofier. Operates with any light source. Kit contains all necessary parts, including case and easy-to-follow in cluding case and easy-to-follow instructions for assembly. Case dimen-
sions: $51 / 241 / 2 \times 2^{1 / 2 "}$. Operates on 115 sions: $A C$ or $D C$ current. volts, AC or DC current. 91 N .9675


## DETECT-O-RAY ELECTRICEYE

 A labor-saving, life-saving device. Provides perfect burglar protecin addition to its numerous industrial applications such as safety devices on machines, conveyor controls, electric door openers and counters. Projects a light beam which is reflected by a small extrenal mitror to the photo cell In the unit. Anv object comipg
beam, Instantly activates an alarm, bell, camera, safety device, or sets into action any an alarm, bell, camera, safety device, or sets into action any fective range of the white beam is 60 feet; range of the unseen" beam is approximately 35 feet. Switch of ers selection of beams, depending on type of operation desirable. Sensitivity dial requatas reaction of unit to purpose and conditions for which it is employed. Also includes signal selector for choice between Contlnuous Action from one break-in beam until shut ofl-or Single Action with each break. For 110 V . 60 cycles AC. Steel case with black wrinkle finish. Dimenslans: $5^{\circ} \times 61 /{ }^{\prime \prime} \times 7$ ".
2 INi5725-With Outside Mirros. Wt: $7{ }^{\circ} \mathrm{Ib}$..
27.78

DETECT-O-RAY L- 205 POWER RELAY


Carries 1000 watts, at 110 volts AC. For controlling most motors, machinery, etc. Input plugs into sockel, output into motor, etc. Shpg. Wt. 2 lbs.
2IN15724.
6.86


CETRON PHOTOTUBES FOR USE IN WORNER UNITS Type CE-23-C-Gas. 160 ma average sensitivity. 2.84 Type CE-1-D-Gas, 100 ma average sensillivity.
2 INio5si-Shpg. Wt: 8 oz.....................................


## PHOTO ELECTRIC LIGHT KIT

Dependable light source for above mplifier kit. Projects a beam of light 25 feet long. Light source kit includes ight bulb, socket and all necessary parts including carrying case and simplified easy to follow instructions. Designed to operate on 115 volts, AC or DC current. 2 INI5673-Shpg. Wt: $2^{1 / 2}$ tbs...
5.83

IRIS ELECTRIC EYE PHOTOCELL
Self-generating, barrier-layer type, mounted on plastic window. Develops several hundred microcmperes depending on Intensity circuit. No and resistance of stan dard model sensitivity ${ }^{\text {requicroamperes }}$ dard modelsensitivity Jumbo 100 microamp ity wat rast leads.
2IN10598-Stand. $1-3 / 16^{\prime \prime}$ s $q . x^{2} / 6^{*} \ldots . . .1 .50$ 2 INt0599-Jumbo Model, $11 / 2^{\prime \prime}$ sq. $x^{1 / 4^{\prime} \ldots . . .3 .00}$


## SELENIUM PHOTO-CELL

Barrier layer, self-generating type-1ight striking upon cell generates current sufficlent to operate relays directly without the use of auxiliary power. Lifetime of cell is unlimited. 600 microamperes output at 100 foot candles. 2 inches in dia. mounted in handsome plastic housing. 2IN10576-Photo Cell. Wt: 8 oz.......
9.37

## JFD TELEVISION ANTENNAS



Model TA150. Here's a new TV array covering channels 2-13 and FM band with exceptionally broad frequency response. Unidirectional antenna characteristics maintain high front-io back and front-to-side ratlos over all channels. Two broadband folded dipoles and low band reflector operate off common $300-0 \mathrm{hm}$ transmission line. All elements constructed of cor-rosion-resistant aluminum alloy tubinq. Exclusivecrossarm clamp provides 4 -point support: U-bolt clamp permits unlimited adjustment of elements for polarized and directed reception. Complete with $5-f t 11 /{ }^{n}$ steel mast, twin lead Jumper and all-angle base mount. Shipping Weight: $83 / 4 \mathrm{lbs}$.
28N21827-List Price $\$ 15.30$.
0............Ne
9.00

## DOUBLE STRAIGHT LINE FOLDED DIPOLE

No. TA151. High qain, $1 / 4$ wavelength stacked array covers all TV channels and FM band. Duoorlenting bays seperate overlapping signals and eliminate station interference. Gives more signal strength at greater disrances, especially in fringe oreas. Component parts include exclusive ciossarm clamp providing 4 -point support for mast and crossarm, and special Uadjustment of elements for poadjustment of elements for polarized and directed reception. Complete antenna includes $10-$ ft. "two 5 -ft sections) $11_{4}^{\prime \prime}$ cor-rosion-resistant steel mast, twin lead jumpers and $/ 4$ wave-length aluminum Jumper bars, and allangle base mount. Shipping
Weight $16 \% \mathrm{lbs}$.
28N21828-List Price $\$ 32.10$.
18.87


## "RANGER" DUO-ORIENTING FOLDED DIPOLE ARRAY

No. R5. TV antenna covers channels 2-13 and FM band. Consists of two separate units: a high tre quency and a low frequency folded denna section reflectors. Each an tenna section can be orlented individually for maximum performance on high and low TV bands. Supplied pre-assembled, ready for installation. Includes 5 -ft mast, allangle base mount and iwin lead jumper. Shpq. Wt: 8 lbs.
28N21826-List \$12.35.Net7.26
"RANGER" DUO.ORIENTING STRAIGHT DIPOLE ARRAY No. R3. High and low band dipoles with reflectors provide greater qain on all TV channels and $F M$ band. $5-\mathrm{ft}$ rugged steel mast set in newly designed ailangle base mount assures maximum durability under adverse weather conditions. Elements constructed of corrosion-resistant aluminum alloy tubing connected assembled, ready for installaassembled, ready for installa Shpq. Wt: $71 / 2 \mathrm{lbs}$.
28N2i832-Listi

## INDOOR TV/FM ANTENNA

NO.TA132. New! Superb performance on all TV channels and FM. Attractively designed and constructed "tip-proof" base of crystal glazed porcelain harmonizes beautlfully with living room interiors. Felt pad protects furniture from scratches. The 3-section, polished brass telescopic dipoles extent to 4 $^{\text {n }}$. each measures $14^{\prime \prime}$ collapsed. Fully adjustable; orients simply and quickly in any direction. Unusually compact portable antenna supplied complete with 10 feet of 300 -ohm polyethylene iwin lead. Shipping Welght: $1 \%$ lbs.
28N21833-List Price $\$ 4.25$..Net 2.50


## ALL BAND CONICAL TV ARRAYS

No. TA160. Fine, biconical all band array gives excellent broadband and high gain response on all TV channels and FM. Lightweight, all aluminum construction - non-corrosive. Features a 200 broadside tuning angle and qood front-to-back ratio on all TV frequencles. Low standing wave ratio per mits direct coupling to 72,150 or 300 ohm transmissionlines with minimized energy transfer loss. Unique element securely grips dipoles and reflectors which are completely pre-assembled for speedy installation. New crossarm clamp provides 4 -point support for crossarm and mast; permits easy counter-balancing for antenna rotors. Shipping Weiqht: $61 / 2$ lounter-Supplied less mast.
28N21829-List Price $\$ 13.95$. $\qquad$ 8.20

## DOUBLE ALL BAND CONICAL

No. TAl61. Stacking of TA160 TV array provides exceptionally high db gain on both bands. Particularly adaptable to fringe areas. Conical antenna design results in minimum iringe areas. Conical antenna design results in minimum broadside tuning anqle. In addition to other features describbroadside tuning anqle. In addition to other features describ-
ed above for the TAl 60 . this unit also includes $1 / 4$ waveed above for the TAl60, this unit also includes wavelength aluminum plied less mast.
28N21830-List 28N21830-List Pise $\$ 29.25$. $\qquad$ . Net.
17.20

## ECONOMY MODEL CONICAL

No. R60. Identical to No. TA160 except for galvanized steel crossams and element brackets with alumlnum elements. Has quickria feature for easy assembly. Less mast. 28N2 1970-List Price $\$ 11.30$ $\qquad$ .. Net..
.6 .64
No. R61. Same as above except stacked array with Jumper bar. Less mast.
28N21971-List Price $\$ 24.00$...........Net....................... 14.11


No. TA164. Double stacking of TAl6l arrays offers unsurpassed db galn for pulling in weak signals from long dis tances. Especially engineered conical antennadesign reduces nolse, fading and multi-path re flections to a minimum; glves
excellent high gain, broadband response on all TV channels. and produces clear, steady plctures with full billiance. 1 wavelength stacked bays; $1 / 2$ wavelength stacked sections. Low standing wave ratio permits direct coupling to 72,150 or $300-\mathrm{hm}$ transmission lines with minimized energy transfer loss. Element brackets completely pre-assembled. Antenna Includes dipole and reflector brackets, crossarm clamps, jumper harness, and aluminum jumper bars. Shipping Welght: 25 lbs. Supplied less mast. List \$61.80. 28N21831....Net.....
36.34

5-FT. EXTENSION ANTENNA MAST New, corrosion-resistant steel mast made to fit all JFD antennas. One end is taper ed. Specially designed "Jam Fit" construction with locking key. Fit readily in-
to each other. $11 / "^{\prime \prime}$ outside diameter. List to each othe
Price $\$ 1.40$.
28N21978... 10 for 7.38 .
82c


QUAD-LOOP ANTENNA BY SQUARE ROOT
Quadrature-phasing antenna, achieves aft the advantages of mechanically rotated antennas without any moving parts. Electrically controlled at the receiver by a sin gle knob. Selects maximum gain for each channel regardless of the geographical locatlon of the transmitting station. Requires no orientation. $90 \%$ assembled before dellvery. Can be set up and installed in a short tlme. Sturdy all-metal construction has no moving parts to wear out or
 become defective. Constructed of two loops and four dipoles. Loops are used for high frequency reception and the dipoles for low frequency. When used on lower frequencles the loops act as resonated sections for the dipoles. Requires 4 conductor lead (two 300 ohm lines) from antenna. Less lead-in. Shpg. Wt. 00 lbs.

TACO DOUBLE DOUBLET TV ANTENNA WI THREFLECTOR


A rigid, all-metal, all-weather system that gives improved FM, TV and AM reception. One of the most dependable TV antennas on the market today Broadband and with a very good gain. Und-directional-has high signal-to-noise ratlo. Antenna and reflector or each have two dipoles. Comes complete with 60 ft . 300 -ohm iransmission line, $5-f t$. mast and mounting hardware. Wt. 15 lbs .
28N21990-List Price $\$ 24.50$.
13.23

## VEE-D.X TV ANTENNA <br> New, highly directional antenna provides increased gain and steadier, clearer reception from stations as far away as 100 miles. Consists of 4 phased antenna elements, 4 reflector ele- ments, 4 cross-arms, a $101 \%$, ments, 4 cross-arms, a $101 / 2^{\prime}$ mast, and all necessary parts and mounting hardware. Finest grade al uminum used throughout. Matching stub will match any mpedance from 50 to 600 ohms Less trensmission line. Full instructions included. Wt. 28 instructions ineluded. 28N21992. <br> 76.15 <br> 

TRICRAFT TELEVISION \& FM ANTENNA
Model $\mathbf{3 0 0}$-Designed to satisfy need for an aldpurpose, all-wave antenna. Complete coverage of both television bands, as well as the permanent FM band. Comes complete with 65 leet
 for installation. Universal mounting bracket ot base of 8 -ft. mast for mounting on any roof or wall angle.
28N22036-Wt. 9 tbs. List Price 17.95......11.61 Auxilicry Kit. Converts above Into two element ultra-high gain antenna.
28N21985-W゙t. 5 lbs. List Price 15.80..10.88

## SLIDE RULE INDOOR ANTENNA

Dipole antenna arm calibrated with all TV channel numbers plus FM band. Simply extend one arm to desired ehannel....other
 arm extends cutomaticelly. Cor-
rect match for standard 300 -ohm twin-lead transmission line minimizes "ghosts", Inter-channel interference, etc. Instant push button closing retracts dipole arms into compact $41 / 2 x$ 21/2" case
28N21966-List Price 9.95.
5.85


ICA ALL CHANNEL INDOOR TV ANTENNA
Ideal for apartments. Can be placed under rug, on molding, in attic, etc polythyelene insulation. Complete with 10 -ft. lead-in, 300 -ohm twin lead transmission line. Shpg Wt. 1 lb .
1.73
300.OHM TWIN LEAD-IN


Spectal low-loss 300 ohm twin lead Special low-ioss 300 ohm twin lead FM or any Television omtenna listed on this page.
insulated line is water, aeld, alkall and oil proof.
19N17130-Cost per foot...... $2^{1 / 2}$ Per 100 ft............. 2.06


## AMPHENOL BROADBAND TELEVISION ANTENNA

Fig. A. Model 114-009. Provides higher, more unform gain and broader response on all channals. Gives excellent pleture brightness and assures the best TV enjoyment. Single direction radiation pattern throughout entire TV spectrum. High front-to-back and front-to-side ratlos. Matches 300 -ohm input circuit. All aluminum construction except for heavy. rust resisting mast. With swivel mounting plate, guy clamp, stand-off Insulators. Less twin-lead. Shpg. Wt. 9 lbs. 28N21817-LIst Price $\$ 17.00$. $\qquad$ 10.00 Same as above, but with 75-ft. Amphenol 300-ohm Twin-Lead. 28N22044-List Prlce $\$ 19.50$.

## AMPHENOL TWO-BAY ANTENNA

Fig. B. Model 114-302A. Provides added high forward directive gain and a single directional pattern over both upper and lower television chaminels, 2 to 6 and 7 to 13 . Television set owners who live in fringe and outside areas can now get the same brilliant reception as set owners within the TV broadcasting areas High front-to-bock and font-to-side ratios casting areas. Hion all channels, Hitront-io-sida ralios. and and most. Complete with top and botrom bay connecting rads and two bs.
28N2 1818-List Prlce $\$ 35.00$.
20.58

## AMPHENOL "TELESTAR" INDOOR ANTENNA

Model 114-024, Specially designed to till the needs of those television to ill the needs of those television owners who are unable to erect an outdoor antenna. Unique all-channel television cross-over network. Can be rotated for highest efficiency and "ghost" elimination. Rods are cut to pre-tuned lengths, long rods or low band, short rods for high band statlons, Base-welghted against tipping. Rubber feet prevent marring of finished surfaces. Fubricated of light weight aluminum rods with a low-loss wood finlsh polystyrene base; comes with 5 -feet of natural color polyethylene low-loss 300 -ohm twin-lead. Shipping welght 4 lbs.
28N21819-LIst Price 4.95.

## RCA REVERSIBLE BEAM ANTENNA ARRAY

Model 212 A1. Eliminates co-channel interference where stations are $180^{\circ}$ apart. Also eliminates adjacent channel interference where recelver lacks selectivlty. "Ghost" plctures caused by line mismatches are absorbed in diplexer. High overal! front-to-back ratio. Reversible untdirectlonal bearn. Flick of switch on diplexer reverses antenna direcivity. Easily orlented for maximum directional gain. Unlformly direcHonal on all channels. Aluminum construction throughout. Complete With 4 sets of dipole elements with V" attachments; terminal board assembly; 3 five-ft. sections rings: 12 homess standoffinum leabing 10 in standoffs 1 diplexers installation instructions. Shpg. Wt. 12 lbs.
28N21822-Llst Price 59.50..
34.99

RCA "V" ATTACHMENT
Recommended for use in those locations where all stations are in the same general direction. Provides improved reception on all channels when mounted on low band dipole and dipas of such antennas will be uniform for all 12 channels. No adjustments are necessary except usual antenna orientation for maximum signal strength. Easily assembled and mounted on antenna.
28N21825-Llst Price 1.30. Per Palr...
76

## 



# TELEVISION AND FM ANTENNAS rellance tv antennas 


easily attached to your present antenna mast.
28N21994-Shipplag Weight 5 lbs tenna mast.
$\qquad$

## IN-LINE ALL BAND ANTENNA

Here's an efficient ontenna especially designed for fast assembly and installation. Developed for those areas where both low and high band stations are in the same direction. Has high gadn on both bands making excelieui for low signal strength areas. All metal construction for durable, long lasting installation. Supplied complete with S-ft mast;high and low band antenna sections with low band re flector; mast swivel bracket and mounting hardware and insulators.
28N21954-Shipping Weight 6 lbs
6.35

## AMAZING WIND.O.LOOP ANTENNA

If the "Iandiord problem" is the only thing that stands between you and television pleasure-listen. Here is the ideal all-channel TV and FM antenna. It attaches to the window pane by means of two suction cups, or fits into wood with two suction cups, or fits into wood with angular loop and one dipole. 25 of wire is permanently attached to antenna for is permanently attached to
28N21974.
5.00

## FM ANTENNAS

## RCA FM FOLDED-DIPOLE ANTENNA AND REFLECTOR

 with fi. mast. List price 9.50. Shpg. Wt. 5 libs. $\qquad$

TACO FM FOLDED DIPOLE


Directional front and recr. With $60-\mathrm{ft}$ coll of $300-\mathrm{ohm}$ tromsmission line, ansenna with terminal block, 5 -fi. wood mast. With hardware. 28N2 2024 -Wt. $61 / 2 \mathrm{lbs}$
6.47 Rellector Assembly for above-makes antenna unidirectional. 28N22025-Shpg, Wt. 3 lbs....... 3.23

## TACO TRANSFORMER FOR

 FM ANTENNAPermits use of FM-antenna on either FM or AM without switching. Matches either band to antenna.
6N5968-Shpg. Wt. 11/2 1bs... H. 9


## FLEXIBLE FM DIPOLE

Consists of two folded dipole elements spliced to 300 ohm win lead transmission line. Flattened end insulators permit use indoors under carpet, on room molding, etc. Losses in line measure only .85 db per 100 feet at 100 MC .
28N22038-Shpg. wt. 1 1b.......... 88

## AMPHENOL FOLDED DIPOLE AND REFLECTOR

For suburban and long distance, wide band, troublefree reception. Rigid low-
loss insulators and twinloss insulators and twinlead transmission line prevent loss of slgnal. Swivel bracket permits installation on flat or peaked roois. With 75 ft 300 ohm twin-lead line and complete installation instructions.
28N21998-Wt. $5 \mathrm{lbs.}$.


## BELDEN FM

POLY-POINT ANTENNA
Model 8322. Double-folded dipole that provides an essentially circular radiation pattern. It re celves signals from al! directions without turning. Carefully matwhed quarter-wave phasing stub ched quarter-wove phasing stub provideshigh eificiency over the weight aluminum construction weight aluminum construction withstands severe ice loading and high winds. Easy to install. Specialadjustable mounting base for hat or sloping suriaces. Factory assembled, ready for mounting. Complete with Belden 300 -ohm Tromsmission line, 5 ft . mast and 4 three-inch Standoff Insulators. List Price 12.65.
28N21815-Shipping Weight 5 lbs.
7.40

## AMPHENOL 300 OHM TWIN LEAD-IN

TwiNODO Special low-loss 300 ohm transmission lead-in line is ideal for use with all TV and FM antennas shown on this page. Prevents loss of signal between antenna and receiver. Oil, acid, alkali and weather resistant. 28N17130-Per $100 \mathrm{ft.}$.

Perft.
$21 / 2 c$

# TV BOOSTERS-MOUNTS-LEHSES-FILTERS 



## ADJUSTABLE MAGNIFYING LENSES

This romarkable new lens reduces glare, improves contrast intensifies black and white and enturaes the screen as well. Filtered models contain no blue tinted oil like ordinary lenses. Made of special perlected material which enlarges and clarities picture with brilliant intensity. Brackets fit any set-either console or table model-and adjustable for locusing and

## enlarging. Contact lens have cords.

31N24383-Adj. Filter Lens- $7^{\prime}$ Tube. List 19.95. 31N24384-Adj. Clear Lens-70 Tube. List 19.95 31 N 24385 -Adj. Filter Lens-10 and $12^{\circ}$ Tube. List 29.95 31N24385- Adj. Filter Lens- $1^{\circ}$ and $12^{\circ}$ Tube. List 29.95.
31N24386-Ad. Clear Lens- $10^{\circ}$ and $12^{\circ}$ Tube. List 29.95
31N24387-A 31 N24387-Contact Fitter Lens-10 Tube. List 19.95.
31 N 24388 -Contact Clear Lens-10 Tube. List 19.95.
11.73

## FLAT ENLARGING LENS

Increase your TV picture three times with this new magnifier. Lighter, because it's plastic without liquid filler. Flat surface makes it easier to look at. Atractively framed in mahogany. Lens may be
suspended by its brackets or mounted under the set.
 31N24427-8x10. List $13.95 . .$.
$31 N 24428-9 \times 12^{\circ}$. List 15.95.
31 N24429-12×16. List 19.95.
9.30
.10 .63

SIG-MAX GIVES BETTER TV PICTURE


An amazing device for improving TV reception. Produces clearer, more noise-free pictures in low signal areas on higher channels. Clips easily to lead-in line. 31N24404-Per Sel

59 c


## GENUINE POLAROID FILTERS

You can now enfoy a full evening of TV without eye strain. The lamous polarold principle elimieye strain. The tamous polarold principle eliminates glare, "softens" the TV image and yet gives
better definition. Darks come out sharper, lights better delinition. Darks come out sharper, lights
ecsiter to look at. Easily mounted with special adeasler to look

| $31 N 24422$ | For $77^{\circ}$ Screen | List 6.50 |  |
| :---: | :---: | :---: | :---: |
| 31N24423 | For $10^{\circ}$ Screen | List 10.00 | 5.88 |
| $31 N 24425$ | For $12^{\circ}$ Screen | List 12.50 | 7.35 |
| 31N24424 | For $10^{\circ}$ Round Screen | List 13.50 |  |

## LUMARITH FILTERS

Low cost lumarith filters eliminate eye strain
31N24488
3in24489 adhesive strip
With adhesive strip
31N24489
31N24490
$31 N 24432$
31 N 24414
31N24491
31N24413
7" Screen With adhesive strip With adhesive strip With adhesive strip With adhesive strip 10. Screen
$12^{\circ}$ Screen
$15^{\circ}$ Screen
$16^{\circ}$ Screen $49 c$ With adhesive strip
${ }^{\circ}$. Screen ond... ... .59 .59 With adhesive strip
$10^{\circ}$ Round.
1.69
1.95

## SUCTION CUP FILTERS

Provides improved contrast, reduced glare. Field in place by four suction cups. Finest grade plastic.
31N2448-12 ${ }^{\circ}$
1.15

CHIMNEY AND WALI ANTENNA MOUNTS


Adjustable mounting brackets to lit any chimney. Can be installed without tools in 5 to 10 minutes. Overi $30,000 \mathrm{lb}$. tensile strength. Without tools in ith trapping.
(A) Made of corrosion-resistant aluminum-alloy.

28N21940.
3.95
(B) Made of heavy plated steel

28N22046.
.1 .49


Holds pole from $I^{*}$ to $11_{2}{ }^{\circ}$ in diameter. $6^{\prime \prime}$ clearance between mast and wall. Heavily plated steel. With directions and hardware.
28N21942
1.39


Constrweted of henvy galvanized steel. Cleaponce of $1242^{\circ}$ from mast to wall. Holds an y pole trom $1^{\circ}$ to $11 /$ " $^{\prime \prime}$ in diameter.
28N21943
2.94

## POWER-PACKED ANCHOR

 BOOSTERModel ARC-101-50. Recommended by tamous consumer research organiza-tions-gives $21 / 2$ times roare gain in signal strength across all channels! Eliminates noise and snow palternsmakes an outdoor antenna unnecessary in many cases. Features exclusive impedance motching of its oulput to input of set. List Price $\$ 37.50$. 22.05
31 N 24438 -Shpg. wt. 6 lbs. 22.05


## NEW 2-STAGE ANCHOR BOOSTER

Same as above except two stages of amplification for extreme fringe arens. $11 / 2$ to 2 times gain of single stage
26.43


## LAFAYETTE BOOSTER

'Way ahead of the booster field bo its dollar-value performance! Greatly increases signal strength of all 13 channels where signals are weak. Just plug nels where signals are weak. uss plug into any 115 volt outlet and attach beinternal connections and recelver. No Internal combinections ane necessary. performance.
19.95

MASCO 13-CHANNEL TELEVISION BOOSTER
Sensitive, all-channel booster that gives sharper, clearer reception in fringe and weak signal areas. Easy to install and operate-works on any receiver without internal connections. Shpg. wt. 6



## JERROLD TV.FM BOOSTER

New model with Match-A-Tran variable step-impedance Iranslormer, assuring best possible pictures on each channel. It pulls in weak stations in fringe areas and amplifies signals 20 to 30 times; the result is sharper, clearer pictures and brilliant FM sound. Helps eliminate interference and reduce "ghosts". Merely plug into 115 V AC and connect between antenna and set.

## JERROLD MATCH-A-TRAN

Variable step-impedance transformer improves TV reception wherever standing waves cause signal loss. Switch arrangement gives correct lead length for each channel. Attach to any booster.
2.91

## TV INTERFERENCE ELIMINATOR

Dual absorption type wave trap that removes such complaints as FM and adjacent channel interferences, phase-shift, standing erences, phase-shift, standing waves, and ghosts due to antenna mismatch, plus sound in pictures due to external causes. has knob tuning, clips, and iwin lead input.
31N24444-Wt 2 lbs.

```
5.88
```



SHUR ANTENNA MOUNT
Supports any standard FM or Television antenna array. Fits rool tops, and sloping sides, house sides-tits anywhere. Mounting brackets are easily adjustable to any angle. Sustains weight of fized standard array without need of guy wires. Rugged cast aluminum mounting base Its antenna poles up to $11 / s^{\circ}$ in drameter. Complete with all


## ANTENNA TOWERS-ROTATORS-ACCESSORIES

## ALLIANCE BEAM ROTATOR



Remote control mechaniam for rotating amateur beam and TV antennas directly to signal. Compact, low cost unit that's easy to install and oporate. Provides $360^{\circ}$ rotation at 1 RPM. Instont Start-Stop or Reverse at any point. Automatically stops after completion of $360^{\circ}$ rolation. Heavy duty, AC motor and gear mechanism mounted in waterprool housing. Has special clamps for attaching to masta up to 11/3" diameter. Supports up to 20 lbs . System includes Rotator, Remote Control and instructions. Less 4 -wire connecting cable.
28N21950-List Price 39.95. . . . Wt, 12 lbs....... . . . . . . NET . . 23.49 New improved unit similar to above, except control unit hasbuilt-in meter to indicate position of antenna. meter to indicate position of antenna. -Cond flat cable 49.90. 19N16064-Per 100 . 1 t . 2.70.

NET 29.37
.Per Ft. . 03


## MAGNE-ROTOR

Improved TV reception with a motorized push-bution control unit (not an electric motor) that connects dicontrol unif (not an electric motor) that connects di-
rectly to any antenna. Sit in your living room and rotale rectly to any antenna. Sit in your living room and rotale Your antenna for pertect peak reception on all channels. Locks at any point; cannot be turned by wind. Makes a
complete 360 Iurn in elther direction. Automatic signal light goes oft when cycle is completed. Plugs into any 110 -volt AC source.
28N21951-Ship. Wt. 8 lbs. List 29.95 . . . NET 17.97 Three Conductor flat cable for above.
19N16057-Per 100 ft .1 .80.
Per ft. . 02


## SOUND.POWERED PHONE

Self-powered system for inexpensive 2 -way talking. Ideal when installing radio and TV anternas-the antenna itself may be used as the line. Use at home or office as an intercom. Providen excellent Hdelity up to 25 miles.
32N14015-List 12.50
Per Phone
8.75

## TELEMIRROR

Plate glass mirror gives non-distorted rellection of picture tube exactly where you want it. Permits one man to do and efficient service job. Sturdy and lightweight $8 \times 10^{\circ}$ mirror with nickel plate steel frame. Handy slide on $44^{* \prime}$ stand provides quick and easy means of adjusting mirror to desired angle. Nontip base in black crackle finish. 31N21964-Shpg. Wt. 7 lbs. List 6.95.

## STEEL GUY WIRE



Siz strands of No, 20 high tensile strength, galvanized steel wire.

$$
\begin{aligned}
& \text { 28N21927-50.F. Roll.... } 394 \\
& \text { 28N21928-100.Ft. Rol......69 } \\
& \text { 28N21929-500-Ft. Spool.... } 2.95
\end{aligned}
$$

## TWIN LEAD

## TRANSMISSION LINE


$300-0 \mathrm{hm}$ flat iwin lead transmission line for all TV installations.


## 5-FOOT

## ANTENNA MAST

New, corrosion resistant stepl mast. One end is tapered: Specially designed "Iam Fit" construction with locking key. Fit readily into each other. 11/4 outside dla. meter. 2an21978 10 For..

82

## MAST EXTENDER

 BRACKETThis practical brackel makes it easy to add another mast to your present antenna installation. Vise-type clamps hold any 2 masts of equal or unequal diameter (1/i" equal diameter (1//" bite on each mast bite on each mast. Luth 6 with 6 guying points. 5 For.... . Esch 798

## TV MAST COUPLER BRACKET



Versatile unit for extending and adjusting antenna poles to most efflcient position. Flexible and easy to install. Fits all poles up to $115 \mathrm{~h}^{\prime \prime}$, also any 2 poles of dil. ferent diameters. $1 / 3$ "thick alum. With zinc plated $1 / 0^{\prime \prime}$ bolts, nuls and washers, ready to use. 28N21946...... Per Pair $8: \$$

## STEEL TURNBUCKLES

## (O) $-\square-5$

Takes up guy-wtre slack. Rust: proof galvanized steel. Size: 75/3" open, $51 / 2^{\prime \prime}$ closed.
28N21939..........Each 154 10 For.

WE WILL NOT KNOWINGLY BE UNDERSOLD

## J.F.D. ANTENNA ACCESSORIES

## INSULATORS

These economically priced insulators save time and effort on every TV/FM antenna installation. Mast leadin and stand-off types keep cable lines secuie and well anchored.


38N16962-31/2" screw eye. Ea. 9 e 10 for 8 lc 50 for 3.85 3日N $16969-51 / 2^{\prime \prime}$ screw eye. Ea. 12 c 10 for $1.0 \mathrm{~B} \quad 50$ lor 5.13 EaN $16970-71 / 2^{\prime \prime}$ screw eye. $38 \mathrm{~N} 16970-7 y / 2^{\prime \prime}$ screw eye.
Ea. 1212 c 10 lor 1.1350 for 5.37

## FOR I $1 / 4 "$ MAST

38N16963-31/2" screw eye. Ee. 9 c 10 tor 0le 50 tor 3.85 38N16964-51/2" screw eye. Ea. 12 c 10 for 1.0850 for 5.13 38N16965-74/2" screw eye. Ea. 1242 c (0 for $1.13 \quad 50$ for 5.37

## FOR $11 / 2^{\prime \prime}$ MAST

38N16966-31/2" screw eye. Ea. 11c 10 for 99 c 50 for 4.70 38N16967-51/2" screw eye. Ea. 12 e 10 lor 1.0850 lor 5.13 38N16968-71/2" screw eye. Ea. 13 c 10 for 1.1750 for 5.56

## TWIN LEAD STAND-OFF



First choice for last, secure anchoring of transmission lines. Single screw eye. 38 N16957- $31 / 2^{\prime \prime}$.........E. Ec. $31 / 2 \mathrm{c}$ 30N16990-51/2" 100 lor 3.04 10 for $45 \mathrm{e} \quad 100$ for 4.27
 10 for 50 c lor 1.75

## DRIVE-IN TYPE

Made of galvanized steel. For Twin Lead
38N16994-31/2"…......Ed. $31 / 2 c$ 10 for $32 \mathrm{c} \quad 100$ for 3.04 For Coaxial Cable. 38N16995-31/2"….... Ec. 31/2c 10 for $32 \mathrm{c} \quad 100$ for 3.04


IPE STRAP
Fastens masts to rastens masts to
walls, rools, corwalis, roos, etc. Quickly securely, made of securely, made ol
28N 21938 ...EC. $5 \mathrm{c} \quad 10$ for 45 c

63

## U-BOLT

Made of galvanized steel. Supplied with nuts and washers in 28N21931 Ela

COAXIAL STAND-OFF


Single screw eye for coaxial cable up to $1 / 2^{\prime \prime}$ dicmeter. Anchars cable lines securely. 38N16959-31/2"….......Ea. 34/2c 10 for 32 c . 100 for 3.04 38N16991- $51 / 2^{\prime \prime}$..........Ea. Sc 38N16961-71/2" 100 lor 4.27

10 for $50 \mathrm{c} \quad 100$ for 4.75

DOUBLE MAST LEAD-IN


FOR 1" MAST
38N16974-31/2" screw eye Ea. 21 e 10 for 1.8950 for 8.98 38N16975-71/2" screw eye. Ea. 24c 10 for 2.1650 tor 10.26

## FOR $11 / 4 "$ MAST

38N $16980-31 / 2^{\prime \prime}$ screw eye, Ea. 21c 10 for 1.8950 lor 8.98 38N16981-71/2" screw eye. Ea. 24 c 10 for 2.1650 for 10.26

## FOR $11 / 2^{\prime \prime}$ MAST

38N16982-31/2" screw eye Ea. 24 c 10 for 2.1650 for 10.26 38N16983-71/2" screw eye. Ea. 26 c 10 lor 2.3450 for 11.11

## DOUBLE SCREW EYE

## STAND-OFF

Same as above, but less clamp.
38N21850 ..3" ............Ea. 14c 10 for 1.2650 for 5.98 3日N21851 . 5 1/2* ......Ea. 16e 10 for 1.44 for 6.84 3BN 21852 ...7.1/2" $\ldots$....Ea. 17 c 10 lor $1.53 \quad 50$ for 7.27

## SNAP-ON TYPE



31/2" ecrew eye.
38N16992-1" Clamp...Ea. $6 c$
 $31 / 2^{\prime \prime}$ screw eye. $38 \mathrm{~N} 16993-11 /$ " $^{\prime \prime}$. Clamp Ea. 6 c $\begin{array}{cc}\text { N } 16993-11 / 4 & \text { Clamp Ear } .54 \\ 100 \text { for } 4.66\end{array}$

## MAST CLAMP



Notched retaining clamp holds two clamp holds two masts firmly to-U-bolt. Made of galvanized steel.
28N21922.Ea. 26 c 10 for 2.34
FLEXIBLE STRAPPING


Serves many uses in antenna installation work. Good for mounting masts on chimneys, posts, etc. Perforcted steel.
28N21947-12-Fl.
44 c
91 c
$28 \mathrm{~N} 21949-100-\mathrm{Ft} \ldots \ldots . . . . . . . . . . . . . . . . . . .21 \mathrm{c}$


Acts as dependable anchor for guy wire when hammered in of an angle. Made of galvanized steel. Made of gaivan28 N 21930 -
$\begin{array}{lll}\mathrm{N} 21930- & \mathrm{Ea} \\ 10 \text { for } 4 \mathrm{Se} & 100 \text { for } & \mathrm{Se} \\ 4.27\end{array}$


ALL-ANGLE MOUNT
Permits setting o $1 / 2^{\prime \prime}$ to $11 / 4^{\prime \prime}$ masts at most suitable angle for maximum reception. Made of rustresistant steel. W/hdwe.
28 N 21842 .. 4.75 dz ...... Ea. 44e
MOUNT MASTER


Solves almost all antenna mast mounting problems. Perlorated flange permits setting of mast at any angle. Mounts any-where-on walls, llat or slanted rools. Pre-assembled with hardware in place. Heavy gauge steel.
28N21843.
4.41


One of the most popular and practical antenna mounts. Sturdy U-bolt securely grips all masts from 1" to $2^{\prime \prime}$ OD. Made of rust-resistant steel. Supplied with hardware.
28N21837-3" size .........Pr. 1.06 28N21838-4" size ....... Pr. 1.23 28N21839—7. size ….....Pr. 1.47

## RING CLAMPS



Ruggedly con. strucled; easily adjustable. Made of corrosion-resist ant steel
For $3 / 4^{\prime \prime}$ 10 $1^{\circ} \mathrm{masts}$
28N21917... Ea. 6 c . 10 for 54 c For $111^{\prime \prime}$ to $11 / 2^{\prime \prime}$ masts 28N21918 .. Ea. 6c 10 for 54c

## "FLOATING" GUY RING

 Free-floating. Will not bind. Relains guy wire securely. Made of galvanized steel.
For $1^{\prime \prime}$ mast
28N21919..Ea. 12e 10 for 1.08 For $11 /{ }^{\prime \prime}$ mast.
28 N 21920 ..Ea. 12 c 10 for 1.08 For $11 / 2^{\prime \prime}$ mest.
28N21921..Ea. 12 c 10 for 1.08


Anchors guy wire securely and permanently. Made of gal. vanized steel
28N21923
$\begin{array}{cc}100 \text { for } & \text { Sa } \\ 4.27\end{array}$


Can be erected in minules. without special tools or drilling. Adjustable, Iwo-section design permits unlimited spac* ing between brackets for maximum support of masts $1 / 2^{\prime \prime}$ to $11 / 2^{\prime \prime}$ OD. Complete with iwo $12-f t$. 'engths of $3 / 4$ " galvan. zed steel bands and hardware. 28N21834.


Anchors $7 / 4^{" 1}$ to $11 / 4^{\prime \prime}$ masts safely and securely. Adjust. able $6^{\prime \prime}$ to $15^{\prime \prime}$ from walls. Heavy gauge rust-resistant steel.
28N21835
4.41


Extension bar for above wall bracket. Exiends range of wall clearance to 24
28N21836
1.76

## VERTICAL BRACKET



Extends masts $6^{\prime \prime}$ from wall. Grips masts $1 / 2^{\prime \prime}$ to $11 / 2^{\prime \prime} O D$ Made ol corrosion-resistanigalvanized steel. With hardware 28N21840

## MAST CONNECTOR



Joins masts quickly and socurely. Made of rust-resistant stoel.
For $j^{\prime \prime}$ to $11 / 8^{\prime \prime}$ masts.
28N21915 ..................... 59 c
For $111^{\prime \prime}$ to $13 / 0^{\prime \prime}$ masts.
$28 \mathrm{~N} 2196^{\circ}$
28N21916........................Ea. 59e

# AM ANTENNAS AND ACCESSORIES 



## RELIANCE WINDOW MAST

Enjoy the benefits of an oufside cerial without the inconvenience of a rool installation. This tast, easy window mast antenna improves reception on both standard broadcast and short wave. Easily installed in only thres minutes. Atlach load-in strap. screw bracket down on sill, and the job is done. 3 -section rod extends to 80 inches, telescopes to 40 inches. Cadmiumplated steel consiruction. Includes mitg. screws, hardware and instructions.
28N22006-Shpg. wt. 11/2 lbs.... 1.73

## LOW-COST AERIAL KIT

Has 100 ft . $7 / 26$ aerial wire, 40 ft . insulated lead-in, 25 ft . ground wire, arrester, ground clamp, leadin sirip, 2 insulators, nail knobs. 28N16476-Shpq. wt. 6 lbs. 1.09 ECONOMY KIT: $100 \mathrm{ft} .7 / 26$ aerial wire, 25 f1. lead-in, lead-in strip. ground clamp, 2 insulators, nail knobs.
28N16478-Shpg. wt. 2 lbs... 69 c

## ICA TENNA-SCOPE



New, built-in tuned radio antenna eliminctes the use of an outside aerial and ground. Gives better solectivity and higher signal-to noise ratio. May be connected to any radio without the necessity of making any circuit changes. 28N16452-shpg. wt. 1 lb... 1.76

## ANTENNA LOOP



For battery and midget sets. Replaces antenna coil, high inductance permits removal of turns for adjustment. $43 / 4^{\prime \prime} \times 8^{\prime \prime}$.
28N16450-Each
48
Lots of 10
3.95

## ICA 3-IN-I RADIO TUNER

Antenna tuner, wave trap, aerial elim inator all in one instrument, depending on the manner of its connections to the radio set. Operates on any make or model set-enhancing performance. 32N12678-Each

496


## PLASTIC INSULATOR

Low-loss polystyrene insulator for use with 300 ohm twin-lead. Holds line securely but will not pinch and change impedance. Attaches with a single wood or metal screw. 38N 16958 ... 100 for 4.50

Each 5 e


## WARD STAND-OFF INSULATOR

Unique plastic design holds any flat transmis. sion line securely, but absolutely cannot pinch line or change impedance. Does not have to be strung on line. One screw attachment. Clear plastic sheds water. 38N16956-Each

## MUELLER TWIN LEAD ANTENNA CLAMP

Here is a new standolf type insulator that clamps on masts, crossarms, pipes, beams, etc. up to $13 / 8^{\prime \prime}$ thick. Easy to use; grips mast securely. It rigidly sup-
 ports the twin lead transmission line lead-in $21 / 2^{\prime \prime}$ from the mast or pipe. All metal parts are completely weatherprooted. Shipping welght 6 oz.
38N17107-For Twin Lead. 10 for 1.37 Each 15 c

## VERTICAL HOME ANTENNA

Eltminates dangerous horizontal wires, insures clear, noise-free reception. Includes special 12 - ft . 4 section antenna mast of rust-proof, flexible steel, $40-\mathrm{ft}$. lead-in wire, $10-\mathrm{ft}$. ground wire, arsester, insulators, screws, 2 pipe straps, one strap mtg. assembly.
28N21824-Shpg. wt. 4 lbs.


3/8" PLATED GROUND RODS


Use if pipe ground is notavailable. Heavy steel yoke for head. $28 \mathrm{~N} 17187 \quad 4 \mathrm{ft} .48 \mathrm{c} \quad 10$ for 4.56 $28 N 17188 \quad 6 \mathrm{fi} .66 \mathrm{c} \quad 10$ for 6.27


SINGLE LEAD-IN STRIP
Clip terminal each end. 28N17101-Each 5e 10 for... 45 c
"GRIP" GROUND CLAMP
Makes a vise-like grip on pipe. Sharp pointed screws make perfect contact 10 c


## PIPE GROUND STRIPS

Broad ground clamp adjustable to fit any size pipe up to $2^{\prime \prime}$ in diameter. Provided with clip for attaching ground lead. 28N17102

Each 5 e SAVE MORE! 10 for

## BRACH NEON DUPLEX ARRESTER



For sets having doublet antenna. Uses a Noon Tube instead of an air-gap or resistance. Glows during lightning storms. Carries heayy discharges safely. Fully Underwriters Approved. 28N16701-Shpg. wt. 1 lb

## PORCELAIN ARRESTER

(A) Housed in brown glazed porcelain; approved
28N16753-Each.
196
10 For.................................................... 1.70


## ARRESTER FOR DOUBLETS

(B) An approved arrester for the doublet type of antenna. Air-gap type, in28N16950...................................... 43 .

## AERIAL INSULATORS

Dependable porcelain insulators. "C" Is screw in type for holding lead-ins or grounds off walls; "D" is standard nail-knob; "E" is strain insulator.

| No. | Type | Sıze | Each | 10 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 28N16972 | C | $3{ }^{\prime \prime}$ | $51 / 2 \mathrm{C}$ | 50c | 4.50 |
| 28N 16986 | C | $7{ }^{\prime \prime}$ | 5 c | 45 c | 4.05 |
| 28N16977 | D | 2" | 4 c | 35 c | 3.15 |
| 28N16802 | E | 21/2" | Sc | 38 c | 3.45 |



## GLASS INSULATORS

(F) Special tempered glass, unaffected by heat or cold. Has a high tensile strength and gives lona, dependable service. Choice of 2 sizes, $3^{\prime \prime}$ and



## TWIN-LEAD SPLICE

 Speeds splicing without the need for twisting or soldering. 28N16954 Ilc MOSEIY DIPOLE CONNECTOR CTOR For center connecting 300 -ohm line type folded dipole. Positive connection without soldering. Hardware included. 28N16953-Wi. 2 oz. 34c

## ANTENNA MOUNT

New "Universal" type for speedy installation. Fits pipes, masts, up to $11 / 4^{\prime \prime}$ diameter. Allows completo rotation and adjustment after installation. Cast aluminum base. Shpg. wt. 21/2 lbs.
28N22045.
3.96

## CHIMNEY MOUNT BRACKET

Pair heavy plated stoel brackets with sufficient binding to fit average chimney. Set up in 5 minutes without special tools.
28N22046-Shpg. wt. 2 Jbs...1.59


## AUTO ANTENNAS, VIBRATORS, AND ACCESSORIES

1

## MALLORY REPLACEMENT VIBRATORS

Mallory replacement vibrators tor auto radios and battery operated household receivers. Precision made, Mallory vi brators are noted for their long life and trouble-free service All vibrators are rated at 6 volts except types $W 245 A$ and W246 are rated at 4 volts and T4000, T4002 and T4003 are rated at 2 volis.

| Stock No. | Type | Each | Stock No. | Type | Each | Stock No. | Type | Lact |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27N6114 | 222 | 4.88 | 27N6136 | 294 | 2.62 | 27N6084 | 852 | 2.62 |
| 27N6096 | 245 | 4.12 | 27N6137 | 298 | 3.38 | 27N6085 | 853 | 2.62 |
| 27N7278 | 245 A | 4.12 | 27N6093 | 505P | 2.62 | 27N6086 | 854 | 2.62 |
| 27N6088 | 245 C | 4.12 | 27N7285 | 506P | 3.38 | 27N7276 | 859 | 2.62 |
| 27N7280 | W245A | 4.12 | 27N6077 | 509P | 2.20 | 27N6076 | 860 | 2.62 |
| 27N6097 | 246 | 4.12 | 27N6073 | 514 | 4.12 | 27N7293 | 870 | 2.62 |
| 27N7281 | 240 A | 4.12 | 27N6074 | 716 | 4.12 | 27N7287 | 903 M | 2.20 |
| 27N7283 | W240 | 4.12 | 27N6062 | 725 C | 4.56 | 27N6079 | 952 W | 4.12 |
| 27N6169 | 247 | 4.12 | 27N6107 | 742 | 4.12 | 27N6080 | 953 W | 4.12 |
| 27N6098 | 248 | 4.12 | 27N7289 | 743 | 4.12 | 27N608) | 954 | 4.12 |
| 27N6171 | 249 | 4.12 | 27N7277 | 748 | 4.12 | 27N7275 | 1100 | 2.62 |
| 27N6130 | 273 C | 4.88 | 27N6063 | 825C | 3.67 | 27N7273 | 1501 | 3.38 |
| 27N6167 | 273D | 4.88 | 27N6108 | 826 C | 3.38 | 27N7273 | T4002 | 5.70 |
| 27N6135 | 292 | 3.38 | 27N7292 | 839 | 3.38 | 27N7272 | T4003 | 5.2 |

## MALLORY REPLACEMENT GUIDE

Includes alphabetical listing of radio and vibrator power supplies by mifg. and model number. Gives Mallory replacement in each case. No charge with purchase of Vibrator.

## MALLORY VIBRATOR DATA BOOK

A complete Technical manual on the operation and application of vibrators.

$\frac{1}{4}$

## CORNELL-DUBILIER VIBRATORS

C-D, known to servicemen as one of the largest manufacturers of quality condensers, now offers a line of popular replacement vibrators built to the same rigid standards of quality for which they are famous. New "micro-metric" equipment permits easy production maintenance of high tolerances. New type pole coll and new type mounting. Completely enclosed in sponge rubber. Hermetically sealed

| Stock No. | $\begin{gathered} \text { C-D } \\ \text { Type } \end{gathered}$ | Mallory Equiv. | Each | Stock No. | $\begin{gathered} \text { C-D } \\ \text { Type } \end{gathered}$ | Mallory Equiv. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27N6023 | COO | 294 | 2.62 | 27N6031 | C31 | 294SW | 2.62 |
| 27N6024 | C01 | 510 P | 2.62 | 27N6032 | C35 | 851 | 2.62 |
| 27N6025 | C03 | 294C | 2.62 | 27N6033 | C42M | $859 \dagger$ | 2.20 |
| 27N6026 | C14 | 1100 | 2.62 | 27N6034 | D00 | 248 | 4.12 |
| 27N6027 | C20P | 505P | 2.62 | 27N6035 | D06 | 249 | 4.12 |
| 27N6028 | C21 | 654 | 2.62 | 27N6036 | D25 | 273C | 4.88 |
| 27N6029 | C23P | 507P | 2.20 | 27N6037 | D26 | 716 | 4.12 |
| 27N6030 | C26P | 859** | 2.20 | + For Mo |  |  |  |

* For Philco sets.


## 27N19728

CORNETL-DUBILIER VIBRATOR GUIDE

## RELIANCE AUTO RADIO SUPPRESSORS



Quality black molded cases.

| No. | Type | , |
| :---: | :---: | :---: |
| 27N5283 | A | Standard Spark P |
| 27N5246 | A | Special for Ford V8 |
| 27N5278 | B | Compact Spark Plug |
| 27N5247 | B | Compact Spark Plug Type for Ford Vs |
| 27N5253 | C | Cable Type for Buick |
| N5285 | D | Elbow Cable Type |
| 27N5279 | E | Standard Distributor |
| 27N5293 | F | Distributor Type for Ford 1936 and earlicr |
| 27N5277 | F | Distributor Type for Ford 1937-38-39-40 |
| 27N5256 | * | Elbow Type for 1938 |
|  |  | Plymouth 14 |

Each.
Per 10 Assorted
WHEEL STATIC ELIMINATOR


Eliminaies front wheel noise. Easy to Install. Place in each hub cap. All rustproof.
27N5294-Each
10 for

WIRE WOUND UNITS G
Efficient type, do not impair motor efficiency. Low d.c. resistance. efficiency. Low d.c. resistance. choke. Exira rugged 27N5296-Spark Plug Type. 27N5297-Distributor Type. Each 35c; 10 for. 3.15

## MASTER DISTRIBUTOR UNIT



Hermetically sealed; imperviC. resistoncture and heat. D.C. reslstance is 10,000 ohms. 27N5284

39c

ANTENNA CONNECTOR


RELIANCE "UNIVERSAL TYPE" AUTO RADIO ANTENNAS

## ADJUSTABLE

3 section, 56" type. Single hole mount on any con tour. Ball swivel with lock ing point permits adjustment to any angle and positive lock. Has excellent pickup with minimum noise. Permanently attached shielded moistureproof $36^{\prime \prime}$ lead-in and bayonet adapter. Rust proot chromium plated.
27N22007
Lots of 5 .
2.19

ANTENNA RODS


For Buicks and other cars using similar windshield mount type antennas. 3 sections, $36^{\circ}$ maximum length. Easy to install-set rod in socket and tighten set screw. socket and tighten set screw. static tip. 27N21997-For Buicks . . 49 Lots of $5 . \ldots$ For Ford Cars.... 1.45
27N21967-F


## DISAPPEARING

3 sections, $56^{\circ}$. Telescopes to $4^{\circ}$. Single hole mount. Triple chrome plate brass with bakelite insulation, static discharge iip. Has $48^{\circ}$ coax lead-in with plastic insulation, outer shielded loom, bayonet and swivel connectors. 27N22009
3.19

Lots of 5. . . . . . . 2.85

## SIDE COWL MOUNT

3 section, 62-inch, 2 stanchion mounting. Has rustproof triple chrome plated finish and streamlined insulators. Fits the latest streamlined bodies as well as older models. Complete with 36 -inch moisture proof lead-in and bayonet type adapter Shipping weight 2 lbs .
27N22000........ 1.79 Lols of 5 . 1.59

Same features described above, except 106-inches long, 4 section.

27N22001
2.78

Lots of 5

## AUTONE AUXILIARY SPEAKER

Large 6"PM Speaker mounts in shelf behind rear seat, enables passengers to enjoy clear reception without distracting driver. 3 -way control switch mounts on dash, permits operation of front and rear speakers dash, permits operation of front and rear speakers separately or together. May be used with home re-
ceivers also. Wire, escutcheon plate and grill inceivers
cluded.
$22 N 19106$-Shpg. wt. 3 lbs.
5.88

## TIRE STATIC

 NEUTRALIZER POWDERConsists of simple injector and bags of anti-static powder. When injected into tre it eliminates car radio static, in inner tubes. Powder is packed in individual bags, one for each tire, including spare. Tire need not be completely deflated.
27N15586-Injector only.
$78 c$
27N15581-Powder only for 5 tires.


## ICA ADAPTERS

A. 27N16715-No. 2372-Lead-In Adapter-Converts Delco to T. 5 C B. 27 N16716-No. 2375 -Motorola Pin Plug $6 c$
$.12 c$
C. 27 N16717-No. 2378 -Motorola Shielded Jack.

Jack. D.elco Type

## GENERATOR CONDENSERS

Standard auto radio condensers designed to eliminate generator noise.


Fully shlelded. Dirt and oil proof.

| Stock No. | Mid. | Each | 10 For |
| :--- | :---: | :---: | :---: |
| 27 N 14220 | .25 | 25 c | 2.25 |
| 27 N 14215 | .5 | 27 c | 2.43 |
| 27 N 14216 | 1.0 | 39 c | 3.50 |

# BELDEN QUALITY WIRE \& CABLE 


TRANSMISSION LINE CABLES
8204: 72 ohm twisted poir. No. 18 , stranded ( $7 \times 26$ ) No. 26 tinned; colton wrap, rubber ins. 2 cond. cable weather-resistant white cotton brald overall; $190^{\prime \prime}$ O.D. $21 \mathrm{~mm} / / \mathrm{ft}$. VP $61 \%$ Atten./C' .53 db at $1 \mathrm{mc}, 12.3 \mathrm{db}$ at 100 mc .
19N16. Bulk. Cost per ft
10.88
8209: 72 ohm shielded Iwisted pair, conductors and outer cotton like 8204, but cabling includes paper wrap and tinned copper braid; $235^{\prime \prime}$ OD. $32 \mathrm{~mm} / / \mathrm{ft}$. be-
tween conductors, VP $57 \%$ Atten./C 1.1 db at $1 \mathrm{mc}, 14.9 \mathrm{db}$ at 100 mc . 19N20861-Bulk. Cost per ft. 19N16162-500 it. spool
22.20 8205: Twisted pair, No. 22, stranded (7x30) tinned, rubber ins. Cabled with weather. resistant colton braid; $175^{\prime \prime}$ O.D. For use with extension speaker and control circuits.
19N20862-Bulk. Cost per ft. ...... 19N20862-Bulk. Cost per ft. ........... $2 \phi$
Rubber Jacketed Portable Cord
No. 18. stranded ( $41 \times 34$ ) bare copper; cotton wrap, 1/6" rubber ins. Cabled with fill. ers, cotton wrap, $1 / /^{\prime \prime}$ rubber overall.

| Mif's No. | Cond. OD. | Stock No. | Cost $\mathrm{Ft}$ | Stock <br> No. | Cost <br> 100 Ft. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8452 | 2-215* | 19N20910 | 4 c | 19N20909 | 3.17 |
| 8153 | 3-275" | 19N20880 | $5{ }^{\text {c }}$ | 19N20379 | 3. |
| 8454 | 4-265* | 19N20881 | 6 c | 19N20382 | 4.5 |

SHIELDED AUTO \& AIRCRAFT RADIO WIRE
8664: No. 26 solid tinned, copper shield polyethylene ins, tinred corper braid, 19N20963-Bulk Cost it it .
19N20863-Bulk. Cost per ft
19N20884-100 ft. spool
88
493

19N20884-100 ft. spool ................ 4.93 wrap, rubber ins., lacquered cotton brald, | lacquer coating, tinned copper braid shield |
| :--- |
| $170^{\prime \prime}$ | . $170^{\prime \prime}$. $195^{\prime \prime}$. $225^{\circ}$ OD


8423
No. 20, stranded ( $26 \times 34$ ) tinned copper: cotton wrap, rubber ins. Cabled with cotton braid, tinned copper braid, cotton wrap, rubber overall.

| Pkg. | 8423. <br> Stock N | nd. Each | 8424, t-cond. $\dagger$ Stock No. Etarb |  |
| :---: | :---: | :---: | :---: | :---: |
| Per ft. | 19N20869 | 08 | 19 N 20870 | 10 |
| 50 ft . | 19N20843 | 2.94 | 19N20878 | 3.67 |
| 250 ft . | 19 N 20845 | 15.47 | $19 N 20377$ | 19.84 |

- $280^{\circ}$ OD. $\dagger .305^{\circ} \mathrm{OD}$.


## MICROPHONE CABLE, VINYL



8414


8206


8225


##  <br> 8411 <br> 422

 COVERED8411: No. 25 stranded tinned copper and steel mixed, polyethylene ins., tinned copper braid; 40 mmf ./ft., $140^{\prime \prime}$ OD. 19N20857-25 ft. coil. Cost. 19N20858-100 ft. spool.
.916 N20858-100 ft. spool. . . . . . . . . . . . . 3.14 8401 : Same construction as 8411 but heavier ins. 25 mml / ft ., $200^{\prime \prime} \mathrm{OD}$.
19N20846 25 ft . coil. Cost ............. 1.11
19N20847- 50 ft . coil.
19N20847-50 it. coil. ............. 2.20 19N20844-100 ft. spool . . . . . . . . . . . . . . 4.41 8422: 2-cond. No. 22, stranded (16x34). Tinned copper, polyethylene ins. Cabled with cotton braid and tinned copper braid: with cotton braid and tinned copper braid $.225^{\circ}$ OD. $32 \mathrm{mmt} / \mathrm{ft}$. between one conductor and remaining co
to shield. Vinyl overall.
19N20868--Bulk. Cost per $19 \mathrm{~N} 20874-25 \mathrm{ft}$ coil.
19N20875-50 ft . coil. 64
1.32 19N20875-50 ft. coll. .
19N20876-100 ft. spool 19N20876-100 ft. spool ............... 5.29

## RUBBER COVERED MICROPHONE CABLE

8410. Tinned copper and tinned steal. Flexible stranding. Waxod, cellulose yarn braid; rubber insulation; rayon braid; tinned copper braid shield; rayon wrap; black rubber Jackel.
19N20833-Bulk cost per it.............. 74
19N20834-Cost per 50 ft coil
2.94

19N20835-Cost per 100 ft . spool . . . . 5.66
Indoor Aerial \& Lead-in Wire
8414: Indoor aerial, flexible No. 25, 13 No. 36 tinned, vinyl ins.
19N16130-25 ft. card. Cost
. 184
19N16131-500 ft. spool . . . .......... . 1.84 8200: Lead-in, No. 18, 7 No. 27 tinned. rubber ins. . $126^{\prime \prime}$ OD.
 19N16227-1000 ft. spool . . . . . . . . . . . . 6.91 8206: Same, but tinned copper braid shield overall. . $155^{\prime \prime}$ OD. 19N20871 - Cost per ft 19N20888-250 ft. spool. Your Cost. . 2 2

## 300 Ohm Twin Lead Wire

8225. One bare, one tinned lead, parallel conductor. No. 20 ( $7 \times 28$ ) Flextble stranding; polyethylene ins. 19N17137-Price per ft
19N17137-Price per ft..................... 34
Price per 100 ft..................... 96
Price per 500 ft. Price per 500 ft

## Cathode-Ray Tube Lead Cable

No. 20, 7 No. 28 tinned; polyethylene ins., red colton braid, lacquer coating. 8869: 10,000 volts ins., $140^{\prime \prime}$ OD.
19N20889-25 ft. spool. Cost.... 19N20890-100 ft. spool.
8868: 20,000 yolts Ins., 200"OD.
19N20891- 25 it. spool. Cost.
SHIELDED PHONO-PICKUP CABLE
8431: Flexible and limp. No. 24, stranded ( $16 \times 36$ ) tinned; rubber ins., tinned copper braid, cotton braid overall; .095" OD.
19N20872-Bulk. Cost per ft.
. 3
19N20848-100 ft. spool

LITZ WIRE, FOR RF COILS
19N16065-8817: 7 No. 41. 2 nylon wraps- 100 ft . spool
TINNED BUS BAR, 100-f4. COILS
19N16111-8012, No. 14....81\& 19N16112-8011, No. 12.
1.14


8943

## gENERAL USE HOOK-UP WIRE

Tinned conductor, cellulose acelate yarn wrap, cel. acet. braid, lacquer coating. Choice of black, blue, green, red, yellow. 8941-No. 20 solid 8943-No. 20 stranded $\begin{array}{llll}\mathrm{Pkg} \\ 25 \mathrm{fl} .19 \mathrm{~N} 16066 & \text { Each } 16 \text { No. Each } \\ 19 \mathrm{~N} 16068 & 28 \text { \& }\end{array}$ 100 ft . $19 \mathrm{~N} 16080 \quad 96 \mathrm{ct}$ 19N18081 1.05 $\begin{array}{lllll}1000 & \mathrm{ft} \text {. } 19 \mathrm{~N} 16067 & 7.87 & \text { 19N16069 } & 8.82\end{array}$ 8945-No. 18 solid 8947-No. 18 stranded Pkg. No. Each No. Each 100 it. 19N16071 1.12 19N16074 $\begin{array}{llll}100 & \mathrm{ft} \text { it. 19N16072 } & 19 \mathrm{~N} 16072 & 9.55 \\ \text { 19N16075 } & 10.66\end{array}$ 8938: No. 14 stranded, red and black only. 8938: No. 14 stranded, red and black only 43 e
19N16158- 25 ft . coil ................... 19N16082-100 ft. spool. .................... 170 9N16082-100 st. spool


## LOW-LOSS RF PUSH-BACK WIRE

Tinned conductor two cellulose acetate yarn braids, waxed. 1000 yolts breakdown. OD's from . $067^{\prime \prime}$ to $095^{\circ}$. Black, blue, green, red, yellow. Specify color. 8841 -No. 20 solid 8839 -No. 20 stranded $\begin{array}{cccc}\text { Pkg. } & \text { No. } & \text { Each } & \text { No. } \\ 25 \text { ft. } 19 \text { N16246 } & .29 & 19 \text { N16249 } & .32\end{array}$ $\begin{array}{llll}25 \mathrm{ft} .19 \mathrm{NN} 6246 \\ 100 & 19 \mathrm{~N} 16247 & 1.09 & 19 \mathrm{~N} 16248 \\ 1.21\end{array}$ $\begin{array}{lllll}1000 & \mathrm{ft} \text {. } 19 \mathrm{~N} 16245 & 8.97 & \text { 19N16250 } & 10.29\end{array}$ 8861 -No. 18 solid $8844-$ No. 18 stranded
$\begin{array}{crrr}\text { Pkg. No. } & \text { Each } & \text { No. } & \text { Each } \\ 25 & \text { it. } 19 \text { N16199 } & .31 & \text { 19N16208 } \\ .35\end{array}$
$\begin{array}{rrrrr}25 & \mathrm{ft} .19 \mathrm{~N} 16199 & .31 & 19 \mathrm{~N} 16208 & .35 \\ 100 & \mathrm{ft} .19 \mathrm{~N} 16204 & 1.21 & 19 N 16205 & 1.32\end{array}$ 1000 ft 19N16203 $10.00 \quad 19 \mathrm{~N} 1620911.02$ 8863 -No. 16 solid $8862-\mathrm{No}_{0} 16$ stranded Pkg No. Each No. Each 100 ft 19N16221 $1.43 \quad$ 19N16230 $\quad .41$ 1000 ft . 19 N 1622212.57 19N16232 13.90


## 8885

Rubber-Insulated Push-Back Wire
No. 20 tinned, cotton wrap, unvulcanized rubber ins., yarn braid. lacquer coaling, 2000 volts breakdown. Solid type has . $075^{n}$ outer diameter. Stranded type has .080" outer diameter. Green, blue, red, yellow, and black. Specify color
8837-Solid
8838-Stranded
Pkg. No. Each No. Each

| Pkg. | No. | Each | No. |
| :---: | ---: | ---: | ---: |
| 25 | Et. 19N16258 | .29 | 19N16261 | $\begin{array}{llll}25 \mathrm{ft} \\ 100 \mathrm{ft} \text {. } 19 \mathrm{~N} 16259 & 1.15 & \text { 19N16262 } & 1.21\end{array}$ 1000 it 19N16260 9.93 19N16263 10.29 Shielded Hook-Up for Grid Leads, etc.

8885: No. 20, 10 No. 30 tinned; rubber ins. yarn braid, lacquer coat. tinned copper braid overall; $110^{\prime \prime}$ OD. 4000 volts breakdown.
19N16293- 25 ft . coll.
19N16294-100 ft. spool
.594
2.35

# BELDEN QUALITY WIRE AND CABLE 

## CABLE FOR INTERCOMMUNICATION AND PUBLIC ADDRESS SYSTEMS

## INTERCOM AND SOUND SYSTEM CABLE



8740-42. 22 gauge solid copper; Formvar enamel coating; waxed cotton braid; color coded; conductors cabled in pairs; overall brown cotton braid; lacquer coating

| Type | No. Cond. | Diam. | Stock No. | Per <br> Foot | Stock No. | $\begin{gathered} \text { Per } \\ 100 \mathrm{ft} . \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8740 | 2 | . 130 | 19N16134 | 24 | 19N16133 | 1.76 |
| 8741 | 4 | . 180 | 19N16136 | 4 ¢ | 19N16135 | 3.23 |
| 8742 | 6 | . 220 | 19N16136 | 5 | 19N16137 | 4.12 |
| 8743 | 12 | . 255 | 19N16140 | 7 f | 19N16139 | 5.14 |
| 8744 | 18 | . 280 | 19N16142 | 9 | 19N16141 | 7.50 |
| 8745 | 30 | . 360 | 19N16144 | 1S | 19N16143 | 11.91 |

## SHIELDED INTERCOM AND SOUND SYSTEM CABLE


8734. 3-conductor: 22 gauge. Tinned copper, flex. stranding: vinyl ins.; waxed cotton braid; color coded; one conductor tinned copper braid shield: two conductors unshielded; brown cotton braid; lacquer coat.
19N16147-Per 4
64

## PA CABLE - AMPLIFIER TO SPEAKER


8799. 18 gauge 2 conductor bare copper; flexible stranding; Formvar enamel coat; cotton wrap; cotton braid; color coded; conductors cabled; tinned copper braid shield. 19N20867-Per ft.
spool.............4e 2.79 19N20914-Per 100 f. spool .4 f
2.79
3.96 19N20911-Per 500 ft spool. 13.96

8483. 18 gauge 3 conductor bare copper, vinyl plastic insulation; color coded; conductors cabled 19N16148-Per ft...14/2t Per $100 \mathrm{ft} \ldots 1.26$


## COAXIAL CABLE

8229. 72 ohm. 22 Gauge solid. For use th television antenno Bare copper, ply nned copper braid shield; black vinyl 9N171a
19N17138
C..Cost per ft. 64

Cost per 100 ft .4 .41

## VOICE COIL LEAD WIRE

8127. AWG No. 25. Bare copper wire braided. Stranding 32x40. Dia. . $24^{\prime \prime}$. 10 ft to a card.

Test Prod WIre, Flexible and LImp
No. 18, 65 No. 36 tinned; cotton wrap,
 rubber overall; red or black. Specify color:
 19N16335-100 ft. spool. $19 \mathrm{~N} 16335-100 \mathrm{Ht}$. spool. 12.05

8898: 10,000 volts ins., 230 OD
19N16332-Bulk. Cost per it.
19N16331-100 ft. spool.
.34

## HEAVY RUBBER CORD

Type SJ. The thick beit of flexible rubber that covers the conductor is made of smooth ofl-resisting, abrasion-proof high quality "facket"


## PARALLEL RUBBER LAMP CORD

Both conductors sheathed in coating of tough live rubber. Groove between conductors allows easy separation without fear of ruining insulation. In Black and Brownspecify color desired.
19N20920-18 Gauge. Per Foot.... $2 \phi$ Per 100 Feet... 1.90 Per 500 Feet.
9.25

## MICROPHONE \& TRANSMISSION CABLE

## TWIN LEAD TRANSMISSION LINE



300 ohrn Amphenol 14-056 represents the latest design in RF transmission line. Provides proper match of antenna to ali standard 300 ohm input FM and television recelvers. 300 ohm recommended by RMA or use with television receivers in broad band operalion. For use indoors or outdoors. Low-loss Polyethylene insulation is efficient, tough and weather resistant. Will withstand severe weather conditions.
19N17130-Per foot
$2 \frac{1}{2}$ ¢
Per 100 feet

## 300-OHM TUBULAR TWIN LEAD



## AMATEUR TRANSMITTING TWIN LEAD

75-ohm Amphanol 14-023. For amateur transmitting antenna systens. Conpervatively rated at 1000 watts, at 30 MC or lower irequency. 7 \$ Per 100 leet. 6.48

300-OHM TUBULAR TRANSMISSION LINE: Type 14-076. For use up to 1 KW . Overcomes moisture effects on twin lead. $1 / 2^{\circ \prime}$ outside diameter. 19N17133-100-ft. Coll 6.48

Per foot. .
$7 d$

## SILICONE COMPOUND

Offers protection for radio transmission lines. Causes surface moisture to break up into isolated drops. Maintains high surface resistivity of line
 * Wire strippers can be found on page 68 .

## FEDERAL SHIELDED 300-OHM LINE.



Type K-111; Minimizes noise, "snow" and "ghosts" due to transmission line pick-ups. Also offers excellent protection agannt iqu, ition, etreet cars, fluorescent lights, dlathermy machines, etc.

Per ft. $121 / 24$

## AMPHENOL LOW-LOSS H F COAXIAL CABLE

Dielectric is a solid flexible low-loss mechanically stable thermoplastic of Polyethylene proven most efficient in high fro quency transmission circuits. All cables IIsted below are impervious to acids, alkalis, oils and gasoline. All hove a woven copper shield braid over the Polyethylene dielectric with a heavy Vinyl outer covering overall. Many other conductor types availabie.

| Stock No. | Amphenol No. | Ohms <br> Imped | Cap./ mmt | Wire Size | Dielec tric O.D. | $\begin{aligned} & \text { Cable } \\ & \text { O.D. } \end{aligned}$ | Cost Per Ft. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 19N11120 } \\ & \text { 19N17121 } \\ & \text { 19N17124 } \\ & \text { 19N } 17122 \\ & \text { 19N17123 } \end{aligned}$ | $\begin{aligned} & \text { RG/8U } \\ & \text { RG/11U } \\ & \text { RG/22U } \\ & \text { RG/58U } \\ & \text { RG/59U } \end{aligned}$ | $\begin{aligned} & 52 \\ & 75 \\ & 95 \\ & 53.5 \\ & 73 \\ & \hline \end{aligned}$ | $\begin{aligned} & 29 \\ & 20 \\ & 16 \\ & 28 \\ & 22 \\ & \hline \end{aligned}$ | $\begin{gathered} 7 \times 21 \\ 7 \times 26 \\ \text { No. } 20 \\ \text { No. } 20 \\ \text { No. } 22 \\ \hline \end{gathered}$ | $\begin{aligned} & .285^{\prime \prime} \\ & .285^{\prime \prime} \\ & .116^{\prime \prime} \\ & .116^{\prime \prime \prime} \\ & .146^{\prime \prime} \end{aligned}$ | $\begin{aligned} & .405^{\prime \prime} \\ & .405^{\prime \prime} \\ & .184^{n} \\ & .245^{\prime \prime} \end{aligned}$ | $\begin{gathered} 13 d \\ 13 d \\ 14 k \\ 7 k \\ 8 d \end{gathered}$ |

Single Cond. Crystal Mike Cable
 Flexible stranded tinned copper with tinned copper braid shield; cotton wrap and lacquered braid. Rubber overall. 19N20842-Dia. $280^{\circ}$. Per foot 50. Foot Roll

Foot Roll - $\quad 4.59$
Crystal and Veloc. Mike Cable
 Low impedance. 2 conductors, color-coded, in abrasion-proof tinned copper shielding with outer covering rubber, 19N16079.
50-Foot Roll.
100-Foot Roll
3 Conductor Shielded Cable


Three color-coded stranded conductors in tightly woven tinned copper shield. $1 / /^{\prime \prime}$ outer covering of rubber. 19N16145 Per foot. 50-Fool Roll.
100-Fool Roll.

# WIRE-CABLE AND SPAGHETTI 

 ft.

25-Foot Coils
19N16350-Red 19N16352-Black 19N16351-Grn. 19N16353-Yel. Your Cost ( 10 for 2.25). Per Coil...

50-Foot Coils
$24 \$$
9N16358-Red 19N16360 Black 19N16359-Grn. 19N16361 Yel. Your Cost ( 10 for 4.23), Per Coil.

100-Foot Coils
19N16366-Red 19N16368-Black 19N16367-Grn. 19N16369-Yel. Your Cost ( 10 for 8.19), Per coil.

1000-Foot Spools
214

19N16374-Red 19N16376-Black 19N16375-Grn. 19N16377-Yel. Your Cost, Per Spool. . . . . 6.95

## MULTI-CONDUCTOR CABLE



A high grade, heavily insulated cable. Each lead has a different colored rubber jacket for easy identification. 20 gauge, stranded tinned copper wire. Cotton braid overall.

| No. | Wires | Per Ft. | 100 Ft |
| :---: | :---: | :---: | :---: |
| 19̄N16089 | 3 | $4{ }^{\text {d }}$ | 3.60 |
| 19N16090 | -4 | 5 | 4.50 |
| 19N16091 | 5 | 6 6 | 5.40 |
| 19N16092 | 6 | 74 | 6.30 |
| 19N16093 | 7 | 84 | 7.20 |
| 19N16094 | 8 | 94 | 8.10 |
| 19N16095 | 9 | 106 | 9.00 |
| 19N16096 | 10 | 114 | 9.90 |

## BELL WIRE



Excellent grade No. 18. 19N16338 - $1 / 2 \mathrm{lb}$. roll. Your Cost . . . . . 38 19N16051-25 ft. roll. Your
Cost...... 15

## ASSORTED SPAGHETTI B" LENGTHS

Bundle of twenty-four pieces. Made of strong, cambric tubing. Comes in assorted diameters of 19N15959. . . . per Bundle

19

## SPAGHETTI ON SPOOLS

High grade varnished cambric fubing. 4000 V . dielectric strength. On $\dagger$ bre spools, 8 and 12 -yard lengths.
For No. 12 wire, in 8 -yard lengths:
19N15951-Red
19N15955-Black
For No. 14 wire, in 8 -yard lengths
For No. 14 wire, in 8-yard lengths:-Green 19N15751-Yellow
19N15750-Red 19N15753-Nlack
For No. 18 wire, in 12 -yard lengths: 19N15754-Black
Any of Above Sizes,
Your Cost, Per Spool

Flexible, heavily tinned copper shielding slides over cables, bunches conductors.


| Stock No. | In. Dia. | Per Ft. | Per 100 Ft . |
| :---: | :---: | :---: | :---: |
| 19N16233 | $1 / 8^{\prime \prime}$ | 36 | 2.41 |
| 19N16237 | $13 / 4{ }^{1 /}$ | 21/3 | 1.53 |
| 19N16238 | $31 /{ }^{\prime \prime}$ | 312d | 2.68 |
| 19N16239 | 11/4" | 6 | 5.35 |

FINEST GRADE MAGNET WIRE

Highest qual.
Ity copper wire. Excellent for rewinding power trans. lormers and chokes, winding coils or any other radio and elec trical purpose. Ideal for use in shops, schools laboratories. etc.

Plain Enameled

| Stock No. | $\begin{aligned} & \text { Size } \\ & \mathbf{B \& S} \end{aligned}$ | Ft . Per Lb | Your Cost |  | Stock No. | Size BdS | Ft. Per Lb. | Your Cost |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | \% Lb. | \%Lb |  |  |  | 4 Lb | $\underline{1 / 2} \mathrm{Lb}$ |
| 19N20950 | 16 | 125 | \$0.23 | \$0.38 | 19N20956 | 28 | 2030 | . 33 | 55 |
| 19N20951 | 18 | 202 | . 23 | . 40 | 19N20957 | 30 | 3220 | . 36 | . 59 |
| 19N20952 | 20 | 319 | . 25 | .43 | 19N20958 | 32 | 5100 | .41 | . 64 |
| 19 N 20953 | 22 | 506 | . 25 | . 44 | 19N20959 | 34 | 8080 | 46 | . 78 |
| 19N20954 | 24 | 804 | . 27 | . 46 | 19N20960 | 36 | 12800 | . 59 | .91 |
| 19N20955 | 26 | 1280 | 30 | . 50 | 19N20961 | 38 | 20300 | . 78 | 1.15 |



25-Foot Coils

19N16272-Red Your cost ea. | 19N16273-Black |
| :--- | :--- |
| 19N16274-Green |\(\left\{\begin{array}{l}5 for 22 <br>

1.00\end{array}\right.\)

## COPPER BUS BAR

Round tinned copper bus bar No. $14-24^{\prime \prime}$ lengths.
19N 15965 - 10 lgths. 100 laths.
Your Cost . . . . . 19 1.80

## SPAGHETTI TUBING

Highest grade cambric tubing. Red, yellow, green and black. No. 12.150 -Specify Color Per 30-Inch Length.

7
 use. 25 -f. hank.



## INDOOR ANTENNA WIRE

Multi-strand flexible copper wire covered by a brown mercerized cotton braid. For indoor or AC-DC antenna ti. hank. 19 N16167-100.ft. Coil.

534

## TRANSMISSION CABLE

Consists of twisted rubber-covered conductors covered by a black weatherproof collon outer braid.
19N17152-Per Foot.
Per 100.Ft. Coil. Wt. 4 lbs .

## COTTON TWISTED PAIR



## TELEPHONE WIRE

For general use and inter-com. phones. 2 Conductor No. 19 Gauge 1/2" R.C. .... 34 Per 100 Feel. ....................... 2.45 Per 100 Feet.
SHIELDED LEAD-IN, HOOK-UP WIRE
10 -strand wire covered with live rubber, waxed cotton braid and woven tinned shield 19N16240-
Per Foot.....
50-Foot Roll.

## THERMOPLASTIC HOOK-UP WIRE

New thermoplastic insulation strips clean-is oil and acid resistant. Will withstand 180 F . Underwriters approved.
10,000 volt breakdown test. For use where high conductivity and low loss is essential. Avallable in Black, Red, Blue, Green, and Yellow. Specify color. Shipping wi. per 25 eet: 4 ounces.
19N16382- 25 ft . No. 20 Solid.......... 24 c 19N16383-100 ft. No. 20 Solid. . ...... 86c 19N16384-. 25 ft . No. 20 Stranded. .... 28c
$19 \mathrm{~N} 16385-100 \mathrm{ft}$. No. 20 Stranded. . . . 99c 19N16385-100 ft. No. 20 Siranded...... 99c

## COPPER AERIAL WIRE

Made of the finest copper obtainable. All rolls guaranteed to be full length and standard gauge os specified. Fits any type aerial.

> BARE STRANDED-75-FT. COILS

| No. | Size | Per Coil | 10 Coils |
| :---: | :---: | :---: | :---: |
| $19 N 16041$ | $7 / 26$ | $32 c$ | 3.14 |
| $19 N 16042$ | $7 / 24$ | $42 c$ | 3.99 |
| $19 N 16043$ | $7 / 22$ | $59 c$ | 5.60 |

ENAMELED STRANDED-100.FT. COILS

| No. | Size | Per Coil | 10 Coils |
| :---: | :---: | :---: | :---: |
| 19 N 16117 | $7 / 22$ | 1.08 | 10.26 |

SOLID ENAMELED-100-FT. COILS

| No. | Size | Per Coil | 10 Coils |
| :---: | :---: | :---: | :---: |
| 19 N 16118 | No. 14 | 81 c | 1.70 |
| 19 N 16119 | No.12 | 1.17 | 11.15 |


All-purpose stand-offs of white glazed porcelain. Supplied with nickel-plated hardware as listed below.

| Stock No. | Type No. | Fig. | Ht . | Hardware | Esch |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38N16746 | 135-22 |  | 1 1* | 8/32 | 14 |
| 38N16748 | 135-22J | 4 | 1 " | Jack | 114 |
| 38N16745 | $135-20$ | 1 | 1716" | 10/32 | 12. |
| 38N16744 | 135-20.J | 4 | 12. ${ }^{\circ}$ | Jack | 15 |
| 38N17024 | 135-85 | 3 | 13\% ${ }^{\prime \prime}$ | 10/32 | 18 |
| 38N17025 | 135-66 | 2 | $23^{\prime \prime}$ | 1/-20 | 41 |
| 38N17026 | 135-67 | 2 | 41/2* | 1/9-20 | 506 |

JOHNSON LEAD-IN BUSHINGS


For use where insulated mountings are needed. Type 5 of needed. glazed porcewhite glazed ol Alss. main, 196. All have long leakage path. Cushion washers and necessary

Made of Alsimag 196.

## JOHNSON FEEDER SPREADERS

Ideal for receiver and transmitter leadins. High grade, low absorption, unglazed porcelain. Silicone impregnated for finest water repellent characteristics. Type 136-122 is provided with notches for $13^{\prime \prime}$ line spacing. All have $8 / 3 \times 116^{\prime \prime}$ cross section.

| Stock No. | Type No. | Lgth. | Each |
| :---: | :---: | :---: | :---: |
| 38N17027 | $136-122$ | $2^{\prime \prime}$ | .10 |
| 38N17028 | $136-124$ | $4^{\prime \prime}$ | .14 |
| 38N17029 | $136-126$ | $6^{\prime \prime}$ | .18 |

## JOHNSON CONES

$\begin{array}{r}9 \\ 0 \\ \\ \\ \hline\end{array}$Made of ultra stealite insuring minimum loss at high frequen cies. Threads tapped directly into ceramic. Ideal for mita. condensers, colls, tube sockets, other HF apparalus. Complete with mitg. hardware.

| St |  | H |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38N17005 |  |  |  |  | . 18 |
| N17006 | 135-501 |  |  | $8 / 32$ | . 21 |
| 38N17007 | 135-502 |  |  | 8/32 | . 38 |
| 38 N 17008 | 135-503 |  | 11 | 10/32 | . 44 |

ICA STAND-OFF INSULATORS


Made of white glazed insulex 38N16730-1" high 38N16731-13/6 high 38N16732-13/4" high

NATIONAL ISOLANITITE

## PLUG AND SOCKET



## NATIONAL STEATITE "CONES"

GS-6 and GS-7 tapped 10/32; all others tapped $8 / 32$.


## National Isolantite Stand-Offs

Metal mounted top, bottom. Ideal for r.f. chake cores.

| Stock No. Type | Dia. |
| :--- | :--- |


| 38N14479 | GS-1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 38N14480 | CSS-2 | 1/2" |  | . 30 |
| 38N14481 | GS-3 |  |  | . 60 |
| 38N14482 | GS-4 | 8 |  |  |



## STRAIN INSULATOR

A 11/2" glazed porcelain strain insulator for antenna guy wires. 38N17175-Each 5
..... 40f

## BIRNBACH

X-MITTER LEAD.IN INSULATORS


Glazed porcelain $23 / 4^{\prime \prime}$ high. With hardware and washers for water tight seal.

| Stock No. | Rod | Bushing | Each |
| :---: | :---: | :---: | :---: |
| 38 N17037 | $10^{\prime \prime}$ | Metal | 1.03 |
| 38N17038 | 15" | Metal | 1.18 |
| 38N17039 | $10^{\prime \prime}$ | Porcelain | 1.32 |
| 38N17040 | $15^{\prime \prime}$ | Porcelain | 1.68 |

## SMOOTH COIL FORMS



Special value for servicemenBlank bakeltte forms, suitable for winding coils to any specifica-
tion you require. 4,5 , and 6 tion you require. 4, 5, and 6 prong types.
29N 10060-4 prong type
29N10061-5 prong type
29N10062-6 prong type.
Any Above, Each.
214
RELIANCE RIBBED COIL FORMS

Vil

## Made of high quality low-loss

 bakelite. Ribbed for airspaced winding. Knurled flanges for ease in handling, grooved for wave band index. Eight ribs.Undrilled. $18 / 8^{\prime \prime}$ diameter. $35 / 8^{\circ \prime}$ high
29N9630-4-Prong
29N9631-5-Prong
29N9632-6-Prong

## Small Size

Undrilled. $12 / 8^{\prime \prime}$ diameter. $21 / 3^{\prime \prime}$ high 29N9988-4-Prong
29N9989-5-Prong.
29N9990-6-Prong.
\} Each 254

## AMPHENOL MINIATURE POLYSTYRENE FORMS

Undrilled. $3^{\prime \prime}$ " dia., $10 . \mathrm{h}^{\prime \prime}$ long. Permanent
mitg. form has raised hole in center for self tapping screws.
29N11577 Permanent Mtg.
29N9629-6-Prong Form
$10 \%$
28

AMPHENOL "'912" PLASTIC RODS SHEETS - TUBING-STRIPS

" "912-A" POLYSTYRENE RODS
Expertly molded from pure low-loss polystyrene. Available in $12^{\circ}$ lengths for machining special coil forms and low loss parts.

| Stock No. | Dia. | Type No. | Each |
| :---: | :---: | :---: | :---: |
| 38N8015 | $1 /{ }^{\prime \prime}$ | 19R125 | 021/2 |
| 38N8067 |  | 19R250 | 08 |
| 38N8068 | " | 19R375 | 17 |
| $38 N 8069$ | " | 19R500 | 30 |
| 38N8016 | $5{ }^{\text {\% }}$ " | $19 R 625$ | 48 |
| 38N8017 | 4 | $19 R 750$ | 68 |
| 38N8070 |  | 19R1000 | 1.26 |

## 912-A" SHEETS

Made of low-loss Polystyrene. $12^{\prime \prime} x 16^{\prime \prime}$ size ideal for use when a window pane lead in is desired

| Stock No. | Type No. | Dimension | Each |
| :---: | :---: | :---: | :---: |
| 38N8 | 19-06 |  | 16 |
| 3818028 | 19-0938 | $4 \times 8 \times$ | 20 |
| 3818108 | 19.093 | $12 \times 16$ | 2.18 |
| 3818026 | 19-1258 | 488x | . 24 |
| 38N8019 | 19125 | $12 \times 16 \times 1{ }^{\prime \prime}$ | 2.71 |
| 38188027 | 19-2508 | $4 \times 8 \times 1 / 6$ | . 39 |
| $38 N 8020$ | 19-250 | $12 \times 16 \times 1 / 4{ }^{\prime \prime}$ | 5.44 |

## "912-A" TUBING

Polystyrene tubes $12^{\prime \prime}$ long with 1 Re" wall $^{\prime \prime}$ thickness. For coil forms. Extremely low RF loss

| Stock No. | Type No. | Dia. | Each |
| :---: | :---: | :---: | :---: |
| 38N8029 | 19T3-062 | 56" | 09 |
| 38N8030 | 19T4.062 | 3/8" | . 11 |
| 38N8032 | 19T5-062 | 1/2" ${ }^{\prime \prime}$ | . 14 |
| 38N8031 | 19T6-062 | $5{ }^{5 \prime \prime}$ | . 19 |
| 38N8033 | 19T7-062 | 3" | . 23 |
| 38N8034 | 19T8-062 | " | . 30 |

## "912-B" STRIPS

A synthetic resin having transparency greater than most glass and with good in sulation characteristics. Can be shaped (when heated), drilled, cut, etc. For coil supports, line spreaders, trimmer bases or inding post or tip jack mounting strips $12^{\circ}$ long strips

| $\begin{aligned} & \text { Stock } \\ & \text { Sock } \\ & \text { No } \end{aligned}$ | Type | Widh | Thick ness | Ea. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |

Colorless, transparent and ready to use. Pure polystyrene in solution. Matchless for "doppolysityrene in solution. Matchess coating, impregnating or sealing. Used as an adherent, Polyweld jajns two section as an adherent, Polywld forns iwo section of polystyrene. It contains solventa that acWill wold suracea ino a slngle unit. Will not disturb circuit constants when used on coils, ceramics, wire or insulation. Recommended for VHF, UHF and general electronic applications. Applied by dipping, or with a brush. Dries sufficiently in 4 to 8 minutes leaving a hard transparent coating of pure polystyrene. Non-hygrosoopic
17N15362-2 oz. bottle
294
17N15363-4 Oz. bottle.
17N15364 2 oz. bottle with brush....... 15

# FLUORESCENT FIXTURES FOR THE HOME <br> ALL ADAPTOR TYPES SUPPLIED WITH CORD, PLUG AND 4" CUPS 



## DRAKE FLUORESCENT FIXTURES

Gracefully rounded, rich modern styling makes these fluorescent fixtures ideal for kitchen, bedroom, hall or office. Scientifically designed and engineered for maximum lighting efficlency plus oulstanding beauty. Steel reflector has baked-on white enamel finish. Streamlined, high-polish aluminum ends with choice of trim. Uses $2-20$ watt lamps. Dimensions: $26 \times 83 / 4 \times 23 /^{\prime \prime}$. For $115-120$ volis, 60 cycles AC. Shipping Weight 8 lbs . U/L approved. Less lamps.
ADAPIOR TYPE

| Stock No. | Trim | Each, Lots of 3 | Each |
| :---: | :---: | :---: | :---: | :---: |
| 33N25594 | Chrome | 5.37 | 5.85 |
| 33N25596 | Chinese Red | 5.67 | 6.17 |
| 33N25598 | Blue | 5.67 | 6.17 |


| FIUSH TYPE |  |  |  |
| :---: | :---: | :---: | :---: |
| 33N25595 | Chrome | 5.97 |  |
| 33N25597 | Chinese Red | 6.27 |  |
| 33N25599 | Blue | 6.50 |  |



## FLUORESCENT KITCHEN UNIT

Maximum light without shadows or glare. End pleces completely cover body and sockets for protection, yet permit removal o lamps without disassembling unit. White baked-on enamel. Uses $2-\mathrm{Tl2} 20$ watt lamps. For $110-120$ volt 60 cycle AC. $247 / \mathrm{B} \times 53 / 4^{\prime \prime}$ Less lamps.
33N25551-Shpg. wt. 7 lbs. Each ...................................... 5.5
Each, in lols of 3


## NEW FLUORESCENT KABNIT-LITE

Scientifically designed to throw soft, glare-free fluorescent light all over the top of your range, sink or other work area. Has convenience outlet for plugging in other appliances. Finished in gleaming white, chip-proof, baked-on enamel with brilliant chrome trim. Matches the most modern kitchen. Non-static plastic shield won't crack and can be cleaned easily with soap and waler. Shipping Welght $41 / 2$ lbs. For 110 volts, 60 cycles AC. waier. Samps.
Less lamps.
Net
5.19

Each, in lots of 3
... 4.77
33N25593-20-Walt $241 / 2^{\prime \prime}$ Long. List 8.95
Net 5.85
Each, in lots of 3


DELUXE DESK LAMP

1. Lights entire desk area. Shade and base of one-piece pressed steel, baked wrinklepressed sieel Ulaked w. Iamp. $1334^{\prime \prime}$ H., 191/4" shade. Less lamp. List 8.35 .

Each, lots of 3.
5.60
4.98

CIRCULAR FLUORESCENT LIGHT Artistically designed tluorescent unit of heary gauge steel. White baked-on enamel, chrome center trim. Flush type or adaptor type mounting. With glareless 32 watt circline lamp. 110 125 volt, 60 cycle $A C$. $12^{\prime \prime} x^{\prime} 33 /^{\prime \prime}$ Shpg. wt. 7 lbs . Fed. Exclse Tax in cluded.


| Slock No. | Type | Ea. Lots of 3 | Each |
| :---: | :---: | :---: | :---: |
| 33N25556 | Flush | 7.02 | 7.64 |
| 33N25586 | Adaptor | 7.02 | $\mathbf{7 . 6 4}$ |



## DELUXE CIRCLINER

Fixture of unrivaled elegance-new circular fluorescent light adds beauty to any room. "Neptune" model features attractive etched glass center ornament with polished brass finial. Available in tlush or adaptor type mountings. With lamp. 110 volts 60 cycles. AC. White baked-on enamel. $12^{\prime \prime} \times 33 / 4^{\prime \prime}$. Wt. 7 lbs. Fed. Excise Tax included. List 16.45 .

| Stock No. | Type | Ea. Lots of 3 | Each |
| :---: | :---: | :---: | :---: |
| 33N25580 | Flush | 9.87 | 10.75 |
| 33N25581 | Adaptor | 9.87 | 10.75 |

## SHIELDED CIRCIINER

New, unusual lighting unit! Shielded tluorescent Luminaire finished in White baked enamel with beautiful etched design glass bowl. Available for flush or adaptor mounting. With lamp. $110-125$ V. 60 cycle AC. $141 / 2^{\prime \prime}$ x $5^{\prime \prime}$. Wi. 8 lbs. Fed. Exclse Tax included. List 20.90.


| Stock No. | Type | Ea. Lots of 3 | Each |
| :---: | :---: | :---: | :---: |
| 33N25582 | Flush | 12.54 | 13.65 |
| 33N25583 | Adaptor | 12.54 | 13.65 |

## PIN-UP MIRROR LIGHT

Novel effect with excellent illumi-nation-tor homes, hotels and instinations Finest -inch plate glass tutions. Finest 8 -inch plate glass mirror circled with fluoresceni light. With 12 -inch diameter, 32 -wall glareless circline and $6-\mathrm{ft}$. cord and plug. Bufters on back allow air circulation between wall and fixture 110 V .60 cycles. AC. Shpg. wi. 9 lbs, 33N25558 List 19.95. Federal Excise Tax included. Each 13.03 Each, in lots of 3.


## ALL-PURPOSE PIN-UP OR BED LAMF

Ideal for every room in the house . . . under kitchen cabinets over mirrors, desks, on any wall. Perfect for reading or sewing in bed. One lamp is sufficient for a double bed. Plastic shield assures glare-free light. Has U.L. app. cord and plug. 14-watt size. Complete with detachable clamps for headboard. Overall dimensions: $2 \times 25 / 8 \times 21^{\prime \prime}$. Shipping weight 4 lbs. Less lamp. 33N25590-Ivory Trim.................. Ea. Lots of 3 4.17 Singly 4.54 33N25591-Grained Walnut Trim Ea. Lois of 34.17 Singly 4.54

## LAMPLIGHTER FLUORESCENT LANTERN

Provides brilliant flood light at the flick of a switch-wherever you want it, indoors or out. No connections necessary-operates on standard portable 45 volt " $B$ " batteries. An ideal lantern for camping, hunting, fishing, home or industrial use. Contains shatterproof plexi-glass window for absolute safety. Bottom is hinged for easy replacement of batterles and fube. Comes complete with standard 6 -watt fluorescent type tube and two batteries. List 10.95 .


33N25564-Lantern Size: $41 / 8^{\prime \prime} \times 77 / \mathrm{B}^{\prime \prime} \times 9^{\prime \prime}$.
8.21

20N20614-Repfacement Burgess Batteries, Each.

## FLUORESCENT FIXTURES FOR STORES, OFFICES

A good fluorescent Hght installation in commercial and industrial establishments increases the efficiency of workers. Better light and brighter work areas reduce eye strain and create pleasanter working conditions.

Power requirements are lower too, because fluorescent light gives illumination of greater intensity for the same wattage. Listed here are several industrial units attractively designed and carefully engineered to meet your needs.

## INDUSTRIAL UNITS FOR 105-125 V. 50-60 CYCLE AC OPERATION



## INDUSTRIAL PLUG-IN FIXTURE

Constructed for convenlence-plugs into any socket. Adaptable for home or industrial use-provides intense glareless light where you need it. Engineered for continuous row lighting over benches and machines; knockouts at each end of steel channel makes it possible to mount units end to end in continuous rows of light. Latest type ballasts fully enclosed, with starters easily accessible on side. Uses $2-20$ wati lamps. Gray steel housing, with high gloss Sno-white reflector. Complete with 6 ft . cord and plug, less lamps. Overall size: $41 / 2^{\prime \prime} \times 24^{\prime \prime} \times 91 / 2^{\prime \prime}$. Shipping weight 8 lbs . 33N25567-List Price 8.90.................. Each in lots of 3
5.34

Each, singly
. 5.81

## ALL-PURPOSE STRIP LIGHT-U. L. APPROVED

Ideal lighting units for stores, store windows, show cases, or homes and offices. Multiple knockouts for single unit or end-toend mounting. Channel and cover White baked enamel. Supplied less lamps.

| Cat. No. | Lamps | W | Siz | Lots/3 ec. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 33N 25572 | 1-15 W | 3 lbs . | $19 \times 25 / 8 \times 17 / 8^{\prime \prime}$ | 2.01 | 2.19 |
| 33N25573 | 1-20 W | 31/2 lbs. | $25 \times 25 / 8 \times 17 / 8^{\prime \prime}$ | 2.07 | 2.25 |
| 33N25574 | 1-40 W | 9 lbs. | $431 / 4 \times 25 / 8 \times 17 / 8$ | 3.54 | 3.85 |



CHROME BRACKET FIXTURE-U. L. APPROVED
For home or commercial use! Handsome, practical design is adaptable anywhere. Uses 15 watt lamp. Rusiproot chrome finish on copper plated steel. Size: $191 / 2 \times 31 / 4 \times 3 \frac{1}{2} 2^{\prime \prime}$ high, less reflector; $41 / 2^{\prime \prime}$ high with reflector. Supplied less lamps.

| Cat. No. | Description | Wi. | Lots/3 ea. | Each |
| :---: | :---: | :---: | :---: | :---: |
| 33N25576 | Bracket alone | 3 lbs | 2.64 | 2.87 |
| 33N25577 | With convenience outlet | 3 lbs. | 2.85 | 3.11 |
| 33N25578 | With reflector | $31 / \mathrm{lbs}$ | 3.48 | 3.79 |
| 33N25579 | With reflector and outlet | $31 / 2 \mathrm{lbs}$. | 3.69 | 4.02 |



## DELUXE HEAVY DUTY FIXTURE-U. L. APPROVED

Quality high power factor fixture for high intensity lighting. Flush, chain or stem mounting. Double knockouts at each end on top. Pressed steel housing and reflector of "glazenamel." 2.40 watt lamps. $48 \times 131 / 2 \times 53 / 4^{\prime \prime}$. Less lamps.
7.68 Each.
8.36 33N25566-For 3-40 W. lamps, lots/3. 12.57 Each.... 13.69 33N25690-U/L Approved cord and Plug Set, 6 ft. long.............. 54 c 33N25691-Levolier Switch with Pull Chain. $75 c$
33N25692-8 ft. Galv. Tenso Chains with S Hooks, Pr. .......... 64c


## ALL-STEEL LUMINAIRE FIXTURE-U. L. APPROVED

Engineered for uniform rich lighting, yet distinctively designed for decorative effect. All-steel baked enanel fixture is constructed for flush mounting. Uses two 40 watt lamps. Attractive end plates finished in durable white baked-on enamel. $4911^{\prime \prime} \times 10^{\prime \prime} \times 6^{\prime \prime}$ innshed in durable white b
Fixture supplied less lamps.
33N25568-Wt. 21 lbs. Each, lots/3 9.60
Each. 10.46 Same as above, but for four 40 watt lamps. Less lamps.
33N25569-Wt. 35 lbs. Each, lots/3 14.34
Each.... 15.61

## FLEXO ADJUSTABLE FLUORESCENT LAMPS

(A) General Model. Versatile industrial style tluorescent fixture with clamp-on base. Ideal for factory benches, tables and drafting boards. Two bolts clamp base securely to any suriace up to $3^{\prime \prime}$ thick. Spring-controlled swivel joints and double arm action permit easy manipulation of fixture to give you light in any desired position. Arm extends $36^{\prime \prime}$. Uses two T8, 15-W. lamps. For $110-125 \mathrm{~V}$., 60 cycles AC. Shpg. Wi. 15 lbs. Statuary bronze finish, baked-on enamel. 33N25560-Less lamps

$$
16.75
$$



## For Home or Offlce

(B) Portable Desk Model. Has all the features of the model described above except for the difference in the base. This unit has a weighted base with pen and pencil grooves, for desks and tables where screw clamp cannot be used. Shpg. Wt. 23 lbs . 33N25561-Less lamp
22.50

When purchasing lamps with any fluorescent fixture listed on these pages use lst "Lots of" price instead of single price. Fluorescent lamps for use with fixtures described on this and opposite page. "White" lamps provide a quality of light approximating that of the incandescent lamp. "Daylight" lamps approximate that of daylight. All supply several times the usable light of regular incandescent lamps.
Rated life of these lamps is better than 2500 hours. 85 -watt lamps have mogul 2 -pin base; all others have standard 2 -pin base. "Circline" circular lamp (Tio) requires special socket. Inside diameter is $91 / 2 \times 1 / 8^{\prime \prime}$.
Approximate shipping v/eights: 6 and 8 -watt lamps- $11 / 2$ lbs.; 14 , 15, 20 -watt lamps- 2 lbs ; 30 and 40 -watt lamps- $31 / 2 \mathrm{lbs}$.; 85 watt lamps-6 lbs. Prices include Federal Excise Tox.

MAZDA FLUORESCENT LAMPS

| White Cat. No. | Daylight Cat. No. | $\begin{aligned} & \text { G.E. } \\ & \text { No. } \end{aligned}$ | $\text { L. Size } \quad \text {. }$ | Watts | Each | Lots of | Each | Lots of | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33N25533 | 33 N 25534 | T5 |  | 6 | . 75 | 7 | . 68 | 24 | 64 |
| $33 N 25527$ | 33N25528 | T5 | $12 \times 1{ }^{12} \times 8^{\prime \prime}$ | 8 | . 85 | 7 | . 77 | 24 | . 73 |
| 33N25496 | 33 N 25497 | T8 | $18 \times 1{ }^{\prime \prime}$ | 15 | . 62 | 8 | . 56 | 24 | . 53 |
| 33N 255525 | 33N25526 | T12 | $18 \times 11 / 2^{\prime \prime}$ | 15 | . 75 | 7 | . 68 | 24 | . 64 |
| $33 N 25529$ $33 N 25535$ | 33N25530 $33 N 25536$ | T12 | 15x ${ }^{15}$ | 14 20 | . 75 | 7 | . 68 | 24 24 | . 64 |
| 33N25537 | 33N25538 | T8 | $36 \times 1^{1 / 2}$ | 30 | . 75 | 7 | . 68 | 24 | . 64 |
| 33N25539 | 33N 25540 | T12 | $48 \times 11 / 2^{\prime \prime}$ | 40 | 1.00 | 5 | . 90 | 24 | . 85 |
| 33N25531. | 33N25532 | T17 | $60 \times 21 /{ }^{\prime \prime}$ | * 85 | 2.30 | 3 | 2.08 | 12 | 1.96 |
| 33N25541 | 33N25542 | T10 | 121/4 ${ }^{\text {" Od }}$. | 32 | 1.85 | 3 | 1.67 | 12 | 1.56 |

## MODERN, LOW COST ELECTRICAL APPLIANCES

All the products listed below are high quality, low cost items designed to bring you the utmost in dollar value. Their smart appearance and precision construction is usually found only in more expensive ap-


## DUO-CHIME UNIT

Add a note of charm to your home with this attractive, melodious door chime. Rings differently for front and back doors. Operates from low voltage transformer (10from low voliage transiormer $10-$ 18 volts) or from six-volt storage batteries. Sturdy all metal and gold finlsh. Size: $61 / 2 \times 61 / 2^{\prime \prime}$. and gold finish. Siz
33N25410-List \$4.95,
Net..
3.30

## 10 V . Transf. for above <br> 33 Ni500...............

1.16

## PUR-AR-LITE AIR PURIFIER

An economical germicidal lamp. Excellent for use in kitchens and bathcellent for use in kitchens and bathlamp destroys germs and banishes unpleasant odors. Heavy aluminum construction. Wall type mounting. Operates from 110 -volt A.C. only. Shipping Wt: 2 lbs. List Price $\$ 6.95$. 33N25419-Each, Lots of 3.
4.63

Each, Slngly.
5.25


## CENTURY GLIDE-O-MATIC IRON



- Light Weight
- Tilt Up Heel
- Thermostat
- Side Mounted Cord

Light weight makes ironing faster and easier. Temperature control selector, side mounted cord, thlt up heel rest and cool plasilc handle. Rated at 1000 watts, $110-$ volt A.C. Equipped with aluminlum sole plate. U.L. approved. Shipping Weight: 6 lbs. List Price $\$ 9.95$.
33N25418-Each, Lots of 3
6.95

Each, Slingly.
7.45


## ELECTRIC MIXER

Ideal for whipping pancake and waffle batters, cream, eqgs, or other Ilght batters-even mixes drinks. Full one quart capacity glass conFull one quart capacity glass container with extra cover for storage. Seli-lubricaling, siwat consuructed electric motor with push-button control. Two interchangeable mixIng blades. For 110 volt AC-DC operation. Shpq. Wt: 7 lbs. List Price $\$ 7.95$.
33N254 14-E ach, Lots of 3.. 5.45 Each, Singly.......................... 5.95


## RAINBOW 2-SLICE TOASTER

Produces evenly browned toast, quickly and easily. Slices of bread are auromatically turned without handling when doors are opened. Pure MIca elements are wound with genulne Nichrome wire. Projecting base prevents tipping or shifting while in use. Chrome plated with black enamel base. 110 AC-DC. Shpq. Wt: 3 lbs. List Price 5.75. U.L. approved.
33N25420-Lots of 3 ,
Each.
3.95

Each, SIngly.
WE WILL NOT KNOWINGLY BE UNDERSOLD

## ELECTRICAL ACCESSORIES


. SINGLE SURFACE OUTLET. Brown bakelite. Wood mounting screw. 33N13271-Ea., 8c.....................10 for 72e 2. BAKELITE PLUG. Sturdy prongs. 33N13306-Ea., 6c....................... 10 for 54 c 3. CORD SWITCH. For ceiling fixtures and home appliances.
33N13275-Ea., 24c. $\qquad$


4


5
6
ype torminals, wood screw
ype lerminals, wood screw
33N13279-Ea., 15c.
.... 10 for 1.35
5. CUBE TAP. Brown. 3 outlets. Shlpplng welght 2 ounces.
weight 33 N 13282 - Eances. 10 c $\qquad$ 10 for 90 c
6. HANDLE PLUG. Of soft rubber. Shipping weight lounce.
33N13301-Ea., 6 c
10 for 54 c


9

7. 3-WAY SURFACE OUTLET. Brown plastic. With wood mounting screw. 33N 13280 -Ea., $15 \mathrm{c} . . . . . . . . . . . . . . . . . . . .10$ for 1.35 8. CURRENT TAP. Bakelite. Straight socket with 2 plug outlets
33N13278-Shpg. wi. 4 oz........................ 15c
9. DUPLEX FLUSH RECEPTACLE

33N13329-Ea., 13 e.
10 for 1.17


10
10. WALL PLATES. Dual outlet. Ripple design stainless steel.
33N13326-Ea., 7c $\qquad$ 10 for 63 c

##  <br> 12

11.MIDGET CORD CONNECTOR. Flat two plece. Underwriters listed.
33N13276-Ea., 20c
10 for 1.80
12. POWER CORD AND PLUG. 6ft. rubber cord, brown bakelite plug.
33N13285-Shpg. wt. 6 oz. Ea...............15c

13.CUBE TAP EXTENSION. Trio tap, 9 it rubber cord, AC plug. Brown.
33N13318-Brown..... Ea., 37c 10 for 3.33

14. HEATER CORD SET. AC plug, 7 ft . heater cord and screwless plug.
33N13317-Shpg. wt. 7 oz. $\qquad$

## 15

15. FLUORESCENT BALLASTS. Underwriters' Listed. High power factor 90 to 100\%. Normal 55 to $63 \%$. For $105-125$ volts 60 cycle AC operation. Normal Power Factor

33N25616-15W $41 / 2 \pm 2 \times 13 / 8^{\prime \prime}-1 \mathrm{lb}$.
33N25617-20W 4 4/2 $\geq 2 \times 13 / \mathrm{B}^{\prime \prime}-1 \mathrm{lb}$.
33N25618-30W $85 / 8 \times 23 / 8 \times 13 / 8^{\prime \prime}-3 \mathrm{lbs}$
$33 \mathrm{~N} 25819-40 \mathrm{~W} 85 / 8 \times 23 / 8 \times 13 / 8-3 \mathrm{lbs}$.
33N25820-(2) $20 \mathrm{~W} 57 / \mathrm{B} \times 2 \times 13 / 8-2 \mathrm{lb}$
High Power Factor
High Power Factor
$33 \mathrm{~N} 25614-30 \mathrm{~W} 131 / 4 \geq 23 / 8 \times 138^{\prime \prime}-4 \mathrm{lbs}$.
$33 \mathrm{~N} 25614-30 \mathrm{~W} 131 / 4 \times 23 / 8 \times 138^{\prime \prime}-41 / \mathrm{lbs} . .$.
$33 \mathrm{~N} 25615-40 \mathrm{~W} 131 / 4 \times 23 \times 1 \mathrm{~m}^{\prime \prime}-41 / 2 \mathrm{lbs}$.
$33 \mathrm{~N} 25605-(2) 40 \mathrm{~W} 17 \mathrm{~V}$ 迤 $\leq 23 / 8 \times 15 / 8^{\prime \prime}-5 \mathrm{lbs}$.


54 e lots/10, Each. lots/10. Each lots/10, Each lots/10, Each. ots/10, Each 1.89 lots/10, Each....... 96 c
lots/10, Each..... 1.89
lots/10. Each. lots/10, Each lots/10, Each.

## 16 <br>  <br> 17 <br>  <br> 18 <br> 

Durable, good looking. Many different switch and pilot light combina thons are possible. Easily mounted. Supplied complete with all neces sary hardware.
 33N13304-600 W. Ea., 42c..... 5 for 1.89 33N13305-1000 W. Ea. 69c.... 5 for 3.11 25. FITSALI IRON ELEMENTS. 110 V . 33N13270-Ea., 45c.

10 for 4.15
$\qquad$


Gentle pressure snaps device quickly and securely Gentle pressure snaps device quickly and securely
into wall plate. Nos. 19, 20, and 21 rated at 15A., into wall plate. Nos. 19 , 20 , and 21 rated at 15 A ., $1 / 2$-watt.

| Brown Alloy | Each | White Alloy | Each | Description | Fig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 33N12350 | $6 \mathbf{6 c}$ | $33 N 12351$ | $7 c$ | 1 cut-out | 16 |
| 33N12352 | $6 \mathbf{c}$ | $33 N 12353$ | $7 c$ | 2 cut-outs | 17 |
| $33 N 12354$ | $6 c$ | $33 N 12355$ | $7 c$ | 3 cut-outs | 18 |


| Brown | Each | White | Each | Description | Fig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 33N12342 | 23c | 33N12343 | 25 c | SP Switch | 19 |
| 33N 12344 | 32 c | 33N 12345 | $35 c$ | 3-way Switch | 20 |
| 33N12346 | 15c | 33N 12347 | 18c | Outlet | 21 |
| 33N12348 | 32 c | 33N12349 | 35 c | Pilot Lite | 22 |

## CRYSTAL SETS - MIKES - SPECIAL ITEMS



## MICROVOX MICROPHONE

Talk through your radio speaker with this battery-powered microphone. No wires necessary. Take it to amy room in the house up to 75 feet from your radio. Broadcasts between 1020 and 1700 KC . Merely tune your radio to a non-Interfering point on the dial within this frequencyrange. Lightwelght plastic unit is entirely selicontained, with power supplied by one flashilght cell and a Minimax $\mathrm{B}^{\prime \prime}$ battery. Uses, a IL 4 type tube with extremely low power dradn. Rubberimon base protects furniture against scratching. Dimensions: $6 \frac{1}{\prime \prime}$ high $\times 51 / 2^{\prime \prime}$ deep $\times 5^{\prime \prime}$ base. Supplied complete with batteries and tube, ready for immediate use. Enjoy hours of real fun and entertalnment.
32N 22620 -Shipping Weight 3 lbs $\qquad$ 4.64

Microphone with Sound Effects Kit listed below. 32N22621................................................................... 6.61 Add a professlonal touch to your next party with a prepared radio program including script and sound effects. gared radio program including script and sound effects. includes 15 lfems for producing various sound effects. includes also has three scripts (western, detective and historical), keyed to these sound effects.
2.63 32N 22622 .


## DESK MICROPHONE

Permanent magnet type mike equipped With $18^{\circ}$ cable. Bullet shaped design finished in black and nickel. Has ezceptional capabilities for cmplifylng sound with minimum distortion and maximum of fidelity. Size: $4 \times 3 \times 3^{\prime \prime}$. Shipping Wt. 9 oz .
32N13380.
2.21

## HANDY MICROPHONE

A hondy mike any youngster wil enjoy. Works through speaker of any radio set. Does not interfere with reception. Push-button switch for instant ON-OFF use.
Handsomely Inished. Handsomely finished.
32 N13831-With cord..
. 1.47

## ELECTRIC MOTOR KIT \& BOOK

The fascinating story of electricity told pictorially in 6 beautiful colors 32 pages of the drama, history and principles of electricity in easy-to-understand lanquage. Permanent metal binding and hard covers. 33 precision made parts and wire to assemble an electric motor that really runs. It's safe. Oparates from flash light bat terles.
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2.95

20N20622-Batteries (2req.) Es....61/2
DETECTORS, CAT WHISKER, CRYSTAL


1. Glass Enclosed Detector. Dustproof. With supersensitive mineral $\&$ cats whisker. 29 2. Fixed Crystal Detoctor. Supersensitive point found by meters. Bakelite case with screws.
32N13913-Each.................................... 46 3. Cat Whinker. Finest wire-correct tenstonholds that sensitive spot. 32N13921-Envelope of 3 ..
2. Supersensitive Crystal. Extremely sensitive crystal assures picring up more stations and gets them louder. Each crystai is meter testad after sel ection.
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.12c
10 for.
3. Crystal Detector. Includes ball and socket swivel arm clps.
32N13917-Ewch.......... 22c 32N13906-Same as above, less base and crystal..... 12
32N13900-Crystal oniy.... 6

## RADIO PHONE WITH BATTERIES

## A Real Portable Radio Set

More than just a toyl A real one-tube portable radso set that plays anywhere. Dials like a telephone, to tune in favorite adio station. A wonderful personal radio for any boy or girlpermits them to listen to the program of their cholce without disturbing the rest of the family In the evenlng. Not a crystal set, but a real radio recelving set In a toy telephone. Operates on batteries, just like any other portable. Includes On-Off switch. Aadio phone is shipped complete with one tube and all necessary battertes.
33N24545-Shipplng welght $2 \mathrm{lbs} .$.
4.75

## CONNECTICUT DUPLEX TELEPHONE SET

Handsome green finished all metal phone cases with built-in bell ringers and black bakelite mouthpleces. Separate earphone wth black bakelite earpiece. Uses 2 or dinary No. 6 dry cells at each station for lines up to 1000 ft . long. Longer lines up to 2000 ft . in Iength may be run by adding more batteries. Ideal for house to garage basement to upstalrs, farm-house to outbuildings. Complete with 160 ft . of $19-$ guage white plastic insulated copper line wire, 2 phone stations and necessary hardware for wall mounting.
32N14002-Per set
5.65 20N19858-Batteries for above. Ea...... 51

## SUPERTONE CRYSTAL SET



A big seller and there is plenty of good reason for its popularity. Remarkable results have been obtaned and its scientitic construction gives loud, clear, distorition-free reception. A supersensiIIve crystal is utilized which is mounted in a glass enclosure.
32N13888-Supertone Crystal. Shpg. wt. 11b.
.1 .26
As above, without enclosed detoctor. Bakelite Housing.
32N13889-Little Wonder Crystal Set. Wt. 1 1b................ 1.04

## SUPERTONE RADIO KIT

An interesting, educational ready-to-assemble radio $k$ it that is ideal for beginners. Includes molded bakelite base with contact slider, single headphone, and Supersansilive crystal as shown above. Complete directions for assembly and oper ation.
32N13870-Shpg. wt. 2 Ibe.
1.95

TEE-NEE RADIO-NO TUBES, BATTERIES, CURRENT


No fusstne with batteries, tubes, or plugging into power lines-new Tee-Nee radio needs oniy an aerial and a ground. Housed in a beautifully finished mahogany crackle finished steel case. Teo-Nee radio is supplied complete with single headphone with head band but without aerial and ground wires. Size: $5^{\frac{1}{4 \prime \prime}} \mathrm{I}$
32N13880-Model 250. Shpg. wt. 11/2 lbs.
3.92

## TEE.NEE PLASTIC CASE RADIO



Housed in a becrutiful mahogany colored plastic case, Justlike the blg sets. Earphone sets into case when not in use. is shipped complete with sing phone
Overall Dimenslons: $4^{\prime \prime}$ long, $21 / 2^{\prime \prime}$ hlgh, $15 / 8^{\prime \prime}$ deep.
32N13881-Model 100 Cryatal Set. Shpg. wt. $1 / 21 \mathrm{~b} . . . . .2 .36$

## LIKE TO MAKE THINGS? SEE PAGE 72 FOR HOBBY TOOLS

PHONOGRAPHS FOR THE YOUNGSTERS SEE YELLOW SECTION

## POPULAR TRAINING KITS

## 4-IN-1 RADIO KIT

An electronic $k i t$ that combines in a single unit almost every basic function performed in radio. Combines an amplifler, code practice oscillator, radio recelver and minlature radio transmitter. Ideal for use at home or school. The code practice oscillator and transmitter may be used to help obtain a
 radio operator's incense for any high impedance mike or phono plckup. The radio receiver is a live tube set using the following tubes: receiver
$35 Z 5,50 L 6,12 S L 7,12 S K 7,12 S A 7$. A lollowing tubes: used for both transmitting and recelving; no outside used for both iransmitting and recelving; no outside aerial is necessary. Kit supplied complete with tubes, Alnico $V$ dynamic speaker and all necessary parts, plus detalled step-by-step instructions, Plct-a-Graphs, block dtagram and schematic.
32N24364...
19.11

HIGH QUALITY TEN-WATT AMPLIFIER KIT
 Conservatively rated unit with negligible distortion-employs exceptional bas st reproduction method which eliminates booming tones. Output stage resistance coupled with pair of 6 A 3 tubes in push-pull. Circult Includes phase inverter and simple feed bac Tubes: 6C5, 6N7, 2-6A3, 5U4G. Less speaker and tube 32N24512-Shlpping Welght: 24 lbs.
20.65

## 4-TUBE AM SUPER BROADCAST TUNER KIT

Unusually compact and efficlent AC-DC AM broadcast-band tuner klt for use with PA systems, industrial sound installations, or as a remote tuner for any radio recelver equipped with phono input jacks, or standard audio ampliller units. Superhe terodyne circult consists of converter stago employing $125 A 7$ tube in an elec tron-coupled oscillator circult, 12SK7-IF. 12SO7-Det \& output $35 Z 5 G T-R e c t$. Complete with all necessary parts including 2-gang varlable condenser, CroFlex dial assembly, and cadmitum plated punched chassis

## Less Tubes. <br> 32N24532-Shlpping Weight: 4 lbs............................... 3.35



PERCO FM BASIC TUNER KIT
Inexpenslve $F M$ tuner uillizes a new FM clrcult that does away with limiters, discriminators, satio detectors and the diff1culty of peakmg and tracking such circuits. Uses 14 F 8 and 35 W 4 tubes for earphone vol-ume-or may be connected to any high impedance input audio amplifier or the audio circult of any table or console radio. Complete basickit consists of: punched chassis base; ISMMF funing condenser; IF coll assembly; mounting hardware and tie lugs; full instructions. 32N24475-Shipping Weight: 3 lbs.
5.50



TWO-TUBE "POCKET" PORTABLE KIT
Operates on flashlight cells. Slips into your coat pocket with fust enoughextending out the top to tune. Built-in antenna, self contained top to tune. Built-in antenna, self contaned batterses. Very good volume on local stations.
Covers the broadcast band with additional range on each side of the dial. Uses two 154 ranqe on each side of the dial minature tubes in a stanaard regen to AF output stage. Case is easilymade from cigar box. put stage. Case is easily made 32N24516-Shpg. Wt: 5 lbs..
5.85


## "WIRELESS" OSCILLATOR KIT

One-tube oscllator when used with I to iclent output crystal plckup supplies sul mrough modulated power to play records full volume without wired connections! Employs one $117 \mathrm{~N} 7-\mathrm{GT}$ tube as both osclllator and rectifier. Easy-to-assemble kit includes all parts for oscillator, but less tube. For pickups, etc., see index. Shipping Weight: 4 lbs.
32N24531.
3.65

## PRINTED CIRCUIT KIT



Standard Basic Kit (4-25 cc bottles) for experimenting with printed circult methods. Resistors of definite resistance and wattage can be painted on an insulating base by using these conducting and resistance paints. Printed circuits are electrically the-same as those using individual wires, resistors, etc. Easy to use. Palnts take full advantage of small size of minlature and subminiature tubes. Fast drying. Packed in durable, attractlve box Including copper conducting paint, low, medium and high resistance paints and manua! "Design and Repair of Prin ted Circults".
32N24365.
4.70

Super Kıt for professional worker. Uncludes palnts, lacquer and solvent needed to build and repair printed electroniccircults quickly. Same as above plus $1 / 4 \mathrm{oz}$. bottle sllver conducting paint, insulating lacquer, and solvent and brush cleaner.
32N24366..
. 7.12
4. TUBE HI.FI MUSIC AMPLIFIER KIT


AC-DC amplifier, Includes a bullt-in equalization network and pre-amp, for use with GE Reluctance or similar plckups. Separate low gain input for FMAM tuner. Two 12 SC 7 tuhes used as pre-amp, and audio driver tubes. Continuously varlable tone control. 2-50B5 beam power ampliflers in push-pull provide audio output of over 4 watts with frequency response over $12,000 \mathrm{cps}$. Phase inverter circuit. Selenlum rectiller
power supply.
$32 \mathrm{~N} 24535-$ Less tubes. Shpg. Wt. 5 lbs.
12.95

FM TUNER KIT


Easy-to-bulld, inespenslve FM (frequency modulation) kit based on newly developed circuit design that makes possible the construction of FM tuner In a single evening! Circult employs Fre Modyne FM detector using dual high freq. triode ( 14 F 8 ) with one section as HF local oscillator, the other as a converter, IF amp. and detector. Excellent for use in Metropolltan areas. Supplled complete with pre-formed punched cadmium plated chassis, large easy to read Cro-flex 111 uminated dial, all necessary mounting hardware, etc., with tubes 14F8 and 35 W 4 .
32N24534-Shpg. Wt: 3 lbs.
14.39

## PRE-AMPLIFIER KIT



Bulld your own pre-amplifier kit for use with the new General Eieciric variable reluctance or pickering Pickup cartridges. The finished model is as ine a bass and treble compensated pre-amplifter as any avallable. Plate and filament power are recelved from associated recelver or amplifier. Kits are supplied complete with chassis, resistors, condensers, 6SC7 tube, and fuil instructions. Shipping Weight: 2 lbs.
32N24536...
3.95

FM RECEIVER KIT


Not just a tuner, but a complete receiverkit with its own wide range audio system and Alnico V PM speaker for full utilization of clear, static free reception! Employs 7 tubes and rectlfier. May be operated elther as a tuner or as $-a$ self-contained FM radio both applications controlled by bullt-in switch. No expensive instruments necessary to make this set work. Oper ates from regular $300-\mathrm{hm}$ FM antenna and $t$ win lead-in. Comes in brown plastic cabluet. Complete with tubes. Shipping Weight: 7 libs. 32N24457

EAGLE CRYSTAL KIT

Includes fully wound tuning slide-coll, crystal detector, and "cats whiskers". No sol-dering-needs only screwdriver. Shpg. Wt: 1 lb.
32 N 24465.
88c

## RADIO KITS AND TRAINING SETS



## MEISSNER FM TUNER KIT

Model 8 CK. The famous Model 8C in it form. Covers 88 to 108 MC FM band. Recommended for use with Melssner model 4 AK amplifier or cray high quality amplifier which has an input of 100,000 ohms or greater and which produces full output with 3 volis R.M.S. audio input. Response is ilat within $\pm 2 \mathrm{db}$ from 50 to 15,000 put. Slide rule dial, $5^{1 / 2} \times 1-3 / 8 \beta^{\prime \prime}$ calibrated in $M C$ and channel numbers. Uses (2) 6AU6, (2) 6BA6, (2) 6C4, 6ALS and 6X5GT/G. Easily assembled from detalled pictorial diagram and aimplified schematic. Front end and IF coils lactory assembled and aligned, Complete
with tubes, wire, hardware and solder. for $105-125 \mathrm{~V}$. with tubes, wi
32N24355-Shipping Weight: 6 lbs.
29.37

## MEISSNER PAKIT



Model 4AK. High fidelity audio power amplifier with a response from 45 to 20,000 cps, flat within $\pm 2 \mathrm{db}$. 20 -watt output. Used with model 8CK above, it provides excellent $F M$ reception. 500,000 ohm input. 4,8,15,250 and 500-ohm output impedance. Uses 6SN7GT, (2) 6L6G and 5Y3GT. Easily assembled from detalled diagram and schematic. 110 V . $50 /$ 60-cycle AC. $10 \times 81 / x 10^{\prime \prime}$. Complete with ping weight: 20 lbs. 32N24356..
46.16

## MEISSNER "HOW TO BUILD" MANUAL

Contains a wealth of information on basic theory, design and construction of AM, FM and TV circuits, phono plekups, audio amplifiers, speakers, disc recorders, etc. Fully illustrated with charts, radio formulae, schematic and pictorial wiring diagroms. 23N19679..
$98 c$


MEISSNER RADIO KITS
Provide students with a sound, praciical training in elementary radio. Easy to assemble with the complete siep-by-step tary radio. Easy to assemble with the complete step-by-step
instructions included. Recelvers are simple to operate and instructions included. Recelvers are simple to operate and provide excellent reception on standard broadcast and short
wave bands. Enjoy bullding and learning by using these rewave bonds. Enloy bullding and learning by using these regenerative receivers. Supplie
cast band 180 to 550 meters.

1. TWO-TUBE AC-DC RECEIVER. Uses one 76 tube as a detector and one 76 tube as a rectifler. 110 volt AC or DC. Supplied less tubes and headphones.
32N10441-Shipping Weight: 2 lbs.
5.29
2. THREE-TUBE AC-DC RECEIVER. Uses one 76 tube as a detector and one 76 tube as an audio amplifier and one as rectifier, 110 volt AC-DC. Supplied with all necessary parts except tubes and headphones.
32N10442-Shipping Weight: $2^{1 / 2}$ lbs. $\qquad$ 6.03

Extra plug-in colls for use with above 2- and 3-tube kits. 32N10422-17 to 35 Meter Plug-in Coil.......................... 50 32N10421-35 to 70 Meter Plug-in Coli................................. 50. 50 32N 10420-70 to 200 Meter Plug-in Cosl........................ 50. 32N10423-545 to 1500 Meter (Long Wave) Coll.............. 1.23
2. 6-TUBE TWO-BAND SUPERHET KIT. Calibrated to cover broadcast band of from 550 to 1600 kilocycles and shortwave band from 6 to 18 megacycles. Tuning control, band switch, and volume-control, with builit-in On-Off switch beneath square illuminated dial. Untuned stage of RF amplification on both bands. Peaking circuit for added sensitivity on short wave Filter choke for hum-free operallon at max. output,
Has 12 SK 7 RF amp., $12 \mathrm{SA7}$ converter, 12 SK 7 IF amp. 12 SO 7 detector, AVC, Ist Áudio, 35L6GT Pówer Amp., and 35Z5GT Rectifier. With instructions and all other paris needed including tubes and speaker.
32N24499.
24.70


A really beautiful workmanlike job equal to a $\$ 25$ set when assembled. Features: New modern two-tone plastic case; ine-tubesuperheterodyne, using 12SA7, 12SK7, 12SQ7, 50L6 and 35Z5 tubes. Automatic volume control. Streamlined airplane dial covering 550 to 1600 KC , built-in loop antanna and Alnico $V$ speaker. Complete with cabinet and tubes. Shipping Weight: 9 lbs.
32N24548.
.11 .95
MEISSNER 3BK AND 2BK KITS
Model 3BK. AC-DC kits. Regenerative grid leak delector with sesistance coupled pentode audio stage. 3-tubes, 6BJ6 and two 5085. Uses any maqnetic phones having an impedance of 2,000 ohms of more. Complete with coll covering broadcast band, $520-1530 \mathrm{KC}$ tubes, hardware,
 and solder. Additional colls for other bands listed below. For 105-125V. AC-
 ly assembled from pictorial diagram and schematic. 32N24358-Shipping weight: $2^{11 / 2}$ lbs.
10.88

Model 2BK. Battery trainer kit. Same as above but battery operated ${ }^{2}$ uses only two tubes $1 T 4$ and $3 V 4$. Batteries required: $41 / 2$. A. battery and 90 . 8 battery. Complete hardware and solder. Other colls to cover additional tuning hardware and solder. Other colls to cover additional tuning bands isted below. Less phones and batterles. 32N24357-Shipping Weight: 2 lbs.
9.11

## PLUG-IN COILS FOR ABOVE

32N24359-175 to 540 KC . Type 18-3500..
1.23

32N24360-1.35 to 4.5 MC , Type 18-3502...................... . 50
32N24361-3.2 to 8.2 MC. Type 18-3503......................... . 50
32N24362-7.9 to 18 MC , Type 18-3504............................ . 50
32N24363-15 to 34 MC. Type $18-3505 . . . . . . . . . . . . . . . . . . .$. . . $50^{\prime}$


3-TUBE AC-DC STUDENT KIT
Simplicity of construction and foolproof operation will instill confidence in beginner's mind. Covers 550 to 1500 KC . operates on 110 V . AC-DC. Uses 2-$6351-6 S J 7$ tubes. Less wire, tubes, solder and earphones. Simple to con-struct-all you need is a screwdrlver, pliers, and a soldering iron. Complete with instructions. Shipping Weight: 3 lbs. 32N24459.
6.15

THREE.WAY PORTABLE KIT
Easy to assemble and simple to operate. Power switch conveniently located on front of set so that "AC-DC" or "Battery" may be selected without opening the case. 5 " Alnico dynamic speaker. Leatherette covered case. Uses lA7, IHS, INS, 3 Q5, 117 Z 6 tubes. Less tubes and batterles. 32N24541..
32N24541...................................................
32N20610-41/2V Battery ( 2 required).

## 2-BAND RECEIVER KIT

Ideal for elementary radio training. 6-tube, 2 -band recelver kit equipped for operation on 110 -volt AC or DC. Covers the following ranges: 550 KC to 1600 KC , 6 to 16 MC . Kit includes
 bakelite cabinet, complete, ready for assembly. Uses $125 K 7,12 S A 7,12 S Q 7,35 L 6$, and $35 Z 5$ rect. tubes. Less tubes. 32N24542..
17.95

## TELEVISION KITS-CHASSIS—ACCESSORIES

NEW TECH-MASTER $10^{\circ}$ or $12^{\circ}$ BLUE RIBBON KIT


Here's a fine new $10^{*}$
or $12^{n}$ TV kit, chockfull of advanced features for your complete viewing pleasure. 1t's economical and easy to build and gives results comparable to the best in television. One outstanding new feaoutstanding new ieacure is a clever keyed cutomatic gain control sates automatically for sates autornalically for variations in synchronmaintaln constant pic ture level at all times. New contrast and brilliance control circults rarely require adjustment once they have been set. Very high signal-to-nolse ratio keeps pictures "locked-in" even with minimum signal input; annoying air plane "flutter" virtually eliminated. Circult uses a phase discriminator for perfect results. Four stages of video $1 F$ provide full 4 MC bandwidth and picture detakl. Three stages of sound IF, plus high quality discriminator using the latest $9-p i n m i n i a t u r e$ tubes assure excellent FM television sound. Latest type allchannel turret tuner gives fast, precise channel selection. Uses the followinq latest type tubes: 6J5, (5) 6AG5, (2) 6 BA6, (2) 6 A U6, (2) 6ALS (2) 6SN7, 6TB, 6K6, 5AC7, $12 A U 7$, 6BG6, $1 \mathrm{B3}, \mathrm{SU4}$ and 6W4. Supplied with stamped chassis, all parts, RCA tubes and step-by-step plctorial wiring instructions. All chassis components are already wiring instructionss. All
mounted. Shpg. Wt: 49 lbs.
. 119.95

## COMPLETELY WIRED TV CHASSIS

Here are completely wired, aligned and assembled TV chassis, ready for operation. For those who haven't the time or interest to build their own yet wont top quality television at a moderate price. Ideal for installation in your own cabinet or a choice of those listed in this catalog. This powerful 29 -tube recelver brings in all chonnels with sharp, steady plubes and speaker, but less picture tube and cabinet.
IN138-Chassis for $10^{\prime \prime}$ Tube. Wt: 68 lbs. $169^{\circ} 50$ IN139-Chassis for $121 / 2^{m}$ Tube..Wt: 68 lbs.... 179.50 1N140-Chassis for $15^{*}$ Tube...Wt: 68 lbs..... 189.50
iN141-Chassis for $16^{*}$ Tube...Wt: 75 lbs..... 199.50


## TECH-MASTER $16^{*}$ TV KIT <br> "Circuit-Aligned" Components - 31 Tubes

Build your own duplicate of the famous RCA 630-TS circuit with this deluxe TV kit. Simplified wiring diagrams make it possible for practically anyone to wire the complete unit over a week-end. Now you can enjoy giant screen TV of superlative quality and save money of the same time. No special skills or knowledge is necessary to turn out a real professional job youll be proud to show to your friends. A thoroughly sound voltage doubler circuit, using two 1B3's, has been designed to provide full voltage and current to drive up to a $20^{\circ}$ picture tube and still give excellent brilliance, definition and sweep. The "circuit-aligned" components supplied with the kit keeps final adjustments down to a neglible minimum, and these can be made without additlonal equipment. A 21 IT5 flyback transformer, a 202D2 focus coll, 201 R 4 width control and other fine components are also supplied. Included too is the PCA 12-channel front end tuner, completely wired, aligned and tested. All chassis components already mounted. 630-TK Deluxe TV Kit, complete with tubes, speaker, parts and instructions. Shipping Weight: 67 tubes,
32N24557-Less Picture Tube..
177.50

## LAFAYETTE 630-TS TELEVISION KIT $10^{\prime \prime}$ to $15^{\prime \prime}$ Model

Here's the kit to buy if you want a high quality television recelver in the $10^{\prime \prime}$ to $15^{\circ \prime}$ size. Precision-engineered RCA front end tuner is completely wired and allaned with factory assemble chassis components. Balance of the wiring recessary to complete the set takes only a few hours. All instructions ore included - it's really easy to assemble! The powerful 31-tube circuit (including picture tube) assures sharp, clear, steady pictures of exceptional brilliance. Dual contols are provided for pleture and FM sound, horizontal and vertical adjustments. Kit includes tubes, speaker, all parts and instructions. Shpg. Wt: 47 lbs .
32N24555-Less Picture Tube.
161.95 Universal mounting bracket for 10 to 16 Inch tubes. 32 N 24560

## TECH-MASTER STANDARD TV KIT

The $630-\mathrm{TK}$ standurd $10^{\circ}$ to $15^{\circ} \mathrm{TV} \mathrm{kit}$ is similar to the model described above, except that it is offered at a lower, economy price because no components except socketsoare mounted. in every other respect it is the same on the deluxe model - same quality front end and components, plus complete instructions. Includes tubes, speaker, \&all parts. 32N24561-Less Picture Tube..
.144 .50

## DIAL PLATES



Dress up your television kit set with dial plate. antly contrasting tones of metal and maroon. One plate of each for contrasi, offvolume, sensitivity control, vertical hold horizontal hold, channel selector, and brightness control. Set of 6 plates as de-
scribed above. IIN9895-Per set.

796

## TV SECOND ANODE CONNECTOR

For television tubes. Silver plated snap button type plug, well insulated by $1 / 2^{*}$ dlameter rubber protective cap. Snaps into opening on side of tube. Supplied with $12^{n}$ wire lead.
31 N24412....................................................49c
31N24412..

## RIDER'S MANUALS \& TEXTBOOKS

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Authoritative information on all the latest radio receivers. Now, more than ever before, is the time to buy the com plete set of these practical manuals. Vol. 19.
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Over 400 pages of up-to-the minute Information on Frequency Modulation. Tells just how FM signals are transmitted and received, FM signals are transmitted and received, Covers the theory of FM and methods of Operation of FM transmitters of all types. FM reas solutions of servicing problems.
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Over 1400 pages crammed with absorbing information about 1946-7 and early' 48 TV receivers of leading manufacturers. Circult descriptions, adjustments of various trimmers, traps, transformers, voltage mers, traps, transiormers, and resistance readings, parts ints etc. Schematics and patterns
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Covers 1948 latest TV sets, TV kits and boosters up to Jcm . 1949 made by 67 manufacturers. Equivalent of 2300 pages. Includes schematics, Waveforms, test pattems, parts List, etc. "Changes" section gives data on revisions of previous models. Has accumulative index coverlag Vols. $1 \& 2$.
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By Nilson and Homung. Latest edition By Nils classic lext. Contains 1300 questions and answers usually asked questions and answers usually asked on exams for radio operator licenses. ters, batterles, generators, compasses, etc. 434 pages.
23N19943-Postpaid.
4.4

## AMERICAN RADIO RELAY LEAGUE PUBLICATIONS FOR RADIO


A.R.R.L. RADIO AMATEUR'S HANDBOOK

Newest edittion of this famous handbook by the American Radio Relay Leaque. Contains complete fundamental data, constructional in formailon on transmitters and recalvers of latest deslgn. Includes Code, Radio Telephony, Tube Characteristucs, etc. 900 diagrams, charts. 548 pages.
23N19949-Postpaid.


## COURSE IN RADIO FUNDAMENTALS

A new ARRL book offering a course of study emphasizing the fundamentals on which prac tical communication is bullt. 36 study assignments with questions and answers cover Electricity and Magneti ${ }^{\text {man. }}$. Ohm's Law, Resonant Circuits, etc. Use with ARRL Amateurs Handbook. 103 pages.

50

HOW TO BECOME A RADIO AMATEUR
Easy-to-read booklet thoroughly covers the subject of entering the cmateur ranks. Explains elementary theory, construction of inexpensive stations, "code" laws, operating procedures, etc. Published by American Radio Relay League. 40 pages.
23N19935-Pontpaid.
25
HINTS AND KINKS, Vol. 2
Hundreds of selected practical moneysaving Ideas developed by ingenious amateurs to solve problems of modern radio construction and experimentation. 128 pages.
23N19981-Postpaid
ALL BOOK S MARKED

## LEARNING THE RADIO CODE

Deslgned to train students to handie code skilifully using the accepted method of "sound" conception. Helpful home study material plus adequate practuce sections make this a "must" for the progressive student or beginner. 32 pages.
23Nं20006-Postpald.
$25 \%$

RADIO AMATEUR'SLICENSEMANUAL
How to get your 11 cense made easy. Contains FCC's rules and regulations concerning Amateur stations. Question and answer section covers probable questions for Class $A, B$, and Cllcense examinatlon. Newest post-war edition. 29 pages.
23N19940-Postpaid.
25 \$

## A.R.R.L. ANTENNA BOOK

Comprehensive manual of antenna design and construction. Includes theory sign and construction. includes theory and practical data on all types. ConApprox. 100 pages.
23N1972 1-Postpaid
1.00

## ALL-PURPOSE RELAYS

## GUARDIAN SERIES 200 (UNIVERSAL) RELAYS



Consists of relay frames with elther SPDT or DPDT basic switch assembly, nine interchangeable actuating coils for AC or DC circuits, plus a contact parts assortment for making switching combinations up to 4PDT. Contact points are silver with maximum non-inductive load rating of 8 amps at 115 volts, 60 cycles AC. Detailed instruction sheet shows how to make various combinations. May be used for all blade switch
16N14283-Type 200-1 Relay Frame SPDT Assembly. 16N14284-Type 200-2 Relay Frame DPDT Assembly.. 1.09

AC RELAY COILS


SPST NORMALLY OPEN KEYING RELAY
Oversize silver contacts handle filament centertap keying of any stage up to 2000 volts on plate, and AC primary keying up to 1 KW . 3000 volt insulation. Provides clean make and break at highest keying speed. SPST double break. 6 volt AC coil.

### 2.65

 16 N 14119 -Series K-320. Size: $31 / 2^{\circ} \times 1^{1 / 2 " x} 1^{16}$ ni $^{\prime \prime}$. Wt. 4 oz.ADJUSTABLE OVERLOAD RELAY WITH ELECTRIC RESET


Sories X-300-ER.-Positive, precise protection against current surges or continuous overloads. Remote panel installation of the control polentiometer shunted across coil as current divider simplifies adjustment of relay to operate on any current value from 250 to 750 ma . Auxiliary contacts for pilot light. Reset relay uses 6.3 volt AC coil draws 920 ma . 3000 -voli insulation
5.44

## PRICE COAXIAL ANTENNA TRANSFER RELAY



Type 6350 Relay. SPDT Relay, with a capacity of 750 watts RF if impedances are matched. Provided with three SO. 239 female receplarles to accomodate plugs on RG-8/U cables to antenna, transmitter and recelver.
Complete with coll for 110 volts, 60 cycles AC operation
16N14133-Shipping weight 1 lb .
9.80

Type 6351. same as above with the addition of two sets of auxiliary contacts, one SPST normally open and one SPST normally closed, both rated at 250 ma., 300 volt DC. Use for ECO and recelver switeh16 N 14134 -Shipping weight 1 lb
10.78


## AMPERITE THERMAL RELAY

SPST, normally open, closed by heater after delay (in seconds) In octal lube envelope. Heaters draw approx. 2 watts. Conitacts rated 115 volts, 3 amps AC or 440 volts, 2 amps AC. Breakdown voltage between con
contacts and heater 1500 volte.

| Delay | Type No. | 6.3V Heater | Type No. | 115 V Heater |
| :---: | :---: | :---: | :---: | :---: |
|  | 6NOS | 16 Nl 440 | 115 NOS | 9 |
| 10 | 6NO1O | 16N14409 | 115 NO | 16 N14410 |
| 15 | 6NO15 | 16N14401 | 115 NO 5 | 16N14405 |
| 20 | 6N020 | 16N14411 | 115 NO 0 | 16N14412 |
| 30 | 6 NO 30 | 16N144O2 | 115 NO 0 | 16N14406 |
| 45 | 6 NO 45 | 16 N 14413 | 115 NO 45 | $16 N 14414$ |
| 60 | 6N060 | 16N14415 | 115 NO 0 | 16N14416 |
| 75 90 | 6NO75 | 16 N 14403 | $115 \mathrm{SNO75}$ | 16N14407 |
| 90 120 | 6N090 | 16N14417 | 115 NO 90 | 16 N14418 |
| 120 | 6NO1 20 | 16N14404 | 115 NO 120 | 16 N14408 |
| ny Typ |  |  |  | 2.3 |

W.L. REMOTE CONTROL HEAVY DUTY MIDGET


Type 507-549. Single-Pole, doublethrow, single break. 110 volt AC operation. Silver-to-silver self-cleaning contacts. Rating: 20 amps . AC normally open, 15 amps. AC normally closed 26x17/
3.50

## ADVANCE $300-O H M$ LINE RELAY



16N14147.

## K1504. RF Efficient, D.P.D.T. midget type AC transmit-

 receive relay is well insulated lor RF applications. Silicone glass material is used for insulation on armature and stationary contact assemblies. Line spacing maintained by solder lugs. 500 watt RF input Verall: $17 / 8 \times 1 \% / \mathrm{Kx}^{15} / \mathrm{c}^{2}$. Up to 115 V . AC or 40 V . DC Consumption 4 VA.POTTER-BRUMFIELD RELAYS

## TYPE "PR" HEAVY DUTY POWER RELAYS

Will start motors up to 1 HP , high heater loads, etc. Cont. duty type - will not overheat because coils take only 2 watts on DC and 5VA on AC. Larger copper shaded pole-piece prevents AC chatter. "Heavy contact pressure. Sturdy return spring and screw termihals. Motal parts heavy plated; coils impregnated with vornish Con tacts of double break types rated at 20 amps. and single break types at 15 amps., 110 volis AC non-inductive load. All ratings are for continous duty.

| No. | Type | Contacts | Coil Volts | Each |
| :---: | :---: | :---: | :---: | :---: |
| 16N14254 | PR3A | SPST-DB-NO* | 6V/60cy AC | \$3.10 |
| 16N14255 | PR3A | SPST-DB-NO* | 110/60cy AC | 3.10 |
| 16N14100 | PR3A | SPST-DB-NO* | 220V/60cy AC | 3.10 |
| 16N14256 | PR4A | SPST-DB-NC* | $6 \mathrm{~V} / 60 \mathrm{cy} \mathrm{AC}$ | 3.15 |
| 16N14257 | PR4A | SPST-DB-NC* | $110 / 60 \mathrm{cy} \mathrm{AC}$ | 3.15 |
| 16N14258 | PR5A | SPDT | 6V/60cy AC | 3.20 |
| 16N14262 | PR5A | SPDT | 110/60cy AC | 3.20 |
| 16N14101 | PRSA | SPST | $220 \mathrm{~V} / 60 \mathrm{cy} \mathrm{AC}$ | 3.20 |
| 16N14263 | PR7A | DPST-NO | $6 \mathrm{~V} / 60 \mathrm{cy} \mathrm{AC}$ | 3.65 |
| 16N14264 | PR7A | DPST-NO | $110 / 60 \mathrm{cy} \mathrm{AC}$ | 3.65 |
| 16N14102 | PR7A | DPST-DB-NO* | 220V/60cy AC | 3.65 |
| 16N14244 | PR11A | DPDT | 6V/60cy AC | 4.90 |
| 16N14245 | PR11A | DPDT | $110 / 60 \mathrm{cy} \mathrm{AC}$ | 4.90 |
| 16N14103 | PR11A | DPDT | 220V/60cy AC | 4.90 |
| *NO-normally open. *NC-normally closed. |  |  |  |  |

"MR" SERIES FOR LIGHTER LOADS
Double break contacts rated at 10 amps: Single break at 8 amps 110 V A.C. 60 cycle non-inductive load. AC coils require approx. 2 watts; DC $11 / 2$


| No. | Type | Contacts | Coil Volts | Each |
| :---: | :---: | :---: | :---: | :---: |
| 16N14104 | MR1A | SPST-NO | 6V/60cy AC | \$2.00 |
| 16N14109 | MR1A | SPST-NO | $110 \mathrm{~V} / 60 \mathrm{cy} \mathrm{AC}$ | 2.00 |
| 16N14110 | MR3A | SPST-DB-NO | 6V/60cy AC | 2.30 |
| 16N14111 | MR3A | SPST-DB-NO | $110 \mathrm{~V} / 60 \mathrm{cy} \mathrm{AC}$ | 2.30 |
| 16N14271 | MR5A | SPDT | 6V/60cy AC | 2.15 |
| 16N14272 | MR5A | SPDT | 110V/60cy AC | 2.15 |
| 16N14112 | MR7A | DPST.NO | $6 \mathrm{~V} / 60 \mathrm{cy} \mathrm{AC}$ | 2.60 |
| 16N14144 | MR7A | DPST-NO | $110 \mathrm{~V} / 60 \mathrm{cy}$ AC | 2.60 |
| 16 N14273 | MR11A | DPDT | 6V/60cy AC | 2.80 |
| 16N14274 | MR1 1 A | DPDT | 110V/60cy AC | 2.80 |

## PLATE CIRCUIT RELAYS

Armature spring adjustable for applications requiring closing or opening on specified currents or voltages. Table below shows standard minimum after readjustment of spring. (A) IS series. (B) LM series.

| No. | Type | Amps. | $\begin{aligned} & \text { Coil } \\ & \text { Ohms } \end{aligned}$ | Min. Cur. | SId Cur. | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16N14279 | LSS* | 4 | 2.500 | 6.0 | 9.0 | \$1.90 |
| 16N14281 | LS5* | 4 | 5,000 | 4.3 | 6.3 | 2.20 |
| 16N14209 | LM5* | 5 | 2,500 | 2.4 | 6.3 | 2.30 |
| 16N14210 | LM5* | 5 | 5,000 | 1.7 | 4.5 | 2.55 |
| 16N14211 | LMS* | 5 | 10,000 | 1.2 | 3.2 | 2.95 |
| 16N14212 | LM11+ | 5 | 2,500 | 5.3 | 9.0 | 3.40 |
| 16N14213 | LM $11+$ | 5 | 5,000 | 3.7 | 6.3 | 3.65 |
| 16N14214 | LM1 $1+$ | 5 | 10.000 | 2.7 | 4.5 | 4.05 |

## * Denote SPDT. $\dagger$ Denote DPDT.

## AUTOMATIC LOCK RELAY ELECTRIC RELEASE

 silver dome-shaped contacts rated conservatively font $4-20 A$. When circuil to operating coil is closed momentarily the normally closed contacts open and the normally open ones close with the relay in this position even when current is removed. To return positions to normal, current is applied to "release" coil removing
automalic lock. 16N14142
16N14143-ELSA-SPDT contacts. Shpg. wt, 2 ib

## ADVANCE COUNTING RELAY

24 positions step relay. For "wired music," counting, switching applications. Manual reset. Has SPST switch for an indicator light; switch closes on first impulse. Coil voltages 110 V. AC. $114^{\circ}$. Size: $1^{11 / 98 l^{11}, 16 \times 3^{\circ}} 0^{\circ}$.


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# STURDY RACKS, PANELS AND ACCESSORIES 



## STEEL CHANNEL RACKS

For standard 19" long panels. Universally drilled. Base $15 \times 20^{\prime \prime}$. " steel with spot-welded corners. Holes tapped for 10-32 acrews. Black ripple.
$734^{\prime \prime}$ high, 713" panel space. 24N22150
17.05
$381^{\prime \prime}$ " high, $368 / 4^{\prime \prime}$ panel space. 24N22151 Wt. 57 lbs

## ENCLOSED RACHS

Deluxe all-steel enclosed racks, streamlined and finished in slate gray with trimming at lop and bottom. (Black ripple also avail able-specify on order.) Universally drilled for all standard panels. Panel width $19^{\prime \prime}$. Models are 221/2" wide, $16 \frac{1 / 2 "}{}$ deep. Hinged back, 2 locks on rear door. Shipped flat.

| Stock No. | Heiqht In. | Panel Space | Weight, Lbs. | Cost, Each |
| :---: | :---: | :---: | :---: | :---: |
| 24N22145 | $42^{\prime \prime}$ | $363 / 4^{\prime \prime}$ | 100 | 27.93 |
| 24N22146 | $661 / 2^{\prime \prime}$ | $614^{\prime \prime}$ | 150 | 41.45 |
| 24N22148 | $821 / /^{\prime \prime}$ | $77^{\prime \prime}$ | 175 | 49.39 |



## 1/16" STEEL TABLE RACKS

Universal drilling accommodates all standard panels. Tapped for $10-32$ screws. $25^{\circ}$ high rack has panel space $21 \times 19^{\prime \prime}$; $32^{* \prime}$ high rack has panel space $28 \times 19^{\prime \prime}$. Both $20^{\prime \prime}$ wide, $12^{\prime \prime}$ deep. Black rlpple finish.
24N22102-25". Wt. 33 lbs .
5.29

24N22103-32". Wi. 36 lbs.
6.76

## RADIO PANELS

Suitable for test instruments and radio applications.

| Blo | STEEL PANELS Wrinkle Finish |  |  | 3/16" BAKELITE PANELS Block Polished Finish |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Size | Lbs. | Eac | Stock No. | Size | Lbs. | Each |
| 24N22218 |  |  | 53 |  |  |  |  |
| 24N22219 | 7×12" | 3 | . 53 | 24N19601 | 7x12" |  | 1.62 |
| 24N22220 | $7 \times 14^{\prime \prime}$ $7 \times 18{ }^{\prime \prime}$ | 3 4 4 | . 81 | 24N19602 24N19603 | 7x14" | 1 | 1.91 2.41 |
| 24N2222l | $7 \times 18^{\prime \prime}$ |  | . 81 | 24N19603 | $7 \times 18$ |  | 2.4 |

DELUXE STEEL CABINETS FOR RACK PANELS


- Standard Mounting
- Built-in Louvres

Heavy-duty cablnets built of $1 /$ /s" $^{\prime \prime}$ steel, fin ished in Black ripple. Welded construction, streamlined design. Neatly rounded corners. Universally drilled to fit all standard $19^{\prime \prime}$ rack panels. All hove louvres, hinged doors with snap locks, and take chassis $13^{\prime \prime}$ deep. Also available in slate gray finish on special order.

| Stock No. | Overall Dimensions | Panel Space | Door Location | Wt. Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 24N22188 | 103/2x21x131/2" | 83/1919" | Top Only | 22 | 9.70 |
| 24N22191 | 14x21x13\%" | $1{ }^{12} 4{ }^{4} \times 19^{\prime \prime}$ | Top Only | 39 | 11.76 16.32 |
| 24N22198 | $28 \times 21 \times 131 /{ }^{\prime \prime}$ | $2614 \times 19^{\prime \prime}$ | Rear Only | 69 | 18.82 |
| 24N22199 | 363/4x21 $\times 131 /{ }^{\prime \prime}$ | $35 \times 19^{\prime \prime}$ | Rear Only | 73 | 20.87 |

## RECESSED METER PANELS



Meters can be recessed from front of panel and are profected by plate gla:s insert allowing $\% / 4$ " clearance in back of panel. Blank bakelite subpanel provided. Accommodates 4-3"meters.

24N22204--Black 51/4 $\times 19^{*}$
4.70

## CHROME HANDLES

For cabinets, amplifiers, chassis, elc. Mig. screws included. 24N14563-5 $1 / 4^{" 1}$ Long Chrome Handles. Miq. Centers $4^{413} 10^{\prime \prime}$ 24N14562-4" Long Chrome Handles. Mig. Centers $\left.23 / 4^{n} \ldots ..\right\} 44$


## CHROME VENTILATING LOUVRES

Adds a distinctive touch to any recejver, amplifier, transmitter, or any other installation. Polished, chrome-finished steel "Air-Gate" made up of 5 ventilating louvres. Air space between louvre
 of holes: in $^{\prime \prime}$. Length of louvres: $44^{7}$. Size: $5^{7}$ /isx $3^{\prime \prime}$
24N22234-Shpq. wt. 8 oz.
534


## heavy steel rack panels

1. Heavy duty $1 / 8^{\prime \prime}$ steel panels for all standard $19^{\prime \prime}$ racks. Available with either black ripple or commercial slate gray ripple finishes.


| 24N22169 | 2 N 22118 | $13 / 4$ | 2 | .65 | 24N22163 | 24N22124 | $121 / 4$ | 12 | 1.59 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllllllllll}\text { 24N22169 } & 24 \mathrm{~N} 22118 & 13 / 4 & 2 & .65 & \text { 24N22163 } & \text { 24N22124 } & 121 / 4 & 12 & 1.59 \\ \text { 24N22170 } & 24 \mathrm{~N} 22119 & 314 & 5 & 73 & \text { 24N22164 } & \text { 24N22125 } & 14 & 13 & 1.82\end{array}$ $\begin{array}{lllllllllll}\text { 24N22171 } \\ \text { 24N2217 } & \text { 24N22120 } & 51 / 4 & 7 & .85 & \text { 24N2164 } & \text { 2N } 22165 & \text { 24N22126 } & 1534 & 14 & 2.12\end{array}$




## 1/16" STEEL MOUNTING BRACKETS

2. Panels must be at least $7^{\prime \prime}$ high. Mounting holes drilled. 24N15271-Black Ripple Finish. Base Size: $8^{\prime \prime}$. 24N15272-Black Ripple Finish. Base Size: $11^{\prime \prime}$ 24N15268--Black Ripple Finish. Base Size: $13^{*}$

## GRILLE PANELS

Modern type ventilating grille panel made of $1 / /^{\prime \prime}$ thick steel, $19^{\prime \prime}$ wide. Grille work is actually stamped into the panel; not a


| Stock No. Black | Stock No. Grey | Panel Height | $\begin{aligned} & \text { Grille } \\ & \text { Size } \end{aligned}$ | Each |
| :---: | :---: | :---: | :---: | :---: |
| 24N22420 | 24N22421 | 51/4" | 33/3x143/8" | 2.26 |
| 24N22422 | 24N22423 | 7 | $478 \times 14 \%^{\prime \prime}$ | 2.41 |
| 24N22424 | 24 N 22425 | $83 / 4{ }^{\prime \prime}$ | *37/8x14\%" | 2.65 |
| 24N22426 | 24N22427 | 101\%" | *571014\%** | 2.94 |
| 24N22428 | 24N22429 | 12\%" | *730143\% | 3.38 |

* Allows $31 / 2^{\prime \prime}$ space at bottom for chassis mounting.


## RACK SHELVES

Designed to be mounted inside the rack, with side bolt mounting. $1^{\prime \prime}$ high. finished in black ripple en amel. Shipping weicht is ith $4 \mathrm{~N} 22158-15 \times 21^{\prime \prime}$........

## STEEL AND ALUMINUM CHASSIS

Four solid sides, welded corners. Boltom edges flanged in and drilled for plates. Steel chassis No. 20 gauge with black ripple finish; Aluminum chaswis . $055^{\prime \prime}$ thick. Unfinished.

| $\begin{gathered} \text { Size } \\ \text { D. L. H. } \end{gathered}$ | Steel |  | Aluminum |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | Each | No. | Each |
| 434 $\times 83 / 2 \times 112^{\prime \prime}$ | 24N22391 |  |  |  |
| $5 \times 91 / 2 \times 112^{\prime \prime}$ | 24N22211 | . 67 | 21N22237 | 76 |
| 7×7×2" | 24N22212 | . 82 | 24N22238 | . 95 |
| $7 \times 11 \times 2^{\prime \prime}$ | 24N22214 | . 87 | 24 N 22243 | 1.06 1.14 |
| $7 \times 13 \times 2$ " | 24N22215 | 1.06 | 24N22244 | 1.22 |
| $7 \times 15 \times 3$ * | 24N22216 | 1.26 | 24N22245 | 1.47 |
| $7 \times 17 \times 3$ " | 24 N 22217 | 1.26 | 24 N 22246 | 1.47 |
| $10 \times 12 \times 3$ " | 24N22226 | 1.38 | 24N22247 | 1.64 |
| $10 \times 17 \times 3^{\prime \prime}$ | 24 N 22227 | 1.29 | 24N22248 | 1.79 |
| $11 \times 17 \times 3$ " | 24N22393 | 1.94 | 24N22395 | 2.35 |
| $13 \times 17 \times 3^{\prime \prime}$ | 24N22394 | 2.44 | 24N22396 | 2.62 |

## BLACK RIPPLE STEEL BOTTOM PLATES

With holes to match steel chassis above. Pressed corner "bumpers."

| No. | Size | Wt. | Cost | No. | Size | Wt. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24N22228 | $5 \times 3$ |  | 38 | 24N22 | $7 \times 1$ |  |  |
| 24N22233 | 51/2x1 | 1 Lb . | . 41 | 24N22261 | $8 \times 12$ | 2 Lbs. | . 65 |
| 24N22241 | $7 \times 7$ " | 1 Lb . | . 44 | 24N22265 | $10 \times 12^{\prime \prime}$ | 2 Lbs. | . 68 |
| 24N22242 | $7 \times 9$ " | 1 Lb . | . 44 | 24N2262 | 10x14" | 3 Lbs. | 71 |
| 24N22249 | $7 \times 11{ }^{\circ}$ | 1 Lb . | . 53 | 24N22266 | $10 \times 17^{\prime \prime}$ | 3 Lbs. | 82 |
| 24N22256 | $7 \times 13^{\prime \prime}$ | 2 Lbs. | . 56 | 24N22397 | 11x17" | 3 Lbs. | . 82 |
| 24N22258 | 7x15* |  | . 62 | 24N22398 |  |  |  |

STEEL CHASSIS WITH BOTTOM COVER PLATES
Heavy-duly l.pc. 1,16" steel. Reinforced corners. Ends drilled to fit standard mounting bracket. Black wrinkle finish.

| No. | W. L. D. | Lbs | Es. | No. | W. L. D. | Lbs. | Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24N22155 | $8 \times 17 \times 2^{\prime \prime}$ | 9 | 2.18 | $24 N 22156$ | $11 \times 17 \times 3^{\prime \prime}$ | 12 | 2.85 |
| $24 N 22229$ | $8 \times 17 \times 3^{\prime \prime}$ | 10 | 2.47 | $24 N 22230$ | $13 \times 17 \times 2^{\prime \prime}$ | 13 | 2.94 |
| $14 N 22231$ | $11 \times 17 \times 2^{\prime \prime}$ | 11 | 2.59 | $24 N 22232$ | $13 \times 17 \times 3^{\prime \prime}$ | 14 | 3.18 |

# FOUNDATION CABINETS, CHASSIS \& METER CASES 



B
DE LUXE HINGED STEEL CABINETS
A. Attractive streamilined cabinets, with full-length piano hinged top and removable front panel. Slate gray finish with chrome trim molding, ventilators on side. All without charsis.

| No. | $\mathrm{H} \times \mathrm{L} \times \mathrm{D}$. | Panel | For Chas ${ }^{\text {a }}$ | Enth |
| :---: | :---: | :---: | :---: | :---: |
| 24N22087 <br> 24N22088 24N22089 24N22091 | $\begin{aligned} & 8 \times 10 \times 8^{\prime \prime \prime} \\ & 8 \times 12 \times 8^{\prime \prime} \\ & 8 \times 14 \times 8^{\prime \prime} \\ & 12 \times 2 \times 12^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 8 \times 8^{\prime \prime \prime} \\ & 8 \times 17^{\prime \prime} \\ & 8 \times 12^{\prime \prime} \\ & 1 \times 18^{\prime \prime} \end{aligned}$ | $\begin{gathered} 7 \times 7 \times 2^{\prime \prime} \\ 7 \times 9 \times 2^{\prime \prime} \\ 7 \times 13 \times 2^{\prime \prime \prime} \\ 10 \times 17 \times 3^{\prime \prime} \end{gathered}$ | $\begin{aligned} & 4.26 \\ & 4.41 \\ & 5.29 \\ & 8.23 \\ & \hline \end{aligned}$ |

STANDARD HINGED STEEL CABINETS
Similar to above, levs chrome trim; with ventilating louvres.

| No. | $\mathrm{H} \times \mathrm{L} z^{\text {D }}$. | Panel | For Cha | Fich |
| :---: | :---: | :---: | :---: | :---: |
| 24N22200 | $8 \times 17 \times 8$ | $8 \times 8{ }^{\prime \prime}$ | $7 \times 7 \times 2^{\prime \prime}$ | 2.94 |
| 24N22201 | $8 \times 12 \times 8{ }^{\prime \prime}$ | $8 \times 10^{\prime \prime}$ | $7 \times 9 \times 2^{\prime \prime}$ | 3.23 |
| 24N22202 | $8 \times 14 \times 8$ " | $8 \times 12^{\prime \prime}$ | $7 \times 13 \times 2$ " | 4.12 |
| 24N22203 | $12 \times 20 \times 12^{\prime \prime}$ | $12 \times 18^{\prime \prime}$ | $10 \times 17 \times 3^{\circ}$ | 7.64 |

## GENERAL UTILITY STEEL CABINETS

B. Streamined, sturdily made steel cabinets designed for use in rad:o or other allied fields. All are made of sheel steel, constructed with spot welded reinforced corners. Tops and botloms are easily removable and held firmly in place by means of selftoppinq screws which are included with the cabinets. Handsome black ripple finish qives a neat, efficient appearance. Avallable in 10 sizes to fit all requirements.

| No. | Size | Shipu. Wi. | Fach |
| :---: | :---: | :---: | :---: |
| 24N22209 | $4 \times 2 \times 4$ " | 2 lbs. | . 76 |
| 24N22210 | $4 \times 3 \times 5$ " | 3 ll \%s. | . 82 |
| 24N22174 | 6xux ${ }^{\prime \prime}$ | 3 lbs . | . 97 |
| 24 N 22175 | $9 \times 5 \times 0^{\prime \prime}$ | 5 lbs. | 1.47 |
| 24N22173 | -10x8×7" | 6 ltes. | 1.85 |
| 24N22176 | $10 \times 8 \times 10^{\prime \prime}$ | 7 lbs . | 2.35 |
| $24 N 22177$ | $11 \times 148^{\prime \prime}$ | 9 It \% | 2.53 |
| 24N22181 | $12 \times 7 \times{ }^{\text {² }}$ | 5 lbs. | 1.82 |
| 24N22182 | $15 \times 9 \times 7^{\prime \prime}$ | 10 lbs . | 2.56 |

Miniature Utility Cabinets with Attached Chassis


Indispensable when butlding electronic devices using miniature tubes. Front and rear panels are removable and fastened with sell-lapping screws, permitting easy accessibility. Useful for HF converters, TV amplifiers and power supplies. Black wrinkle finish.

| Stock No. | H.xW.xD. | Chassia Sizo | Ench |
| :---: | :---: | :---: | :---: |
| 24N22430 | $4 \times 4 \times 2^{\prime \prime}$ | 123, $517{ }^{\text {a }}$ | 93 |
| 24 N 22431 | $4 \times 5 \times 3$ " |  | 1.03 |
| 24N22432 | $5 \times 4 \times 3$ " |  | 1.03 |
| 24 N 22433 | $6 \times 5 \times 4^{\prime \prime}$ |  | 1.13 |
| 24 N 22434 | $5 \times 6 \times 4^{\prime \prime}$ |  | 1.13 |
| 24N22435 | 6x6x6" | 13/454765] ${ }^{\prime \prime}$ | 1.18 |



## AMPL. CHASSIS \& COVERS

Chassis stamped from 1 -pc. cold ro.led steel. with black ripple linish. $6^{\prime \prime}$ deep covers are sifle gray. $3^{\prime \prime}$ high chassis drilled for bottom plates (not supplied). Deluxe rnodels similar to stand. ard, but include chromiam molding and handles.


|  | DeLuxe Models |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Each | No. | Size | Wt. | Ench |
| 2.20 | 24N22183 | $51 / 2 \times 10 \times 9^{n}$ | 9 lbs | 3.62 |
| 3.38 | 24N22185 | 8x12x9 | 11 lbs | 4.70 4.85 |
| 3.67 | 24N22186 | $10 \times 14 \times 9^{\prime \prime}$ | 11 lbs | 5.29 |
| 3.82 | 24N22187 | $10 \times 17 \times 9^{\prime \prime}$ |  | 5.59 |

## PORTABLE STEEL CABINETS

For oscillators, transceivers, etc. Removable front and back panels. Leather handle. Black rlpple IInish. 24N22273-Size: $12 \times 73 / \times 7^{\prime \prime}$
2.50

24N22274-Size: $15 \times 7 \% \times 7^{* *}$

## MINIATURE ALUMINUM CHASSIS

Open end chassis of hard aluminum. Has $1 / \mathrm{s}^{\prime \prime}$ tlange on bottom to permit fastening down of chassis, or altaching it to a bottom plate. Extremely chassis, or attaching itio a bottom plate. Exiremely narrow band FM adaplors or where space is lim. narrow band FM. adaplors or


| Stock No. | Dimensions (H.xW.xD.) | Each |
| :---: | :---: | :---: |
| 24N22436 | $25 / 6 \times 23.4 \times 11 / 4^{\prime \prime}$ | 29 |
| 24N22437 | $13 / 4 \times 34 \% \times 1$ " | . 32 |
| 24 N 22438 | 31/4x ${ }^{1 / 2} \times 2$ " | . 35 |
| 24N22439 |  | . 35 |
| 24 N 22440 | 33/4x43013 ${ }^{\text {a }}$ | . 35 |
| 24 N 22441 | $3 \times 61 / 8 \times 1 / 3^{\prime \prime}$ | . 41 |
| 24 N 22442 | 53/4x47/9x11/2" | 44 |
| 24 N 22443 | 4 3 1相1" | . 35 |
| 24 N 22444 | $4 \times 4,4 \times 1$ " | . 38 |
| 24 N 22445 | $4 \times 51 / 4 \times 1$ " | 41 |
| 24N22446 | $4 \times 6+8 \times 1$ " | 44 |

## HINGED COVER CABINETS

Rugged steel cabinets with piano hinged lids so arranged that boltom, front or back ponel may be removed for circuit wiring. Altractively finished in black ripple enamel.


| Stock No. | Dimensions (W.xD.xH.) | Uses Chassis | Each |
| :---: | :---: | :---: | :---: |
| 24N22385 | $9 \times 5 \times 6{ }^{\prime \prime}$ | $81 / 5 \times 43 \times 11 / 2^{\prime \prime}$ | 2.35 |
| 24N22386 | 10x8x7" | $9 \times 7 \times 2$ | 2.94 |
| 24N22387 | $12 \times 8 \times 7^{\prime \prime}$ | $11 \times 7 \times 2^{\prime \prime}$ | 3.38 |
| 24N22388 | $12 \times 11 \times 8^{\prime \prime}$ | $11 \times 10 \times 3^{\prime \prime}$ | 4.03 |
| 24N22389 | $14 \times 8 \times 7^{\prime \prime}$ | $13 \times 7 \times 2^{\prime \prime}$ | 4.03 5.06 |
| 24N22390 | 18×12x9" | $17 \times 11 \times 3^{\prime \prime}$ | 5.06 |



## SLOPING PANEL STEEL CABINETS

A. Serve as speaker cabinets, oscillator cosea, monilora, teletalt systems, etc. Rounded corners. Marine gray finish
 24N22098-Dimensions: $71 / 2 \times 41 / 2 \pm 41 / 4^{\prime \prime}$. Shpq. wt. 5 lbs.

## deluxe meter cases

B. For $2^{\prime \prime}$ and $3^{\prime \prime}$ meters. Marine gray ripple tinish, chrome trim. 24N22080-4 $41 / 4 \times 4^{3} \times \times 416^{\prime \prime}$. Meter Hole 219 作"



## STANDARD SPEAKER CABINETS

A. Louvred back cover with slots for wall hanging. Made of durable sheet sleel with black ripple enamel finish.

| 24N22140 | $5^{\prime \prime}$ Speaker | Cobinet Size: $10 \times 10 \times 0^{\prime \prime}$ | Wt. 8 lbs. | 3.00 |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 24N22141 | $8^{\prime \prime}$ | Speaker | Cabinet Size: $12 \times 12 \times 7^{\prime \prime}$ | Wt. 9 lbs. | 3.59 |
| 24N22142 | $10^{\prime \prime}$ Speaker | Cabinet Size: $14 \times 14 \times 8^{\prime \prime}$ | Wt. 15 lbs. | 4.70 |  |
| 24N22143 | $12^{\prime \prime}$ | Spmaker | Cabinet Size: $16 \times 16 \times 8^{\circ}$ | Wt. 20 lbs. | 6.31 |

## SLOPING FRONT CABINETS

B. Front panel removable. Rear openings for leads and ventilation Slate gray ripple finish with red-sitriped trim. Less chassis.

| 24N22092 | $8 \times 8 \times 8^{\prime \prime}$ | For Chassis $7 \times 7 \times 2^{\prime \prime}$ | Wt. 9 lbs. | 3.88 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 24N22093 | $8 \times 10 \times 8^{\prime \prime}$ | For Chassis $7 \times 9 \times 2^{\prime \prime}$ | Wt. 10 lbs. | 4.26 |
| 24N22094 | $8 \times 14 \times 8^{\prime \prime}$ | For Chassis $7 \times 13 \times 2^{\prime \prime}$ | Wt. 11 lbs. | 5.59 |
| 24N22096 | $12 \times 18 \times 12^{\prime \prime}$ For Chassis $10 \times 17 \times 3^{\prime \prime}$ | Wt. 17 lbs. | 7.50 |  |

# TRANSMITTING KEYS-PHOTOFLASH EQUIPMENT 



## Linguaphone Code Lesson Records

Learn code this easy way at your own convenience. Speed progresses from 2 to 15 words per minute. Operate on any 78 RPM phonograph or record player, Includes textbook and 5 dou-ble-faced $10^{\prime \prime}$ discs in alburn.
29N21895-Shpg. wt. 6 lbs.
9.80

## Gardiner Automatic Tape Sender

 Model "S", with silent 110 volt AC motor. Variable code speed trom 4 to 60 words per minute. Three controls: motor switch, contact switch and speed control. Terminals tor oscillator or buzzer. Comes with 10 rolls double pertoratedtape. 29 N 14060
24.00

## VIBROPLEX TRANSMITTING KEYS

## 'CHAMPION'

nexpensive, yet exceptional sending qualities assure speed and ease of operation. Single lever, two pairs of contact points (one lor dots and one for dashes). bright

base. 15 N .4058 -Shpg. wt. 4 lbs.
9.95

## "ORIGINAL"

For communications work where speed and perfect Morse are essential. Single lever. Two pairs of contact points: one sending possibilities. Polished parts, sending possibimies. Polished parts, Complete with cord and wedge. 15 N 14057 -Shpg. wt. 5 lbs .15 .95 CARRYING CASE for above keys. Plush-lined, black morocco; reintorced corners, lock and key. Size: $63 / 4 \times 33 / 6 \times 41 / 6$
 torced cormers, lock and key
$15 N 14059-S h p g . ~ W t . ~$
3 5.50

## SPEED-X KEYS AND CODE SETS



## CODE PRACTICE SET MODEL 450

## Constant frequency adjustable buzzer and

 standard hand key with $1 / 8$ silver contacts mounted on a brown bakelite base $6^{\prime \prime} \times 4^{\prime \prime}$ Uses 2-11/2 volt cells (not included). Metal parts plated. Code card included.15N14027-Shipping weight 2 lbs
2.65

20N20622-1 $1 / 2$ volt cell for above
$.61 / 2 c$

## BUZZER WITH BAKELITE BASE AND CAP

Model 400. Operates on 2-IV. cells or "C' battery.
15N14021-Adjustment on vibrator
Resistance 2 ohms
1.18

20N20622-11/3 V. cells $61 / 2 \mathrm{c} 20 \mathrm{~N} 19867$ - "C" Batt. 57


CODE PRACTICE KEYS
Model 300: provided with two adjustments Has bakelite base, silver contacts, and machined parts.
15N14041-Shpg. wt. 1 lb .
1.03

15N14053-Model 305. As above, with metal base
.1 .12

## ICA DELUXE SIGNA-TONE



Audio Oscillator with 3 output frequencles and a continuously variable volume control. A number of phones and keys may be connected for classroom or radio club instruc. thon. Will follow "bug" at all speeds. With tube and selli.contained speaker. For 110 V . $\mathrm{AC}-\mathrm{DC} .74 / 2 \times 41 / 2 \times 4^{\prime \prime}$.

Shpg. wt. 4 lbs .
11.76

## KEY WITH SWITCH

Shpg. wt.
29N14086

M-100 Telegraph tey with switch to close con tacts. Lacquered brass base.
15Ni 4017 -Wt I lb
15N14017-Wt. $1 \mathrm{lb} .$.
15N14005-Less switch
2.90

15N14005-Less switch.

## Photoflash Power Supplies-Lamps-Capacitors

## CONDENSER PROD.

## HI.VOLTAGE POWER SUPPLY TYPE PS-1



Completely enclosed and sealed-in housing provides saie, trouble-iree service. Simple to use-only three lerminals to connect. Large porcelaln stand-oif insulator AC. Output will charge capacitors to 2500 volts DC
 Type PS-2. High vollage 317 V Type PS-2. High voltage. 117 V. AC, 60 cycles inpu;t 2400 V. DC maximum output. 005 amps DC maximum. RC filter, 50,000 ohms, $2 x .1$ mids.
21 N 17260 -Shipping Weight $21 / 2$ lbs.
15.14

## AMGLO PHOTOFLASH LAMPS



Light intensity 100 times sunlight. 10,000 flashes per bulb. each $1 / 10,000$ second. High color temperature of $6500^{\circ}$ Kelvin with standard circuits. Mounts in standard 4-prong radio tube socket.
Type 5804X-40.150 watt sec. 12 to 18 MFD. 13.72
36 N 10584 -Shipping weight $1 \mathrm{lb} . . . \ldots . .$. . 7.
Type 54R4X - $60-200$ watt sec. 18 to 36 MFD.
14.70

Type $48 \mathrm{U} 4 \mathrm{X}-100-600$ watt sec. 50 to 300 MFD.
36 N10586-Shipping weight 1 lb ..
Type 68N9T-200 watt sec. 100 to 400 MFD. 30N10587-Shipping weight 1 lb ..
14.21

Type 78M9T- 300 watt sec. 100 to 600 MFD.
36N10588-Shipping weight $1 \mathrm{lb} . . . . . . .$.
13.23

36N10589-Shipping weight I lb..............

## POTTER-BRUMFIELD PHOTO-FLASH RELAYS

New alloy contacts discharge capacitor through lamp, handle hundreds of amps during flash. 2500 volt insulation.

| Stock No. | Mig. No. | Coll | Contacts | Each |
| :--- | :--- | :--- | :--- | :--- |
| 16N14150 | FR1A |  | 6VAC |  |
| 16NST, NO | 3.00 |  |  |  |
| 16N14151 | FRSA | 6VAC | SPDT | 3.25 |
| 16N14152 | FR11A | 6VAC | DPDT | 4.25 |
| 16N14153 | FR1D | 2VDC | SPST, NO | 3.00 |
| 16N14154 | FRSD | 2VDC | SPDT | 3.25 |
| 16N14155 | FR11D | 2VDC | DPDT | 4.25 |



CORNELL-DUBILIER PHOTO FLASH CAPACITORS
Type HKGT. For use in high-speed photographic equipment. Compact and light-weight. Heavy duty internai leads comected to bakelite cup insulated terminals.

| Stock No. | C-D No. | Cap. <br> MId. | Watt Sec. | Size, Inches $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ | Wt. Lbs. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2000 Volt DC Peak |  |  |  |  |
| 5N3040 | $\begin{aligned} & \text { HKGT1 AOO } \\ & \text { HKGTI AOI } \end{aligned}$ |  | 30 50 |  | 21/4 | 10.00 11.17 |
| 5N3042 | HKGT115 |  | 71 | 39/8x $4^{49} 16 \times 43 / 6$ | 41/4 | 18.23 |
| 5N3043 | HKGT1A. 02 |  | Vol | DC Peakx $31 / 425 / 3 \times 6 \%$ |  |  |
| 5N3044 | HKGT103 | 25 | 80 | $34 \times 49 \times 65$ | 5\% | 13.52 |
| 5N3045 | HKGT104 | 32 | 100 |  | - | 21.56 |

## MALLORY PHOTOFLASH CONDENSER

EP240. For those phatoflash lamps designed to operate in the 900 to 1000 volt range such as GE.FT220 and Amglo 68N9T, 78M9T and 88M9T Made up of two separate capacitors of 50 mfd each, enclosed in one can. 450 volts DC rating. Two must be connected in series to withstand the 900 volts required for photoflash tube.
5N3046-Shipping Weight $1 / 3 \mathrm{ib}$.
2.65

## Thordarson Photoflash Transformers

1. Type 22R42. Designed for use in 117 VAC operaled photoflash power packs. Provides 2250 VDC when used with $2 \times 2$ rectifier. Appli-
 cation note and circuit diagram of a typical power pack supplied,
 Shipping weight 3 lbs . Shippin
3.88

Type 22R43. Same as above, but for 117 VAC or 4 volt batery vibrator ( 180 cycles). Secondary 1100 volt AC at 1.5 ma . Size: $31 / 4{ }^{4}$ wide. $21 /{ }^{\prime \prime}$ high, $21 / 3^{\circ}$ deop, $213 / /^{\circ \prime} \mathrm{mig}$. centers.
6 N2141-Shipping welght 3 lbs
. 5.64
2. Typo 22R44. Supplies the high voltage lonizing pulse necessary to tire high pressure three electrode photoflesh tubes. Primary is condenser discharge (. 25 to .5 mid at 200 VDC). Secondary 15,000 volts peak, $21 / /^{" W}$ wide, $11 / 3^{\prime \prime}$ high, $11 / /^{\prime \prime}$ deep. Single hole mounting. $6 N 2142$-Shipping weight $1 / 5 \mathrm{lb}$.
Thordarson Photo-Flash Brochure. Theory, operation and construction of photo flash power packs and ignition circuits. 23N19670

RELIANCE DX TYPE SINGLE \& DOUBLE HEADPHONES 1. Powerful b-polar magnets, featherweight shells, adjustable eloth covered headband.
15N13892-2000-Ohm Headset. Each 1.42

15N13893-3000-Ohm Headset. Each.
. .1 .56 2. SINGLE UNIT HEADSETS. With elock-steel band attached. 15N13896-1000-ohm single set. 41/r-ft. cord.................... 90 ¢ 15N13897-1500-ohm single set. 41/rft. cord.................... 98 8 Caps and diaphragms ilt all above phones.
15N 13894 -Cap...

## ACME DE LUXE LIGHTWEIGHT HEADPHONES

1. Chrome steel magnets. Extremely light-weighs only 6 oz . complete with 2 units, $4 / 1 / 2-\mathrm{ft}$. cord, metal headband. 15N13904-Double Headset. 2000 ohms DC resistance... 4. 15N13905-Single Headset. 1000 ohms DC resistance....... 95

## BRANDES "ADMIRAL" HEADPHONES

1. Powerful magnets. With 5 ft . cord, adjustable clips. 2.15
15 N $13928-2000$ ohms..............................................

15N13529-3000 ohms.
...2. 30
$\qquad$

## BRANDES "SUPERIOR" HEADPHONES

Similar to above but with exposed screw terminals. 15N13925-2000 ohm Headset 1.99

15N13936-Bakelite Cap-fits all models. Each................ 18
15N13935-Aluminum Cap-fits all models. Each... .18 15N13937-Diaphragm only-fits all models. Each............. 5

## BRUSH "HUSHATONE"

7 Small, streamlined, modern, thoroughly dependable extension loud speaker designed to end "radio irritation" in your home. Provides individual listening choice by merely slipplng It under bed or sofa pillows or under the pulf of a loose, plllow-back chair. Hushed tone allows listener to enjoy radio withoutannoying others. Hushatone is made of molded plastic with attractive chromium trim. Compactly styled-measures oniy $4^{3 / 16^{\prime}}$ in diameter and $11 / 16^{\prime \prime}$ thick. Loudspeaker comes complete with convenient detachable extension cord.
9.55


## HEARING AID FOR RADIO

New headphone type hearing device increases radio enjoyment for persons who find it difficult to hear radio programs properly, also for private listening without disturbing others. Qulckiy and easily attaches to any radio in 10 or 15 minutes; it can be wired into the set by a maintenance man or yourself, if you're handy with a few simple tools. The headset is supplied with a three-way switch device that permits you to listen with the speaker only, the phones only or both at the same time. Spectally constructed low resistance headptrone matches volce coll of the speaker.
15 N 13865.
4.12

15N13866-Same as above, but with single phone..........3.37 15N13867-3-Way Swltch Adaptor only............................. 1.85

## TELEX TWINSET

Model 3725. An entirely new way to hear with a headset! Never before such comfort, lightness, all-day-long ease into ear through a slender, tubular sound arm mounted on a locking ball-and-socket joint. Fully adjustable to it any head shape, any ear size. PlasHe ear tips effectively block out background nolse. Ruggedly bullt, chrome-plated recelvers are sealed aqainst dust and corrosion. Z-nickel headband encased in Tenite plasuc. Excellent sensitivity combined with superb full range high-fidelity makes the Twinset perfect for communications and experimentat instaliations, as well as transcribing, theatre work, etc. Impedance: 1000 ohms. Supplled with single 5 -foot Mónocord which plugs into one recelver thus avolding entangling cord.
$15 \mathrm{~N} 13868 .$.
8.82

Model 3735.-Same as above, but 64 ohm Impedance

CANNON BALL "CHIEF" ALL BAKELITE PHONES

1. High grade, sensitive phones in molded bakelite housings; leather covered adjustable band; 5 - ft . cord. 15N1 3948-2000 ohms imp. Shpg. Wi. 2 lbs. Per set.... 2.50 15N1 3949-3000 ohms imp. Shpg. Wt. 2 lbs. Per set....... 2:82

## BRUSH CRYSTAL PHONES

3. Range 60 to $10,000 \mathrm{cps}$. High tmpedance. Light and comfortable. Padded adj. headband. With 5 ft . cord. 15N13924-Crystal phones.....
7.06

## TRIMM HEADSETS

4. Dependable" Model: Economy Bakelite set. Chrome-steel magnets.
15N13914-2000 ohms......................................... 2.4.4
"Professional" Model: As above but 4000 ohms.
15N13915.................................................................... 2.94
"Featherweight" Model: Lightweight. Only 4 oz. Bakellte shell and cap. Forged cobalt-steel magnets. Adjustable steel headband.
15N13919-24,000 ohms impedance.
15N13918-4,000 ohms impedance. Elther type. Ea........5.8.88
"Coinmercial" Model: De Luxe super-sensltive phones. Exceptionally rugged. 3-year guarantee. A.favorite of commercial operators.
15N13908-17,000 ohms imp. with army navy type plug.
15N13939-Same but 600 hms impedance.
Either Type, Each.....................................
15N13912-Same as 15N13908 but less plug.................... 8.53 15 N13938-Same as $15 N 13939$ but less plug......................................

## BRUSH CRYSTAL SINGLE UNIT HEADSET

2. Metallic headband, rubber end cushion. 5 ft. cord. 3.79
isN13922-Crystal Single Headset............................. 79

BRUSH CRYSTAL LORGNETTE PHONE SET
5. Single phone-extends $12^{\prime \prime}$ to $17^{\prime \prime} .5 \mathrm{ft}$. cord.
5.73

## TELEX MONOSET WITH TENITE TUBES

6. Stethoscope type with replaceable ear pleces to hang above earlobes, instead of being inserted into ears. Lightweight comfortable-gives excellent fidelity. Operates on 2000 ohms. Thru-line volume control clips to lapel, is easy to hondie.
15 N 13890 -Telex Monoset less Volume Control......... 7.35
15N13891-Telex Monoset with Volume Control.................9.70

## TELEX MINIATURE RADIO PILLOW SPEAKERS

New, improved one-plece speaker designed for comfortable radio listening through a plllow, elther in bed or in a chair. Small and compact-may be held comfortably in the palmof the hand. Coll assembly of molded polystyrene bobbin wound with heavy Formex insulated wire-won't shost. Fully insulated detachable single jacket cord-5 it. length. Speaker DIa: $214^{\prime \prime}$.
 15 N13874-P1110w Speaker: 6 ohms. 15N13875-PHlow Speaker: 2000 ohms.

## EXTENSION CORD CONNECTOR

Sturdy molded body with two openings, one at each end, desígned for insertion of two pin tips.
13N13051
106


HEADPHONE CUSHIONS FOR ALL PHONES
Fits all type of headphones. Made of soft rubber.
15N13943-Pair.........65 10 Palrs.for....5.85

## PHONE AND SPEAKER CORDS

 $41 / 2$ FT. LONGSturdily made, with cotton braid Insulation. $4 \frac{1}{2}$-feet long. 15N13955-Double type. 1 end spade tip, other straight. 29 e 15N13956- Double type. Phtips both ends.. 15N13957-Single type. Pin tips both ends.

## ANTENNAS-MOUNTS-DIALS

## PREMAX MOBILE ANTENNAS \& MOUNTS

Designed 10 meet the most rigid transmission and reception requirements for police, flre, municipal, public utility, transportation, commercial, governmental and amateur services. Carefully designed and engineered to withstand the hard usage and trouble free performance these services demand.

## GRADUATED DIAMETER STEEL RODS

Stainless steel rods of varying diameters are joined securely and permanently into a single graduated length which provides high flexibility, minimum wind resistance and long life. "Whip" type with a $1 / 4$-inch, plain base
2.65

28N21845-Model AS-172. 72" long
.2 .76
28N21846-Model AS-178. $78^{\circ}$ ' long
28N21847-Model AS-184. $84^{\circ}$ long
28N21848-Model AS-190. $90^{\prime \prime}$ long
2.88

28N21848-Model AS-190. $9^{\prime \prime}$ long.
28N21849—Model AS-196. $96^{\circ}$ long.
.3 .09

## MOBILE ANTENNA MOUNTS




Type NA. Insulated Bumper Mounting. Plates are heavily cad-mlurn-plated steel; white glazed ceramic cones. 28N21811
3.53

Type K. Insulated Bumper Mounting. Antenna rod fits into section of heavy brass tubing attached to the insulator and permits $10^{\circ}$ adjustment in height of antenna. Nut and compression sleeve lock antenna into place. White glazed ceramic insulator.
4.12 28N21812
Type TA. Trunk or Panel Mounting. For Premaz Style A or any $11 / 4^{\circ}$ antenna. Fastens to car body or trunk or to any horizontal surface such as a roof. Lower support is solid brass rod joined to a $12^{\prime \prime}$ brass tube carrying antenna. Upper support is $24^{\circ}$ brass rod adjustable on antenna tube and also in insulator assemblies to fit contour of car. Ceramic cone insulators. Maximum $10^{\prime \prime}$ adjustment. Cadmium-plaled. 28N21813.
9.70

Type R. Insulated universal mounting of "split-ball" type. Solid cast bronze, which bolts directly to car panel or other surface through heavy plastic disc insulation with water-proof gasket and steel back-plate. Baked black enamel tunish. Fits style A or any $1 / 4^{\prime \prime}$ antenna
6.76

## 2-METER BEAM ANTENNA



Model 200-EA. Designed especially for use on 2 Meter amateur band. Unit is a hi-gain, broad band parasitic array. Precut for the middle of the 144 to 148 MC band. Uses a folded di-pole driven element with three directors and one reflector. Directors spaced . 1 wavelength, reflector spaced . 15 wavelength. Furnished with standard Elincor swivel bracket, can be mounted either in the vertical or horizontal plane. Designed to be fed with RG8/U 52 -ohm coaxial cable. Boom is $1^{\circ}$ aluminum tubing, all elements are $3 / 8^{\circ}$. Complete with hardware and instructions.
28N21977-Shipping weight 3 lbs .
8.23

AMATEUR FOLDED DI-POLE ANTENNAS

|  |  | Easily carried, flexible antennas for transmitting and receiving on amateur bands. Exact frequency for flat line operation. Instructions included for cutting to any desired intermediate frequency. Has substantial gain as long wire radiator. Supplied complete with 75 feet of lead-in cable and two sturdy strain insulators. |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock No. | Di-pole Length | Band | Application | Each |
| 28N21960 | 137 t. | 80-meter | Use on all bands | 8.08 |
| 28N21961 | 66.2 ft . | 40-meter | Use on $40 \mathrm{M}, 20 \mathrm{M}$ and 10 M | 5.85 |
| 28N21962 | 33 ft. | $20 \cdot$ meter | For low power DX | 4.38 |
| 28N21963 | 17.1 ft . | $\begin{gathered} 10-\text { and } \\ 11 \text {-meter } \end{gathered}$ | Broadband for shifting frequency to avold ORM | 3.50 |

## NATIONAL TYPE "ACN" DIAL

Desiqned for E.C. oscillator or U.H.F. receiver. 5 -range scale for hand calibration, $0-100$ linear scale as guide. 2 extra scales, lu cite dial and pointer. $5: 1$ vemier, $1 / 4^{\prime \prime}$ shafts. Frame: $5^{\prime \prime} \times 7 / 4^{\prime \prime}$.


11N14474-Weight 1 lb .


## NATIONAL TYPE "ICN" ILLUMINATED DIAL

2 dial lights provide illumination on all bands. Dial window blanked out in semi-circular shape to prevent shadow casting. Scales same as ACN. $51 / 9^{\circ} \times 71 / 4^{\prime \prime}$. 11 N14477-Weight 2 lbs .

NATIONAL "MCN" SMALL SCALE DIAL
Ideal for mobile installations, small converters, tuners, and $31 / 2^{\prime \prime}$ rack panel mounting. Provides three calibrating scales and a 0-100 logging scale. Mechanism extends ${ }^{1 / 4} 4^{\prime \prime}$ below the dial frame. Size: $23 / 4^{\prime \prime}$ I $37 / 8^{\prime \prime}$. 2.70

## MILLEN 10039 PANEL DIAL

Compact panel dial with completely selfcontained operatting mechanism to eliminate back of panel interference. Ratio 8 to 1. Extremely compact for easy mounting. Features tremely compact for easy mounting. Feaiures include finger-tip knob, O-100 logging scale metal finish. $4 \times 31 / 4^{\circ}$., $1 \mathrm{lb} . . . . . . . . . . .2 .70$ 11N8080-Shpg. wt. 1 lb...

## NATIONAL "B" VERNIER DIAL

Ratio variable from 6:1 to 20:1. Black Bakelite shell. 4 " diameter.
11N14367-Clock 200.0 in $360^{\circ}$. 11N14368-0-100-0; $180^{\circ}$.
2.70

Type "BM"-Without variable ratio. $3^{\circ}$ dia. 11N14371-0.100-0; $180^{\circ}$. 11N14372-Clock, 200.0. $360^{\circ}$ 2.10

## ICA MINIATURE DIALS

Chrome silver dials with black etched numerals. Equipped with tinger-tip black knob, Only 1588 in diameter. Fits $1 / 4^{*}$ shafts. Ranges from $1-10$ over 180 and $270^{\circ}$.
$11 N 14234-0.10$.
$180^{\circ}$.

50c

## PRECISION VERNIER DIALS

Have etched calibrations graduated from zero to 100. Large flanged knob has bushing for



## NATIONAL R \& O DIALS

Type o-31/2" Dial. Nickel silver. Marked $0-100$. $180^{\circ}$ counter-clockwise. Large easy-to-
grip central knob. For $1 / 4^{\circ}$ shaft. grip central knob. For $1 / 4^{*}$ shaft.
Type R-iso Dial. Etched nickel silver. $180^{\circ}$. Marked 0-10. 1/4" shaft. IIN14568.

## ICA CHROME DIAL PLATES

Black Etcho-Engraving on Chrome Silver background. Grain satin finish. Calibrations $0-100$.

> 11N14184
> INN14184
> INN14191 IN14192 IN1 14193 11N14194
 $2^{\circ}$ Dia.
$2^{\prime \prime}$ Dia.
$31 /{ }^{\circ}$ Dia.
$3^{\prime \prime}$ Dia.
$4^{\prime \prime}$ Dia. $43 c$
$43 c$
$67 c$
$67 c$
$76 c$
76 c


## ETCHED METAL DIAL PLATES

Black dial plates, calibrated $0-10$ in $300^{\circ} .21 / 4 \times 1111^{\circ}$. with 4 mtg. holes. Specify Marking: Plain. Tone. Record, Gain. Mike.

15c

## MILLEN PANEL TRANSFERS

1/3" Block letters for all rigs
1 N8012-Black on White.
11N8013-White on Black.
.N8013-White on Black...................... 1.25

## TRANSMITTING VARIABLE COWDENSERS-CRYSTALS



Small
Small and sturdy with high mechanical and sulation used is Steatite. Rotor and Stator plates are brass and are elec-tro-soldered to their respective rods. All metal re cadmium plated. Condensers have both front and rear bearings, with elther midline type plates (straight line wave length), or semi-circular plates (stratght line capacity). Semi-Circular Type-Double

| Stock No. | Type | Max. Min. | Gap | Each |
| :--- | :--- | ---: | ---: | ---: |
| 11N10827 | MC1861 | $\frac{15}{15}$ | $\frac{4}{4}$ | $.060^{\circ}$ |
| 1.31 |  |  |  |  |
| 11N10828 | MC1862 | 35 | 5 | $.060^{\prime}$ |
| 11N10829 | MC1863 | 50 | 7 | $.060^{\circ}$ |
| 11.89 |  |  |  |  |
| 11N10830 | MC1864 | 75 | 9 | $.060^{\circ}$ |
| 11N10831 | MC1865 | 100 | 12 | $.060^{*}$ |

## Two-Gang Variables

Capacities shown are per section.
Stock No. Type Max. Min. Gap Each 11N10834 MC1882A $\frac{100}{7} \frac{1024}{.024}$


## HEAT RADIATING GRID AND PLATE CAPS

Use at terminals of transmitting tubes. Pr tects glass.


## MILLEN PLATE CAPS

Steatite covered cap, for transmitting tubes. Type 36001, 化 for 866, etc. 29N8055. 21c Type $36002,3 / 8$, for 807 , otc. 29N8056
Type 36011 . Extra ight. Snap action top button to grip release

60c

## NATIONAL GRID CLIPS

Easily removed. Tinned grip end for soldering. For transmitting tubes, 866, T20, 809, 812, olc. $\mathrm{P}_{18}{ }^{\circ}$ dlameter 29N14441
Ceramic safety grip $\%$ diameter for 86 T20, 809, 812 , etc. 29N14598
29N14599-Ceramic as above but $3 / 8$ for 807, etc.

A. "ST" types $180^{\circ}$ straight-line wave-length
B. "SE" SE " types $270^{\circ}$ rotation straight-line frequency plates. $1 / 4^{\prime \prime}$ shafts.

| Slock No. | Type | Mmid. | Plates | Each |
| :--- | :--- | :--- | :--- | :--- |
| 11N14300 | STHS15 | 15 | 3 | 3 |
| 11N14299 | ST35 | 35 | 9 | 1.85 |
| 11N14291 | ST50 | 50 | 11 | 1.90 |
| 11N14293 | ST100 | 100 | 20 | 2.10 |
| 11N14295 | ST140 | 140 | 27 | 2.30 |
| 11N14294 | ST150 | 150 | 29 | 2.30 |
| 11N14296 | STH250 | 250 | 32 | 2.70 |
| 11N14303 | ST D-50 | $50-50$ | $11-11$ | 2.30 |
| 11N14280 | SE-50 | 50 | 11 | 2.30 |
| 11N14282 | SE.100 | 100 | 20 | 2.60 |
| 11N14287 | SEH335 | 335 | 43 | 3.50 |

## BUD TINY-MITE CONDENSERS

Designed for u.h.i. circuits. Extremely compact. Have rigid construction, close fitting bearings, Steatite insulation. Soldered brass plates are bright cadmlum plated. 3-way mounting. Shaft on single units permits ganging. Panel space $11 / 2 x 1^{1 / 4}$

SINGLE.GANG CONDENSERS

| Stock No. | Mmld. | Plates | Each |
| :--- | :---: | :---: | :---: | :---: |
| 11N9539 | 3.15 | 5 | 1.13 |
| 11N95401 | $4-25$ | 9 | 1.18 |
| 11N9541 | 5.35 | 13 | 1.32 |
| 11N9542 | 6.50 | 19 | 1.42 |
| 11N9543 | 9.100 | 37 | 1.69 |
| $11 N 9545^{*}$ | 4.10 | 7 | 1.16 |
| 11N9546* | 5.15 | 11 | 1.25 |
| 11N9547* | 5.5 .25 | 17 | 1.47 |
| 11N9548* | $6-35$ | 21 | 1.62 |

2-GANG CONDENSERS
Capacities are per section.

| Stock No. | Mmid. | Plates | Each |
| :---: | :---: | :---: | :---: |
| 11N9512 | 3.15 | 5 | 2.30 |
| 11N9513 | $4-25$ | 9 | 2.55 |
| 11N9514 | $6-50$ | 19 | 2.67 |
| 11N9515 | 9.100 | 37 | 2.89 |
| 11N9516* | 4.10 | 7 | 2.20 |
| 11N9517* | 5.15 | 11 | 2.45 |
| 11N9518** | $5.5-25$ | 17 | 2.60 |
| 11N9519* | 6.35 | 21 | 2.84 |

## NATIONAL LOW POWER UNITS



TMS" Aluminum plates and trames; Isolan. tite insulation: $1 / 4^{\circ}$ shafts, $11 / 2^{*}$ long; both panel mounting and 2.hole base mounting: admounting: ad-
bearing: TMS units have 026" air gap TMSA units, .065": $13 / 4 \times 2$ 1/2x 23/4. All 1000 Peak Volts, except 11 N14555 and 11 N 14556 are 2000 Peak Volts.

| Stock No. | Nat'1 No. <br> and Cap. | No. of <br> Plates | Each |
| :--- | :--- | :---: | :---: |
| 11N14550 | TMS-100 | 9 | 2.60 |
| 11N14551 | TMS-150 | 14 | 2.80 |
| 11N14552 | TMS-250 | 22 | 3.30 |
| 11N14553 | TMS-50D* | $5-5$ | 4.40 |
| 11N14554 | TMS-100D* | $9-9$ | 3.20 |
| 11N14549 | TMS-300 | 27 | 3.80 |
| 11N14555 | TMSA-35 | 7 | 3.90 |
| 11N14556 | TMSA-50 | 11 | 4.40 |

## Split stator models.

## NATIONAL NEUTRALIZING CONDENSERS

NC600. For use with 6L6s and similar output tubes. Thumb screw adjustment for varying capacily .5 to 4 mmld . Isolantite insulation. NCBOOA. High voltage disc type for RCA 800 , 35 T , HK54, etc. Screw adjustment; 3-hole STN. For
STN. For $10,45,47$, etc. 3000 VP; 18 mmfd .

| Stock No. | Type | Application | Each |
| :---: | :---: | :---: | :---: |
| 11N14252 | NC600 | For 6L6s, etc. | 32 |
| 11 N14259 | NC800A | For 800, etc. | 3.00 |
| N14476 | STN | For 10, 45, etc. | 2.07 |

BUD SINGLE BEARING MIDGET CONDENSERS
Constructed identical to Midget Condensers with the exception that these condensers have a front bearing only. $.024^{\circ}$ air gap.

| Stock No. | Type | Max | IFD. Min. | $\left\lvert\, \begin{gathered} \text { No. } \\ \hline \text { Plates } \\ \hline \end{gathered}\right.$ | Eac |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $11 \mathrm{N10835}$ | MC-1870 | 15 | 3 | 3 | . 88 |
| 11N10836 | MC. 1872 | 33 |  | 5 | . 98 |
| 11N10837 | MC. 1873 | 50 | 5 | 7 | 1.08 |
| IIN10838 | MC-1875 | 100 | 7 | 14 | 1.23 |
| 11 N 1033 | C-1876 | 140 |  | 19 | 1.37 |

## BLILEY CRYSTALS

CF3 single signal ititer crystal for IF filter. Frequency 455 kc . $\pm 5 \mathrm{kc}$. free of spurious responses $\pm 7 \mathrm{kc} .5$. 29N13855

MC 100 dual frequency crystal provides either 100 kc . or 1000 kc . source. $1000 \mathrm{kc} . \pm .05 \%, 100 \mathrm{kc}$. can be adjusted to zero beat. For alignment of recelvers. 29N13856.

### 8.75

## TYPE AX2 FOR AMATEUR USE

29N13849-160 Meter $\pm 1 \mathrm{KC}$ specifled irequency. 3.75 $\left.\begin{array}{l}\text { 29N13851-80Meter } \pm 2 \mathrm{KC} \text { specifled freq. } \\ \text { 29N13850-40 Meter } \pm 2 \mathrm{KC} \text { specified freq. }\end{array}\right\} \quad 2.80$ 29N13852-20 Meter $\pm 30$ KC specified freq.

CRYSTAL SOCKETS
Millen 33002. $34^{\prime \prime}$ spacing, $125^{\circ}$ pins. Steatite insula-


29N8057
M9NB851
29N8 851.
Ampheno
29N8062. tion.
29 N 8050
Millen 33102.487 spacing, . 095 pins.
30c
30c
30 c
22c
CRYSTAL HOLDER ADAPTORS


Mosley 5-75 adapts $1 / 2^{\prime \prime}$ spaced holder to $3 / 4^{\prime \prime}$ spacing. 29N8054
$34 c$ Mosley 75.5 adapts $3 / 4$ spaced holder to socket with $1 / 2$
29 N 8059.
$34 c$

NATIONAL SHAFT COUPLINGS
All take $1 / 4^{*}$ shalts.
11N8461-TX-8. Isolanttie insulation
IIN8470-TX-9. Stantite insulation.
11N8471-TX.10. Phenolic insulation.
soc
.75 c

## NATIONAL FLEXIBLE SHAFT COUPLINGS



11N14530-TX.12. $45 \%$ O C 11N14529-TX-13. 7 . 1.05 antite insulation $4 S G^{\circ}$. SOLID Isolantite couplings:
 solantite insulation, short lengin of flex. shafting. Drives $1 / 4^{\circ}$ shaft any angle to $90^{\circ}$



## TEKNI-CALS DECAL LABELS

Provides the custom-set builder, the amateur, the manufacturer, and the experimenter with an ideal assortment of decal labels. Each set contains a wide variety of markings with ample duplicates. May be cut oil, combined. or rearranged. Tekni-Cals are easy to apply, handsomely made and give long, satisfacIIN 19885 -Television Markings. Set of over 11N19888-Audio Markings. Set of over 1,000.
 11N19889-Dial Markings. Sel of over 50. 11 N 19890 -Transmitter Markings. Set of over 1,000 11N19891-Receiver Markings. Set of over 1,000. Any Set Above, Each.

## HAM COILS \& CHOKES

## BARKER AND WILIIAMSON <br> Type A <br>  <br> Type B <br> \section*{JUNIOR AND TYPE B INDUCTORS}

Type A. Juniors for powers up to 75 walts tnput with plate voltages up to 850 . Fitted with standard 5 -prong steatite base. Dimensions: $31 / 16 \times 15,1 \times 31 / 4$
Type B for powers up to 150 watts input with plate voltages up to 1500. Steatite brise and plug-in jack mounting. Overall dimensions: $3 / / 2 \times 25 / 8 \times 4^{\circ}$. Capacities shown (In mmf) to resonate the L.F. end of the band can actually be 5 to 20 mmfless because of tube and wiring capacities.

| JUNIORS |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Band | Cap. | Mrf. | Stock No. | Each |$|$| Mrnf. | Stock No. |
| :--- | :--- |


| END LINKED |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | JEL |  |  | BEL |  |
| 6 | 15 | 12N10460 | 1.38 | 14 | 12N10479 | 2.41 |
| 10 | 22 | 12N10461 | 1.38 | 21 | 12N10480 | 2.41 |
| 20 | 34 | 12N10463 | 1.38 | 33 | 12N10482 | 2.48 |
| 40 | 47 | 12N10464 | 1.38 | 36 | $12 N 10483$ | 2.83 |
| 80 | 60 | 12N10465 | 1.38 | 36 | $12 N 10484$ | 3.16 |
| 160 | 105 | 12N10435 | 1.38 | 105 | 12N10438 | 3.44 |


| BC |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{6}$ | 15 | 12N10466 | 1.38 | 14 | 12N10485* | 2.41 |
| 20 | 16 | 12N10469 | 1.38 1.38 | 30 | 12N10486* | 2.41 |
| 40 | 33 | 12N10470 | 1.38 | 37 | 12N10489* | 2.83 |
| 80 | 53 | 12N10471 | 1.38 | 39 | 12N10490* | 3.16 |
| 160 | 100 | 12N10436 | 1.38 | 120 | 12N10440 | 3.44 |

VARIABLE LINK

| 6 |  | JVL |  | BVL |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15 | $12 N 10472$ | 1.38 | 15 | 12N10491* | 1.93 |  |
| 10 | 22 | $12 N 10473$ | 1.38 | 14 | $12 N 10492^{*}$ | 1.93 |
| 20 | 21 | $12 N 10478$ | 1.38 | 25 | $12 N 10494^{*}$ | 2.00 |
| 40 | 31 | $12 N 10477$ | 1.38 | 29 | $12 N 10495^{*}$ | 2.28 |
| 80 | 46 | $12 N 10478$ | 1.38 | 46 | $12 N 10496^{*}$ | 2.61 |
| 160 | 95 | $12 N 10437$ | 1.38 | 110 | $12 N 10444$ | 2.88 |

Steatite lack Bar Assembly for end or center link Type B in. ductors (former type A56).
12N10497
856
Jack Bar
$12 N 10498$
3.44


## B \& W TYPES T AND HD

Type T: Up to 500 watts input. Link for variable center-linked models hinged on fack base-sarne link for plug-in coils on all bands. Matches load imp. of 72 ohms. Mig. $71 / 2 \times 61 / 4 \times 5^{\circ}$.
Type HD: Heavy duty, up to 1000 watts input. Similar to type T. Heavy sleatite plug bar and jumbo banana plugs. Both types center tapped. Mitg. space $11 \times 9 \times 7^{\circ}$
Capacities: Can be 5 to 20 mm less than shown, because of tube and wirting capacitles.

| TYPE T |  |  |  | TYPE HD |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Band | Cap. Mmf. | Stock No. | Cost Each | Cap. <br> Mmt. | Stock No. | Cost Each |


| CENTER LINKED |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | TCL |  |  | HDCL |  |
| 10 | 19 | 12N10499 | 2.89 | 20 | 12N10511 | 5.85 |
| 20 | 21 | 12N10501 | 2.96 | 20 | 12N 10513 | 6.54 |
| 40 | 34 | 12N10502 | 3.30 | 20 | 12N 10514 | 6.88 |
| 80 | 55 | 12N10503 | 3.65 | 34 | $12 N 10515$ | 7.56 |
| 160 | 100 | 12N10445 | 3.93 | 105 | 12N10447 | 8.60 |



[^5]
## BARKER \& WILLIAMSON TURRETS

Fast, positive bandswitching for amateur rigs. Shorts unused coils, eliminates absorption effects. Cover 80, 40, 20. 15, 10 meter bands by shaft rotation 3/8" mtg. hole

## BAND HOPPERS

For up to $\mathbf{7 5}$-watts. Uses same coil design as Juniors. Tunes with 50 mmf variable capacitor. For interstage coupling between 2 beom. power tubes or beam-power tubes and triodes 12N10523-Type 2A. Mig. space $3^{11}, /_{10} \times 2^{\circ}$. Depth $3^{\circ}$
4.81

## 75 AND 150 WATT TURRETS

75-watt for link coupling single-ended or push-pulf low-power stages with tubes at voltages up to $850.65^{\circ}$ dia. $4^{\circ}$ deep. 150 walt for single, double-ended circuits, voliages to 1000 .
12N10524-75-watt JTCL center linked, center tapped.... $\} 9.38$ 12N10526-150-watl BCL, center linked center tapped. Each. . . 11.69 12N10527-150-watt BEL. end linked, untapped, Each........... 11.69

TURRET DIAL PLATES
Sturdy aluminum with baked enamel finish. $21 / 4^{*}$ dia. For use with lurrets and band hoppers listed above.

25c
JOHNSON SPRING CLIP FOR INDUCTOR COILS Takes No. 20 to No. 10 wire. Lock screw adjustment.
$12 N 16749$-Spring Clip. Each .....................................


RELIANCE RF CHOKES
4 pie.wound sec. on Isolontite form. 12N10106-2.5 ohmi 150 ma. 50 ohms. 22c 12N10109-2.1 ohm: 250 ma . HD type

## PARASITIC SUPPRESSOR

Non-inductive 50 ohm resistor with choke of 0.3 mh . 003 ohms DC. 12N10021-Each

## OHMITE POWER LINE CHOKES



BUD HF AND UHF R.F. CHOKES


12 N 10108 -Fig. 1.4 mh. 750 ma. 1.4 ohms DC... 21 C $5.7 \mathrm{mh}, 750$ ma. 1.4 ohms DC.
12N10124-Fig. 2. $2.5 \mathrm{mh}, 250 \mathrm{ma}$. 16 ohms DC.

## NATIONAL CHOKES

 12N 1442 I2N1 4422-R300-1 mh, 10 ohms DC res. 300 mn . wire leads (A)..
12N14423-R300U-As above, chas. mtg . (B)


OHMITE RF PLATE CHOKES
Single layer wound on low power factor steatite or plastic core. Non-magnetic mitg. brackets with Z.7.

| Stock No. | Mod. | Range | M.H. | Dime | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12N10084 | Z-460 | 320 to 520 MC | 0.20 | 1/2x ${ }^{5} /{ }^{6}$ | 19c |
| 12 N10097 | 2-235 | 160 to 350 MC | 0.84 |  | 19 c |
| 12N10086 | 2-144 | 80 to 200 MC | 1.8 |  | 19c |
| 12N10087 | 2.50 | 35 to 110 MC | 7.0 | . | 19c |
| 12N10092 | 2-28 | 20 to 60 MC | 21.0 | $13 / 4{ }^{3}$ | 25c |
| 12 N 10093 | 2-14 | 7 to 35 MC | 44.0 | 1 | 40 c |
| 12N10094 | 2.7 | 3 to 20 MC | 84.0 | $6 x^{\circ} 0^{\circ}$ | 92 c |



## LATEST LOW-COST HAM EQUIPMENT

## STANCOR 125-WATT TRANSMITTER KIT



Model ST-202-A. Bulld your own compact desk type transmitter to cover the 80 , $40,20,15,11$ and 10 meter bands. Crystal controlled CW. AM and FM modulator units easlly added If desired. Cabinet has built-In chassis, marked panel and botiom plate, plus all circult and construction components, and instruction manual. The only extras needed are millammeter, five tubes, crystals and set of 150 watt B \& $W$ standard PA tank-colls. Simplified band-switching exciter circult. Has adjustable link coll antenna coupling. Simultaneous screen keying of both exciter tubes. Break-in operation. Uses 6V6, 6LG, SR4GY, 5 Y3G7. For PA you can use a 35T, 35TG, HK54, 5514, 811 or 812 (widerange neutralizer provided). Terminals provided at rear of cabinet for key, antenna feed line. AM modulator and remote standby switch. Gray wrinkle finish case meas ures $14-1 / 16 \times 9 \times 13-3 / 16^{\prime \prime}$.
29N21020-Shipping Weight: 55 lbs
92.80

## STANCOR MOBILE TRANSMITTER KIT



Model ST-203A. 25 watts plate power input. For mobile and fixed location phone, "Press-to-talk" op eration. Covers 27 to 32 MC band. Tubes used: 6V6 harmonlc oschllator working from 7 MC crystals, 2E26 Class C amplifier, 6 JS grounded-grid speech amplifler, 6VE's push-pull Class A modulator. Accessories needed: Tubes, Acrystals needed: ubes, crystals, push-to-talk switch. dynamotor or vibrator pack to de$200 \mathrm{MA}, 6.3$ volts AC/DC $200 \mathrm{MA}, 6.3$ vols AC/DC whip antenna system and remote control components (SPST switch, mike jack, cables, etc.). Case measures $8-5 / 8 \times 7-3 / 8 x$ $6-3 / 4 \%$. Supplied with punched chassis, transiormers, colls sockets, switches, metal cover and mounting base. Instructions Included. Shipping Welght: 11 lbs. 29N21024-Transmitter Kit only, not wired.
44.70

29N21034-As above, wired and assembled
..58.90

## SPERTI TWO-WAY HAND TRANSCEIVER



New, exclusive design stable oscillator and receiver. Covers 144-148 MC (2-meter band). ldeal for transmitter hunts, emergency work. boaing, fying or racing. Maximum periormslble size and weight. Push-to-talk switch. Frequency is set at the factory and will stay in band unless tampered with. Slide-rule dial can be locked. Folding dipole antenna. Case measures $10 \times 3 \times 2^{\prime \prime}$. Shpg. Wt: 5 lbs 29N22450-Per unit, less batteries 33.81 20N20627-(2) "B" Batt. for above. Ea. 1.74 20N20622-"A" Batt. (2 required) Ea... 61/2\$

HARVEY WELLS 50.WATT

## PHONE \& CW TRANSMITTER

No plug-in colls! Covers 8 bands from 80 to 2 meters at the flick of a swltch. osclllator or multiplier all bands. No
 oscry except to resonate the antenna sary except to resonate the antenna. from AC, Vibrapack or dynamoper. Use from AC, Vibrapack or dynamo:or. Use as exciter when increasing oulput. Includes the following tubes: 6AQS crystal oscillator, $6 A Q 5$ bulter-muliplier, 807 inal amplifier, (2) 6L6 Class B modulators. Controls include: band switch, excliation, antenna loading, ampliffer tuning, power-on, carrier-on, menslons: $123 \times 73 \% \times 9{ }^{\circ}$. Shipping Welght: menslo
201 lbs.
20N21038-With Tubes.
99.50

30N21039-Power supp.for above. 39.50

MEISSNER SIGNAL SHIFTER KIT
Amateurs, save money! Build this newly designed precision slgnal shifter. Features bullt-in 10 , 11,15 , ter turret mounted colls. 6-position band switch, no colls to change. oscillator 807 oscher amplifier. doubler amplifier. tue inge indicator. Factory assembled shlelded turret unlt. Voltage requlation. Built-1n power supply uses VRISO, VR75, (2) 5Y3 and delivers 6 watts output. Vernier dials. With instructions, tubes and all necessary parts including solder and wire. Over-all dimensions: $13-13 / 16 \times 13-1 / 4 \times 8-3 / 4^{\prime \prime}$. Shpg. Wt: 23 lbs . 29 N2 1042 .
$\qquad$ 64.75

Model EX. As above but all wired ready for use.
29N21044-Shipping Weight: 23 1bs.
.99 .50
$29 \mathrm{~N} 10394-6$-meter coll strip for above kit.................... 4.00
29 N10384-160-meter coll strip for above klt................. 4.00

## MEISSNER FMX PHASE MODULATOR

Designed exclusively for use with Model EX signal shifter. Combination of two gives amateur a complete low power phone and CW transmitter at a low price. Devlution control of modulator allows a swing of 5 to 10 KC at 28 MC . Input for high impedance crysal or dynamic mike is provided. Any Class C amplifier the signal shifter can

drive becomes a phase modulated amplifier. ${ }^{\text {F Fits }}$ in place of power supply. Plate and filamnet voltages are secured from signal shifter power supply. Tubes required: 6SL7, 6SG7 and VR-150.
29N2 1099-Shipping Weight: 4 lbs. Less tubes......
12.00

## SILVER ABSORPTION WAVEMETER

Mode1 903. 1600 KC to 500 MC . Lowloss tuning capacitor, inductor socket, loss runing resonance-indicating lamp. Wide ire-quency-two tuned circuits. On sixranges inductor is paralleled with capaci-
lor, seventh $(400-500 \mathrm{MC})$ is quarterfor, seventh ( $400-500 \mathrm{MC}$ ) is quarterwave transmission line with series
tuning (nolamp coll). Slze: $31 / 2 \times 31 / 2 \times 3 \%$. tuning (no lamp
29N21291-Shpg. Wt: \& lb........ 3.30
Plug-In Inductors - Each $65 \$$ MC MC
29N21292..1.6-3.7 29N21296.. 40-100 29N21293.. 3 5-8 29N21297..100-300 29N21294. 8 B-15 29N21298..400-500 29N21295....17-40 MC


SILVER FIELD STRENGTH METER
Model 903 A . Converts the Model 903 Absorption Wavemeter described above to a fleld strength meter by adding a 1 N34 rectifler $0-1$ milliammeter senlitivity control and phone jack to the unit. Shpg. Wt: 2 lbs.
unit. Shpg.
29 N 2121290.
14.50


SIMPSON MODEL 240 HAMMETER VOM


Complete, wide range AC-DC VOM to check high voltages and components of transmitters and recelvers. No external multipllers needed. Sensitivity: 1000 ohms/volt. Rugged, accurate $3^{\prime \prime}$ meter. Ranges: $0-15 / 150 / 750 / 3000 \mathrm{AC}$ volis; 0 15/75/300/750/3000 DC volts; 0-15/150/ 750 DC MA: $0-3000 / 300,000$ ohms. Size: $3 \times 5-7 / 8 \times 2-1 / 2^{\prime \prime}$. Shipping weight: 3 lbs. Supplied with, test leads and attached al ligator clips. 29N21579...
24.11

# hohallicrafters amateur recelvers 

This model combines in one superbly engineered unit, a top-flight standard and VFH communications recelver covering all frequencies from 540 KC to 110 MC . The tremendous frequency range is made possible by "split-stator" tuning system and the use of dual if transformers. A discriminator and two limiter stages are avalable on bands 5 and $6(27$ to 110 MC ) to permit reception of FM signals. True high fidelity is assured by the powerful 8 -wat audio system with flat response from 50 to 15,000 cycles. Contrals are arranged for maximum conventence and simplicity of operation. Freedom from drift and maximum stability are provided by temperature compensation and the use of Type VH-150 voltage regulator. Crystal filter circuit combined with variable IF channel width offers six point selectivity on four lower bands. Band-spread dial calibrated for 3.5, 7. 14 and 28 MC bands plus logqing scale. Crystal phasing. CW pitch, sensitivity, four-position tone control or low, medium, HI-FI and bass are all convenienily located on the front panel. External connections include 500 and 5000 ohm speaker outputs, phone jack, phono input jack, socket for extemal power, doublet and single wire antenna and remote control connections. Fed dot morkings for broadcast reception and green for FM reception, simplify operation for general use. Tubes: (2) 6 AG5 7F8, 6SK7, 6SG7, (2) 7H7, 6H6, 7A4, 6H6, 6SL7. SUG rectitier.
Attractive, modern styled cabinet hatmonizes with the most Iuxurious surroundings. Finished in arich, deep gray with satin chrome trim. Top opens on piano hinge for easy accessibility to tubes and chassis. Dimensions: $20 \times 101 / 4 \times 16^{\circ}$ deep. Shipping Weight 71 lbs. Complete with tubes. For los-125 volis, $50 / 60$ cycles AC.
30N21070-Model SX-42, Less Speaker and Adjustable Base...Net.. 275.00 30N21069-Model SX-42U. As above but $115-250$ v., 25-60 cyc....
287.50

Outperforms any ordinary broadcast recelver on any frequency-standard broadcast, short-wave or FM. It represents an outstanding achievement in all-wave cas iver engineering. Simplicity of operation combing achievement in allh superb reception
 never before found in this type of equipment. A single tuning control covers crystal calibration oscillator is built in enabling you to adjust the dial polnter for pin-point accuracy. The $5 X-62$ gives you continuous coverage from 540 KC to 109 MC on 6 bands. Push-pull output delivers a full 10 watts of cud to power flat from $50-15,000$ cycles. A bass-boost circuit and 4 -position tone control permit enough variation of ione to please the most critical listener. Two if and two tuned RF stages assure maximum sensitivity and improved signal-tonoise ratio on VHF. A 6-position selectivity switch with crystal filter operates on frequencles between 540 KC and 30 MC . Other features include separate RF and AF gain controls, temperature compensated and voltage requlated oscillator, 500 and 5000 -ohm outputs, 300 -ohm antenna input and a special socket for external power. Plano hinged, gray steel cabinet with satin chrome set measures $20 \times 10 \% \times 16^{\circ}$ deep. Shipping weight 70 Ibs. Tubes: (2) 6 AGS 7 FB ,
 fier. For $105-125$ volits, $50 / 60$ cycles AC.
30N21079-Model SX-62. With Tubes, but less speaker........... Net. 269.50 Model SX-62U. Same as above except for $110 / 220$ volts, $25 / 60$ cycles AC.
$\qquad$ ... 282.00

Here is all you would expect from a truly fine communications receiver plus extra coverage to Include the 6 -meter and FM broadcast bands. Offers continuous coverage from 540 KC to 55 MC with an additional band from 86 to 109
 MC. One tuned RF stage and 7F8 dual triode converter assure an exceptionally gC. One tuned RF stage and DF8 dual triode converter assure an excepilionally good signal-to-noise ratio. ional if iransformers provide a 455 KC IF channel tor operating irequencies below 44 MC , and a 10.7 MC IF channel for the VHF
bands. Audio response to 10,000 cycles. Switching of $1 F$ frequencies is autobands. Audio response to 10,000 cycles. Switching of $1 F$ frequencies is automatic. Separate electrical bandspread dial is accurately cal ibrated for the amateur 3.S, $7,14,28 \mathrm{MC}$ bands. Other important performance features include temperature compensation for freedom from drift, series iype nolse limiter, permeablifit-adjusted inductances in the RF circuits, separate RF and AF gain controls, and adjustment on rear for "S" meter. Speaker output is tapped for 500 and 5000 ohms. Uses the following tubes: $6 \mathrm{BA} 6,7 \mathrm{FB}, 6 \mathrm{SG7}$, (2) 6 SH 7 , wh6, 6 ALS , $6 \mathrm{~J} 5,65 \mathrm{~F}, 6 \mathrm{~V} 6$, 5 Y 3 GT rectifier, Handsome gray steel cabinet with satin chrome trim and piano hinge top, fits into any surroundings. Dimensions: $18 \frac{1}{2} \times 87 / 8 \times 12^{\prime \prime}$ deep. Shipping weight 44 lbs. For $105-125$ volts, $50 / 60$ cycles AC
30N21064-Model SX-43. With Tubes, but less speaker......NET........ 159.50 Model SX-43U. Same as above except for $110-220$ volts, $25-60$ cycles AC.


## R-42 and R-44

## MATCHING SPEAKERS

MODEL R-42 SPEAKER. Features the bass reflex principle of sound repro duction in a sleek, highiy functional design cabinet to match the $S X-42$ and SX-62 recelvers shown above. An $8^{\prime \prime}$ heavy duty PM speaker gives excellent full ranqe response. Two-position tone switch on front panel permits rapid chanqeover for communications or high fidelity reception. Terminals on rear for 500 -ohm input. Satin-finish, gray metal cabinet measures $17 \times 11 \% \times 121 / 2^{\prime \prime}$ deep.
30N21072-Shipping W'elght 30 lbs $\qquad$
MODEL R-44 SPEAKER. Large oval size in a professional style cabinet with ample baffing, gives excellent low frequency response. Especially designed as a companion unit for SX-43 recelver shown above. Heavy duty, PM speaker in $6 \times 9^{\prime \prime}$ size. Two-position tone switch. Dimensions of rich satin-gray finish cabinet: $181 / 2 \times 81 / 2 \times 95 / 8^{\prime \prime}$ deep.
30N21066-Stupping Weight 19 tbs.

Superlor performance at moderate cost. Frequency range in 4 bands, continuous from 540 KC to 43 MC . Variable pitch BFO and 3-step tone control. "Microset permeability tuned RF colls for high sensitivity. Special break-in terminals operate to cut out recelvet when your transmitter is in operation. Has latest series nolse Ilmiter, AVC, CW-Phone switch, phone jack, RF sensilivity and volume controls. Bandspread control with full electrical bandspread. For eitber single wire or doublet antenna. 7 tubes plus rectifier and ballast tube: 6SG7 RF Amp., 6SA7 Conv., 6SA 7 lst. IF Amp., 6SK7 2nd. IF Amp., 6H6 2nd. Det., 6SC7 BFO and AF Amp., 25L6GT Output, 2526GT Rectlfter and Ballast tube. Attractive satin black steel cabinet with brushed chrome trim. Top opens on piano hinqe. Size: $181 / 2 \times 9 \times 9 \frac{1}{2}$ deep. Complete with speaker. 115 V .25 60-cycle AC-DC.
30N21087-Shipping weight 30 lbs
79.95


S-53
7 TUBE AC RECEIVER

Employs new 2 MC IF for improved Image rejection. Positively eliminates amateur images or repeat points within the amateur bands. Incorporates the latest transformers. Bullt-in PM dynamic speaker, $21 / 2$-watts output. Side rule type dial. Separate bandspread control and scale for fine tuning with full electrical bandspread. Frequency range: 5 bands from 540 KC to 54.5 MC . External connections for phone tips, phono input single wire or doublet antenna. 7 tubes nections for phone tips, phono input, singie wire or doublet antenna. $t u b e s$ plus rectifier: 6 CA asc.a 6 BA 6 Mixer, wo 6 BA 6 Amps, 6 H 6 Det., AVC black steel cabinet with brushed chrome trim. Top opens on plano hinge. Size: $127 / 8 \times 7 \times 7 / 6^{6}$ deep. 115 -volt $50 / 60$ eycle AC. 30N21063-Shippling Wt. $19 \mathrm{lbs} . .$. $\qquad$ 69.95 Model S53U same as above but $115 / 220$-volt, 25 -60-cycle operation. 30N21104.

A specially designed and constructed recelver with bullt-in speaker. Components are made to withstand the effects of sea alr and humidity. Temperature compensation assures drift-iree reception. Permeability adjusted "microset inductances in the RF circuits add to the stabllity and high quallity. Besides the four tuning ranges, from 132 KC to 13 MC there are three pre-tuned channels for lixed frequency operation. Has a 1020 -cycle range filter for batter volce reception on ranges. Equlpped for 110 volt AC operation: provision is also made for the addition of power supply combinations listed below permitting operation from elther 6, 12 or 32 -volt batteries. 9 tubes plus rectifler: 6SS 7 RF Amp., 7A 8 Conv. two 6SS7 IF Amp., 7C6 Det., 7A6 ANL, 6SS7 BFO, 35L6GT Output and 35 Z5GT Rect. Functionsl gray steel cabinet with plano hinge top. With doublet or single wire antenna connection, phone jack and 6, 12 or 32-volt sockets. Size: $18 \frac{1}{2} \times 81 / 2 \times 95 / 8^{\prime \prime}$.
149.50

30N21059-Shipping Weight 31 lbs...

30N21061-12-valt Jibrapack for above.
30N21062-32-volt Vibrapack for above. 22.50
22.50

## HT-18

MASTER OSCILLATOR

Directly calibrated variable master oscillator. Complete in one case: narrow band $F M$ and callbrated five band VFO, with bullt-in power supply. Power output from 4.5 watts at 3.5 MC to not less than 2.5 watts at 29.7 MC . Dial directly calibrated in 7 ranges to all amateur bands from 3.5 to 29.7 MC. NBFM avallable on all ranges. 5 M deviation 1200 cps on all frequencles. Audio response flat from 100 to 5000 cps . Proviston for oscillator keying for break-in operation. Check switch for beating osclllator agadnst incoming signal without putting transmitter on air. Buili-in pre-amplifier for high impedance crystal or dynamic microphones. 3 crystal sockets for spot frequency operation. Tubss used: (3) 6BA6, 6L6, VR105, VR150, 5 Y3GT rectlfer. $105-125$ У. $50 / 60$-cycle AC. With tubes, less crystals. $121 / 4 \times 7 \times 7 \%{ }^{\prime \prime}$.
30N21074-Shlpping Welght 25 lbs.
110.00


## HT-19

Offers narrow Band FM and CW, plus provisions for AM, to give maximum flexibllity on 5 bands. A completely self-contalned, medium power unit for the modiblity on 5 bands. A completely seli-contained, medum power unit tor the modern amateur. Consists of a crystal conirolled or VFO oschliator, a irequency modulator with speech amplifier and a bulfer and inal amplifer. High stability and low 3 FM distartion The 800 -RPM tan. Plate input 185 -wat ts for approximately 125 -watts output. 3-inch 800 -RPM Ian. Plate input 185 -watis for approximately 125 -watts output. Operation switch has 3 crystal positions plus VFO and NBFM; band selector switch changes multipller colls 3.5-4, 7-7.3, 14-14.4, 21-21.45 and 27.16-29.7 MC. Check switch turns on osclligtor for spotting signals on recelver. Plate switch controls all "B" power and makes connectlons for remote conirol. Deviation control adjusts for 0.4 ratio on all bands. 5 tubes plus 2 voltage regulators and 3 rectifters: Three 6BA6-Osc. Freq. Modulator and Speech Amp. 6 L 6 Buffer, $4-65$ A Final, VF-150 and VR-105 Regulators, 5 Y3GT and (2) 866 Rectifiers. Attractive gray steel cabinet with satin chrome trim. Piano-hinge top with interlock. Size: $20 \times 10 \% \times 16^{\prime \prime}$ deep. For 115 -volt, $50 / 60$-cycle AC operation.
30N21347-Shpg. Wt. 98 tbe.
359.50


## MODERATELY PRICED NATIONAL RECEIVERS

## NC-33 COMMUNICATIONS RECEIVER



A top performer in National's fine IIne of quality recelvers packed with expenslve set features yet priced within the modest budget. Four tuning bands provide contlnuous cover age from 500 KC to 35 MC. Main tuning and bandspread capacitles connected in parallel on all bands for bandspread operation at any frequency within tuning range. Fully callbrated dial-stations can be readily separated and logged. Amateur, police and foreign broadcast bands clearly identified. Band-switching achieved with 4 position swltch. Other big set features include Automatic Noise switch. Other blg set features include Automatic Noise Limiter, CW oscllator and pltch control for adjustment of beat note, Send/Receive Switch, and cholce of two audio outputcircults, 5" PM Speaker. Phone-Jack cuts out bult-in speaker when headphones are in use. Antenna input deslgned for any single wire or doublet antenna. Tunes to ship callbrating and international SOS band. Front-panel mounted controls Include: Main tunlng, band selector switch, beat osclllator pitch control, code-phone switch, nolse limiter switch, and audio gain.
Now superhet circuit uses latest type high efficiency tubes: 12SA7, 12SG7, 12H6, 12SL7, 35L6GT, 35Z5GT, Rectifier, For 10 s-125 V, $50-60$ cycles AC or $105-125 \mathrm{~V}$ DC. Cabinet has Gray enamel finish. $161 / 2^{\prime \prime} \times 83 \%^{\prime \prime} \times 81 / 2^{\prime \prime}$. 30N21267-With Tubes. Shpg. wt. 24 tbs..
57.50

NC. 57 RECEIVER


Sets a new high for performance in the moderate price field! Provides Phone and CW reception over the entire frequency spectrum of 550 KC to 55 MC in 5 bands, Built-in power supply, PM speaker and front panel mounted controls assure accurate, stable operation. Voltage stabllized osclliator circult holds short wave signal steady when voltage changes. Controls include Main Tuning Bandspread Tuning, Band Switch, RF Gain RF Trimmer, BFO-MVC-AVC, ANL Switch, AF Gain, BFO Pitch, Tone Cóntrol and On-Off'Switch.
Superhet uses: 6SG7RF amp., 6SB7Y conv. 2-6SG7 IF amp., $6 H 16$ Det., AVC, ANL, 6SN7 Audio amp., BFO, 6V6GT Audio amp. 5 Y $3 G T$ rect., VR- 150 voltage rect. Antenna terminals for single, double or co-ax antenna lead in. Provision made for connecting external "S" metet plus other accessortes. 83/4. Wt. W3 1bs. Complete with tubes. $83 / 4 \mathrm{~m}$. Wt. 33 lbs . Complete with tubes.
30N21266-NC-57 Recelver.. $\qquad$ 89.50

30N21274-"S" Meter Ht. 2 lbs. $\qquad$ ...14.95

## NC. 173 COMMUNICATIONS RECEIVER

Appearance identical to NC-183 at right. Latest model for amateur and commerclal use, with complete coverage 540 KC 1031 MC, plus $48-56 \mathrm{MC}$ for Amateur 5-meter band. Separate bandspread tuning knob and dial for $80,40,20,10$ and 6meter amateur bands. New "double-action" type nolse limiter with variable threshold control for both CW andphone signals. Separate AVC cmplifier permits using AVC on phone and CW. New wide range crystal IF fllter offers six positions to meet all recelving conditions.
Other features include " $S$ " meter In AVC circuit for use witt phone and CW slgnals, continuously variable tone control headphone and phono jacks on front panel. 3.5 wat ts audic output at 8 or 500 ohms for speaker operation, Antenna input circuit equipped with panel irimmer for maximum performance
with anyantenna. Superhet circuit with 11 tubes and rectifierWh.F. Amp., separate stablized HF osc. ist det. 2 IF's diode 2nd det AF limiter, AVC amp., stabilized BFO, 2 AF stages. For $110-120$ or $220-240$ vo, $50-60$ cycles. Gray metal cabinel, $19 \% \times 101 / 8 \times 121 / 2^{\circ}$. Complete with tubes.
189.50 30N21256-Rack Mounting Receiver. Shpg. wt. 70 ibs.. 189.50 30N21256-Rack Mounting Receiver. Shpg. Wt. 10 Ibs... 189.50
30N2 1255 -Table Model Speaker, 8 ohms imp. Wt. 12 lbs.... 10.00 30N21257-Rack Mntg. Speaker. 8 ohms imp. Wt. 12 lbs.. 10.00 30N21279-NBFM Adaptorfor Recelver above. Wt. 3 lbs... 17.95

HRO. 7 COMMUNICATIONS RECEIVER


Ulita-modern HRO recelver with many new features! Widerange adjustable selectivily with 6 -position switch for crystal range adjustable selectivity with 6-position switch for crysial
filter operation. Calibrated dial for complete coverage plus maximum bandspread on a dial for complete coverage plus maximum bandspread on amateur bands. Plug-in coll sets for $1.7-30 \mathrm{MC}$-adjust for radio range, communications, marine, and broadcast-band frequencles by adding coll sets for $50-430$ KC and 480-1700 KC. Automatic nolse limiter cllps nolse on both positlve and negatlve peaks, provides AVC for code reception. Two new minlature tubes, high frequency oscillator and voliage requlator for extreme oscillator stability. Acces sory socket gives 6.3 volts $\mathrm{AC}, 150$ volts DC requlated, and 240 volts DC unregulated for $F^{\prime} M$ adaptor, crystal calibrator or HF converter.
Radio-Phono switch, 2 tuned RF, 2 IF stages manual and AVC, callbrated "S" meter, micrometer-type dial with 20-to-1 precision gear drive, recelver disabling terminals for transmiting. 1 litube plus voltage regulator circuit assures high signal-to-noise ratio image rejection, sensilivity, Requires
power supply listed below. Gray enamel cabinet. $191 / 2 \times 10 \times$ power
30N21253-HRO-7 Rec., tubes, coils. Wt. $601 \mathrm{bs...292.50}$
30N21252-Matching MCR Speaker. Shpg. wt. 10 lbs...... 12.00 30N21265-Power Supply for Recelver above. Wt. 15 lbs. (Operates from $115-230$ volts $50-60$ cycles)................... 20.36
30N2 1280 -NBFM adaptor for Recelver above. Wt. 3 lbs... 16.95
DELUXE NC-183 COMMUNICATIONS RECEIVER


Latest engineering and radio circuit developments in a modern high gain superhet clrcult. Complete frequency coverage 540 high gain superhet circult. Complete frequency coverage 540
KC to 31 MC plus 48 to 56 MC amateur bands, Two tuned RF stages provide extremely high sensitivity andimagerejection. Minimum drlft for phone or CW reception assured by voltage regulated oscillator and BFO. Separate main tuning and bandspread dials, calibrated directly in frequency and with separate logging scales. Six-position crystal filter ranging from "Broad" to "Sharp" permits reception of phone or CW signals atmaximum level of intelligibility despite channelinterference. Noise limiter suppresses electrical interference on both phone and CW.
Illuminated signal strength meter with adjustable sensifivity. Output circuit uses two 6 V 6 tubes providling undistorted output of 8 watts, with 11 watts maximum. Ouiput terminals for put of 8 wat ts, with 11 walts maximum. Output terminals for impedancerecord-player pick-upplus Narrow Band FM adapior impedance record-player pick-up plus Narrow Band FM adaptor unit. Highly-efficient low-drain tubes include: 2-6SG7 RF

 11 miter, $1-6 \mathrm{SJ} 7$ AF , $1-6 \mathrm{JS}$ phase inverter, ${ }^{2}-6 \mathrm{~V} 6 \mathrm{GT}$ audio
output, $1-\mathrm{VR}-150$ and $1-5 \mathrm{U} 4 \mathrm{G}$ Rectifier. For $110-120$ or 220 output, $1-V R-150$ and $1-5 U 4 G$ Rectifier. For $110-120$ or $220-$
240 vo, $50-60$ cycles AC. Smooth Gray enamel steel cabinet. $240 \mathrm{~V} \cdot 150-60$ cycles
$19 \% / 4 \times 101 / 8 \times 15 \prime$.
30N21268-Receiver with Tubes, Wt. 80 lbs....... 268.00
30N21269-Matching 10" Speaker. Shpg. wt. 12 1bs....... 14.00
30N2 1270-Narrow Band FM Adaptor. Shpg. wi. 3 lbs.... 16.95

## OTHER NATIONAL RECEIVERS \& ACCESSORIES AVAILABLE

30N21271-HFS Kecelver/Converter. Wt. $25 \mathrm{lbs} . . .142 .00$
30N21272-Power Supply for above. Shpg. Hit 15 ibs.... 22.43
30N21259-NC-46 Receiver. Shpg. Wt. 50 lbs................ 97.50
30N21258-Speaker for above, In cabinet. Wi. 9 lbs........9.9.90

30N21273-NC108T FM Receiver-Tuner. Wt. 24 lbs. 99.50
30N21275-Tilt Base for NC-57. Wt. 5 lbs......................... 3.95
30N21276-TUt Base for NC-33, NC 108, HFS, HR07....... 3.95
30N21277-Tilt Base for NC-173. Wt. 5 1bs....................3.95

# LAST MINUTE SPECIALS 



## JUST RELEASEDI NEW GARRARD *TRIUMPH* 3-SPEED CHANGERS

The fanous Garrard changer - "Bullt like a battleship with the precision of watch" $n$ now with three speeds. Too late for inclusion in the regular section of our catalog. Plays all records of all sizes and all speeds, automatically (78-45-33-1/3 ad manually. Fectures). No records of any type need be plaryod manually. Features a fully automatic stop regardless of the type of record belng played. The motor is heavy-duty, quality engineered to assure constont speed with no wows, wavers or variations. Record may be relected at any time. Truetangent pickup with minimum tracking error. Specially desiqned tonearm eliminates disturbing resonance. Mounting dimensions: $15 \frac{1}{\prime \prime \prime} \times 131 / 2^{\prime \prime} ;$ requires $51 / 2^{\prime \prime}$ clearance above base plate and $21 / 20$ below
Model C. 100-130-volt, 60-cycle AC. With turnover crystal cartridqe and needles.
34N22604-Shipplng Weight: 21 lbs.
49.50

Model E. As above but supplled with two GE plug-in professlonal series variable reluctance cartrides.
34N22605.,.................................................................. 59.50
Model P. As above, but with two Pickerlng high fidelliy car. 34N22606. $\qquad$ NOTE: Modele E and Prequire preamplifters. See page 48.


## TRIONIC $16^{\circ}$ TRANSCRIPTION ARM

Now type slide cartridge holder allows instantaneous mountIng. Any cartridge not over $1 / 4$ wide may be used with the arm. Leaf spring clamp connects the pickup to ground. Qulck iwn til released. Can be used with all records is held securely ation of cartridan be used with all records up to $17^{\circ}$. Instal lation of cartridge is simple and effictent, silver-plated, Height adjustment from $1-11 / 16^{*}$ to $2-5 / 16^{\circ}$ above base plate. Welght adjustment from 5 grams up. Arm rest. Grey plate, Weight adjustment from 5 gr
wrinkle finish, brushed chrome trim. wrinkle finish, brushed chrome trtm.
22.05


## LIVINGSTON "UNIVERSAL" PICKUP ARM

New eurved reproducer arm accommodates practically any eartridge, ineluding Lp types that use a 1 mll stylus. For use with new Columbia LP records plus regular or studio recordings. Tracks well on $12^{\prime \prime}$ or $16^{\prime \prime}$ table. Complete with two sliding counterweights-one to vary stylus weight to 6 or 8 grams pressure for LP records, other for regular records. 34N13484-Shipping weight 3 lbs . $\qquad$ 14.95

## QUANTITY LIMITED!



## SPECIAL VALUE <br> RECORD CHANGER

Improved automatle record changer. Jam proof and child prool-tone arm can be moved at any ilme without jamming unit or changing jamming unit or changing adjustments. Plays records manually or automaticallyplays ten $12^{\prime \prime}$ or twelve $10^{\prime \prime}$ records af one setling. Single control for aimplifed operation. Lightwelght erystal tone arm assures hi-fidelity reproduction. Constani-speed 110 volt 60 cycle AC motor. Base plate $114 / 2 \times 1342^{\prime \prime}$. Requires $6^{\prime \prime}$ above and 2"' below panol board. 99N9593-Shpg. wt. 12 lbs..

Oniy 10.95

## TWO-WAY INTERCOM SYSTEM

Complete two-way system! Ideal for nurseries, restourants factories and homes. Units quickly installed without special tools. Remote stations can be placed up to $2,000 \mathrm{ft}$. from Master stations. Uses 50 L 6 and 12SJ 7 audio amplifiers plus Plastic cabinet. $8 \frac{1}{4} \times 6 \times 4^{1 / 2}$. With tubes, 99 N 552 ft . of hookup wire. 99N9582-Shipping Weight: 8 lbe.
12.95

19N16013-Extra wire. $\qquad$ Per......| .... 11/2

## MICROGROOVE DUAL SPEED ADAPTER

Adapt your standard 78 RPM rec ord player to ploy the new 33-1/3 and 45 RPM LP records. Complete kit. Including a speed reducing table which rests on top of the regular turntable. Has a simple planetary mechandsm to reduce rotation. Special plckup assembly with switching arrangement to engage or release the speed reducing mechanlsm. Corn-
 plete with Astatic FLC LP crysto


## LOUDNESS CONTROL

Living ston Mode1 MB. A new superb tone-compensated unit that will increase your listening pleasure. Combines the best features of conventional tone and volume controls to provide ventional tone and volume controls to provide
the proper aural balance of all levels. Compenthe proper aural balance at all levels. Compen-
sated for 22 intensity levels. Designed for chassated for 22 Intensity levels. Designed for chassis or panel mounting; shielded, compact and requires a mounting space of only $21 / 2^{\prime \prime}$ deep by $2-1 / 8{ }^{\circ}$ in diameter.
34N13517..
9.95

## PORTABLE RECORD CHANGIK CASE

Lightweight, compact portable changer case with convenient, easy-opening cut-away top. Handsomely styled in Tan and Brown stinulated leather fabricoid over all-wood construction. Altracllve Ivory plastlc trim hroughoul. Insides covered with Tan simulated leather fab rikold. Bright contrasting metal flttings and durable plastle
 andle. Ample room for ng 3 or 4 tube amplifier and up to 8 -inch speaker. Takes he Webster 156,256 , and 356 changers. Motor and amplifier oards uncut. $191 / 2 \times 15 \times 9 \frac{1 / 2 " \text { ". }}{}$ 22N22063-Portable Changer Case. Shpg. Wt: is tbs. 11.95

DELUXE RECORD CHANGER CASE
Handsomely styled, Ilghtwelght and compact record changer case. Rugqed construction with covering of extrafine simulated alligator fabrikoid. Strongly sewn edges reinforced with sturdy leather. Nicizeled locking snaps with key included. Blank covered motor board. Inside dimenslons: $17 \times 141 / 2 \times 11^{\prime \prime}$.

22N22064-Wt. 10 lbs.


## PORTABLE AMPLIFIER CASE

 Covered with handsome Tan simulated rawhide leather to simulated rawhide leather to raatch reflex speaker enclo-sure. Top can be completely sure. Top can be completely removed for easy access to amplifler. Two sturdy simulated leather handles. All corners ptotected by metal shields. Bottom is equipped with metal bumper slides. Overall Size: $15 \times 151 / 2 \times 20^{\prime \prime}$ wide. 22N22057-Wt. 17 lbs..
9.75

# MORE FOR EVERY DOLLAR 



20 WATT DELUXE HIGH FIDELITY AMPLIFIER
You can save up to $\$ 30$ on this 20 -watt deluxe amplifier, with the assurance that you are getting a quality amplifier of reputable make. Lafayette had a chance to buy these fine ampliffers from a well known manufacturer at a remarkably low price and we are able to pass the saving on to you. Here is a unit capable of superb reproduction of both voice and music with a frequency range of 50 to 15,000 cycles. It's ready for with a irequency range of 50 to rack installation or use as an individual unit. Equipped with master gain control to reguate all channels without reseting individual controls. Output impedances 2 , 4 , 8 and 500 ohms. The dua tone controls provide independent adjustment of base and treble. All connections are easily made at the rear of the amplifier. Conventent ON-OFF switch located on front panel. Screw-in type fuse easlly replaced. Tubes used are two 12SJ7, 6SJ7, 6SL7, two 6L6G and a 5Z3 recufier. Sturdy functional type cabinet with side mounted carrying handles, is made of heary-guaqe steel finished in handsome black crackle. The amplifier itts any standard relay rack. Dimenstons: $191^{\circ \prime}$ wide by $171^{\circ \prime}$ deep by $91^{\circ \prime}$ high. Operates on 105-125 volts, 60 cycles AC oaly. Underwitters Laboratory Approved.
47.50


## 25. WATT AMPLIFIER WITH

 RECORD CHANGER TOPTake advantage of these terrific buys for ezcellent quallity amplifiers and recora players. and lioht in pact, and idght in welghti..idear for elther P.A. use in orchestras, churches, schools and carnivals, where rellable performance or a low pertormance ar a low
Check these Important extra features: Two microphone inputs with separate volume controls; two phono inputs with 2-way volume control; and illuminated panel. Four speaker outputs with selector switch; tone control.
25-WATT AMPLIFIER with effecient, smooth-operating automatic record changer for 10 and $12^{\prime \prime}$ records. Dimensions: $14 \times 14 \times 11 \%^{\prime \prime}$.
2N407-Shipping Weight 45 lbs.................................... 44.50 As above, except 16-WATT AMPLIFIER with automatic record changer. Dimensions: $14 \times 14 \times 11 \%^{n}$.
2N409-Shipping Weight 36 lbs........................................37. 50
 $\pm 2 \mathrm{db}$. Only $5 \%$ distortion. Output impedances; $4,8,15$, and $\pm 20$ ohms. Special features include separate high and low gain inputs; base and treble tone controls; built-in wire regain inputs; base and trebie tone controls; bultin cording erase and blas oscillator and a Neon recoraing level indicator. A separate, high frequency avallable for switching from microphone to GE reluctance avallable for switching trom microphone to GE reluctance pickup; 6-step compensation. Sturdy burgundy crackle chas-
sis. For $115-\mathrm{vol}, 60$-cycle AC operation only. Dimensions: sis. For $115-\mathrm{voll}$,
$105 / 8=14 \geq 7$.
2N190-Shippling Welght 25 1bs.
59.50

Roll-Off control for above.
2N192-Shipping Weight 3 ibs.


## AIRCRAFT COMMUNICATIONS SET TRANSMITTER-RECEIVER-INTERCOM <br> BRAND NEW!

Pilots the world over realize the great safety value in maintaining "two-way" radio communication during cross-country tlight. Through a spectal purchase, Latayette is able to offer you this oulstanding two-way communication system, which also fumishes broadcast reception and intercommunication within the plane itself. This is a brand new set...not surplus, made to sell originally for $\$ 200$. The receiver and combination transmitter and power supply are divided into two separate units and joined by an interconnecting cable for easy installation. Equipment operated from controls located on the recelver: 3 -position control for Tower-Volce-Range; ON-OFF switch and volume control, tuning control and band switch.
The receiver has a choice of two bands, controlled by a positive interlocking band switch with positions "A" (aircraft) and " $B$ " (broadcast). "A covers the transmission frequencies from 195 KC alloted to aircraft radio range and tower stafrom $195 \mathrm{KC}^{2}$ alloted to aircrat radio range and tower stations. B covers the standard broadcast band irom 530 1600 KC enabling pllots to "home" on broadcasting stations, in addition to receiving entertainment programs. Sensitivity rating 3 microvolts, or better, at 50 miliswatts, A tuned RF section produces high selectivity. Undistorted output 300 milliwatts, maximum output 500 milliwatts, provides strong volume for any number of headphones in the alrcraft. Tubes: (2) 14 A ? $14 \mathrm{Q}^{7}$ 14B6, 14 A 4 . Overall dimensions: $3 \%{ }^{6} \mathrm{H}$ Z $5^{5} 11 / 32^{\omega} \mathrm{W}$ ₹ $23 / 32^{\circ} \mathrm{D}$. Transmitter is crystal controlled, power amplified and employs high level modulation 10 wati output. Operates on any single frequency between 2 and 7 me making it applicable for marine and ham use as well as aircraft. Side tone and automatic changeover relay are provided. Power supply utilizes a vibrator and is completely shielded, Overal dimensions of transmitter and power supply: $55 / 8^{\circ} \mathrm{H}=71 / 8^{\circ} \mathrm{W} \times 8 \%^{\mathrm{N}} \mathrm{D}$.
Complete set includes the following: Recelver, Transmitter, 3105 KC Crystal, Power Supply, Loading Coll, Interconnecting Cable anterna Lead and Cable, Headphone and Microphone Cable, Tubes, Fixed Wire Antenna KIt and Shockmount s.
For 6-volt operation-requires 10.25 amps . Transmitier uses (3) 7 C 5 tubes.

99N9613-Shpg. Wt. 11 lb ......List $\$ 200.00$. $\qquad$ .49 .50
As above except for 12 -volt operation-requires 5.2 amps . Transmitter uses (3) 14 C 5 tubes. $\qquad$ 49.50 99N9614-with tubes.............................................. 24 amps. As above except for 24 -volt op
Transmitter uses (3) 14 C 5 tubes.
99N9615-WIth tubes...
49.50


NEW: MODEL APN-1 ALTIMETER MEETS CAA REGULATIONS
An invaluable ald for pilots making blind landings, ConAn inv to CAA requirements of Feb. 1949. Made to sell originally for six hundred dollars. This is a brand new 14-tube electronic altimeter consisting of a recelver, transmitter, alittude meter, altitude 1 imit switch, two $11^{"}$ antennas, plugs and sockets. Measures absolute altitude trom 3 ft . to 4000 ft . and sockets. Measures absolso qives an alormo if the hight of the plane varies more and aiso qives an aloranif the height of the plane varies more than ten teet from the seting on the alitude himit switch. Has indicator zero, outer-low range, inner-high range, imit Indicator, and calibration adjustments. Range and ON switches on alitude meter. Ajtitude limit switch has 11 positions in 25 ft . steps from 50 to 300 ft . Provision is also made for connection to control an automatic pilot. Other sockets include limit switch, limit indicator, battery input, transmitter antenna and receiver antenna. 3 amp. fuse with spare mounting. Front and chassis can be easily emoved by rele. Meas ures ing screws for easy inspection and maint
only $18^{\prime \prime} \times 9^{\prime \prime} \times 17^{\prime \prime}$. Shipping Weight: $32^{\text {lbs }}$.
99N9616-For 24 to 28-volt DC operation..
32.50

# SUPER SPECIAL VALUES 

## 4-TUBE AM SUPERHET TUNER



A miniature type luner ( $540-1600 \mathrm{KC}$. with big unit design. Here's an easy way to add an AM radio to your P.A. system, portable amplifier, record player with portable amplifier, record player with
bulti-in amplifier, wire recorder, etc. bultin amplifier, wire recorder, etc.
Measures only $5^{\prime \prime} \mathrm{W} . x 4^{\prime \prime} \mathrm{D} . x 41 / 2^{\prime \prime} \mathrm{H}$. Self. Measures only $5^{\prime \prime} \mathrm{W}$. $\times 4^{\prime \prime} \mathrm{D}$. $\times 41 / 2^{\prime \prime} \mathrm{H}$. Self-
contained 115 V AC-DC, hum-tree power contained 115 V AC-DC, hum-tree power
supply with approximately 10 V . high supply with approzimately 10 V . high impedance audio output. Permeability tuned IF iransiormers. Maximum output adjustable in 3 steps: $10-5-1$ volis. Supplied complete with 4 tubes (12BE6, 12BA6, 12AT6, 35W4), operating insiructions, circuit diagram, attached $5-11$ antenna and $21 / 2$-ft shielded output cable. Tested and aligned. 30 N 2247 S -Shipping welght 6 lbs.
12.85


## N AUDIO PREAMPLIFIER

This S-tube, 4 -stage preamplifier is an excellent item for service shops and various installations requiring additional gain. Uses 6517 Ist stage, 2.6 SN 7 2nd and 3 rd stages, 615 as 4th stago and $5 Y 3 G T$ reclifier. Addithonal equipment includes 65 mil power transformer, 2 heavy duty power transiormer, 2 heavy duly suitable for high impedance microsultable an high impedance microphones and high impedance low
oulput pickups. Has single circult mike jack, volume and tone control, and replaceable fuse on front panel. Dimensions: $71 / 2^{\prime \prime}$ high, $9^{\prime \prime}$ wide and $9^{\prime \prime}$ deep. For 110 volt, 60 -cycle AC. Shipping welghi: 10 pounds. 99N9604-Less Tubes
8.95


## 4-TUBE AMPLIFIER

Push-pull oulput circult designed for use with crystal pick-up. 4-tube amplifint wired on right angle metal chassis includes volume control, pilot light, shielded lead and power line cord and plug. Tubes used (2) 35 AS , 14B6, 35 Y 4 . Tubes used (2) 35 AS ,
Shipping weight 3 lbs . 99N9608-Less Tubes.
2.95

## 2-TUBE PHONO OSCILLATOR

Play music from your record player through your radio without connecting wires. Recorded music is wires. Recorded music is
sent by radio waves to radio. Aluminum chassis, (2) EF-50 tubes. Wt. 2 lbs. 99N8006 3.75

## SINGLE SPEED PHONO MOTOR

New low price on this rim-driven phono motor, complete with furntable. Constant single speed ( 78 RPM). Sell starting. Forced draft ar-cooling. $110 \mathrm{~V} ., 60$ cycles, A.C. 99 N 8003 -Shipping weight 6 lbs

2.25

## 3-SPEED PHONO MOTOR

Feature bargain! Plays $331 / 3,45$ and 78 RPM records. Has $9^{\prime \prime}$ turntable and external speed regulating lever. 99N8009-Shipping weight 6 lbs

## TONE ARM AND HEAD

Replacement for $95 \%$ of all nonelectronic reproducers. Takes standard needles, plays up to $12^{\prime \prime}$ records. Black and nickel finish.
34N13415-Head only. 98 c 34N13416-Arm only


## MLPI CARTRIDGE

Crystal. Wide trequency range; .75 V . outpul $=5 \square$. $99 \mathrm{NB010}$.

# dOLLAR-SAVING VALUES 



## Beautifully Finished Cabinets at Sensational Prices

## WALNUT CABINET

A Really Terrific Buy Handsome walnut cabinet, heavy construeion. Dimensions: $20^{\circ}$ wide $x$ $133 / \%^{\prime \prime}$ high $x 9^{\prime \prime}$ deep. Ornamental brass strip around escutcheon panel. Ideal for replacing old style cabinets and for kits. Supplied with bumper feet to protect furniture. Made to house a truly fine set. Panel drilled and cut out. 99 N 7087 -Shipping Weight 14 lbs . . 1.59

## ROSEWOOD CABINET

Handsome rosewood cabinet. $15^{\circ}$ wide $2914^{\prime \prime}$ high $27{ }^{\prime \prime}$ deep. Siderule dial opening. Ideal for re placing old style cabinets and for kit. Handsomely inished. Supplied complete with three holes druled for volume and tuning controls.
99N7088-Shipping Weight 4 lbs.
1.19


## INTERCOM CABINET

Handsome walnut cabinet. Excellent for use as a master intercom station. Sturdily constructed of line seasoned woods. Dimensions: $121 / 6^{\prime \prime}$ wide $\times 71 / 6^{\prime \prime}$ high $\times 73 / /^{\prime \prime}$ deep. Cabinet is slotted for speaker. Holes for switches and controls have already been drilled. 99N7086-Shipping Weight 5 lbs.

99c


Beautiful walnut or mahogany cabnet (please specify type). Dimensons: $19^{\prime \prime}$ wide $\times 101 / 2^{\prime \prime}$ high $\times 8^{\prime \prime}$ deep. Dual grilles for use with one or two speakers. Heavy flocked wire mesh grille. Supplied complete with four holes drilled for tuning and volume controls. 99N7089-Shipping Weight 6 lbs ..
1.95


SPECIAL VALUEI FM FRONT END
Newly designed with latest circut t developments for extremely stable and sensitive operation. Ideal for use with PA systems or for remodeling AM receivers. 108 frequency coverage from or to sliderule dial for fast tuning. Antenna provision for 300 ohm Antenna provision for 300 omm . line. IF frequency is 10.7 MC . Tubes used; 6 aK 6 RF amplifier,
666 oscillator, mixer, detector, 6U5 oscillator, mixer, detector, suss tuning eye indicator. Dimercomplete with tubes, dial and instructions. 30N22484-Shipping Weight 10 lb


## PERMEABILITY TUNER

For use in standard broadcast receivers to replace variable condensers and associated coils with a single unit. All are simultaneously slug tuned. Each can be individually adjusted for tracking alignment. Complete with antenna coil, oscillator, fader coil and schematic diagrams for building 5 and 6 -tube superhet receivers. $4^{\prime \prime} \times 21 / 2^{\prime \prime} \times 214^{\prime \prime}$. Dial drum $21 / 2^{\prime \prime}$. 99N3574-Shpg. Wt. 2 lbs .
. 1.09

## LOP ANTENNA

Matches input impedance of permeability lune above. Finest copper wire on sturdy fibre board.
$99 \mathrm{~N} 3575-5 \mathrm{hpg}$. Wt. 1 lb .
19c


SBPI/5GPI C-R TUBES
Brand new 5BP1/5GP1 cathode ray tubes perfect for oscilloscope use. Green fluorescence with medium persistence. Large five-inch screen, medfum shell magnal 11 pin base. 6.3 volt heater, anode No. 2 voltage 2500 volts. Each tube is individually boxed. 2.95
99N9559-Shpg. Wi. 3 lbs......2.


ELECTRIC MOTOR Makes the handiest col on your work bench. Attach a flex le shaft for grinding, sanding and buffing operations. Great for model-makers. $1 / 20$ h.p. motor turns at 2900 RPM-does the job in half the time $1 / 4^{\prime \prime}$ shaft, $3 / 4^{\prime \prime}$ long. Motor is $31 / 6^{\prime \prime} \times 23 / 4^{\prime \prime} \times 31 / 2^{\prime \prime}$ high. For 99N7078 -Shipping Weight 3 lbs 3.89


## LIVE RUBBER MOUNTS

Excellent live rubber mounts for floating variable gang condensers, sockets, and record changers to prevent microphones. $5 / 16^{\circ \prime}$ diam. $\times 5 / 6^{\prime \prime}$ 98N 14798- 10 for. 100 for

## RECORD CHANGER MOTOR



Heavy duty record changer motor. Exact replacement for Seeburg Model L record changer. 4pole motor is vibraion isolated from mounting bracket by three live rubber grommets. Motor by rn al approx. 1700 RPM; heavy rubber cered id er wheel at 318 RPM. Bracket covered idler wheel at 318 RPM. Bracket has range holes ${ }_{99 N 7082-S h p g . ~ W t . ~} 5 \mathrm{lbs} .$.
2.25

0. 150 AC VOLTMETER

Black bakelite case. Has $23 / 4^{\prime \prime}$ panel opening. $31 / 2^{\prime \prime}$ ilange. White scale with black lettering. Range: 0150. 99N4217
4.75


O-20 DC MILLIAMMETER
Black bakelite case. $21 / 2^{\circ}$ flange mounting type. Rance: 0-20. Hardware in eluded. eluded. 99 N4122 -Wt. 1 lb 2.39

RCA ISOTAP TRANSFORMER
 Permits speedier servicing of AC-DC receivers, provides greater safety in servicing and many other advantages. Has voltage tapped primary and secondary-primary is set to power line voltage and secondary receptackles give choice of $117 \mathrm{~V}, 105 \mathrm{~V}$, or 130 V supply. 6N1600-Shpg. Wt. 15 lbs.
8.95

## SPECIAL FEATURE! THROAT MICROPHONE



Carbon mike works into any 200 ohm impedance input circuit. Adjustable strap its any neck. Full freedom of hands and head. Ideal for uitra-high frequency 196 work. With strap, 10 cord, plug. 10 for.


Indicates voltage of available power olavallablepower voltage drop due to faulty equip. mont. checks for blown fuses, grounds, transformer and capacitor breakdowns, open choke coils, etc. For use on AC from 65 to 660 volts. DC voltage readings use simple conversion actor GE neon lamp indicates AC or DC power supply insulated plastic case DC power supply. Furnished with $12^{\prime \prime}$,case and dial panel prods and leads. Wi. 1 lb.
$25 N 12982$-Shpg. Wi.
1.83

## $67 \mathrm{~V} / 2$ VOLT BATTERY

Big value- $671 / 2$ volt " $B$ " batteries for personal portbatteries for personal pori-
able radios. Replaces Burable radios. Replaces Burgens XX4S, etc. Fully guarcanted. Size: $13 / 8 \times 211 / 16 \times$
$31116^{\circ}$.
99N6599.
99N6599.
"MINI-VOLT" METER

## -


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# best buys of the yeni 

225 OHM 5" DYNAMIC SPEAKER


For replacement in radio recelvers, intercommunicallon and paging zystems. 225 ohm 5" dynamic heavy pot, hum buck ing coil and double hielded transformer to match output im. pedance of 50L6. Excellent for volce and music.
99N7013
99N7032-Same, less transf......
99c

## 3" 450 OMM SPEAKER



A quality speaker for general replacement. In call ystems, hearing ads, small radios. Has 450 ohms field coll. Flat response, when properly baflled irom 100 to 4500 C.p.s. Formed 1 pc. cone. Less transformer.
$99 \mathrm{~N} 7029-\mathrm{Wt}$. 3 lbs.
1.19

## 5" 3000 OHM SPEAKER

$5^{\prime \prime}$ dynamic speaker for general replace. ment. Flat response covering from 100 to 4500 c.p.s. Formed one piece cones, 3000 ohm fleld. Less transformer. $99 \mathrm{~N} 7031-\mathrm{Shpg}$. Wt: 3 lbs

95c

## S" 4SO OHM SPEAKER

For general replacement purposes in radios, record players, paging, intercom systems. Response 100 to 4500 cps . Rated 242 watts. Fiold coll 450 ohms
$99 \mathrm{~N} 7030-S h p g . W \mathrm{l}: 3 \mathrm{lbs.}$. 1.39


## Replacement for

 FM-AM recelvers $12^{\prime \prime}$ PM dynamic speaker with Alnico $V$ permanent magnet. Magnet magnet magnet weight of $6,8 \mathrm{oz}$. is equal to 20 oz. magnets. $1^{\prime \prime}$ voice coil with 6-8 ohms impodance. Cawatts.99N7010. 5.95


10* PM SPEAKER
Here's an excellent replacement spoaker at placement spoaker at proof construction. 6.8 proof construction. 6.8
$o z$. Alnico $V$ magine oz. Alnico $V$ magnet.
Volce coil impedance Volee c .
3.4 ohms. 99 N70 19..
3.15


New Alnico $V$ magnet provides max. performance with min. weight. Ideal as seplace. ments in radios. record players and auto radios. Voice coll tarme. nals on transform. er bracket. 3.2 ohms V.C. imp. Less transtormer.
99N7011-3-inch PM
1.29 99N7009-5.inch PM $\qquad$ 99N7028-6-inch PM $\qquad$ 1.69

## OUTPUT TRANSFORMER



500-ohm line, 8 -ohm volce coll output transformer. Multiple taps. 18 watis. Color ing center $2-7 / 16$. 99N5 154........6.6.

## OUTPUT TRANSFORMER


with ended secondary, ohms. Unshiolded strap ohms. Unshiolded strap eoded leads. 2000 ohm is for 50L6.
99N5 151-2000 ohme. 99N5152-7000 ohms.

PLATE TRANSFORMER


Fully cased, electrostatically shielded plate rectilier transformer. Heavy duty model with 117 V., 50/60cycle primary. Secondary. 625 V. CT at 160 MA and and 5 V . at 3A. Color coded leads Mounting centers $21 / 1 \times 2-7 / 8^{\circ}$. 99 N5 157.
2.69

## POWER TRANS FORMER



A real bargain speelal power transfor mes. Single shell mounting, electro statically shlelded. Has extruded shell for two-hole mounting. Primary 117 V . $50 / 60$ cycles. Secondary outputs: 600 V. at 2A, 5V. CT at 2 A . Color coded leads.
99N5 156.
1.39

## Is HENRY, 50 MA. TOTALLY

 ENCLOSED CMOKE

120 ohms D.C. resiatance Fully shielded, strap type mounting. Compact, eff. cient; has man $99{ }^{9} 6550$.

69c

## 30 HENRY CHOKE

50 ma .450 ohms DC resistance. Un shielded, strap type mig. Size $21 / 2 x 1^{2 / 4 x}$ 2-1/8".
98N246-Shpg. Wt: 2 1bs............. 59 C

## 4 MENRY 500 MIL. CMOKE



Heavy duty. 500 ma. 12 ohms DC resistance. Wax coated to with. stand effects of mols. ture. Overall size: $31 /{ }^{\circ}$ $\times 31 / 2^{\prime \prime} \times 4^{\prime \prime}$. Mig. centers 99Ne594
2.39

25 HENRY FILTER CHOKE


Excellent quality 25 MA, 200 ohms DC resls. lance. Unshielded, strap type mounting. Overall dimensions: $2-3 / 8 \times 2 x$ 1-5/8\%. Mig.center $2-7 / 8 \div$
99N5 155
49c


SPECIAL! TV REPLACEMENT
Verfical Oufput Transformer.
Equivalent to RCA Type No. 204 T2. Couples output iube to deflection yoke. Specially impreqnated. Strong, ilqid mounting brackets with $2 \times 2-3 / 8^{n}$ mounting centers. Color coded leads.
 99N5 158.

# " <br> LIMITED QUANTITY" SALE 

## MANDY TERMINAL STRIP KIT

Kit of 10 assorted terminal strips with from 2 to $i 8$ terminals. Hi-quality phenolic insulation with either screw or solder lug terminals. Mounting holes or brackets on each strip. 99N6975-Eit of 10.0.

29c


## KIT OF 25 MICA CONDENSERS

Xit of most popular size bakelite mico capactiors for servicemen, amateurs, and experimenters. Unmarked, but all guaranteed perfect. High quality units at an unusually low price. 99N277

49


## KIT 25 TUBULAR CONDENSERS

Top quality brand tubular condensers at a real bargain price. Wax impreg. nated, non-inductively wound. Standard working voltages and capacities
range from .002 mfd . to .5 mfd . With range from .002 mfd . to .5 mid . With long flexible pigtail leads. Individually tested to meet RMA standards. 99N278-Shpg. wt. $11 / 2$ lbs..

976


## KIT 100 ASSORTED RESISTORS

An exceptional resistor value for the radio serviceman, experimenter and amateur. Kit contains 100 assorted popular resistor sizes with wattage ratings from $1 / 3$ to 2 watts, All resistors cre RMA color coded. 99N15S-Shpg. Wi 1 lb
1.19


VITREOUS ENAMEL RESISTOR KIT
Bargain ossortment of 20 high quality vitreous enamel and cement coated wire wound resistors. From 5 to 25 watts. Wide assort of values.
99N245.
1.59

## KIT CERAMICON CONDENSERS

10. Kit of 25 popular sizes. All condensers color coded. Flexible pigiall leads. Shpg, wt. 1 lb .
99N279.
$.69 c$

## BAKELITE RADIO KNOBS



KNOB KIT
20 assorted popuiar knobs in a variety of slzes.
99N6984......... 39

BURGLAR-PROOF CABINET LOCK
Threaded stud; suitable for wooden or metal cabinets. Strong construction; chrome pla ted. 2 keys and necessary hardware. 99 N 300

## CATHODE-RAY TUBE SOCKET

Bakellte television tube socket especially made for 10 BP 4 . 12 KP 4 and 7 JP 4 picture tubes. 5 tinned colored leads. 99N301.

39

## TELEVISION ION TRAP

Prevents lons from bombarding sensitive TV tube screen. Fool-proof construction. Only two colls and padded mounting yoke. 99N5 160..............................................

## TELEVISION FOCUS COIL

For magnetically focused kinescopes having deflection angles up to $50^{\circ}$ such as the RCA $108 P 4$. Large conductor size for cor-rosion-free operation.
99N5159.


## BELDEN 60-WATT SOLDERING IRON

Here's
Here's a nationally
cellent puality. or ex
id. light duty soldering
Has $13 / 4$ long copper
Has 14,40 long copper $0,-10-6$ screw-on tip. Long-1ife element. $6^{\prime \prime}$ long shaft permits asy access to far comers. $12^{\prime \prime}$ long. 6-1t cord, plug and stand included. $120-\mathrm{v}, ~ A C-D C . U / L$ app.
99N8007.
1.49

99N8011-Extra Tip for above..................
99N8012-Extra Element for above tron
.224
.694

STEATITE NEUTRALIZING CONDENSER Variable from 3 to 11 mmid. by plunger action. For
neutralizing low power amplifier stages. Mounts in neutraizing
$3 / 8^{\prime \prime}$ hole. $99 \mathrm{~N} 3171-10$ for 45 $\qquad$ . Each 5 e

## 4-SECTION CONDENSER FOR FM-AM



## SINGLE SECTION CONDENSER

Capacity 500 mmid . Ideal for low or medium power transmitters, and test equipment. Steatite insulation. $2 \times 1-7 / 8 \times 6-5 / 8^{\prime \prime}$. 99N3571-Shpg. WL. 2 1bs..

69c

APC AIR PADDER CONDENSERS
Ceramic insulated air padder condensers ideal for oselllator circults, IF fransformers, fixed tuned circuits, etc. which require constant copacity. Screwdriver slot adjustinents.
99N3511-25 mmfd.
99N3206-35 mmfd. $\qquad$ 146

JOHNSON VARIABLE CONDENSER
Rugged compact unit for use in medium, low power transmitters. .032 thick aluminum plates. Steaflte insulation. Heary phosphor bronze contact springs. Capacity 12 mmid. to 244 mmfd . $045^{\prime \prime}$ spacing. Approximate breakdown voltage is 2000 volts. Slotted shaft $1 /{ }^{\prime \prime}$ dia. $1 /{ }^{\prime \prime}$ long.
99 N3572-Shpg. Wt. 2 lbs.
$.7 \%$

SPECIAL FOUNDATION ASSEMBLY
Fortransmitter or recelver, Metal frame, 10 contact female receptacle, 140 mmfd variable condenser at top. Coll socket, dual crystal socket. male contact. Spring locking clip. Size: $4 \times 11 /$ $\times 2 \%$.
99N3553-Shpg. Wt. 1 1b....22c


## WIRT VARIABLE REGULATOR

 Use with any 110 volt $A C$ instrument to compensate for irregular line voltage. 65 watt unit adjustable to five positions. 98N12521-65 Watt.
## VOLTAGE DIVIDER KIT

Kıt contains 10 wire wound resistors with moulded bakellte cases. Metal mounting strap conducts heat from unit without shoring This it will fill your need for voltage dividers ot a low price. price.
99N265.
.69c

2-
-
जf: =-in

# HARD-TO-BEAT BARGAINS 



Rated at .3 amps for radios, phonograph oscillator, etc. 99N2938-135 ohms

220 TO 110 VOLT LINE CORDS


Standard plug and receptacle. 300 ohm for sets using .3 amp tubes, 50 ma plate supply. Total capacity 350 ma . 99N2941 99N2942 - Same but foreign plug....
\} 38 560 ohm for sets using .15 amp tubes, 50 ma plate supply. Total cap. 200 ma . P8c
99 N 2943

## ATTACHMENT PLUG BASE

Brown bakelite in the usual strong Rodale construction. remale type. standard socket.
S9N299-99N299Each,


10 for.

## AC RECEPTACLE



Quality standard single AC receptacle. Fita 13/8" dia. hole. Metal

10 for...
1.08

## SUPER SAVINGS

Octal Base Tube Sockefs


Flush mig. phenolic compound socket in steel saddle. With 4 grounding lugs, silver-plated contacts. 99N6979-Each .......... 5e 10 for

## CERAMIC SOCKET

Heavy-duly, octal sockel.
$15 / 2$ mounting centers.
Silver-plated cylindrical
pin pin contacts. Ceramic body in steel shell. 4
lugs. 90Ni
$98 N 1310$
10 for



UNIVERSAL 6 VOLT VIBRATOR
Popular brand name vibrator. Replacement for Mallory 294, 4-4, Radiart placement Sor Mallory 294, 4-4, 5300, SO-1, Utah NP-42, Delco
5,052,378 and Meissner EOI. 99 N 3950

98c


## 12-VOLT VIBRATOR

Amazing value in a vibrator replacement brought to you by Lafayetto's tremendous purchasing power. 12 -volt, 4 -prong nonsynchronous. Replaces the Mallory G826 or equivalent. Can size, $11 / 2^{\prime \prime}$ dia., $31 / /^{\prime \prime} \mathrm{ht}$. 99N3970

19c

## 24-VOLT VIBRATOR

Here's the celebrated Mallory vibrator at a qive-away price! M561C replacement vibrator, 5 -prong base, 24 -volt battery synchronous vibrator. Long-life and trouble free service. Can size: $11 / 2 \times 31 / 2^{\prime \prime}$.
99N3967.
$19 c$

## AUTO SPEAKER SPECIALS

These speakers are ideal for auto replacement. Field coil type, 6 v . Shpg. wt., $21 / 2 \mathrm{lbs}$. 99N7024-6" Speaker 2.47 99N7026-8' Specker......2.25


## AUTO RADIO ANTENNA

Bargain special, three section, triple chrome-plated side cowl auto antenna. Stainless steel rod section and solid brass tubing. secioss lubes topered to keep molsBrass lubes tapered to keep moisture and dust out. Extends from 25 -inches to 66 -inches. High quality bakelite mounting insulators prevent signal shorting to car body. Complete with 32 -inch foolproof low loss shielded cable and necessary mountina hdwe. 99N9598
. 49


AUTO RADIO SUPPRESSORS
High qualliy, elbow cable type, spark plug noise suppressor. In black molded case.

99N302-10 for 72c
Each


## ANTENNA CABLE

Heary phosphor bronze antenna cable at special bargain price. ApproxImately 115 fool roll of 42 strand cable with strong linen core.
99N5140-5 for 3.00
Each
69c


SO-FT. ROLL CABLE
Durable plastic insu lated 4 conductor in tercom cable. Color codea conductors are of No. 22 solid wire. Can be easily unstranded and used as radio hookup wire.
99N5139-Shpg. Wt. I lb.
99c

## TERMINAL STRIP



High quality Phonolic insulation with 1 wo serew type lua terminals. Terminals marked Gid. and Phono.
$99 \mathrm{~N} 280-10$ for 35 c
Each 4e

## TWIN TIP JACK

High-quality iwin tip jack on laminated strip.
99G4231
...Each 5 10 for.


## DPDT SLIDE SWITCH

Double pole, double throw slide switch with spring return. Spring may be easily removed it desired.
99N4230-Each
10c
10 for

## 2-0 TWO METER CHOKE



High frequency solenoid choke. Designed to prevent resonance in the 2 meter band. Rated al 2 mh . and 1 amp . DC resistance 0.19 ohms. $134^{\prime \prime} \mathrm{lg}$. and $1 / 4^{\prime \prime}$ dia. Pigtall leads $14 / 2^{\prime \prime}$ long. Insulated and protected by moisture prool coating.
99N3576-6 for 25 c Each 5 e


## SPRING LID LIFT

Heavy duly spring type lid lift. Spring tension adjustable to sounter-balance any type lid. For right hand cabinet mount. ing. 99N6995

99c

## SELENIUM RECTIFIER

No warm-up period. Saves space. Only $11 / 4 \mathrm{z}$ $11 / 4 \times 1-1 / 16^{\prime \prime}$. Fits where tubes won't. Two rectifiers may be connected as a valiage doubler to supply 250 V . at 80 ma from 117 V . AC power supply.
98N10560
$65 c$

## INTERMEDIATE FREQUENCY TRANSFORMER

High gain, permeability tuned, 375 KC normal peak, satisfactory operation at 455 KC peak. Screwdriver slot adiust-ments-one on top, one on botiom. 5 solder lug terminals on bottorn. $11 / 2 \times 11 / 2 \times 21 / 4^{\prime \prime}$. 2 spade mounting studs $6-32 \times$ $\forall 9^{\prime \prime}$ on $13 / 8^{\prime \prime}$ mounting centers. 99N5129-Each
10 for

# OUTSTANDING BARGAINS 

DELCO VOLUME CONTROLS
Ultra compact controls featuring quiet composition elements, attachatle switches and plug-in type shafts. All are $1 / 2^{2}$ thick, $11 / 16^{*}$ dia. Complete with $4^{*}$ shaft.

DELCO VOLUME CONTROL TAPERS
(1) For cudio or antenna shunt eircuits. for series circults. 4) Linear taper; for volt. div, circults.


TAPPED CONTROLS

| No. | Delco | Ohms | Tapped at | Each | Lot/6 Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 99N2170 | 8151 | 250,000 | 50,000 |  |  |
| 99N2172 | 8156 | 500,000 | 100,000 |  |  |
| 99N2173 | 8159 | 500,000 | 150,000 |  |  |
| 99N2175 | 8162 | 1 Meq. | 50,000 | $2 \%$ c | 27 c |
| 99N2176 | 8163 | 1 Meg. | 100,000 |  |  |
| 99N2178 | 8165 | 1 Meg. | 250,000 |  |  |
| 99N2179 | 8168 | 1 Meg. | 500,000 |  |  |
| 99N2180 | 8173 | 2 Meg. | 250,000 |  |  |

## SWITCHES POR ABOVE

99N2181-SPST Snap Swith ...... Iots of 6, 7 c ea...... Each 8 c 99N2182-SPST With Tie Lug Switch lots of 67 cea 99N2183-DPST Snap On Switch ..... lots of 6, 7e ea.

Following Delco controls are same as above except that they have fixed covers-and do not take the attachable switch

| No. | Delco | Ohms | Tapped at | Taper | Each | Lots/6 Ea |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 99N2158 | 8117 | 125,000 |  | 1 |  |  |
| 99N2160 | 8121 | 300,000 |  | 1 | 45 |  |
| 99N2163 | 8125 | 600,000 |  | 1 | 226 | 12 |
| 99N2166 | 8129 | 1 Meg . |  | 1 |  |  |
| 99N2169 | 8154 | 150,000 | 80,000 |  |  |  |
| 99N2171 | 8164 | 350,000 | 50,000 |  | , | . |
| 99N2174 | 8161 | 500,000 | 200,000 |  | 4 | 4 |
| 99N2177 | 8168 | 1 Meg . | 200,000 |  |  |  |


$1 / 2$-MEG CONTROL WITH sWITCH
Full length shaft. Compact, sturdy
construction. 500,000 ohms resistance,
with ewtich. Three solder lug term-
inals.
99 N 2140


## DUAL POTENTIOMETER

Enclosed smooth action carbon type controls Front section 2 megohme, sear section 40,000 ohms. $3 /$ r $^{\prime \prime}-32$ threaded bushing. 99N8137-Lots/10 Ea. 19c ...Each, Singly

## POPULAR SIZE VOLUME CONTROLS



Servicemen, experimenters stock up now on these popular aize volume controls at these unbelievable low prices. Standard $1 / /^{\prime \prime}$ dia. shalts, approx. $11 / 2^{\prime \prime}$ long.

| N2114-500 | E |
| :---: | :---: |
| 99N2116-75.000 ohms |  |
| 99N2117-100,000 ohms |  |
| 99N2118-200,000 ohms |  |
| 9N2118--Dual 600 ohm |  |

## 25-WATT POWER RHEOSTAT

Popular brand power theostat at a special bargain price. Ceramic and glazed porcelain consiruction throughout. $3 / e^{\prime \prime}$ dia. bushing. $14^{\prime \prime}$ dia. $x$ $1 / 2^{\prime \prime}$ shaft.
99N2122-20 ohm
496
99N2121-5000 ohm.

special feature!
RELIANCE VOLUME CONTROLS

 WIRE WOUND VOLUME CONTROL

1. Smooth acting wire wound 1000 ohm, 4 watt. $3 / 8{ }^{\prime \prime}-32$ threaded bushinge, $1 / 4^{\prime \prime} \times 3 / /^{\prime \prime}$ shafis. Body dic. $15 / /^{\prime \prime} \times 5 / 8^{\prime \prime}$
99N2098-Each, 19c
Each, Lots of 10 .
17

## POTENTIOMETER

2. Fully enclosed carbon type control. 3/8"- 32 threaded bushing. 13,000 ohms, $11 / 0^{\prime \prime}$ dia. $\times 1 / 2^{\prime \prime}$. Shaft $1 / 4^{\prime \prime}$ dia. $\times 1 / 2^{\prime \prime}$. 98Ne158-Each, 10 c........................................Each, Lote of $10,8 \mathrm{e}$

## POTENTIOMETER WITH SWITCH

3. 160 ohm 4 watt, insulated rotor and switch. Siraight taper. \%/8 "thr. bush, $1 / 2^{\prime \prime}$ shaft, $5 / 8^{\prime \prime}$ bush. Snap-on switch. 0 12 e 98N8142-Each, 15c

Each, Lots of 10 .
$12 c$

## CARBON VOLUME CONPROL

1. Compact $140^{\prime \prime}$ dia. $1 / 2^{\prime \prime}$ deep. 1 Megohm, less switch. W" nhaft $11 / 2^{\prime \prime}$ 1g. Potentiometer taper. Requires $1 / 2^{\prime \prime}$ behind panel. 99N2041-Each, 19c

Each, Lots of 10,176


9 WATT POTENTIOMETER
4. Smooth acting 185 ohm control, whi S.P.S.T. switch. $216^{\circ "}$ dic. $\times l^{\prime \prime}$. Shaft $1 / \mathrm{s}^{\prime \prime}$ lg. $1 /-32$ threaded mounting bushings.
90N8142-Ea. 12e; Lots/10, Ea. 10 es

5. Fully enclosed smooth action carbon type control. Body 1" diameter $\times 1 / 2^{\prime \prime}$ deep. Shaft $1 / 4^{\prime \prime}$ diameter $\times 13 / 4^{\prime \prime}$ long. 98N8108-Each 18c

Lols of 10 , Each
15.


1000 OHM POTENTIOMETER
6. Nationally known. With S.P.S.T. switch, $7 / 6^{\prime \prime}-32$ threaded mounting bushings, solder lug terminals. Body $1^{\prime \prime}$ dia. x $7 / 8^{\prime \prime}$. Shaft $1 / 4^{\prime \prime}$ dia. x $13 / 4^{\prime \prime}$ tong. $98 N 8124$-Ea. 25c; Lote/10, Ea. 226


## WIRE WOUND POTENTIOMETER

7. Smooth acting control. $200 \mathrm{ohm}, 2$ watt wire wound potentiometer. Body size: $11 / 4^{\prime \prime}$ diameler $\times 5 / 4^{\prime \prime}$ deep. Shaft: $3 / 4^{\prime \prime} \times 1 / 4^{\prime \prime}$ diameter. Standard ${ }^{2} \cdot{ }^{\circ}$ " 32 threaded mounting bushing. 98N6350-Each 10 C

Lots/10, Each :

## 3 WATT RHEOSTAT

An exceptional value, smooth acting 20 ohm wire wound control. $1 / 4^{\prime \prime}$ dia. $\times 3 / 4^{\prime \prime}$ long flatted shaft. $140^{\circ \prime}$ dia $\mathbf{x} 36^{\prime \prime}$.
98N8163-Each oc


# MORE FOR EVERY DOLLAR 



Receives all TV channels plus FM. Range 44-108 MC on LF Array; 174-220 MC on HF Array. Average gain 2.5 D.B. on LF Array; 1.5 D.B. on HF Array cove tuned dipole. Arrays electronically separated by patented divider network, and individually rotable for network, and inal strength. Lightweighi tempered aluminum alloy.
99N9612-Wt. 14 lbs
6.45

## SENSATIONAL

 PRICE SLASH!
## STRONGER TV

 SIGNAL WITH "TELEMATCH" NOW 1.95Was 5.559
Gives the maximum iransfer of television signals by matching the antenna to the receiver. Simple to inatall. Just fasten to antenna posts on back of your set and rotate control knob for most satisiactory picture. 9日N24439-Now Low Price.
1.95


## THREE-CONDUCTOR CABLE

3-circust mike plug PL-68 connected to rubber-covered 3 -conductor $4^{\prime}$ cord. Terminates in two connecting lugs, tinned ground lead, and tie cord fastened to eyehole lug. Flexible and durable.
gens145
19c

LOW-COST JACK BOX


Consists of one 3-circuil jack, one 150 M potentiometer and 5 position rotary witch enclosed in $3^{\prime \prime}$ wide, $3^{\prime \prime}$ high. Com-
plete with knobs.
99N 3959-Shpg. wt. 2 lbs.
25e

## SHIELDED PHONO CABLE

High quality High quality
Hexible $\# 24$ shielded phono pickup cable. Cotion braid overall.
99N5161-1.50/100 ft.
.Per Ft.
26


## TRANSMITTING KEY

General purpose trans. mitting key on a heavy die cast base, all mounted on a swinging bracket thlqh clamp. 16" pure silver contacts. Key can be oasily rem able bearings. Supplied with 5 -foot cable and PL-55 phone plug. 99N4034-Each

39


POWER WIREWOUND RESISTORS
Excellent quality; include famous brand names. Some cement coated; others vitreous enameled

| No. | Watts | Ohms | Each \|Lots 10/ea. |  |
| :---: | :---: | :---: | :---: | :---: |
| 98N 135 | 5 | 1.000 | . 06 | . 05 |
| 99N268 | 8 | 10,000 | . 08 | . 06 |
| 99N122 | 10 | 10 | . 09 | . 07 |
| 99N123 | 10 | 100 | . 09 | . 07 |
| 99N310 | 10 | 400 | . 09 | . 07 |
| 99N311 | 10 | 500 | . 09 | . 07 |
| 99N312 | 10 | 1,000 | . 09 | . 07 |
| 99N124 | 10 | 4,000 | . 09 | . 07 |
| 99N313 | 20 | 500 | . 15 | . 13 |
| 99N314 | 20 | 2,250 | . 15 | . 13 |
| 99N315 | 20 | 5,000 | . 15 | . 13 |

50-WATT ADJUSTABLE RESISTORS


Vitreous enameled on porcelain cores with a strip of wire exposed to form contact. With slider and mitg. brackets. $99 \mathrm{~N} 316-2$ Ohms.
99N317-1000 Ohms.

INSULATED CARBON RESISTORS


Insulated. RMA color coded. Guaranteed 10\% tolerance.

| Stock No. | Wetts I Ohms |  | $\begin{array}{\|c} \text { Lots } 10 \\ \text { Each } \end{array}$ | Lots 100 |
| :---: | :---: | :---: | :---: | :---: |
| 99N3180 | 1/2 | 470 | 026 | 1.50 |
| 99N319 | $1 / 2$ | 33000 | 02 c | 1.50 |
| 99N320 | 1/2 | 1 Meg . | 02e | 1.50 |
| 99N321 |  | 1000 | 03c | 2.25 |
| 99N322 | 1 | 12000 | 03 c | 2.25 |
| 99N323t | 2 | 68 | 08 c | 7.00 |

## KOOL OHM 120.WATT RESISTOR



Heavy duty, $10,000 \mathrm{ohm}, 120$-watt wire wound resistor. Large surface area for heat dissipation. $11 / 16^{\prime \prime}$ dia. $x 8$ 15/16". With rod and mounting hardware. 99N269.

19c

## UNSHIELDED R. f. CHOKES


7. Solder lug term. Leaf spring momentery action. Requires $5 / 8^{\prime \prime}$ behind panel. 99N4175-SPDT 99N4181-DPDT 2 2/8x $3 / 16 \times 7 / 0^{\prime \prime}$ high screw terminals. $21 / 8 \times 3 / 16 x^{\prime} /$ / $^{\prime \prime}$ high screw
99 N 4176 Shpg. wt. 2 oz.

## MINIATURE SOCKET



Molded bakelite; for 7 pin miniatures. Fits IR5, 1T5, 1S4, 1S5. Metal mitg. shell, $22-\mathrm{mig}$. holes on $7 / 8^{\circ}$ ctrs. 99N282-Each
10 for
76
RAMIC SOCKETS
Low loss. Top and sides glazed. Reenforced springs enforced long, $15 / 8^{\prime \prime}$
$21 /{ }^{\prime \prime}$ lde. Centers 1 . 27/32'

| No. | Prongs | Each | 10 for |
| :---: | :---: | :---: | :---: |
| $98 N 13085$ | $\frac{5}{9 c}$ | $9 c$ <br> $98 N 13067$ | $80 c$ <br> $80 c$ <br> 9 |


| No. | Prongs | Each | 10 for |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 98 N 13090 \\ & 98 N 13091 \\ & 98 N 13092 \\ & 98 N 13093 \end{aligned}$ | $\begin{gathered} 4 \\ 5 \\ 6 \\ 7 \mathrm{~L}-\mathrm{S} \end{gathered}$ | $\begin{aligned} & 9 \mathrm{c} \\ & 9 \mathrm{c} \\ & 9 \mathrm{c} \\ & 9 \mathrm{c} \end{aligned}$ | 80 c 80 c 80 c 80 c |

## PILOT LIGHT SOCKET



Two contact bayonet-type socket. Requires $3 / 4^{\prime \prime}$ dia. hole for mounting tlange. With retaining ring, 2 solder lugs. 99N247-Each 156 10 for 1.35

## NEON GLOW LAMP

$1 / 4$ watt. Two-contact bay-onet-type base. Reslstorless type for $105-125 \mathrm{~V}$. AC-DC. AC starting voltage 65, DC, 90. For test instruments.
99N303-Each.....
106

## ARGON BLUE GLOW LAMP

Blue glow $21 / 2$ watt lamp. Used in neweat photographic contect printers, useful as nite-lite. Startprinters, userul as nite-lite. StariEdison type socket.
98N 12279
19c


## $1 / a^{\prime \prime}$ SHAFT FLEXIBLE <br> COUPLING

Four coupling two $1 / 4^{\prime \prime}$ dia. shafts or for making shaft extensions. Insul. 18 e -9N246-EC
1.60

## DIAL SCALE

$21 / 2 \times 31 / 4{ }^{\prime \prime}$ rectangular dial $21 / 2 \pi 31 / 4$ rectangular dial
scale for right hand closscale for right hand closdensers. Figures from 55
to 170 . For $A C D C$ sets. small portables.
$99 N 147$ 99N 147 10 for.

## DIAL CRYSTAL

Formed and stamped one-plece dome zype plastic crystal for above dial scale. Waterwhite with $3 / \circ^{\prime \prime}$ space for pointer.
99 N 146 - 10 for $40 \mathrm{c} . . . . . . . . . . . . . . . . . . . . . ~$


## PILOT LAMP SHADE

Fits tubular type pilot lamps. 99N24B-Each 35
10 for ..... 20e 100 for...... 1.00


# SOLAR CONDENSERS UP TO 95\% DISCOUNT 



## TYPE DY "TWIST PRONG" MOUNTING

A standard metal cased unit. Hermetically sealed base assures long lite, proper venting and great rigidity. Ideal for many types of service, Light in weight, compact. They save assembly space and time. Terminal codes clearly stamped on case.

| No. | Cap. Mid. | .1 Volts | Each |
| :---: | :---: | :---: | :---: |
| 39N3400 | 15000 | 1.5 |  |
| 99N3401 | 2000 | 6 |  |
| 99N3402 | 100 | 50 |  |
| 99 N 3403 | 15 | 250 | 10 For |
| $99 \mathrm{~N}^{24} 04$ 99 N 3405 | $5,80-20$ | 350 |  |
| 99N3405 | $5,20-20$ | $\begin{aligned} & 25 \\ & 25 \end{aligned}$ | 5 |
| 99N3407 | 120-10 | 150 |  |
| 99 N 3408 | 30.20 | 150 | 86 |
| 99 N 3409 | $50-50$ $40 / 20$ | 150 | 0 For |
| 99N3411 | $40 / 40$ 40.40 | $\begin{aligned} & 150 / 25 \\ & 200 \end{aligned}$ | 75 |
| 99 N 3412 | 20-20 | 350 |  |
| 99N3413 | 30-30 | 350 |  |
| 99N3414 | 15-15 | 1400 |  |
| 99N3415 | 20/20 | 1400/25 |  |
| 99N3416 <br> 99N3417 | 40/50 $16-16$ | $1400 / 300$ | 22 |
| 99N3418 | 30-30 | 450 | 0 For |
| 99N3419 | 140-15 | 450 |  |
| 99 N 3420 | 140-40 | 1450 |  |
| 99 N 3421 | 20/25 | 1450/25 |  |
| 99 N 3423 | $\begin{aligned} & 15 / 15 \\ & 120-20-20 \end{aligned}$ | $\left\|\begin{array}{l} 450 / 350 \\ 25 \end{array}\right\|$ |  |
| 39N3424 | 20-20-20 | 1150 |  |
| 99N3425 | 40-20-10 | 150 |  |
| 99N3428 | 40-20-20 | 150 |  |
| 99 N 3427 | 40-40-40 | 150 | 10 For |
| 99N3428 | 60-40-20 | 150 | 2.25 |
| 99 N 3429 | 10-10-10 | 450 |  |
| 99N3430 | 20-10-10 | 1450 |  |
| 99N3431/20 | 20-20-20 | , 450 | 25 |
| $99 \mathrm{N3433}$ | $15-15 / 1200$ $40.20 / 100$ | $150 / 1.5$ $150 / 10$ |  |
| 39 N 34341 | 10-10/10 | 150/25 | 10 for |
| 39 N 34351 | 10-10/20 | 150/25 | 2.25 |
| 39N343612 | 20-10/10 | 150/25 |  |
| 99N3437 20 | 20-10/20 | 150/25 | 25 |
| 99N3438 | 20-20/20 | 150/25 |  |
| $\begin{aligned} & 99 \mathrm{~N}^{2} 439 \\ & 99 \mathrm{~N} 340 \\ & \hline \end{aligned}$ | 30-20/10 | 150/25 | 10 for |
| 99N34413 | $30-50 / 100$ | $150 / 25$ $150 / 25$ | 2.25 |
| 99N3442 4 | 40-20/100 | 150/25 |  |
| 99 N 341314 | 40-40/20 | 150/25 | 25 |
| 99 N 3445 | 50.50/20 | 150/25 |  |
| 99 N 34455 | 50-50/40 | 150/25 | 10 For |
|  | 60-40/10 | 150/25 | 2.25 |
| 99 N 34815 | 70-30/150 | 150/25 |  |
| 99 N 34495 | $\begin{aligned} & 50-50 / 40 \\ & 30-70 / 5 \end{aligned}$ | 200/25 |  |
| 99 N 3450 | 30-30/25 | $\begin{aligned} & 250 / 200 \\ & 300 / 25 \end{aligned}$ |  |
| 99N345180 | 80-40/20 | 300/25 | 10 for |
| 99N345210 | 10-15/20 | 350/25 |  |
| 99 N 345110 | 10-20/20 | 350/25 | 2.25 |

TYPE DY (confinued)

| No. | Cap Mid. | Volts | Price |
| :---: | :---: | :---: | :---: |
| 99N3454 | 15-15/20 | $350 / 25$ | 25 |
| 99N3455 | 20-20/20 | 350/25 | 25 |
| 99N3456 | 30-30/20 | $350 / 25$ | 10 |
| 99N3457 | 30-30/30 | 350/25 |  |
| 99N 3458 | 10.10/20 | 400/25 | for |
| 99N3459 | 20.10/20 | 400/25 | 2.25 |
| 99N3460 | 20.20/20 | $400 / 25$ |  |
| 99N3461 | 30.10/20 | $400 / 25$ | 296 |
| 99N3462 | 15-15/20 | 450/25 |  |
| 99N3463 | 15-15/40 | $450 / 25$ | 10 10s |
| 99N3464 | 20-20/20 | $450 / 25$ | 25 |
| 99N3465 | 30-30/20 | 450/25 |  |
| 99N3466 | 40-40/40 | $450 / 25$ | 25 |
| 99N3467 | 20-20/60 | 450/350 |  |
| 99N3468 | 8-8/8 | 475/100 | 0 |
| 99N3469 | 30/20/20 | 350/300/250 | 10 |
| 99N3470 | 15/20/20 | 400/300/25 | for |
| 99 N 3471 | 40/20/20 | 400/350/50 | 2.25 |
| 99N3472 | 40/40/16 | 450/400/350 | 25 |
| 99 N 3473 | 40-40-20-2 | 150. |  |
| 99N3474 | 10-40-40-30 | 150. | 10 |
| 99N3475 | 30-15-15-15 | 300 | for |
| 99N3476 | 40-40-20/200 | 150/10 | for |
| 99N3477 | 60-40-20/200 | 150/10 | 2.25 |
| 99N3478 | 40-30/100-40 | 150/25 | 25 |
| 99N3479 | 50-20-20/100 | 150/25 | 25 |
| 99N3480 | 75-75-75/30 | 150/25 | 10 |
| 99N3481 | 80-40-30/100 | 150/25 | 10 |
| 99N3482 | 30-50/20/100 | 150/50/10 | for |
| 99N3483 | 40-40/20/200 | 1.50/50/10 | 2.25 |
| 99N3484 | 50-50-50/25 | 200/25 |  |
| 99N3485 | 60-40-20/50 | 300/25 | 256 |
| 99N3486 | 30-30-15/30 | 300/50 |  |
| 99N3487 | 30-30-10/20 | 350/25 | 10 for |
| 99 N 3488 | 40-40-20/20 | 350/25 | 275 |
| 99 N 3489 | 10-10/10-10 | 350/300 | 2. 20 |
| 99N3490 | 30-30-15/20 | 450/50 |  |
| 99 N 3491 | 30-30-15/30 | 450/50 | 10 |
| 99N3492 | 40-40/5/20 | 350/250/25 |  |
| 99N3493 | 30-30/15/20 | 350/300/25 | for |
| 99N 3494 | 10-10/10/20 | 450/350/25 | 2.25 |
| 99N3495 | 30/20/10/20 | 350/300/250 |  |


"MINICAP" DRY ELECTROLYTICS
Small hermetically sealed metal cased. Units have arial bare wire leads. Dual units have common negalive. Same less paper insulating tube.

| No. | \|Mid.|Volis| |  | Each | 10 for |
| :---: | :---: | :---: | :---: | :---: |
| 99N3341 | 25 | 25 | 12c | 1.08 |
| 99N3342 | ¢ | 25 | 10 c | 90 c |
| 99N3343 | 10 | 25 | 10 c | 90 c |
| 99N3344 | 2 | 50 | 08 c | 72 c |
| 99N3345 | 10 | 50 | 12 c | 1.08 |
| 99N3346 | 25 | 50 | 12 c | 1.08 |
| 99N334 | 50 | 50 | 12 c | 1.08 |
| 99N3348 | 100 | 50 | inc | 1.08 |
| 99N3319 | 8 | 100 | 10 c | 90 c |
| 99N3350 | 10 | 150 | 12 c | 1.08 |
| 99N3351 | 250 | 150 | 12 c | 1.08 |
| 99N3352 | 4 | 250 | 12 c | 1.08 |
| 99N3353 | 5 | 250 | 12 c | 1.08 |
| 99N3354 | 10-10 | 450 | 19 c | 1.70 |

WAX IMPREGNATED CONDENSERS


Single, dual and triple section condensers coated cardboard tubes. $5^{\prime \prime}$ long color coded leads.

| No. | Cap. Mid | Volts | Each | 10 for |
| :---: | :---: | :---: | :---: | :---: |
| 99N3310 | 16 | 1450 | 2ye | 2.60 |
| 99N3311 | 30-30 | 1300 | ayc | 3.50 |
| 99N3312 | 8-8 | 1450 | Jyc | 3.50 |
| 99N3313 | 40-40-12 | 150 | دye | 3.50 |
| 99N3314 | 80-40-20 | 150 | 39e | 3.50 |
| 99N3315 | 100-20/200 | 150/10 | 39 c | 3.50 |
| 99N3316 | 80-20/100 | 150/15 | 39c | 3.50 |
| 99N3317 | 20-10/5 | 150/25 | 25 c | 2.25 |
| 99N3319 | 40-20/20 | 150/25 | 39 c | 3.50 |
| 99N3320 | 40-40/50 | 150/25 | 39 c | 3.50 |
| 99N3321 | 50-20/10 | 150/25 | 39 c | 3.50 |
| 99 N 3322 | 50-50/20 | 150/25 | 39 c | 3.50 |
| 99N323 | 60-30/150 | 150/25 | 39 c | 3.50 |
| 99N3324 | 20-16/10 | 200/25 | 29 c | 2.60 |
| 99N3325 | 8-8/25 | 450/25 | 39 c | 3.50 |
| 99N3326 | 40-40-40-101 | 1150 | 39c | 3.50 |
| 99N3327 | 30-20-20/25 | 150/25 | 39c | 3.50 |
| 99N3328 | 20-10-5/50 | 450/25 | 29c | 2.60 |

## PLUG-IN DRY ELECTROLYTICS

Type DO. Plugs into octal socket. Aluminum internal construction. Replaces wet electrolylics proviaing surge voltage does not exceed 525 volts.

| No. I Cap. Mid. 1 Volts | Each |  |
| :---: | :---: | :---: |
| 99 N3329\|15-15/20 | $1450 / 25$ | 25 s |
| 99 N3330\|10-10/20 | $1450 / 25$ | 10 for |
|  | 2.25 |  |



TYPE D DRY ELECTROLYTICS
High quality, metal cased units. Insulated can unit with flexible leads. Provides excellent protection aqainst humidity. Mounts in $7 / 0^{\prime \prime}$ hole. Less Palnut.

| No. | Mid. $\mid$ Volts | Each | 10 for |  |
| :---: | :---: | :---: | :---: | :---: |
| $99 N 3331$ | 4 | 600 | $39 c$ | 3.50 |
| 99N3332 | 8 | 475 | $59 c$ | 4.40 |
| 99N3333 | 8 | 600 | $59 c$ | 5.30 |
| 99N3334 | 8.8 | 450 | $59 c$ | 5.30 |



TYPE DT ELECTROLYTICS
Extremely small size units for use where space is limited.

| No. | Mid. | Volts | Eack | 10 for |
| :---: | :---: | :---: | :---: | :---: |
| 98 N 3335 | 50 | 25 | 10 c | 90 c |
| 99N3336 | 100 | 25 | 10 c | 90 c |
| 99N3337 | 8 | 50 | 8 c | 72 c |
| 99\% 3338 | 10 | 50 | 10c | 90 c |
| 99\%3338 | 16 | 100 | 8 c | 72 c |
| 99N3340 | 4 | 150 | 8 c | 72 c |

## SILVER MICA CONDENSERS

Molded bakelite silver mica condensers. All individually tested for accuracy or capacily, voltage breakdown and leakage. All rated DC working DC working are 1000 volt test, those tested at 300 volts Wik. No. 600 volt tes.

| Stk. No. | Mid. | WVDC | Type | Price |
| :---: | :---: | :---: | :---: | :---: |
| 99N3270 | .000075 .00005 |  | 0 |  |
| 99N3265 | . 000025 | 300 | $0$ | Each |
| 99N3272 | . 0001 | 300 | 0 | 6 |
| 98N3448 | . 000125 | 500 | 0 | 10 |
| 99N3230 | . 00015 | 500 | 0 | 10 for 54c |
| 98N 3502 | $\begin{array}{r} .00033 \\ .00082 \end{array}$ | 500 | O | Each 8c |
|  |  | 500 | 0 | 10 for 72c |
| 98N3386 99N3231 | $.001$ |  | O |  |
| 99N3232 | . 0019 | 500 500 | S | Each 5 S |
| 99N3268 | . 0022 | 300 | S | 10 for 1.35 |
| 99N3233 | . 0038 |  |  |  |
| 99N3271 | . 0049 | 300 | S | Each 24c <br> 10 for 2.15 |



0

MOLDED BAKELITE MICA CONDENSERS

| Stock No. | Mid. | WVDC | Type | Price |
| :---: | :---: | :---: | :---: | :---: |
| 98N 3397 $98 N 3485$ | . 0000047 | 500 | 0 |  |
| 98N3430 | . .0000027 | 500 |  |  |
| 98N3488 | . 00005 | 500 | O | Each |
| 98N3489 | . 000075 | 500 | $\bigcirc$ | A |
| 98N3375 | . 000125 | 300 | 0 |  |
| $\begin{aligned} & \text { 98N } 3479 \\ & 98 \mathrm{~N} 3491 \end{aligned}$ | . 00015 | 500 |  | 10 for 35c |
| $\begin{aligned} & 98 \mathrm{~N} 3491 \\ & 98 \mathrm{~N} 3573 \end{aligned}$ | $\begin{aligned} & .00015 \\ & .000175 \\ & \hline \end{aligned}$ | $\begin{aligned} & 500 \\ & 500 \end{aligned}$ | $0$ |  |
| 98N3494 |  |  |  |  |
| 98N3496 | . 0005 | 500 | $\bigcirc$ | Each 5c |
| 98N3456 | . 0005 | 500 | W | 10 for 45c |
| 99N32S4 | . 001 | 500 |  |  |
| 98N3385 | . 0068 | 300 | S | $10 \text { for } 50 \mathrm{c}$ |

# OUTSTANDING BARGAINS 



SOLAR DY CONDENSERS
Outstanding values al give away prices. 'Twist Prong' iype. Hermetically sealed.
Other values listed on page 154

| Slock No. | Cap$M F D$ | Volt. | Price |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Each | 6 For |
| 99\% 3355 | 30-30 | 150 | . 19 | 1.75 |
| 99N3356 | 40-20 | 150 | . 19 | 1.75 |
| 99N3357 | 20-10/50 | 450/50 | . 25 | 2.25 |

## ELECTROIYTIC CONDENSERS



Top quality electrolytic condensers. Twlst prong type. Rated at 100 mid ., So working volts DC. Metal can $1^{\prime \prime}$ dia. ${ }^{x} 21 / 2^{\prime \prime}$
99N 3216 Lots of 10

Each 96 16 mid electrolytic. 500 working volts DC. Can 11/6"dia. x $2^{\prime \prime}$
99N3219
Each 296

HI-FREQUENCY ANTENNA
Hi-Frequency Antenna. Designed for use with Signal Corp SCR-522 transmitter-recelver. Ideal for use with high irequency ( $100-156 \mathrm{MC}$ ) amateur equipment. Overall length is approximately 30 inches. 99N9581-Shpg. Wt. 4 lbs.

TYPE 3AG FUSES

3For Radios and Amplitiers 99N287-1/6 amp 99N285- $1 / 4 \mathrm{amp}$ 99N288-3/4 amp 99N286-11/2 amp Any type.


HAMMARLUND RF CHOKE
$250 \mathrm{mh}, 60 \mathrm{mc}, \mathrm{DC}$ res, 420 ohm . In heavy plasisc case. Type RFC In heavy plasic case. Type RFC
$250.11 / 4$ dia. $x 13 / 4^{\prime \prime}$. $250.11 / 4$
$98 N 8526$


## AIR PADDER CONDENSERS

Ideal for circuits requiring constant capacity under all conditions. 9.100 mmid . $17 / \mathrm{s}^{\prime \prime}$ deep Fits $11 / 2^{\prime \prime}$ dia. forms.
98N10091-Each
23
Sots of 10 ....
.1 .95

## ACORN TUBE SOCKET

Low loss sockel with rugged spring contacts for 954 and 955 99N6980
Lots of 10
$5 c$
45 c


## MOTOR REPLACEMENT CAPACITOR

Oil filled. 3.5 mid .330 V . AC Solder lug 98N2981-2"x13/4" 39c

## OIL IMPREGNATED TUBULARS



OIL FILLE STANDOFF TRANSMITTING CONDENSERS

An excellent buy for Hams. Rec angular metal case. Oil filled and impregnated. Porcelain tandoff insulators with solder lags and locknuts. Hermetic ally sealed.


Compact, non inductive, low power factor 98N3252-. 01 mfd 1500 DCWV. Each 12 c $98 \mathrm{~N} 3254-.05 \mathrm{mid} .1000$ DCWV.

OIL-FILLED BATHTUB CONDENSERS

| Stock No. Illust. | MFD | WVDC | Each | 10 For |
| :---: | :---: | :---: | :---: | :---: |
| 99 G 3217 A | .25 | 600 | . 17 | 1.35 1.50 |
| 99G3246 A | . 5 | 600 600 | . 19 | 1.50 2.25 |
| 99G3248 A | $\xrightarrow{1.0}$ | 600 600 | .25 .19 | 2.25 1.50 |
| 99G3251 ${ }_{\text {99G3260 }}$ A | $\frac{.1 \times 1}{.1 \times .1 \times .1}$ | 600 400 | . 19 | 1.50 .75 |
| 99G3259 A | -1x. $5 \times .5$ | 100 | . 09 | . 75 |
| 99G3250 B | 25 | 25 | . 19 | 1.50 |

## CARDBOARD ELECTROLYTICS

Compact cardoard tube electrolytics with universal mounting lugs, that can be soldered on
BARGAINS IN PAPER TUBULARS
Excellent quality paper by-pass condensers at new, unbelievably low prices. Sizes are those most used by servicemen and ex.


| Stock No. | Cap. MFD | Wkg. Volis | Each | 10 For |
| :---: | :---: | :---: | :---: | :---: |
| 99N3284 | . 001 | 600 | . 06 | . 54 |
| 99N 3297 | . 01 | 400 | . 04 | . 31 |
| 99N3285 | . 25 | 600 | . 09 | . 81 |

## SPECIAL CONDENSER VALUES

A great opportunity to save money on condensers Midgets have bare wire leads. Can types hermetically sealed, spade mounting lugs. Polarity indicated.

| Stock No. | MFD | Volis | Each | 10 For |
| :--- | :---: | :---: | :---: | :---: |
|  | 99N3222 | 16 | 450 | .29 |
| 90N3309 | 10 | 50 | 2.70 |  |
| 99N3308 | 8 | .15 | 1.35 |  |
| 99N 3307 | 12 | 150 | .12 | 1.08 |
| 99N3306 | 16 | 150 | .12 | 1.08 |
| 99N3305 | $5-5$ | 150 | .15 | 1.35 |
| 99N3304 | $10-10$ | 50 | .15 | 1.35 |
| 99N3223 | 20 | 150 | .15 | 1.35 |
| 99N3225 | 40 | 150 | .19 | 1.70 |
| 99N3224 | $20-20$ | 150 | .27 | 2.50 |
| 99N3300 | $30-20$ | 150 | .38 | 2.50 |
| 99N300 | $40-20$ | 150 | .40 | 3.50 |
| 99N3302 | 40.40 | 150 | .44 | 3.90 |
| 99N3226 | $50-30$ | 150 | .39 | 3.50 |

OIL IMPREGNATED PAPER CONDENSER
Cylindrical type can, solder lugs. 2 mid .


ECHNICAL INFORMATION GLADLY SUPPLIED

# AM-FM CHASSIS VALUES 



## LOW-PRICED DELUXE AM CHASSIS

Save money-install it yourselfl Here is a superb-performtng radio chassis at a dollar-saving price-a supersensitlve superhet radio with $10^{\circ "}$ speaker for maximum volume and tonal range. Automatic volume control eliminates atmospheric fading and volume rises, maintains listening level you set with manual control. Continuously variable tone control adjusts from deep-throated bass to clear-tone treble. Latest push-pull audia circuit brings you 3 watts output for glorious realism to your circuit brings you 3 watis output or glorious realism to your
radio reception. Built-in loop antenna eliminates traling wire radio reception. Built-in loop antenna eliminates trailing wirs or outside antennas-provision made for outside antenna
should you desire one. Large easy-to-read slide sule dial tunes entire broadcast band. Tubes used: 6SA7, 6SF7, 6SL7, 2-25L6 plus two 2526 rectifiers. Overall size: $8^{\prime \prime} \times 11 \%^{\prime \prime \prime} \times 7^{\prime \prime}$ IN701-Shipping weight 10 pounds.
24.95


## NEW FM-AM CHASSIS AND SPEAKER

Here's a powerful, deluxe FM AM chassis that brings in both your favorite reqular broadcast programs plus brilliant, staticless FM-a iwo-bend recelver for the price of onel This is a cortplete unit, including a bullt-in power supply and $10^{\prime \prime}$ heavy-duty speaker...ready for installation in an existing cablnet or one of your own choosing. Latest type FM-AM circuit of high sensitivity and selectivity. Covers 550 to 1600 KC and 88 to 108 MC bands. Large easy-to-read slide rule dial makes tuning simple and fast. Other ieatures include a bullt-in loop for standard broadcast acopan and tone vided for connection of a record player. Tubes: jack is pro6 , (2) 6BA6, 6AQ5, 6AT6, 6 AL5 and $6 \times 4$. For $110 \mathrm{~V}, 60$ cycle AC.
IN820-Shipping Welght 20 lbs
47.50

## dOLLAR SAVING TUBE SALE!!



## DOLLAR SAVING TUBE SALEII

Some are boxed, some are bulk, but they are all name brands, fully quaranteed tubes such as GE, RCA, Sy vanla, etc. Quanililes llmited.

| Type | Each |
| :---: | :---: |
| 155 | 59* |
| 3 Q 4 | 49 |
| GAG5 | 89 |
| 6AL5 | . . 816 |
| 6 AT | 67 |
| 6146 | 49 |
| 6 K 7 | 59 |
| 6SA7GT. | . 67 |
| 6SC7 | . 67 |
| 6SG7 | . 67 |
| $6 \mathrm{SJ7}$ | 62 |
| 6SQ7GT | 62 |
| 6 V6GT. | 59 |
| 12 A 6 | 79 |
| $12 \mathrm{SA} \mathrm{I}_{\text {GT }}$ | 69 |
| 125G7GT | . 62 |
| 12 SK 7 GT | . 63 f |
| $125076 T$ |  |
| 1486 | 59 |
| 3585 | 67 |
| 35 L6GT. | . 67 |
| $35 Y 4$ |  |
| 3525 GT | 49 |
| 5015 | 67 |
| 50 L 6 | 69 |

## SPECIAL PURPOSE TUBES

 99N2905-OD3/VR150...Lot 10/E 日. 39 99N2903-954. Lot Ea. 44 E 99N2904-Einac 99N2904-E1nac 15E... Lot 10/Ea. 80 99N2903-7193..

## IF TRANSFORMER

 SPECIALIAir core, condenser tuned, shielded IF, 456 KC normal peak. Standard spade mitg. lugs. Can size: $13 / 8^{\circ} \times 13^{\circ} / 8^{\prime \prime} \approx$ $3^{3}$.
$\qquad$ Each
 39c

## LITZ WOUND

## AC-DC COILS

Hi-gain, unshielded. 175 550 meters. Hi-impedance pri., 4 bank Litz wound see. Tunes with . 000365 mid. cond. 98N10012-Anteমna Coil...........32c 98N10095-R. F. Coll. ................. 324


TRIMMER ASSORTMENT
20 Assorted Trimmers, Padders. Most are standard ceramle. 98N10203. 29c

## 5-PUSH-BUTTON SWITCH

 Each button DPDT: all common in normal position. Shafts extend $21 / 4^{\prime \prime}$98N12592-Lots/10.49..EE. 6e MIDGET KNIFE SWITCH DPST panel mount. $1 y^{\prime x} \times 1$ ". With mounting nuts.
99N4232.................... 15
As above, except SPDT.
99N4233...................... 12
Plate Lood Relay Heavy-duty 6000 ohms SPST. Normaly open. Rated 10 amps at 110 V. $24 \times 15 / 8 \times 1{ }^{10}$. Mlg. centers $25 / 8^{\prime \prime}$. 99N3978..
.89c


## ALL.AMERICAN TUBE KIT

 Popular replacement kit of the standard brond tubes. Includes one each of 50L6, 3525,12SQ7, and 12SK7 tubes. A real bar aln in replacement 3lbs.Listprice 8.95 . 99N9549..ADJUSTABLE S.P.D.T. RELAY


Sensitive relay. 2000 ohm coll. For plate clrcuits, photo cell applications. Min. pull-in current anly $2.5 \mathrm{ma} .2-\mathrm{mtg}$. holes. $3 \frac{1}{6} \times 21 / 8 \times$ 2 $1 /{ }^{\prime \prime}$. 99N4033
1.49

## SPECIAL RELAY



45 V DC relay 2000 ohm coll Contacls: one set of SPDT rated 50 amps, at 6 volts to 20 amps at 110 volts, and one sel of SPST normally open normally open coniacts rated
5 emps of 6 volts to 2 amps. at 110 V. Excellent for tubo circuits, phoiocell alarm sys fems, hosts of other applicalions, $31 / 2 x$ $21 / 4 \times 35 / 3$ ". Dust cover mounting screws, and wiring dlagram 99N3983.

89c

## 4 P.D.T. 24 VOLT RELAY

1/8" pure silver contacts rated at 3 amps. 110 volts AC. 250 ohms DC coll for 24 volt operation. 6-32 threaded mounting holes on 1 ? " mounting centers. Size: $2 \times 15 / 8 \times 15 / 8^{\prime \prime}$. 99N3996. $\qquad$ 49

## S.P.D.T. RELAY



SPDT contacts of ${ }^{\prime \prime}$ diameter fine silver, rated at 550 watts non-Inductive load at 60 cycles. Corl operates on 19 to 29 volts 50.60 cycle AC, DC resistance of 50 ohms, 1500 volt Insulation $21 / 4 \times 15 / 8 \times 11 / 8^{\prime \prime}$. 98N3950..

69

# PACKAGED HARDWARE 

1
ASST. MACHINE SCREWS
All standard sizes used in electronic and similess work in handy inexpensive assortment. Contains approximately 40 No. $6,8,10$ scrows ${ }^{\text {" }} 101^{\prime \prime}$ long.
7N15458-Assortmont.
17N15457-6-32x\%, pkg. of 35 .
7N15459-8-32x 12 , pkg. of 30 .

## SMALL SCREWS AND NUTS

Spectal assortment of extra mall acrews and nuts Nos. 2 and 4 noeded in olectronic and experimental work; fos tantoning small pasts, and for replacing tivets. Ap proximately 30 assorted screws and 30 assorted nuts.
17N15455-

## SELF TAPPING SCREWS



Cut thelr own thread in either metal or plastic. Ideal for mounting parts on chassis, replacing rivets and eyelets. Package of approz. 30 assorted 812 es.
7N15450-Assortment 7N15451-Pkg. app. 25, size 6x36. 17N15452-Pkg. app. 25, size $8 x^{3} \frac{102}{}$


PHONO PICK-UP SCREWS
Knurled head steel screws, antlque bronze. For popular pick-ups and recording beads. Approx. 10 asst. 17N15409-


WOOD SCREW ASSORTMENT
Handy assortment for workshop or home. Contains approximately 30 round and flat-head screws of popular sizes in brass and steel to meet all your requirements. 17N15453-

ORNAMENTAL SCREWS
Real valuel Antique bronze tinished roselte head screws for mounting apeakers and other radio installa tlons. Pkge contains 15 asst. sizes. 17N15449-

## SPADE BOLTS

Indispensable for attaching condenser coils, IF cans, for Experimenters, Servicemen and manufac tusers. Stud size 6-32. Hole size No 6. Package of approx. 25 assorted lengths
17N15443-
SMALL SCREW ASSORTMENT
Handy assortment for home or work, shop. Contains apprax. 30 small brass a steel wood screws sizes 1 10 3 up $103 / 6^{\prime \prime}$ for name plates and 17 N15454

## RUBBER FERT

Made of oll resistant syn-
 thetic rubber for racio phonograph and amplifier Pases. Screw or tack type. Package of 12 assorted screw type.
17N15407-
Pkqe. of assort. tack type.
SNAP-IN TRIMOUNTS
To fasten dial scales, loop antennas and backs on plastic cabineis, etc. PEg. of 30 assi. 17N14839-

HOLE PLUGS
10 assorted size snap button hole plugs up to $1 / 16^{*}$ thick. Per. 10 asst.
17N14837-

## VENTILATING PLUGS



Forchasmis, amplifiers, racks, transmitters, elc. Snaps into 1" hole. Pkg. of 2 plugs. 17N15460-
TERMINAL LUGs
Available in 6 popular sizes for radio and olectronic brass.

| Stock No. | Fig. No. | Approx. No. |
| :---: | :---: | :---: |
| $17 N 15419$ | Asst. | 40 |
| $17 N 15420$ | 1 | 30 |
| $17 N 15421$ | 2 | 25 |
| $17 N 15422$ | 3 | 25 |
| 17N15423 | 4 | 25 |
| $17 N 15424$ | 5 | 25 |
| $17 N 15425$ | 6 | 40 |

## RADIO KNOE SPRING



Finest grade so lected sieel
springs in all requlars sizes and shapes. Package of approximately 16 assorted. 17N15437-

## SPECIAL MOUNTING NUTS



Vartous kdnds of nuts used on volume controls .eic. Cadmium or nickol plated. App. 15 ass't. 17N15443 -
$24 c$

## ANY ITEM

## ON THIS PAGE

## $24 c$

## SPACERS

1Assortment of metal and insulating spacers. Accommodates No. 6 and No. 8 screws. 17N15402-App. 12 asst. Insula! 17N15403-App. 12 assi. metal

## SMALL COTTER \& HAIRPINS

Assartment of most popular sizes of cotter and hairpins. Valuable aid in radio and phonograph i $\theta$ pair Package of approx. 50
17Nis40s-17Ni5406-

## STEEL SET SCREWS

Hardened steel set screws, for radio knobs, record changers, etc. dio knobs, record changers, etc.
Approximately 15 assorted sizes. Approximat

## METAL WASHERS

Cadmium plated. Steel washers. Approx. 80 assorted small sizes. 17N15433-

RINGS AND "C" WASHERS


Standard types and stzes for servicing of volume controls and record changers. Sizes whatts $1 / 8^{\prime \prime}$ to $5 / 16^{\prime \prime}$ diam.
Description Ayprox. No. Stock No. Rings and Warhers
C washer $1 / 4^{" 1}$ shaff 17N15427 17N15429 C washer $1 / 4^{n}$ shaft
C washer $3 / 16^{\prime \prime}$ shaft


## SPRING WASMERS

For recond changer, automatic tuning assemblies. Assortment of approx. 15 assorted phosphor-bronze and ste0l friction washers. 17N15404

EXP ANSION SPRINGS
Handy for radio, electrical shops, laboratories. Assortments contain various sizes for record changers and dial drives.
17N15434-10 Asst. large aprings. 17N15435-10 Assi. small springe


## FUSE CLIPS

Made al nickel platod spring brass for single hole mounting. Pkg. 10 assorred.
17 N 15426

## MACHINE SCREW NUTS

"Small Pattem" nut for electric trades. Cadmium plated.

| 17 N 15446 | Asst. | 35 |
| :--- | :--- | :--- |
| 17 N 15447 | $6-32$ | 35 |
| 17 N 15448 | $8-32$ | 30 |

## ACORN NUTS

Improves appearance on panel assemblies and cabinets. Pal type steel nuts, self locking. 17N15444

CHASSIS MOUNTS


Long lasting resllient synthette rubber. To give chassie floating effect. Plg. of 10 assorted. 17N15432-

PHONO MOTOR DRIVES
Preclaion-made replacements lor standard motor drives. Made of abrasionresistant synthetic rubber to insure long, serviceable wear.

| No. | I.D. | O.D. | Thick | Per pkg. |
| :---: | :---: | :---: | :---: | :---: |
| 17N15413 | $2^{\prime \prime}$ | 23, ${ }^{\text {a }}$ | 5/32" | 2 |
| 17N15414 | $11 / 2$ | 13/4** | 3/16" |  |
| 17N15415 | \%" |  | $3 / 14^{\prime \prime}$ | 3 4 |
| 17N15417 | $534^{\prime \prime}$ | $6^{\prime \prime}$ | 3/16" | 1 |



## CORD STRAIN RELIEFS

Provides a grommet and strain relief in one piece. For use on appliance, radio and amplifies power cords. Whl prevent insus lanon of wire from being cut os damaged. Package of 4. 17N15431-


## ANGLE BRACKETS

Handy brackets of various lengths and shapes. Procision made of steel, or brass and plated. Pkg. of approximately 15 assta
17N15t18-


Three assortments of key wrenches to ftt all standard Hox and spline socke screws used in radio and electronic oquipment. A "must" tor the servicomand Asst. of 4 small Hex wrenches to fit sel screws No. $4101 / 4^{\prime \prime \prime}$, cap screws No. 2 to 8. 17N15410-
Assortment of 3 medium Hex wrenches to fit sel screws $1 / 4^{\prime \prime}$ to $7 / 16^{\prime \prime}$ and cap screws No. 8 to $5 / 16^{\prime \prime}$.
17N15411-
host. of 4 small spline wrenches to fit set screws $14^{n}-7 / 16^{n}$; cap scws. No. 8 to $5 / 16^{\circ}$. 17N15412-

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| Insulato |  |
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## READ THIS PAGE CAREFULLY FOR FASTEST POSSIBLE SERVICE <br> HOW TO ORDER

Use our convenient order blank (additlonal blanks sent on request) write in ink, legibly, and not more than ONE item to a line. Make sure you writ the exact stock number and that the price is the one quoted for the item you want. Specify how we shall make ship ment by checking the preferred square "Parcel Post", Express" etc. We shal 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 remarks relaive to your ordar on a separate sheet a paper. Make sure you include sufficien postage, all overpayments promptly funded (if overpayment is under lo we wlll credit your account).
NOTE: In many instances, it. is impos sible to show shipping welghts. tically all cases, it is a simple matte o estimate the welght of each article. Please be sure to include sufficient
posiaqe. We will credit you with any posfaqe. W
overpayments.

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We buy for cash and sell for cash; this explains our low price pollcy. We do no carry credit accounts, and we pass on to our customers all savings affected by the elimination of costly bookkeeping. We will ship C.O.D. If desired, providino a deposit of at least $20 \%$ accompanles your order. C.O.D. parcels may be shipped ONLY to places in the 48 states 0 the U.S. and to U.S. territories. On smal orders, remittance in full saves you extra costs.

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All orders outside of the continental United States are handled at out main of to in New York, and should be marked All prices are net For Export Division City warehouse, subject our New York out notice. Payment to change with confirmed, imevocable must be made by conf irmed, irrevocable letter of credit or remittance in U. S. dollars on a Néw York bank, and should include enoughtio cover shipping insurance, and consular expenses. All orders should have a mintmum merchandise value of $\$ 10.00$. Goods are packed in cardboard cartons; for wooden export packing there is an additional charge. Please send all correspondence by alr for faster service

## $2 \%$ TRANSPORTATION <br> ALLOWANCES

On domestic mall orders of $\$ 100.00$ or more, we allow you to deduct $2 \%$ from the tor as transportation allowance, with the following exceptions: All Lafayette and National Co. products; all ttems sold under Fair Trade requlations; all ltems marked "Shipped Postpald"

## RETURNS

If you find it necessary to return any mer chandise for adjustments, please write in advance stating the following: reason for return-when and where purchasednumber of sales slip (if purchased over the countes). If your shipment Is received damaged, obtaln a report from the post moster or expressagent and mall it to us Use a separate sheet of paper for all adustment matter; do not add remarks to a new order for parts. Do not include money n the package you return. When returning merchandise, pack carefully, insure, and wilte your name and address on all packages and letters

## FINAL PRICES

Prices shown in this catalog are net. All discounts have been decucted, in cluding 2\% discounts for cash. Prices are aubject to change without notice; we give customers the beneflt of all reductions taking place after the catalog is publlshed.

## POSTPAID ITEMS

Items marked "Shipped Postpaid" do not equire postage. Postpald ltems refer only to shipments made within the 48 states of the U.S. only (does not include U.S. possessions).

## SENDING MONEY

The safest and best way to send money is by: Amerlcan Express; Post Office or Telegraph Money Order; bank drafts; firm checks: stamps. Do not send cash. If absolutely necessary to remit cash, send by reqistered mall only

## Cafayette Radio

## NEW YORK 13, N. Y <br> 110 Federel <br> 10. MASS. <br> NEWARK 2, N. J. <br>  <br> 303 <br> 3

 BRONX542 L. fordnam foed 58 , N. Y.

## PARCEL POST RATES FOR ALL ZONES

Parcels up to 8 ounces may be shipped
any were in the United States for 64 . $\begin{aligned} & \text { in lenqth and airth comblned, at widest } \\ & \text { point. Example: a package } 35^{2} \\ & \text { long, } 10^{\circ}\end{aligned}$ Paywaere in the United States for 64 . not exceed shipments to any zone must not exceed 70 pounds. The limit of size on all parcel post packages is 100 inches wide and $5^{\circ}$ high measures $65^{\prime \prime}$ in length and girth combined (length $35^{\prime \prime}$, plus twice

| ZONES |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Wt. } \\ \text { In } \\ \text { Lbs. } \end{gathered}$ | First Up to 50 Ml . | $\begin{aligned} & \text { Second } \\ & 50 \mathrm{to} \\ & 150 \mathrm{MI} . \end{aligned}$ | Third 150 to 300 MI 300 M1. | $\begin{aligned} & \text { Fourth } \\ & 300: 10 \\ & 600 \mathrm{Mi} . \end{aligned}$ | $\begin{gathered} \text { Fifth } \\ 600 \mathrm{to} \\ 1000 \mathrm{Mi} . \end{gathered}$ | $\begin{aligned} & \text { Sixth } \\ & 1000 \text { to } \\ & 1400 \mathrm{MI} . \end{aligned}$ | $\begin{aligned} & \text { Seventh } \\ & 1400 \text { to } \\ & 1800 \mathrm{Mi} . \end{aligned}$ | Elghth Over $1800 \mathrm{M1}$. |
| 1 | \$0.09 | \$0.09 | \$0.10 | \$0.11 | \$0.12 | \$0.13 | \$0.15 | \$0.16 |
| 2 | . 11 | . 11 | . 12 | . 15 | . 18 | . 20 | . 24 | . 27 |
| 3 | . 12 | . 12 | . 14 | . 18 | . 23 | . 27 | . 33 | . 38 |
| 4 | . 13 | .13 | . 16 | . 22 | 28 | 34 | . 42 | 49 |
| 5 | . 14 | . 14 | . 18 | . 25 | 34 | . 41 | . 52 | . 61 |
| 6 | . 15 | . 15 | . 20 | 29 | . 39 | . 48 | . 61 | 72 |
| 7 | . 16 | . 16 | . 22 | . 32 | . 44 | . 56 | . 70 | . 83 |
| 8 | . 17 | . 17 | . 24 | . 36 | . 50 | . 63 | . 79 | . 95 |
| 9 | . 18 | . 18 | 26 | . 39 | . 56 | . 70 | . 89 | 1.06 |
| 10 | . 19 | . 19 | 28 | . 43 | 61 | . 77 | 98 | 1.17 |
| 11 | . 20 | . 20 | . 30 | . 46 | . 66 | . 84 | 1.07 | 1.29 |
| 12 | . 22 | . 22 | . 32 | . 50 | . 72 | . 92 | 1.16 | 1.40 |
| 13 | . 23 | . 23 | . 34 | . 54 | . 77 | . 99 | 1.26 | 1.51 |
| 14 | 24 | . 24 | 36 | . 58 | . 82 | 1.06 | 1.35 | 1.63 |
| 15 | . 25 | . 25 | . 38 | . 61 | . 89 | 1.13 | 1.44 | 1.74 |
| 16 | . 26 | . 26 | . 40 | . 65 | . 94 | 1.21 | 1.53 | 1.85 |
| 17 | . 27 | . 27 | 42 | . 68 | . 99 | 1.28 | 1.63 | 1.97 |
| 18 | . 28 | 28 | 44 | . 72 | 1.05 | 1.35 | 1.72 | 2.08 |
| 19 | . 29 | . 29 | . 46 | . 75 | 1.10 | 1.42 | 1.81 | 2.19 |
| 20 | . 30 | . 30 | 48 | . 79 | 1.15 | 1.49 | 1.91 | 2.31 |
| Each Added lb.- Add | 14 | $1 \$$ | 2 | 44 | $6 ¢$ | $7 \%$ | 9 | 114 |

## EXPRESS CHARGES

Express Charges ore determined by the welght of the shipment and distance of Destination Office from Originating Office. The following chart will enable you to

| Maximum Dlstance in Miles | $50 \mathrm{Mi}{ }^{\text {c }}$ | $\begin{aligned} & 150 \\ & \mathrm{Mi} . \end{aligned}$ | $\begin{aligned} & 300 \\ & \mathrm{M1.} \end{aligned}$ | 500 $M 1$. | 750 M1. | $1000$ | $\begin{aligned} & 1500 \\ & \mathrm{M1} . \end{aligned}$ | $\begin{gathered} 2000 \\ \mathrm{M1} . \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost up to 5 lbs. | \$0.78 | \$0.89 | \$0.91 | \$0.93 | \$1.00 | \$1.01 | \$1.09 | \$1.37 |
| " " 10 lbs . | . 86 | . 99 | 1.05 | 1.10 | 1.21 | 1.24 | 1.41 | 1.96 |
| -15 lbs. | . 92 | 1.13 | 1.19 | 1.26 | 1.44 | 1.48 | 1.73 | 2.55 |
| " ${ }^{\prime \prime}$ " 20 lbs . | . 96 | 1.24 | 1.32 | 1.43 | 1.66 | 1.71 | 2.05 | 3.14 |
| ". 25 lbs. | 1.01 | 1.37 | 1.47 | 1.59 | 1.88 | 1.96 | 2.37 | 3.74 |
| " " $\quad 35$ lbs. | 1.10 | 1.60 | 1.75 | 1.92 | 2.32 | 2.43 | 3.01 | 4.92 |
| " " 45 lbs . | 1.20 | 1.84 | 2.03 | 2.25 | 2.77 | 2.90 | 3.65 | 6.11 |
| " " 55 lbs. | 1.28 | 2.08 | 2.27 | 2.58 | 3.21 | 3.38 | 4.28 | 7.29 |
| " $\% 75$ lbs. | 1.47 | 2.55 | 2.83 | 3.24 | 4.07 | 4.33 | 5.56 | 9.86 |
| " " 95 lbs. | 1.66 | 3.04 | 3.38 | 3.90 | 4.98 | 5.27 | 6.84 | 12.03 |
| ' 100 lbs . | 1.68 | 3.14 | 3.55 | 4.07 | 5.20 | 5.51 | 7.16 | 12.62 |

## INSURANCE

Parcel Post and Express insurance rates Gre based on declared yalue. ALI PAR CELS WE SHIP MUST BE INSURED.
Valuation



Cost

Up to $\$ 5.00$....................... $\$ 0.03$
\$ 5.01 - $25.00 \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . .10$ $25.01=50.00$.. .00..

## EXPRESS

Up $10 \$ 50.00$
No Chatge
$\$ 50.00-150.00 . . . . . . . . . .$. No Charge tion thereof, charge is $\$ 0.10$.

## EXPRESS \& FREIGHT

Express and frelght shipments are sent trcasportation chorges collect. If your station has no agent, please send sufflclent money to cover transportation. Charges are the same elther woy. All

## C.O.D. SHIPMENTS

Transportation charges on C.O.D. par cels are sllghlly higher than those sent prepaid. C.O.D. charges in addition to the regular postage cost are as follows
(Including insurance): (Including insurance):

## Valuatión

\$
$\$$ Up to $\$ 2.50 \ldots \ldots .$.
Extra Charge
$\qquad$ \$0.15


Post Office also charges an extra small money order fee on each C.O.D. parcel.
NOTE: Equipment bullt or ordered es peclally to meet customers requirements pecially to meet customers requirements not subject to exchange, credit or refund.
All orders for special merchandise mus All orders for special merchandise mus

# More homes <br> S.40A. THE RADIO MAN'S HOME SET 

A complete, high quality communications receiver that offers superior performance in the medium price range. Handsomely designed and expertly engineered to give you the latest radio developments in a cabinet of functional beauty. Chassis of exceptional sensitivity and power, including built-in PM speaker. Tuning range covers 540 KC to 43 MC on four bands. Wide vision main funing dlal and separate electrical bandspread, dial for precision tuning. Settings lor broadcast band marked in color for simplified use. One stage RF amplification uses 6SA7 converter mixer for best signal-to-noise ratio. RF coils are permeability adjusted "micro-set" type. Temperalure compensated oscillator. Audio response to 10,000 cycles. External controls for doublet or single wise antennc, phone jack and socket for external power supply. Other controls include 3-position Tone, BFO Pitch, Receive/Standby, Noise Limiter Switches, AF and RF qain. Tubes: 6SG7, 6SA7, (2) $6 \mathrm{SK} 7,6 \mathrm{H} 6$, 6I5GT, 6SQ7,6F6G, 5Y3GT rectifier. For 105-125 volts, $50 / 60$ cycles AC. Satin black steel cabinet with brushed chrome trim measures $181 / 2^{\prime \prime}$ wide, $9^{\prime \prime}$ high, $91 / 2^{\circ}$ deep. Shipping weight 32 lbs . Wide, 9 high, 30N21094-Complete with Tubes \& Speaker 79.95 Model S-40AU. Same as above except for $115 / 250$ volts, 25-60 cycles AC.
30N21085
89.95

## are turning to

the professional qualisy of

# hallicrafters 



## S-38 AC/DC RECETVER

Excopiforal periormancc in a communications receiver at the lowest price. Continuous AM reception from 540 KC 10 32 MC on four bands. CW pitch contral adjustable from front panel, automatic noise limiter and self-contained PM dynamic speaker are a lew features that make this inerpersive set a leader in its field. Cortpect, functional design and high performance on both shart wave and standard broadeast, make it ideal for use tin den, library or any room in the house where a good extre seceiver is desired. Accurately calibrated main tunina dfal with separate electrical bandspread dial. Controls includo Speaker/Phones, AM/CW and Noise Limiter Switches, AF gain and Receive/ Standby. Tubes: 12SA7. 12SK7. (2) 12SQ7, 3516GT and $3525 G T$ rectilier. For $105-12.5$ volts AC/DC operation. Steel cabinet in black wrinkle finlsh with brushed chrome trim measures $127 / 8^{\prime \prime}$ wide, $7^{\prime \prime}$ high, $71 / 4^{\prime \prime}$ deep. Shipping Weight 14 lbs.
30N21081—Complete With Tubes \& Speaker.........39.95 7N5245-Line Cord for 220-voll operation................................ 1.41

## NEW SX-71

## COMMUNICATIONS RECEIVER

Designed expressly for superior Ham Band performance in the moderate price range. A new type o recelver, value-packed with features specifically asked for by Hams. Extre sensifivity, selectivity and stability, delinitely superior image relection with double superheterodyne circuit, plus built-in narrow band FM reception. Extra wide dials for maln and bandspread tuning. Continuous AM reception from 538 KC to 35 MC end 46 to 56 MC . Has built-in 538 KC to 35 MC and 46 to 56 MC . Has built-in
limiter and balanced delector slages for hiss-free Nimiter and balanced delector stages for hiss-free relection of better than 300 to 1 at 28 MC . One RF, two conversion and 3 IF stages yield high gain for senslitivity of 1 microvolt. Sharp selectivity as indicated by 14 KC band width even belore culting crystal filter into circuit. Audio peaked for communications frequencles, with 3 watts output. Bandsprecd dial calibrated for $80,40,20,10$ and 6 -meler bands Other controls BFO pitch, 3 -position selectivity, crys tal phasing, AF and RF gain, Receive/Send. "ST" tal phasing, AF and RF gain, Receive/Send. "S" meter control in rear. Has 500-ohm output ror sepa
rate speaker. Tubes: 6BA6, 6BA7, 6 BE 6 , (2) 6 SK 7 6SH7, 6SN7, 6SC7, 6ALS, 6K6GT, VR-150 and 5 Y3GT rectifier. For $105-125$ volts, $50 / 60$ cycles AC. Gray steel cabinet with satin chrome trim measures $181 / 2^{\prime \prime}$ wide, $87 / 8^{\prime \prime}$ high, $12^{\prime \prime}$ deep. Shipping Weight 33 lbs 20N21102-Complete With Tubes.
179.50 Spoaker for above in matching cabinet. SC1121106

## FAMOUS S. 47

## HIGH FIDELITY FM-AM RECEIVER

Here is a high precision, fine quality receiver. The chassis lends itself perfectly to custom installations of your own choosing. Specially designed cabinets, bookcases, end tables or builtin sound systems are a few suggestions you can adapt to meet your requirements for high fidelity radio reception. A superb chassis that is all radio, made simple to operate with push-button controls and a wide, easily read dial. This is a powerful 14 -tube (plus rectitier) FM-AM set covering the standard broadeast band- $540-1720 \mathrm{KC}$, the FM band88 to 108 MC and short wave band -5.9 to 18.2 MC . The short wave band has separate bandspread tuning ranges of 9.12 MC and $15-18 \mathrm{MC}$.
Automatic frequency control gives unprecedented ease of tuning on FM... with unequalled accuracy. Circuit electronically "locks in" selected stations and keeps it in perfect tune. The push-pull output stages prbvides 10 watts audio with a response of 30 to $15,000 \mathrm{cps}$ for rich. resonant tone. Separate bass and treble controls supply sufficient tone variations to satisfy the most discriminating listener. Any speaker with an impedance of 500 ohms can be used. Receiver also has input jack for high impedance phono pickup. Uses the following tubes: 6BĀ6, 6BE6, 6J6, (3) 6SG7, 6SH7, 6AL5, (2) 6J5, (2) 6SQ7. (2 6V6GT and 5U4G rectifier.
The handsome gray steel case with satin chrome trim measures $20^{\circ \prime}$ wide $\times 10^{1 / 4^{\prime \prime}}$ high $\times 16^{\prime \prime}$ deep. Shipping weight 66 lbs . Operates on 105.125 volts, $50 / 60$ cycles AC. Supplied less speaker.
30N21067-Complete With Tubes
229.50

Model S.47U Same as above except for $110 / 120$ volts. 25-60 cycles.
30N21101
245.50

30N21072-R42 Speaker (See Pg. 142-143)
34.50

## NEW S-72

## ALL-WAVE PORTABLE RADIO

You'll be in touch with the outside world wherever you go with this extra-sensitive all-wave portable receiver. Super-powered for excellent performance on AC. DC or battery operation. Covers standard broadcast and three short wave bands: 540 KC to 30.5 MC on four tuning ranges. This includes all popular foreign and domestic short wave broadeast bands, aircraft and police bands. plus six Ham bands. Circuit design includes one stage of tuned RF for extra sensitivity and selectivity, and an automatic noise limiter to aid reception in areas with heavy electrical noise. Operates from a built-in loop for broadcast stations and a $27^{\prime \prime}$ whip for short wave reception. Tubes: 1 T4, 1R5, (3) 1U4, (2) 1U5, 3V4, plus a long-life selenium rectifier. External connections include a phone jack on panel and provisions for attaching an extra antenna, if desired. Automatic changeover from battery to electric power to protect batteries. The sturdy plywood cabinet is finished in handsome brown leatherette with brass plated hardware and altractive escutcheon finished in antique silver. Dimensions: $14 x$ $121 / 4 \times 71 / 4^{\prime \prime}$ deep. Shipping Weight 16 lbs . Power corc for $105-125$ volts $D C$ or 60 -cycle $\AA C$ fits inside set when not in use.
30N21100-Less Batteries $\qquad$ 79.95

20N 19870-Battery Pack for above
3.85


[^0]:    .Pair, 14

[^1]:    We can supply all GE, RCA types not listed here due to space limitations also Eimac. Tayloz, Hytron \& Heintz Kaufman.

[^2]:    18 N $15478-112^{n}$ for $1 / 2^{\prime \prime}$ hole. 25 for

[^3]:    91 assorted insulated $1 / 2.1$ and 7NS312-With Cabinet

[^4]:    NN5490-0.13 Reactor. 200 hys., no DC; 50 hysı, 2 MA. C. 6000 ohme

[^5]:    Steatite Jack Bar Assembly for center link Type I induc type AS4).
    Base Assembly and Swinging Link for variable link Type $I$ Inductors.
    lack Bar Assembly for center link Type HD Inductors.
    Base Assembly and Swinging Link for variablelink Type HD Inductors. 12N10522.

